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## Methods of assessments

- Internal and summative assessment for undergraduate students is done as per MUHS guideline.
- Knowledge component is assessed by theory paper comprising of MCQ, SAQ and LAQs are used for assessing components of knowledge like problem solving, simple recall, analytical questions and case based scenarios and clinical application; and also of viva voce
- The skill component is tested by practical and clinical examinations.
- The departments are also motivated from time to time to include innovative methods of formative assessments like OSPE/OSCE.
- The detailed methods of formative and summative assessment of each subjects is provided in following manner



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## 2.6.1 (b) Methods of assessment of learning outcomes and graduate attributes

### Index of methods of internal assessment

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**Paper wise distribution of topics for Prelim & MUHS Annual Examination**

**Year: First MBBS    Subject:    Anatomy**

<b>Paper</b>	<b>Section</b>	<b>Topics</b>
I	A	MCQs on all topics of the paper I
	B & C	Superior extremity
		General embryology
		Genetics
		Head , neck , face
		Central nervous system
		One short answer question on AETCOM module 1.1 & 1.5
	Scenario based / application questions can be on any topic of the paper I	
		For long answer question and scenario based / application questions , region will not be repeated
II	A	MCQs on all topics of the paper II
	B & C	General Anatomy
		General histology
		Gross Anatomy of Abdomen and Pelvis
		Gross Anatomy of Inferior extremity
		Thorax
	Scenario based / application questions can be on any topic of the paper II	
		For long answer question and scenario based / application questions , region will not be repeated



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## Internal Assessment

### Anatomy

Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards

Sr. No	I-Exam (December)			II-Exam (March)		
	Theory	Practical (Including 05 Marks for Journal & Log Book)	Total Marks	Theory	Practical Including 05 Marks for Journal & Log Book	Total Marks
1	100	50	150	100	50	150

Sr. No	Preliminary Examinations			Remedial Examination (after University Examination)		
	III-Exam (July)			Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks
	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks			
1	200	100	300	200	100	300

1. There will be 3 internal assessment examinations in the academic year. The structure of the internal assessment theory examinations should be similar to the structure of University examination.
2. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of

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internal assessment marks to the University. (It is mandatory for the students to appear for all the three internal assessment examination. )

3. First internal assessment examination will be held in December, second internal assessment examination will be held in March and third internal assessment examination will be held in July.
4. Internal assessment marks for theory and practical will be converted to out of 40. Internal assessment marks, after conversion, should be submitted to university by 7<sup>th</sup> of August.
5. The student who scores 35% marks separately in theory & practical internal assessment examinations is eligible to appear for university examinations
6. It is mandatory to secure at least 50% marks of the total marks (combined in theory & practical) assigned for internal assessment in the particular subject in order to be declared successful at the final University Examination of that subject.
7. **Remedial internal assessment examination for students:**
  - a. Applicable for students who got individual theory or practical marks between 35% and 50% but did not score aggregate 50% (combined in theory and practical) for the subject: Remedial internal assessment should be organized by the college immediately after the completion of university examination of the affected students. The revised internal assessment marks (converted out of 40 each) of such students should be sent to the University within maximum of 15 days after university examination of these students. Such a remedial examination shall be conducted by allocating only three days per subject without any gap (two days for theory and one day for practical).
8. The internal assessment marks of the remedial examination alone shall be considered.



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### 9. Conversion Formula for calculation of marks in internal assessment examinations

	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40)	Minimum marks to be obtained to declare the final University examination result (Out of 80 Combined in theory and practical)
Theory	100	100	200	400	$\frac{\text{Total marks}}{10}$	14	40
Practical	50	50	100	200	$\frac{\text{Total marks}}{5}$	14	

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

10. The result of the final University examination for students, who fail to secure 50% marks of the total marks (40 marks after conversion - combined in theory & practical) in internal assessment, even after remedial examination, shall not be declared by University and his / her performance in the final examination shall be annulled.

11.

a) Non eligible students having less than 35% internal assessment marks AND students who fail to secure 50 % combined in theory and practical in remedial examination will have to appear for a remedial internal assessment examination which will be held before supplementary examination. Eligible students (minimum 35 % separately in theory and practical) will be permitted to appear for supplementary examination, but students have to undergo remedial examination after university supplementary examination & score aggregate 50% marks for results to be

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declared (Same as described in point 8). The result of the supplementary University examination for students, who fail to secure 50% marks of the total marks (40 marks after conversion-combined in theory & practical) in internal assessment, even after remedial measures, shall not be declared by University and his / her performance in the supplementary examination shall be annulled.

b) Students who score less than 35% separately in theory & practical AND the students who were unable to score aggregate 50% in remedial measures after supplementary examination will have to appear for III internal assessment examination ( Preliminary examination) along with next regular batch of students & marks obtained in this examination will be used to calculate internal assessment marks. Further rules for these students will remain similar to the students admitted in next regular batch.

13) Supplementary University examination shall be held within 45 – 90 days of declaration of results of first professional University examinations.



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## First Year MBBS Practical Mark's Structure

### Internal Assessment Examinations I & II

(Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards)

Anatomy Practical										
Seat No.	Soft Part	Micro Anatomy (5 Spots)	Micro Anatomy slide for Discussion (1 slide)	Hard Part (Bones)	Embryology Models	Clinical Anatomy Including Genetics charts (2 spots)	Journal/ Logbook	Radiology	Living Anatomy	Practical Total
	A	B	C	D	E	F	G	H	I	J
Max. Marks	10	05	05	05	05	05	05	05	05	50



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B.K.L. Wadavkar Rural Medical College  
At. Kasarwad, Post. Sawade  
Tal. Chiplun, Dist. Ratnagur

# First Year MBBS Practical Mark's Structure (Prelim)

Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards

Anatomy													
Seat No.	Practical								Oral/Viva				Total
	Soft Part	Micro Anatomy (10 Spots)	Micro Anatomy slides for Discussion (2 slides)	Axial Skeleton	Embryology Models	Clinical Anatomy Including Genetic charts (2 Spots)	Journal /logbook	Total	Appendicular Skeleton	X - ray	Surface Living Anatomy	Total	PR/Oral Total
	A	B	C	D	E	F	G	H	I	J	K	L	M
Max. Marks	25	10	05	10	10	10	10	80	10	05	05	20	100



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At. Kasarwad, Post. Sawade  
Tal. Chiplun, Dist. Ratnagur

## First Year MBBS Practical Mark's Structure (MUHS Exam)

Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards

<b>Anatomy</b>												
<b>Practical</b>							<b>Oral/Viva</b>					<b>Total</b>
Seat No.	Soft Part	Micro Anatomy (10 Spots)	Micro Anatomy slides for Discussion (2 slides)	Axial Skeleton	Embryology Models	Clinical Anatomy Including Genetic charts (2 Spots)	Total	Appendicular Skeleton	Radiology	Surface Living Anatomy	Total	PR/Oral Total
A	B	C	D	E	F	G	H	I	J	K	L	
<b>Max. Marks</b>	30	10	10	10	10	10	80	10	05	05	20	100

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER**

1 Course and Year	<b>First MBBS</b> <i>(applicable w.e.f. June 2020 &amp; onwards examinations)</i>	2 Subject Code	: <i>Appendix - a</i>
3 Subject (PSP) (TT)	<b>Anatomy</b>		
4 Paper	<b>I/II</b>	5 Total Marks	<b>100</b>
		6 Total Time	<b>3 Hrs.</b>
7 Web Pattern		8 Web Skeleton	
		9 Web Syllabus	
		10 Web Old QP	

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites/strikes or put white ink on the cross/once marked.

**SECTION "A" MCQ (20 Marks)**

- 1 Multiple Choice Questions (Total 20 MCQ of One mark each) (4 MCQ Should be CASE based) (20x1=20)
- a) b) c) d) e) f) g) h) i) j)
- k) l) m) n) o) p) q) r) s) t)

**SECTION "B" & "C"**

**Instructions:**

- 1) Use **blue/black ball point pen only**.
- 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**.
- 4) The number to the right indicates **full marks**.
- 5) **Draw diagrams wherever necessary**.
- 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.**
- 7) **Use a common answerbook for all sections.**

**SECTION "B" ( 40 Marks )**

2. Short Answer Questions (Any Four out of Five & two SAQs will be Clinical Application Based) (4 x 5 = 20)
- a) b) c) d) e)

3. Long Answer Questions (Any Two out of Three) (2 x 10 = 20)

- a) b) c)

**SECTION "C" ( 40 Marks)**

Short answer questions (Any Four out of Five)

4. (1 Should be an AETCOM module 1,1, 1,5 in Paper 1 & 2 SAQ will be clinical application based) (4 x 5 = 20)

- a) b) c) d) e)

Long Answer Questions (Any Two out of Three)

(2 x 10 = 20)

5. a) b) c)

  
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**Paper wise distribution of topics**

**Year: First MBBS Subject: Physiology**

Paper	Section	Topics
I	A	MCQs on all topics of the paper I
	B & C	General Physiology
		Blood
		Respiratory System
		Cardio Vascular System,
		Cardio-respiratory and metabolic adjustment during exercise
		Renal system
		Gastro intestinal system
		Life style, aging, Meditation
		AETCOM module no. 1.2 & 1.3
	Scenario based / application questions can be on any topic of the paper I	
	For long answer question and scenario based / application questions , topics will not be repeated	
II	A	MCQs on all topics of the paper II
	B & C	Endocrine Physiology
		Reproductive System, Physiology of Infancy
		Special senses
		Central nervous system including brain death
		Temperature Regulation & applied
		Nerve muscle physiology
		Scenario based / application questions can be on any topic of the paper II
		For long answer question and scenario based / application questions , topics will not be repeated

  
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## Internal Assessment

### Physiology

Applicable w.e.f August 2019 onwards examination for batches admitted from June 2019 onwards

Sr. No	I-Exam (December)			II-Exam (March)		
	Theory	Practical (Including 05 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 05 Marks for Journal & Log Book	Total Marks
1	100	50	150	100	50	150

Sr. No	Preliminary Examinations			Sr. No	Remedial internal assessment examination for Non - eligible students		
	III-Exam (July)				October		
Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks		
1	200	100	300	1	200	100	300



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1. There will be 3 internal assessment examinations in the academic year. The structure of Preliminary examinations should be similar to the structure of University examination.
2. There will be only one additional examination for absent students (due to genuine reason) after approval by the Committee Constituted for the same. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
3. First internal assessment examination will be held in December, second internal assessment examination will be held in March and third internal assessment examination will be held in July.
4. Internal assessment marks for theory and practical will be converted to out of 40. Internal assessment marks, after Conversion, should be submitted to university by 7<sup>th</sup> of August.
5. The student must secure at least 50% marks for total marks (combined in theory and practical / clinical; not less than 40% marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final university examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
6. **Remedial internal assessment examination for Non - eligible students:** Student who were not eligible due to less than 50% combined or less than 40% in any theory or practical, will re appear as repeater student for Prelim exam which will be conducted before Supplementary Exam. His/her internal assessment will be calculated on the basis of this Examination marks only. Students who will not be eligible in this Examination will appear with regular batch as repeater student.
7. The internal assessment marks of the remedial examination alone shall be considered and converted into out of 40.
8. **Conversion Formula for calculation of marks in internal assessment examinations**



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	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% Separately in Theory and Practical, 50% Combined)	
Theory	100	100	200	400	$\frac{\text{Total marks obtained}}{10}$	16 (minimum)	Total of Theory + Practical <u>Must</u> be 40.
Practical	50	50	100	200	$\frac{\text{Total marks obtained}}{5}$	16 (minimum)	

9. Conversion formula for calculation of marks in Remedial internal assessment examination

	Remedial Exam (Prelim)	Int. Assess. marks conversion formula (out of 40)	Eligibility to appear for Supplementary Exam. (after conversion out of 40 ) (40% Separately in Theory and Practical, 50% Combined)	
Theory	200	$\frac{\text{Total marks obtained}}{5}$	16 (minimum)	Total of Theory + Practical <u>Must</u> be 40.
Practical	100	$\frac{\text{Total marks obtained}}{2.5}$	16 (minimum)	

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16

  
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B.K.L. Waiwekar Rural Medical College  
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Tal. Chiplun, Dist. Ratnagiri



**First Year MBBS Practical Mark's Structure Internal Assessment Examinations I & II (Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards)**

<b>Physiology</b>					
	<b>Hematology</b>	<b>Clinical Examination/Human Physiology expt. / Short exercises</b>	<b>Journal/ Logbook</b>	<b>Oral Viva</b>	<b>Total</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Max. Marks</b>	<b>15</b>	<b>20</b>	<b>5</b>	<b>10</b>	<b>50</b>



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B.K.L. Waiwekar Rural Medical College  
 Al. Kasarwad, Post. Sawarde  
 Tal. Chiplun, Dist. Ratnagiri

# First Year MBBS Physiology Practical Mark's Structure (Prelim exam)

(Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards)

Seat No.	Exercise 1				Exercise 2	Exercise 3 *	Exercise 4**		Practical (Total)	Oral/Viva (Total)	PR/Oral Total			
	Clinical Examination				Hematology	Short exercise	Human Physiology Experiment	Journal & Log book						
	C.V.S	R.S	C.N.S. & Special Senses	General Exam & Abdomen					A	B	C	D	E	F
Max. Mark's	10.0	10.0	10.0	10.0	10.0	15.0	15.0	10.0	90	10.0	100			

\*Short exercises 3 marks each(3X5)

1. Case based scenarios/ endocrine disorders photographs 2. Interpretation of function tests. 3. One skeletal graph 4.

One cardiac graph 5. Calculation

\*\* Exercise 4: Human Physiology Experiment 1. Basic Life Support in a simulated environment 2. ECG 3. Spirometry 4. PEFR 5. EEG Interpretation 6. Ergography 7. Harward step test 8. Perimetry

\* Suggested Methods of Assessment

Preclinical exam & OSPE



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B.K.L. Waiwekar Rural Medical College  
At. Kasarwad, Post. Sawade  
Tal. Chiplun, Dist. Ratnagiri

# First Year MBBS Physiology Practical Mark's Structure(MUHS)

(Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards)

	Exercise 1				Exercise 2	Exercise 3 *	Exercise 4**	Practical (Total)	Oral/Viva (Total)	PR/Oral Total
	Clinical Examination									
	C.V.S	R.S	C.N.S. & Special Senses	General Exam & Abdomen	Hematology	Short exercises	Human Physiology Experiment			
	A	B	C	D	E	F	G	H	I	J
Max. Mark's	10.0	10.0	10.0	10.0	10.0	15.0	15.0	80	20.0	100

\*Short exercises 3 marks each(3X5)

1. Case based scenarios/ endocrine disorders photographs .2. Interpretation of function tests, 3. One skeletal graph 4.

One cardiac graph 5. Calculation

\*\* Exercise 4: Human Physiology Experiment 1. Basic Life Support in a simulated environment 2. ECG 3. Spirometry 4. PEFR 5. EEG Interpretation 6. Ergography 7. Harward step test 8. Perimetry

\* Suggested Methods of Assessment

Clinical exam & OSPE



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Alkasanwad, Post, Sawade  
Tal. Chitamba, Dist. Parbhani

**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK  
FORMAT / SKELETON OF QUESTION PAPER**

1 Course and Year	<b>First MBBS</b> <i>(applicable w.e.f. June 2020 &amp; onwards examinations)</i>			2 Subject Code	: <b>Appendix - a</b>	
3 Subject (PST) (TT)	<b>Physiology</b>					
4 Paper	1	3 Total Marks	<b>100</b>	6 Total Time	<b>3 Hrs.</b>	7 Remu (PST) <b>Rs. 300/-</b>
						8 Remu (PMT) <b>Rs. 350/-</b>
9 Web Pattern		10 Web Skeleton		11 Web Syllabus		12 Web Old QP

**SECTION "A" MCQ**

**Instructions:**

- Put  in the appropriate box below the question number once only.
- Use blue ball point pen only.
- Each question carries **One mark**.
- Students will not be allotted mark if he/she overwrites, erases or put white ink on the areas once marked.

**SECTION "A" MCQ (20 Marks)**

1 Multiple Choice Questions (Total 20 MCQ of One mark each) (4 MCQ Should be CASE based) (10x1=20)

a) b) c) d) e) f) g) h) i) j)

k) l) m) n) o) p) q) r) s) t)

**SECTION "B" & "C"**

**Instructions:**

- Use blue/black ball point pen only.
- Do not write anything on the blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.
- All questions are compulsory.
- The number to the right indicates full marks.
- Draw diagrams wherever necessary.
- Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus from any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- Use a common answerbook for all sections.

**SECTION "B" (40 Marks)**

2. Short Answer Questions (Any Four out of Five & two SAQs will be Clinical Application Based) (4x5= 20)

a) b) c) d) e)

3. Long Answer Questions (Any Two out of Three) (2x10= 20)

a) b) c)

**SECTION "C" (40 Marks)**

4. Short answer questions (Any Four out of Five) (Should be on AETC Module, 1,2,1,3) (4x5= 20)

a) b) c) d) e)

5. Long Answer Questions (Any Two out of Three) (2x10= 20)

a) b) c)

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK  
FORMAT / SKELETON OF QUESTION PAPER**

13. Course and Year	<b>First MBBS</b> <i>(applicable w.e.f. June 2020 &amp; onwards examinations)</i>	14. Subject Code	: <i>Appendix - a</i>		
15. Subject (PSP / PT)	<b>Physiology</b>	17. Total Marks	<b>100</b>	18. Total Time	<b>3 Hrs.</b>
16. Paper	<b>II</b>	19. Rentia (PS)		20. Rentia (PM)	<b>Rs. 300/-</b>
21. Web Pattern		22. Web Skeleton		23. Web Syllabus	
				24. Web Old QP	
					<b>Rs. 350/-</b>

**Instructions:**

**SECTION -A" MCQ**

- 1) Put  in the appropriate box below the question number since only
- 2) Use blue ball point pen only
- 3) Each question carries **One mark.**
- 4) Students will not be allotted mark if she overwrites strikes or put white ink on the cross once marked.

**SECTION -A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ) of (1) one mark each (4 MCQ Should be CASE based) (20x1=20)  
a) b) c) d) e) f) g) h) i) j)  
k) l) m) n) o) p) q) r) s) t)

**SECTION -B" & -C"**

**Instructions:**

- 1) Use blue/black ball point pen only
- 2) **Do not write anything on the blank portion of the question paper** If written anything, each type of act will be considered as an attempt to cheat to unfair means
- 3) **All questions are compulsory**
- 4) **The number to the right indicates full marks**
- 5) **Draw diagrams wherever necessary**
- 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done**
- 7) **Use a common answerbook for all sections**

**SECTION -B" (40 Marks)**

2. Short Answer Questions (Any Four out of Five) & two SAQs will be Clinical Application Based (4x5= 20)  
a) b) c) d) e)
3. Long Answer Questions (Any Two out of Three) (2x10= 20)  
a) b) c)

**SECTION -C" (40 Marks)**

4. Short answer questions (Any Four out of Five) (4x5= 20)  
a) b) c) d) e)
5. Long Answer Questions (Any Two out of Three) (2x10= 20)  
a) b) c)

  
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Paper wise distribution of topics  
Year: First MBBS Subject: Biochemistry

Paper	Section	Topics	Competency nos. BI
I	A	MCOs on all topics of the paper I	
	B & C	Basic Biochemistry	1.1
		Enzymes	2.1-2.7
		Chemistry & metabolism of carbohydrates	3.1-3.10
		Chemistry & metabolism of lipids	4.1-4.7
		Biological oxidation	6.6
		Xenobiotics	7.5
		Antioxidants & defence system	7.6-7.7
		Nutrition	8.1-8.5
		Extracellular matrix	9.1-9.3
		Oncology, oncogenesis & immunity	10.1-10.5
		Biomedical waste	11.1
		Physical characteristics and chemical composition of CSF	11.15
		Energy contents of lipids, carbohydrates & proteins in common food items, Advantages of unsaturated fats. Disadvantages of saturated and trans fats in food	11.23 & 11.24
	AETCOM- 1.4		
For long answer question and scenario based / application questions, topics will not be repeated.			
II	A	MCOs on all topics of the paper II	
	B & C	Chemistry & metabolism of proteins	5.1-5.5
		Integration & starvation	6.1
		Nucleic acid metabolism	6.2-6.4
		Vitamins	6.5
		Water electrolyte balance & acid base balance	6.7-6.8
		Mineral metabolism	6.9-6.10
		Haemoglobin chemistry and metabolism	6.11-6.12

  
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	Organ function test	6.13-6.15
	Molecular biology	7.1-7.3
	Genetic engineering	7.4
	Urine: Screening of inborn errors.	11.5
	Principle, application and working of following lab equipments/techniques: pH meter, paper chromatography of amino acids, protein electrophoresis.  TLC, PAGE, Electrolyte analysis by ISE, ABG analyzer, ELISA, immunodiffusion, auto analyzer, quality control, DNA isolation from blood/tissue	11.16
For long answer question and scenario based / application questions, topics will not be repeated.		



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## Internal Assessment

### Biochemisry

**Applicable w.e.f August 2019 onwards examination for batches admitted from June 2019 onwards**

S	I-Exam (December)			II-Exam (March )		
	Theory	Practical (Including 05 marks For Journals- And Log Book)	Total Marks	Theory	Practical (Including 05 marks For Journals And Log Book)	Total Marks
1	100	50	150	100	50	150

Preliminary Examinations			Remedial internal assessment examination for <b>Non - eligible</b> students		
III-Exam (July)			October		
Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks
200	100	300	200	100	300

  
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1. There will be 3 internal assessment examinations in the academic year. The structure of Preliminary examinations should be similar to the structure of University examination.
2. There will be only one additional examination for absent students (due to genuine reason) after approval by the Committee Constituted for the same. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
3. First internal assessment examination will be held in December, second internal assessment examination will be held in March and third internal assessment examination will be held in July.
4. Internal assessment marks for theory and practical will be converted to out of 40. Internal assessment marks, after Conversion, should be submitted to university by 7<sup>th</sup> of August.
5. The student must secure at least 50% marks for total marks (combined in theory and practical / clinical: not less than 40% marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final university examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
6. **Remedial internal assessment examination for Non - eligible students:** Student who were not eligible due to less than 50% combined or less than 40% in any theory or practical, will re appear as repeater student for Prelim exam which will be conducted before Supplementary Exam. His/her internal assessment will be calculated on the basis of this Examination marks only. Students who will not be eligible in this Examination will appear with regular batch as repeater student.
7. The internal assessment marks of the remedial examination alone shall be considered and converted into out of 40.



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### 8. Conversion Formula for calculation of marks in internal assessment examinations

	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% Separately in Theory and Practical, 50% Combined)	
Theory	100	100	200	400	<u>Total marks obtained</u> 10	16 (minimum)	Total of Theory + Practical <u>Must</u> be 40.
Practical	50	50	100	200	<u>Total marks obtained</u> 5	16 (minimum)	

### 9. Conversion formula for calculation of marks in Remedial internal assessment examination

	Remedial Exam (Prelim)	Int. Assess. marks conversion formula (out of 40)	Eligibility to appear for Supplementary Exam. (after conversion out of 40) (40% Separately in Theory and Practical, 50% Combined)	
Theory	200	<u>Total marks obtained</u> 5	16 (minimum)	Total of Theory + Practical <u>Must</u> be 40.
Practical	100	<u>Total marks obtained</u> 2.5	16 (minimum)	

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16

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**First Year MBBS Practical Mark's Structure Internal Assessment Examinations I & II (Applicable for batch admitted in M.B.B.S Course from Academic Year 2019-20 & onwards)**

**Biochemistry**

Practical					Oral/Viva	Total
Seat No.	Quantitative Experiment	Quantitative Experiment/Urine organic/Urine Report/Quality Control/Interpolation of lab Report /Interpolation of Special Technique	Spots	Journal/ Logbook		
	A	B	C	D	E	F
Max. Marks	15	15	5	5	10	50



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## First Year MBBS Practical Marks Structure (Prelim)

(Applicable w.e.f August 2019 onwards examination for batches admitted from June 2019 onwards)

### Biochemistry

Seat No	Case Based Quantitative Estimation	Urine Report/ Quantitative estimation	Quality Control	Interpretation of lab Reports & special techniques (Minimum 2 Interpretation)	Spots	Journal & Logbook	Practical Total	Viva Voce/ Oral	Practical/Viva Total Marks
	A	B	C	D	E	F	G	H	I
Max. Marks	25	15	10	20	10	10	90	10	100

*(Please Note - The above examination pattern will be applicable to the students admitted from Academic Year 2019-20 and onwards, which is informed to all Medical Colleges vide University letter No MUHS /X-1 /UG /1692 /2020 Date: 28/02/2020)*



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## First Year MBBS Practical Marks Structure (MUHS Exam)

(Applicable w.e.f August 2019 onwards examination for batches admitted from June 2019 onwards)

### Biochemistry

Seat No	Case Based Quantitative Estimation	Urine Report/ Quantitative estimation	Quality Control	Interpretation of lab Reports & special techniques (Minimum 2 Interpretation)	Spots	Practical Total	Viva Voce/ Oral	Practical/Viva Total Marks
	A	B	C	D	E	F	G	H
Max. Marks	25	15	10	20	10	80	20	100

*(Please Note - The above examination pattern will be applicable to the students admitted from Academic Year 2019-20 and onwards, which is informed to all Medical Colleges vide University letter No MUHS /X-1 /UG /1692 /2020 Date: 28/02/2020)*



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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER**

1. Course and Year	<b>First MBBS</b> <i>(applicable w.e.f. Sept. 2026&amp; onwards examinations)</i>		2. Subject Code	<b>Appendix - a</b>	
3. Subject (PSP) (PT)	<b>Anatomy / Physiology / Biochemistry</b>				
4. Paper	<b>1</b>	5. Total Marks	<b>100</b>	6. Total Time	<b>3 Hrs.</b>
				7. Remun. (PSP)	<b>Rs. 300/-</b>
				8. Remun. (PM)	<b>Rs. 350/-</b>
9. Web Pattern		10. Web Skeleton		11. Web Syllabus	
				12. Web Old QP	

**Instructions:**

- SECTION "A" MCQ**
- 1) Fill  (dark) the appropriate empty circle below the question number once only.
  - 2) Use **blue/black ball point pen only**.
  - 3) Each Question carries **One mark**.
  - 4) A student will not be allotted any marks if he/she overwrites, strikes out or puts white ink on the circle once filled (darkened).
  - 5) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

**SECTION "A" MCQ (20 Marks)**

Q1. Multiple Choice Questions (Total 20 MCQ of One mark each) (4 MCQ Should be clinical application based) (20x1=20)

a) b) c) d) e) f) g) h) i) j)  
k) l) m) n) o) p) q) r) s) t)

**SECTION "B"**

- Instructions:**
- 1) Use **blue/black ball point pen only**.
  - 2) **Do not write anything on the blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory**.
  - 4) The number to the **right** indicates **full marks**.
  - 5) **Draw diagrams wherever necessary**.
  - 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper & syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.**
  - 7) Use a **common answerbook for all sections**.

**SECTION "B" (80 Marks)**

2. Brief answer questions (Any Ten out of Eleven) (10x 2= 20)
- a) b) c) d) e) f) g) h) i) j) k)
1. Short Answer Questions (Any Eight out of Nine) (8x 5= 40)
- One SAQ has to be on AI/ICUM Module (For Anatomy 1.1, 1.5, For Physiology 1.2, 1.3 & For Biochemistry, 1.4) & Minimum 2 SAQs should be Case Based Questions/ Clinically applied Questions
- a) b) c) d) e) f) g) h) i)
4. Long Answer Questions (Any Two out of Three) (2x 10= 20)
- a) b) c)

**Note:** All questions should be structured. Wherever necessary, split up of marks should be specified.

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER**

1. Course and Year	First MBBS <i>(applicable w.e.f. Sept. 2020&amp; onwards examinations)</i>			2. Subject Code	Appendix - a		
3. Subject (PSP) (TT)	Anatomy / Physiology / Biochemistry						
4. Paper	II	5. Total Marks	100	6. Total Time	3 Hrs.	7. Remu (PS)	Rs. 300/-
						8. Remu (PM)	Rs. 350/-
9. Web Pattern	[ ]	10. Web Skeleton	[ ]	11. Web Syllabus	[ ]	12. Web Old QP	[ ]

**Instructions:**

**SECTION -A" MCQ**

- 1) Fill  (dark) the appropriate empty circle below the question number once only
- 2) Use **blue/black** ball point pen only.
- 3) Each Question carries **One mark**.
- 4) A student will not be allotted any marks if he/she overwrites, strikes out or puts white ink on the circle once filled (darkened)
- 5) Do not write anything on the blank portion of the question paper if written anything, such type of act will be considered as an attempt to resort to unfair means.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (4 MCQ Should be clinical application based) (20x1=20)
- a) b) c) d) e) f) g) h) i) j)  
k) l) m) n) o) p) q) r) s) t)

**SECTION -B"**

- Instructions:**
- 1) Use **blue/black** ball point pen only
  - 2) **Do not write anything on the blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory**
  - 4) **The number to the right indicates full marks.**
  - 5) **Draw diagrams wherever necessary.**
  - 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper & syllabus sets any question paper. Students cannot claim that the Question is out of syllabus. As It is only for the placement sake, the distribution has been done.**
  - 7) **Use a common answer book for all sections.**

**SECTION "B" (80 Marks)**

2. Brief answer questions (Any Ten out of Eleven) (10x 2= 20)
- a) b) c) d) e) f) g) h) i) j) k)
3. Short Answer Questions (Any Eight out of Nine) (8x 5= 40)
- Minimum 2 SAQs should be Case Based Questions/ Clinically applied Questions
4. (2x 10= 20)
- a) b) c) d) e) f) g) h) i)
- Long Answer Questions (Any Two out of Three)
- a) b) c)

**Note: All questions should be structured. Wherever necessary, split up of marks should be specified.**

  
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**Paper wise distribution of topics for Prelim & MUHS Annual Examination**  
**Year: III-I MBBS Subject: Community Medicine**

Paper	Section	Topics
I	A	MCQs on all topics of the paper I
		Concept of health and disease
		Epidemiology
		Screening for disease
		Communicable diseases & related NHP
		Emerging & Re-emerging diseases
		Sociology
		Environmental health
		Occupational Health
		Hospital waste management
		Biostatistics & Vital statistics
II	A	MCQs on all topics of the paper II
		Demography & FP & NHP
		MCH, Geriatrics & related NHP
		Nutrition & related NHP
		Mental Health
		Health education & Communication
		Health planning & Management
		Health care delivery system
		Non communicable Diseases & related NHP
		International health
		Disaster Management

  
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**Internal Assessment**  
**Subject: Community Medicine**

**Applicable w.e.f March 2020 onwards examination for batches admitted from June 2019 onwards**

Phase	I-Exam (March)		
	Theory	Practical (Including 10 Marks for Journal- Nutrition & Log Book )	Total Marks
First MBBS	50	50	100

Phase	II-Exam			III-Exam		
	Theory (Jan)	Practical Two weeks after clinical posting (Mid Clinical Posting)	Total Marks	Theory (May)	Practical End of Clinical Posting	Total Marks
Second MBBS	50	50	100	50	50	100


Phase	IV-Exam (March)			V-Exam Preliminary examination-August		
	Theory	Practical End of Clinical Posting	Total Marks	Theory	Practical	Total Marks
III MBBS	50	50	100	200	100	300

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1. **Assessment in CBME is ONGOING PROCESS,**

**No Preparatory leave is permitted.**

1. There shall be 5 internal assessment examinations in Community Medicine.
2. The suggested patterns of question paper for first three internal assessment theory examinations is given below. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 40 (theory) + 40 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

Phase	Theory	Practical
Phase I	50	50
Phase II	100	100
Phase III Part I	250	150
<b>Total</b>	<b>400</b>	<b>300</b>
<b>Conversion out of</b>	<b>40</b>	<b>40</b>
<b>Conversion formula</b>	<b>Total marks in 4 IA theory examinations /10</b>	<b>Total marks in 4 IA Practical examinations /7.5</b>
<b>Eligibility criteria after conversion</b>	<b>16</b>	 <b>16</b> DEAN B.K.L. Wadavkar Rural Medical College At, Kasarwad, Post, Samode Tal. Chiplun, Dist. Ratnagiri
<b>Combined theory + Practical = 40</b>		

4. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
33.01 to 33.49	33
33.50 to 33.99	34

5. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
6. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

## 7. Remedial measures

### A. Remedial measures for non-eligible students

- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically.
- ii) Extra classes for such students may be arranged. If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. Only the marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.

	Theory	Practical
Remedial examination (pattern as per final examination)	200	100
Conversion out of	40	40
Conversion formula	Marks in remedial theory examinations /5	Marks in remedial Practical examinations /2.5
Eligibility criteria after conversion	16	16
	<b>Combined theory + Practical = 40</b>	

#### **B. Remedial measures for absent students:**

If any of the students is absent for any of the 5 IA examinations due to any reasons, following measures shall be taken.

- i. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- ii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iii. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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# 1<sup>st</sup> /2<sup>nd</sup> /3<sup>rd</sup> MBBS Practical Mark's Structure

## Internal Assessment Examinations

(Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards)

Seat No.	Subject :Community Medicine Practical – 1 <sup>st</sup> Internal assessment -				
	Spotters marks	Log book	Skill assessment nutrition exercises	Viva Voce	Practical Total
Max. Marks	10 marks	10-marks	10 marks	20 marks	50 marks

Seat No.	Subject :Community Medicine Practical – 2 <sup>nd</sup> Internal assessment			
	Spotters	Log book	Viva Voce	Practical Total
Max. Marks	20 marks	10-marks	20 marks	50 marks

Seat No.	Subject :Community Medicine Practical – 3 <sup>rd</sup> Internal assessment				
	Spotters marks	Log book	Clinico-epidemiological case	Viva Voce	Practical Total
Max. Marks	10 marks	10 marks	20 marks	10 marks	50 marks

Seat No.	Subject :Community Medicine Practical – 4 <sup>th</sup> Internal assessment				
	Spotters marks	Log book	Clinico-epidemiological case	Viva Voce	Practical Total
Max. Marks	10 marks	10 marks	20 marks	10 marks	50 marks

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### Method of Clinico epidemiological Case evaluation

Sr.no.	Head	Marks allotted
01	Identifying and socio demographic information (with house landmark, facilities for health care )	05
02	Present and past illness history (with risk factors , exposures ) Environmental , behavioural and family information	05
03	Demonstration of relevant clinical signs/skills	05
05	Management plan and relevant control measures at individual, family and community level	05
	<b>Total</b>	<b>20</b>



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## III-I MBBS Practical Mark's Structure (Prelim exam)

Applicable w.e.f October 2021 onwards examination for batches admitted from June 2019 onwards

### Subject: Community Medicine

Practical					Oral/Viva	Total
Seat No.	Spotters	Statistical Ex	Clinicoepidemiological case	Skill assessment ( 10 skills) *	Viva/ voce	Practical & Oral
<b>Max. Marks</b>	20	20	20	20	20	100

As per MCI competency based document

#### Method of Clinico epidemiological Case evaluation

Sr.no.	Head	Marks allotted
	Identifying and socio demographic information (with house landmark, facilities for health care )	05
	Present and past illness history (with risk factors , exposures ) Environmental , behavioural and family information	05
	Demonstration of relevant clinical signs/skills	05
	Management plan and relevant control measures at individual, family and community level	05
	<b>Total</b>	<b>20</b>

  
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## III-I MBBS Practical Mark's Structure (University exam)

Applicable w.e.f October 2022 onwards examination for batches admitted from June 2019 onwards

Subject: Community Medicine						
Practical					Oral/Viva	Total
Seat No.	Spotters	Statistical Ex	Clinicoepidemiological case	Skill assessment ( 10 skills) *	Viva/ voce	Practical & Oral
Max. Marks	20	20	20	20	20	100



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**Format for Internal Assessment Theory Paper**  
**IA – 1, IA – 2, IA – 3 & IA - 4**

Question No.	Type of Question	No. of Questions	Max. Marks
1.	MCQ	10	10 (1 marks each)
2.	SAQ	5 (Any four out of 5)	28 (7 marks each)
3.	LAQ	1 (Compulsory)	12
		Total	50

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER-I**

1 Course and Year	<b>III-I- MBBS</b> <i>(applicable w.e.f. October 2022 &amp; onwards examinations)</i>				7 Subject Code	
3 Subject (PSP) (TT)	<b>Community Medicine</b>					
4 Paper	<b>1</b>	5 Total Marks	<b>100</b>	6 Total Time	<b>3 Hrs</b>	7 Rem (Rs) <span style="float: right;">Rs. 300/-</span>
9 Web Pattern		10 Web Skeleton		11 Web Syllabus		8 Rem (Rs) <span style="float: right;">Rs. 350/-</span>
						12 Web Old QP <span style="float: right;">   </span>

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only
- 2) Use blue ball point pen only
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strokes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1 Multiple Choice Questions (Total 20 MCQ of One mark each)	(20 x1 = 20)
a) b) c) d) e) f) g) h) i) j)	
k) l) m) n) o) p) q) r) s) t)	

**SECTION "B"**

**Instructions:**

- 1) Use **blue/black ball point pen only**
- 2) **Do not write anything on the blank portion of the question paper** if written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**
- 4) The number to the **right** indicates **full marks**.
- 5) Draw diagrams **wherever necessary**
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Question can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake the distribution has been done.
- 7) Use a common answerbook for all sections.

**SECTION "B"**

2 Short Answer Questions	(One Question AET/COM(3-1 and 3-3)(compulsory)	(7x1=07)
a)		
3 Short Answer Questions	(Answer Any 3 out of 4)	(7x3=21)
a) b) c) d)		
4 Structured Long Answer Questions	(Compulsory)	(12x1=12)
a)		
5 Short Answer Questions	(Answer Any 4 out of 5)	(7x4=28)
a) b) c) d) e)		
6 Structured Long Answer Questions	(Compulsory)	(12x1=12)
a)		

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER-**

1. Course and Year	III-I: MBBS <i>(applicable w.e.f. October 2022&amp; onwards examinations)</i>	2. Subject Code
3. Subject (PST)	Community Medicine	
4. Paper	II	3. Total Marks: 100
		4. Total Time: 3 Hrs
		5. Rema -R1
		6. Rema -R2
6. Web Pattern	1. Web Skeleton	1.1 Web Syllabus
		1.2 Web CR4 QP

<b>SECTION -A* MCQ</b>	
<b>Instructions:</b>	<ol style="list-style-type: none"> <li>1) <input type="checkbox"/> in the appropriate box below the question number once only.</li> <li>2) Use blue ball point pen only.</li> <li>3) Each question carries One mark.</li> <li>4) Students will not be allotted mark if he/she overwrites or dot or put white ink on the cross once marked.</li> </ol>
<b>SECTION -A* MCQ (20 Marks)</b>	
1. Multiple Choice Questions (Total 20 MCQ of One mark each)	(20 x1 = 20)
a) b) c) d) e) f) g) h) i) j)	
k) l) m) n) o) p) q) r) s) t)	

<b>SECTION -B*</b>	
<b>Instructions:</b>	<ol style="list-style-type: none"> <li>1) Use blue/black ball point pen only.</li> <li>2) Do not write anything on the blank portion of the question paper. If written anything, such type of answer will be considered as an attempt to cheat in unfair means.</li> <li>3) All questions are compulsory.</li> <li>4) The number in the right indicates full marks.</li> <li>5) Draw diagrams wherever necessary.</li> <li>6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper &amp; syllabus into any question paper. Student cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.</li> <li>7) Use a common answerbook for all sections.</li> </ol>
<b>SECTION -B*</b>	
2. Short Answer Questions (Answer Any 4 out of 7)	(7x4=28)
a) b) c) d) e)	
3. Structured Long Answer Questions (Compulsory)	(12x1=12)
a)	
4. Short Answer Questions (Answer Any 4 out of 5)	(7x4=28)
a) b) c) d) e)	
5. Structured Long Answer Questions (Compulsory)	(12x1=12)
a)	

  
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## 7. Record of Internal Assessment Examinations

Sr. No	Exam no	Theory	Practical including Viva	Signature of student	Signature of Teacher
1	I Internal Assessment	/50	/50		
2	II Internal Assessment	/50	/50		
3	III Internal Assessment	/50	/50		
4	IV Internal Assessment	/50	/50		
5	PRELIMS	/200	/100		
6	TOTAL				

**Note: Above information is for the benefit of students and parents. In case of any discrepancy departmental record will be treated as final.**



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**Year: III-II MBBS    Subject: Forensic Medicine**

Paper	Section	Topics
Only one paper	A	MCQs on all topics of the paper I
		ALL SYLLABUS OF FORENSIC MEDICINE AND TOXICOLOGY,
ii Not applicable	A	MCQs on all topics of the paper II –Not applicable
		Not applicable



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## MBBS Second & Third Phase Part -I

### Internal Assessment

#### Subject: Forensic Medicine & Toxicology

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Phase	I-Exam (At the end of first term)			II-Exam (At the end of second term )		
	Theory	Practical (Including 10 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 5Marks for Journal & Log Book	Total Marks
II MBBS	50	40+10	100	50	40+10	100

Phase	I-Exam (At the end of first term)			II-Exam (preliminary)		
	Theory	Practical (Including 10 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks
III/I MBBS	50	40+10	100	100	90+10	200

1. There will be 4 internal assessment examinations in Forensic medicine. The structure of the Preliminary internal assessment theory examinations should be similar to the structure of University examination.
2. It is mandatory for the students to appear for all the internal assessment Examinations in the respective phases. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.

  
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3. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
4. Internal assessment marks for theory will be out of 250 and practical will be out of 250.
5. Reduce total theory internal assessment to 40 marks and total practical internal assessment to 40 marks. Students must secure at least 50% marks of the total marks (combined in theory and practical; not less than 40 % marks in theory and practical separately) to be eligible for appearing University examination

6. Conversion Formula for calculation of marks in internal assessment examinations

	First IA II Phase	Second IA II Phase	Third IA III Phase Part -I	(Prelim) III Phase Part -I	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% separately in Theory & Practical, 50% Combined)
Theory	50	50	50	100	250	<u>Total marks obtained</u> 6.25	16 (Minimum)
Practical	50	50	50	100	250	<u>Total marks obtained</u> 6.25	16 (Minimum)

Total of Theory + Practical Must be 40.

7. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16



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8. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical  
Separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
9. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.



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## Second MBBS Practical Mark's Structure

### Internal Assessment Examinations

(Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards)

#### TERM END INTERNAL ASSESSMENT EXAMINATION-AUTONOMY AT INSTITUTE LEVEL.



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## III-I MBBS Practical Mark's Structure MUHS

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: Forensic Medicine & Toxicology																
Practical												Oral/Viva				Total
Seat No.	Age Estimation	MCCD	Injury report	Survivor of sexual assault report	Drunkness report/accused of sexual assault	Weapon report	Foetus examination	Bone Exam	Spots-specimen /slide/ DNA preservation	Journal marks	Total	Forensic pathology	Toxicology, FSL,	Med Juris, Forensic psychiatry	Total	Practical & Oral (K + O)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>Max. Marks</b>	8	8	8	8	6	6	5	5	16	5	75	9	8	8	25	100

  
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## III-I MBBS Practical Mark's Structure (Prelim)

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

### Subject: Forensic Medicine

Practical												Oral/Viva				Total
Seat No.	Age Estimation	MCCD	Injury report	Survivor of sexual assault report	Drunkenness report/accused of sexual assault	Weapon report	Foetus examination	Bone Exam	Spots-specimen/slide/DNA preservation	Journal marks	Total	Forensic pathology	Toxicology, FSL,	Med juris, Forensic psychiatry	Total	Practical & Oral
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
<b>Max. Marks</b>	8	8	8	8	6	6	5	5	15	10	79	7	7	7	100	

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER**

1. Course and Year	<b>III- I MBBS</b> <i>(applicable w.e.f. Oct. 2022 &amp; onwards examinations)</i>	2. Subject Code
3. Subject (PSP)	<b>Forensic Medicine &amp; Toxicology</b>	
	(TT)	
4. Paper	<b>I</b>	5. Total Marks <b>100</b>
		6. Total Time <b>3 Hrs.</b>
		7. Remu (Rs)
		R1: 100/-
		8. Remu (Rs)
		R2: 150/-
9. Web Pattern	1   1	10. Web Skeleton
		11. Web Syllabus
		12. Web Old QP

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strokes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each)	(20 x1 = 20)
a)    b)    c)    d)    e)    f)    g)    h)    i)    j)	
k)    l)    m)    n)    o)    p)    q)    r)    s)    t)	

**SECTION "B"**

**Instructions:**

- 1) Use **blue/black** ball point pen only.
- 2) **Do not write anything on the blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory.**
- 4) The number to the **right** indicates **full marks**.
- 5) Draw diagrams **wherever necessary**.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake the distribution has been done.
- 7) Use a **common answerbook** for all sections.

**SECTION "B"**

2. Short Answer Questions	(AETCUM(3.2)(compulsory)	(7x1=07)
a)		
3. Short Answer Questions	(Answer Any 3 out of 4)	(7x3=21)
a)    b)    c)    d)		
4. Structured Long Answer Questions	(Compulsory)	(12x1=12)
a)		
5. Short Answer Questions	(Answer Any 4 out of 5)	(7x4=28)
a)    b)    c)    d)    e)		
6. Structured Long Answer Questions	(Compulsory)	(12x1=12)
a)		

  
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## Section 5. Records of Internal Assessment Examinations

### Records of Internal Assessment examinations

S.No	Exam	Theory	Practical including viva	Signature of student	Signature of Teacher
1	I Internal Assessment	/ 50	/ 50		
2	II Internal Assessment	/ 50	/ 50		
3	III Internal Assessment	/ 50	/ 50		
4	IV Internal Assessment (Prelim)	/100	/100		
4	Internal Assessment marks	/ 250	/ 250		
5	Betterment exam	/ 100	/ 100		
6	Final Internal Assessment	/ 250	/ 250		

**Note:** Above information is for the benefit of students and parents. In case of any discrepancy departmental record will be treated as final.

  
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**Paper wise distribution of topics for Prelim & MUHS Annual Examination**  
**Year: Second MBBS Subject: MICROBIOLOGY**

Paper	Section	Topics
I	A	MCQs on all topics of the paper I
		General Microbiology and Immunity
		CVS and Blood
		Gastrointestinal and hepatobiliary system
		AETCOM Module No- 2.5,2.6 and 2.7
II	A	MCQs on all topics of the paper II
		Musculoskeletal system, skin and soft tissue infection
		Central nervous system infections
		Respiratory tract infections
		Genitourinary and sexually transmitted infections
		Zoonotic diseases and miscellaneous

  
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**Second MBBS  
Internal Assessment  
Subject: Microbiology**

**Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards**

Phase	I-Exam (After 3 months , Jan)			II-Exam (After 7 months, May )			Prelims (July)		
	Theory	Practical (Including 10 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks	Theory	Practical	Total Marks
Second MBBS	50	50	100	50	50	100	Paper 1 -100 Paper 2 -100	100	300

1. There will be 3 internal assessment examinations in Microbiology. The structure of the internal assessment theory examinations should be similar to the structure of University examinations.
2. It is mandatory for the students to appear for all the internal assessment examinations.
3. First internal assessment examination will be held in January, second internal assessment examination will be held in May and third internal assessment examination will be held in July.
4. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.
5. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University
6. Internal assessment marks for theory will be out of 300 and practical will be out of 200.

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7. Reduce total theory internal assessment to 40 marks and total practical internal assessment to 40 marks. Students must secure at least 50% marks of the total marks (combined in theory and practical; not less than 40 % marks in theory and practical separately) to be eligible for appearing University examination
8. **Conversion Formula for calculation of marks in internal assessment examinations**

	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% separately in Theory & Practical, 50% Combined)	
Theory	50	50	200	300	<u>Total marks obtained</u> 7.5	16 (Minimum)	Total of Theory + Practical Must be 40.
Practical	50	50	100	200	<u>Total marks obtained</u> 05	16 (Minimum)	

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16

9. Internal assessment marks will reflect as separate head of passing at the summative examination.
10. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.



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**Second MBBS Practical Mark's Structure  
Internal Assessment Examinations**

**(Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards)**

Subject : MICROBIOLOGY Practical										
Seat No.	I Term					II Term				
	Gram Stain	P.S. for M.P.	Journal/Log book	Viva	Total	Z-N stain	Stool - Routine microscopy	Journal/Log book	Viva	Total
<b>Max. Marks</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>

  
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## Second MBBS Practical Mark's Structure (Prelim)

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: MICROBIOLOGY										
Practical							Oral/Viva			Total
Seat No.	Gram/ Z-N staining	P.S. for M.P./ Stool –routine microscopy	Use of PPE/ Hand hygiene	Interpretation of reports	Journal/ Log book	Total	Viva-I	Viva-II	Total	Practical & Oral (F + I)
<b>Max. Marks</b>	15	15	10	20	10	70	15	15	30	100

  
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# Second MBBS Practical Mark's Structure (M.U.H.S Examination)

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: MICROBIOLOGY										
Practical							Oral/Viva			Total
Seat No.	Gram/ Z-N staining	P.S. for M.P./ Stool -routine microscopy	Use of PPE/ Hand hygiene	Interpretation of reports	Journal/ Log book	Total	Viva-I	Viva-II	Total	Practical & Oral (F + I)
	A	B	C	D	E	F	G	H	I	J
<b>Max. Marks</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>20</b>	<b>10</b>	<b>70</b>	<b>15</b>	<b>15</b>	<b>30</b>	<b>100</b>

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**FORMAT / SKELETON OF QUESTION PAPER**

1 Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021 &amp; onwards examinations)</i>	2 Subject Code	
3 Subject (PSP) (TT)	<b>MICROBIOLOGY</b>		
4 Paper: <b>I</b>	5 Total Marks: <b>100</b>	6 Total Time: <b>3 Hrs.</b>	7 Remo. (Rs) Rs. 100/-
			8 Remo. (Rs) Rs. 150/-
9 Web Pattern	10 Web Skeleton	11 Web Syllabus	12 Web Old QP

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "B"**

**Instructions:**

- 1) Use **blue/black** ball point pen only.
- 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**.
- 4) The number to the **right** indicates **full marks**.
- 5) Draw diagrams **wherever necessary**.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- 7) Use a common answerbook for all sections.

**SECTION "B" (40 Marks)**

2. Short Answer Questions	(AETCOM 1.5, 2.6, 2.7) (compulsory)	(7x1=07)
a)		
3. Short Answer Questions	(Answer Any 3 out of 4)	(7x3=21)
a) b) c) d)		
4. Structured Long Answer Questions	(Compulsory)	(12x1=12)
a)		
5. Short Answer Questions	(Answer Any 4 out of 5)	(7x4=28)
a) b) c) d) e)		
		(12x1=12)
6. Structured Long Answer Questions	(Compulsory)	
a)		

  
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# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

## FORMAT / SKELETON OF QUESTION PAPER

1. Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021 &amp; onwards examinations)</i>				2. Subject Code			
3. Subject (PSP)	<b>MICROBIOLOGY</b>							
	(TT)							
4. Paper	<b>II</b>	5. Total Marks	<b>100</b>	6. Total Time	<b>3 Hrs.</b>	7. Remu (Rs)	Rs. 100/-	
						8. Remu (Rs)	Rs. 150/-	
9. Web Pattern		10. Web Skeleton		11. Web Syllabus		12. Web Old QP		

**Instructions:**

### SECTION "A" MCQ

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

### SECTION "A" MCQ (20 Marks)

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (20 x 1) = 20
- a)    b)    c)    d)    e)    f)    g)    h)    i)    j)
- k)    l)    m)    n)    o)    p)    q)    r)    s)    t)

### SECTION "B"

**Instructions:**

- 1) Use blue/black ball point pen only.
- 2) **Do not** write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are **compulsory**.
- 4) The number in the right indicates full marks.
- 5) Draw diagrams wherever necessary.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus but any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- 7) Use a common answerbook for all sections.

### SECTION "B"

2. Short Answer Questions (Answer Any 4 out of 5) (7x4=28)
- a)    b)    c)    d)    e)
3. Structured Long Answer Questions (Compulsory) (12x1=12)
- a)
4. Short Answer Questions (Answer Any 4 out of 5) (7x4=28)
- a)    b)    c)    d)    e)
5. Structured Long Answer Questions (Compulsory) (12x1=12)
- a)

  
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**Section 4**  
**Records of Internal Assessment Examinations**

Sr. No	Exam no	Theory	Practical including Viva	Signature of student	Signature of Teacher
1	I Internal Assessment	/50	/50		
2	II Internal Assessment	/50	/50		
3	III Internal Assessment	/200	/100		
4	Internal assessment (1+2+3)	/100	/100		
5	Betterment exam (If Any)	/200	/100		
6	Final Internal Assessment	/100	/100		

**Note: Above information is for the benefit of students and parents. In case of any discrepancy departmental record will be treated as final.**



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**Paper wise distribution of topics for Prelim & MUHS Annual Examination**

**Year: Second MBBS**

**Subject: Pathology**

<b>Paper</b>	<b>Section</b>	<b>Topics</b>
I	A	<b>Topics of the paper I</b>
		General Pathology: 1. Cell injury and adaptation 2. Amyloidosis 3. Inflammation and repair 4. Tuberculosis and leprosy 5. Hemodynamic disturbances 6. Immunopathology 7. Neoplasia 8. Infections and infestations 9. Basic diagnostic cytology 10. Histological techniques, tissue processing 11. Genetic and pediatric diseases 12. Environmental and nutritional diseases
		Hematology 1. Introduction to hematology 2. Microcytic anemia 3. Macrocytic anemia 4. Hemolytic anemia 5. Aplastic anemia 6. Leukocyte disorder 7. Lymph node and spleen 8. Plasma cell disorders 9. Hemorrhagic disorders 10. Blood banking and transfusion medicine
		AETCOM 2.4 and 2.8
II	A	<b>Topics of the paper II</b>
		Systemic Pathology 1. Gastrointestinal tract 2. Hepatobiliary system 3. Respiratory system 4. Cardiovascular system 5. Urinary tract 6. Male genital tract 7. Female genital tract 8. Breast 9. Endocrine system 10. Bone and soft tissue 11. Skin 12. Central nervous system
		Clinical Pathology 1. Urine analysis 2. Body fluid analysis 3. CSF analysis 4. Liver function test 5. Renal function test 6. Diabetes mellitus 7. Thyroid function test



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**Second MBBS  
Internal Assessment  
Subject: Pathology**

**Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards**

Phase	I-Exam (After 3 months , Jan)			II-Exam (After 7 months, May )			Prelims (July)		
	Theory	Practical (Including 10 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks	Theory	Practical	Total Marks
Second MBBS	100	100	200	100	100	200	Paper 1 -100 Paper 2 -100	100	300

1. There will be 3 internal assessment examinations in Pathology. The structure of the internal assessment theory examinations should be similar to the structure of University examinations.
2. It is mandatory for the students to appear for all the internal assessment examinations.
3. First internal assessment examination will be held in January, second internal assessment examination will be held in May and third internal assessment examination will be held in July.
4. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.
5. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
6. Internal assessment marks for theory will be out of 400 and practical will be out of 200.

  
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7. Reduce total theory internal assessment to 40 marks and total practical internal assessment to 40 marks. Students must secure at least 50% marks of the total marks (combined in theory and practical; not less than 40% marks in theory and practical separately) to be eligible for appearing University examination

8. **Conversion Formula for calculation of marks in internal assessment examinations**

	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% separately in Theory & Practical, 50% Combined)	
Theory	100	100	200	400	<u>Total marks obtained</u> 10	16 (Minimum)	Total of Theory + Practical Must be 40.
Practical	50	50	100	200	<u>Total marks obtained</u> 05	16 (Minimum)	

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16

9. Internal assessment marks will reflect as separate head of passing at the summative examination.

10. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.



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## Second MBBS Practical Mark's Structure

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: Pathology (I term)											
Practical							Oral/Viva			Total	
Seat No.											
	OSPE	PS/DLC	CBC report interpretation	Blood group	Histopathology slide	Total	Gross specimen General Pathology	Hematology	Log book		Practical & Oral
<b>Max. Marks</b>	10	5	5	5	5	30	7	8	15	5	50

Subject: Pathology (II term)										
Practical					Oral/Viva				Total	
Seat No.										
	OSPE	Urine report interpretation	Histopathology slide		Total	Gross specimen Systemic Pathology	Clinical pathology	Total	Log book	Total
<b>Max. Marks</b>	20	5	5	5	30	7	8	15	5	50

  
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**Subject: Pathology Prelim Examination**

Practical									Oral/Viva			
Seat No.											Total	Practical & Oral
	OSPE	PS/DLC	Urine interpretation	CBC report interpretation	Blood group	Histopathology slide	Logbook	Total	Gross specimens	Clinical and hematology	Total	Total (G + )
Max. Marks	32	10	10	5	5	8	10	80	10	10	20	100

**Subject: Pathology M.U.H.S. Final Exam.**

Practical								Oral/Viva			
Seat No.							Total			Total	Practical & Oral
	OSPE	PS/DLC	Urine interpretation	CBC report interpretation	Blood group	Histopathology slide		Gross specimens	Clinical and hematology	Total	Total (G + J)
	A	B	C	D	E	F	G	H	I	J	K
Max. Marks	32	10	10	5	5	8	70	15	15	30	100

  
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### For Urine examination

Students are not expected to perform urine examination, but to interpret results. Clinical cases with urinary findings may be given to them for interpretation.

### Suggested OSPE stations

1. Clinical chart interpretation (Clinical Pathology) - 5 marks
2. Clinical chart interpretation (Clinical Pathology) - 5 marks
3. Clinical chart interpretation (CSF) - 5 marks
4. Clinical chart interpretation (Hematology)- 5 marks
5. Slides (3)- Hematology, benign, inflammatory- 6 marks
6. Specimens (3)- 6 marks



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# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

## FORMAT / SKELETON OF QUESTION PAPER

1 Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021 &amp; onwards examinations)</i>	2 Subject Code	
3 Subject (PSP) (OT)	<b>PATHOLOGY</b>		
4 Page	<b>1</b>	5 Total Marks	<b>100</b>
		6 Total Time	<b>3 Hrs.</b>
		7 Rem (RS)	Rs. 500/-
		8 Rem (RS)	Rs. 550/-
9 Web Pattern		10 Web Skeleton	
		11 Web Syllabus	
		12 Web Old QP	

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number *cross only*
- 2) Use *blue ball point pen only*.
- 3) Each question carries **One mark**.
- 4) *Students will not be allotted mark if he/she overwrites strikes or put white ink in the cross once marked.*

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each. At least 5 should be scenario-based MCQ) (20 x1=20)

- a)    b)    c)    d)    e)    f)    g)    h)    i)    j)
- k)    l)    m)    n)    o)    p)    q)    r)    s)    t)

- Instructions:**
- 1) Use *blue/black ball point pen only*
  - 2) **Do not write anything on the blank portion of the question paper** (If written anything, such type of ocr will be considered as an attempt to resort to unfair means)
  - 3) **All questions are compulsory**
  - 4) **The number to the right indicates full marks**
  - 5) **Draw diagrams wherever necessary**
  - 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Student's cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.**
  - 7) **Use a common answerbook for all sections.**

- |   |   |           |
|---|---|-----------|
| 2 | SAQ - AET/OM Module (2.4 and 2.8)       | (7x1=7)   |
|   | a)                                      |           |
| 3 | Short Answer Questions (Any 3 out of 4) | (7x3=21)  |
|   | a)    b)    c)    d)                    |           |
| 4 | Long Answer Questions (Structured)      | (12x1=12) |
|   | a)                                      |           |
| 5 | Short answer question (Any 4 out of 5)  | (7x4=28)  |
|   | a)    b)    c)    d)    e)              |           |
| 6 | Long Answer Questions (Structured)      | (12x1=12) |
|   | a)                                      |           |

  
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**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK  
FORMAT / SKELETON OF QUESTION PAPER**

1	Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021 &amp; onwards examinations)</i>	2	Subject Code	:						
3	Subject (PSP) ETC	<b>PATHOLOGY</b>									
4	Paper	<b>II</b>	5	Total Marks	<b>100</b>	6	Total Time	<b>3 Hrs</b>	7	Rems (Rs)	Rs. 300/-
									8	Rems (Rs)	Rs. 350/-
9	Web Pattern	[ ]	10	Web Skeleton	[ ]	11	Web Syllabus	[ ]	12	Web Old OP	[ ]

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each. At least 5 should be scenario-based MCQ). (20 x 1 = 20)

a)    b)    c)    d)    e)    f)    g)    h)    i)    j)

k)    l)    m)    n)    o)    p)    q)    r)    s)    t)

**SECTION "B" & "C"**

**Instructions:**

- 1) Use blue/black ball point pen only.
- 2) **Do not write anything on the blank portion of the question paper.** If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory.**
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- 7) Use a common answerbook for all sections.

2. Short Answer Questions (Any 4 out of 5) (7x4 = 28)

a)    b)    c)    d)    e)

3. Long Answer Question Structured (12x1 = 12)

a)

4. Short answer question (Any 4 out of 5) (8x3 = 24)

b)    b)    c)    d)    e)

5. Long Answer Questions (Scenario Based) (12x1 = 12)

a)

  
DEAN

**Records of Internal Assessment examinations**

S.No	Exam	Theory	Practical including viva and log book	Signature of student	Signature of Teacher
1	I Internal Assessment	/ 100	/ 50		
2	II Internal Assessment	/ 100	/ 50		
3	III Internal Assessment (Prelim)	/ 200	/ 100		
4	Internal Assessment marks	/ 400	/ 200		
5	Remedial exam (if any)	/ 200	/ 100		
6	Internal Assessment marks after conversion	/ 100	/ 100		

**Note:** Above information is for the benefit of students and parents. In case of any discrepancy departmental record will be treated as final.

  
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## Paper wise distribution of topics for Prelim & MUHS Annual Examination

Year: Second MBBS Subject: Pharmacology

Paper	Section	Topics
I	A	MCQs on all topics of the paper I
	B	General Pharmacology
		Autonomic Nervous system including skeletal muscle relaxants
		Cardiovascular system
		Haematology
		Gastro intestinal drugs
		Respiratory system
AETCOM - 2.1, 2.2, 2.3 (section B one SAQ)		
II	A	MCQs on all topics of the paper II
	B	Central Nervous system including general/local anaesthesia
		Endocrine system
		Chemotherapy system
		Autacoids
		MISC. TOPICS - Chelating agents, Vaccines and Antisera, ocular pharmacology, dermatological pharmacology, nutraceuticals, occupational and environmental pharmacology, toxicology)



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**Second MBBS  
Internal Assessment  
Subject: Pharmacology**

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Phase	I-Exam ( Jan )			II-Exam ( May )			Prelim (July)		
	Theory	Practical (Including 10 Marks for Journal & Log Book )	Total Marks	Theory	Practical Including 10 Marks for Journal & Log Book	Total Marks	Theory	Practical	Total Marks
Second MBBS	100	100	200	100	100	200	Paper 1 -100 Paper 2 -100	100	300

1. There will be 3 internal assessment examinations in Pharmacology. The structure of the internal assessment theory examinations should be similar to the structure of University examinations.
2. It is mandatory for the students to appear for all the internal assessment examinations.
3. First internal assessment examination will be held in January, second internal assessment examination will be held in May and third internal assessment examination will be held in July.
4. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.
5. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University.

  
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6. Internal assessment marks for theory will be out of 400 and practical will be out of 300.
7. Reduce total theory internal assessment to 40 marks and total practical internal assessment to 40 marks. Students must secure at least 50% marks of the total marks (combined in theory and practical; not less than 40 % marks in theory and practical separately) to be eligible for appearing University examination
8. **Conversion Formula for calculation of marks in internal assessment examinations**

	First IA	Second IA	Third IA (Prelim)	Total	Internal assessment marks: Conversion formula (out of 40)	Eligibility to appear for final University examination (after conversion out of 40) (40% separately in Theory & Practical, 50% Combined)
Theory	100	100	200	400	$\frac{\text{Total marks obtained}}{10} \times 10$	16 (Minimum)
Practical	100	100	100	300	$\frac{\text{Total marks obtained}}{7.5} \times 7.5$	16 (Minimum)
						Total of Theory + Practical Must be 40.

While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
15.01 to 15.49	15
15.50 to 15.99	16

9. Internal assessment marks will reflect as separate head of passing at the summative examination.
10. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

  
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**Practical marks Distribution:**

**A. For I<sup>st</sup> and II<sup>nd</sup> term examinations**

1. **Journal / Logbook - 10 Marks**
2. **Viva - 20 marks**
3. **Clinical Pharmacy (20 marks) –**
  - a. Dosage form- 10 marks
  - b. ORS preparation/ IV drip setting- 5 marks
  - c. Dose calculation – 5 marks
4. **Clinical Pharmacology (30 marks)-**
  - a. Prescription writing- 10 marks
  - b. Prescription criticism and rewriting / justification of FDC – 10 marks
  - c. ADR identification / ADR reporting- 5 marks
  - d. P- drug list- 5 marks
5. **Experimental Pharmacology (10 marks) OSPE –**
  - a. Drug administration using maniquin / drug effect using CAL software (or any other)- 10 marks
6. **Communication (10 marks) OSPE-**
  - a. prescription communication / ethics- legal drug storage/ use of device/drug adherence-compliance/ drug dependence/OTC/ interaction with Medical representative- 10 marks

**B. For Preliminary examinations**

1. **Viva – 30 marks**
  - a. Viva I- 15 marks
  - b. Viva II- 15 marks
2. **Clinical Pharmacy (20 marks) –**
  - a. Dosage form- 10 marks
  - b. ORS preparation/ IV drip setting- 5 marks
  - c. Dose calculation – 5 marks
3. **Clinical Pharmacology (30 marks)-**
  - a. Prescription writing- 10 marks
  - b. Prescription criticism and rewriting / justification of FDC – 10 marks
  - c. ADR identification / ADR reporting- 5 marks
  - d. P- drug list- 5 marks.
4. **Experimental Pharmacology (10 marks) OSPE –**
  - a. Drug administration using maniquin / drug effect using CAL software (or any other)- 10 marks
5. **Communication (10 marks) OSPE-**
  - a. prescription communication / ethics- legal drug storage/ use of device/drug adherence-compliance/ drug dependence/OTC/ interaction with Medical representative- 10 marks

  
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## Second MBBS Practical Mark's Structure (I, II & Prelim Exam.)

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: PHARMACOLOGY

Practical						VIVA	Log Book/ Journal	Practical & Oral
Seat No.	Clinical Pharmacy	Clinical Pharmacology	Experimental Pharmacology	Communication	Total			
Max. Marks	20	30	10	10	70	20	10	100



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## Second MBBS Practical Mark's Structure (M.U.H.S. Final Exam.)

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Subject: PHARMACOLOGY									
Practical						Oral/Viva			Total
Seat No.	Clinical Pharmacy	Clinical Pharmacology	Experimental Pharmacology	Communication	Total	VIVA 1	VIVA 2	Total	Practical & Oral (E + H)
	A	B	C	D	E	F	G	H	I
Max. Marks	20	30	10	10	70	15	15	30	100

  
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# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK FORMAT / SKELETON OF QUESTION PAPER

1 Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021&amp; onwards examinations)</i>	2 Subject Code			
3 Subject (PSP) (TT)	<b>Pharmacology</b>				
4 Paper	5 Total Marks	<b>100</b>	6 Total Time	<b>3 Hrs</b>	7 Remu (Rs) Rs. 300/-
					8 Remu (Rs) Rs. 150/-
9 Web Pattern	10 Web Skeleton	11 Web Syllabus	12 Web Old QP		

**Instructions:**

- 1) Put  in the appropriate box below the question number once only
- 2) Use blue ball point pen only
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked

### SECTION "A" MCQ

#### SECTION "A" MCQ (20 Marks)

- 1 Multiple Choice Questions (Total 20 MCQ of One mark each) (20 x 1 = 20)
- a) b) c) d) e) f) g) h) i) j)  
k) l) m) n) o) p) q) r) s) t)

**Instructions**

- 1) Use **blue/black ball point pen only**.
- 2) **Do not write anything on the blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**.
- 4) **The number to the right indicates full marks**.
- 5) **Draw diagrams wherever necessary**.
- 6) **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper & syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done**
- 7) **Use a common answerbook for all sections**.

### SECTION "B"

- 2 Short Answer Questions (AETCOM(2.1, 2.2, 2.3)(compulsory) (7x1=07)  
a)
- 3 Short Answer Questions (Answer Any 3 out of 4) (7x3=21)  
a) b) c) d)
- 4 Structured Long Answer Questions (Compulsory) (12x1=12)  
a)
- 5 Short Answer Questions (Answer Any 4 out of 5) (7x4=28)  
a) b) c) d) e)
- 6 Structured Long Answer Questions (Compulsory) (12x1=12)  
a)

  
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# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

## FORMAT / SKELETON OF QUESTION PAPER

1. Course and Year	<b>Second MBBS</b> <i>(applicable w.e.f. September 2021&amp; onwards examinations)</i>	2. Subject Code	
3. Subject (PSP) (TT)	<b>Pharmacology</b>		
4. Paper	<b>II</b>	5. Total Marks	<b>100</b>
		6. Total Time	<b>3 Hrs</b>
		7. Rema. (Rs)	Rs. 100/-
		8. Rema. (Rs)	Rs. 150/-
9. Web Pattern	[ ]	10. Web Skeleton	[ ]
		11. Web Syllabus	[ ]
		12. Web Old QP	[ ]

**Instructions:**

### SECTION "A" MCQ

- 1)  In the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites/strikes or put white ink on the cross once marked.

### SECTION "A" MCQ (20 Marks)

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (20 x 1 = 20)

a) b) c) d) e) f) g) h) i) j)
k) l) m) n) o) p) q) r) s) t)

### SECTION "B"

- Instructions**
- 1) Use blue/black ball point pen only.
  - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory.**
  - 4) The number to the right indicates full marks.
  - 5) Draw diagrams wherever necessary.
  - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
  - 7) Use a common answerbook for all sections.

### SECTION "B"

2. Short Answer Questions (Answer Any 4 out of 5) (7x4=28)

a) b) c) d) e)
----------------
3. Structured Long Answer Questions (Compulsory) (12x1=12)

a)
----
4. Short Answer Questions (Answer Any 4 out of 5) (7x4=28)

a) b) c) d) e)
----------------
5. Structured Long Answer Questions (Compulsory) (12x1=12)

a)
----

  
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## Section 5. Records of Internal Assessment Examinations

### Records of Internal Assessment examinations

S.No	Exam	Theory	Practical including viva	Signature of student	Signature of Teacher
1	I Internal Assessment	/ 100	/ 100		
2	II Internal Assessment	/ 100	/ 100		
3	III Internal Assessment (Prelim)	/ 200	/ 100		
4	Internal Assessment marks	/ 400	/ 300		
5	Betterment exam	/ 200	/ 100		
6	Final Internal Assessment	/ 400	/ 300		

**Note:** Above information is for the benefit of students and parents. In case of any discrepancy departmental record will be treated as final.



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## Internal Assessment

### Subject – Otorhinolaryngology

**Applicable w.e.f batches admitted from 2019 and onwards**

Phase	Assessment	
	Theory	Practical
Second MBBS	-	EOP Practical Examination may be conducted. However, these marks shall not be added to the Internal Assessment.

3 <sup>rd</sup> Year (III MBBS, PART I)						
Phase	I-Exam (March)			II-Exam Prelim (August)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
III/I MBBS	50	50	100	100	100	200

**Assessment in CBME is ONGOING PROCESS,**

**No Preparatory leave is permitted.**

1. There shall be 2 internal assessment examinations in Otorhinolaryngology including Prelim.
2. The suggested pattern of question paper for internal assessment internal examinations, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 25 (theory) + 25 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

  
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	Theory	Practical
Phase II	-	-
Phase III/I	150	150
Total	150	150
Conversion out of	25	25
Conversion formula	Total marks in 2 IA theory examinations /6	Total marks in 2 IA Practical examinations /6
Eligibility criteria after conversion	10	10
	<b>Combined theory + Practical = 25</b>	

1. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

2. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
3. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.
4. Remedial measures

#### A. Remedial measures for non-eligible students



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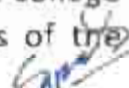
- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically. Extra classes for such students may be arranged.
- ii) If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. The marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.

<b>Remedial examination</b>	<b>Theory 100</b>	<b>Practical 100</b>
<b>Conversion out of Conversion formula</b>	<b>25 Marks in remedial theory examinations /4</b>	<b>25 Marks in remedial Practical examinations /4</b>
<b>Eligibility criteria after conversion</b>	<b>10 Combined theory + Practical = 25</b>	<b>10</b>

#### **B. Remedial measures for absent students:**

If any of the students is absent for any of the 2 IA examinations due to any reasons, following measures shall be taken.

- i. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.

  
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- ii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iii. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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## Format for Practical Examinations

### Otorhinolaryngology

#### Internal Assessment Practical

Seat No.	Table viva							Practical Total
	Case	OSCE 1	OSCE 2	Surgical Pathology Radiology	Instruments and Surgical Procedure	Journal	Log Book	
<b>Max. Marks</b>	20	5	5	5	5	5	5	50

OSCE stations checklists to be prepared so as to give more weightage to crucial steps, if skills are small two or more skills may be included in same station

# OSCE stations to include any of these – Clinical skills (case/audiology), Certifiable skills, AETCOM skills

#### Prelims Practical

Subject: Otorhinolaryngology Practical									
Seat No.						Table Viva			Practical Total
	Case	OSCE 1 (Clinical skills)	OSCE 2 (Clinical skills)	OSCE 3 (Certifiable skills)	OSCE 4 (AETCOM skills)	Surgical Pathology Radiology	Instruments and Surgical Procedure	Journal & log book	
<b>Max. Marks</b>	30	10	10	10	10	10	10	10	100

  
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## MUHS Final Practical

Subject: Otorhinolaryngology Practical

Seat No.						Table Viva		Practical Total
	Case	OSCE 1 (Clinical skills)	OSCE 2 (Clinical skills)	OSCE 3 (Certificate skills)	OSCE 4 (AETCOM skills)	Surgical Pathology Radiology	Instruments and Surgical Procedure	
<b>Max. Marks</b>	30	10	10	10	10	15	15	100

  
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## Internal Assessment Theory Examination (I)

### Otorhinolaryngology

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (10 Marks)**

1. Multiple Choice Questions (Total 10 MCQ of One mark each) (1 x 10 = 10)
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)

**Instructions:**

- 1) Use **blue/black** ball point pen only.
- 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**.
- 4) The number to the right indicates **full marks**.
- 5) Draw diagrams **wherever necessary**.
- 6) Use a common answer book for all sections.

**SECTION "B" (40 Marks)**

2. Long Answer Questions - structured clinical questions (15 x 1 = 15)
- a) (5 x 3 = 15)
3. Short Answer Questions (Any 5 out of 6), (including 1 on A+T/ODM)
- a)   b)   c)   d)   e)   f)

  
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# MUHS Final Theory Examination

## Otorhinolaryngology

### MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK FORMAT / SKELETON OF QUESTION PAPER

**Instructions:**

**SECTION "A" MCQ**

- 5) Put  in the appropriate box below the question number once only.
- 6) Use blue ball point pen only.
- 7) Each question carries **One mark**.
- 8) Students will not be allowed mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (1x20=20)
- a)    b)    c)    d)    e)    f)    g)    h)    i)    j)
- k)    l)    m)    n)    o)    p)    q)    r)    s)    t)

**SECTION "B" & "C"**

**Instructions**

1. Use blue/black ball point pen only.
2. **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
3. **All questions are compulsory**.
4. The number to the right indicates full marks.
5. Draw diagrams **wherever necessary**.
6. Use a common answer book for all sections.

**SECTION "B" (40 Marks)**

- 2 Long Answer Questions (Any 2 out of 3) structured clinical questions (15 x 2=30)
- a)    b)    c) (5 x 3=15)
- 3.Short Answer Questions (All 3) including 1 on AETCOM
- a)    b)    c)

**SECTION "C" (40 Marks)**

- 4 Long answer questions (15x1=15)
- a)
- 5 Short answer questions (any 4 out of 5) (Clinical Reasoning) (5x4=20)
- a)    b)    c)    d)    e)

  
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Section wise distribution of topics for Prelim & MUHS Annual Examination

Year: III-I MBBS Subject: Otorhinolaryngology

Paper	Section	Topics
I	A	MCQs on all topics of Otorhinolaryngology Basic Science ( 2), Otology (6), Rhinology (6), Head Neck Laryngology (6)
	B Basic Sciences, Recent Advances, Otology	Anatomy and Physiology of Ear, Nose, Throat & Head and Neck; Recent Advances; Audiology and Hearing loss; Vestibular System, Diseases of External Ear and Middle Ear; Eustachian Tube and its disorder; Cholesteatoma, Chronic Otitis media and Complications; Otosclerosis; Facial Nerve and its Disorder; Meniere's Disease; Tumours of External Ear, Middle Ear and Mastoid; Deaf Child & Rehabilitation of Hearing Impaired
	C Rhinology, Laryngology, Head and Neck	Diseases of External Nose; Nasal Septum and its diseases Acute and Chronic Rhinitis and Sinusitis and its complications: Allergic, Vasomotor Rhinitis and NARES: Nasal Polypi: Epistaxis; Facial Trauma; Granulomatous Diseases of Nose: Neoplasm of Nasal Cavity and PNS; Disorders and Tumours of Oral Cavity and Salivary Gland; Acute and Chronic Tonsillitis, Adenoiditis and Pharyngitis Head and Neck space infections: Tumours of Nasopharynx, Hypopharynx, Oropharynx and Pharyngeal Pouch: Snoring and Sleep Apnoea; Laryngotracheal Trauma, Acute and Chronic inflammation of Larynx, Congenital Lesions and Benign Tumours of Larynx: Laryngeal paralysis; Carcinoma Larynx; Stridor and Tracheostomy; Voice and Speech Disorder; Foreign Bodies in Air and Food passage; Disorders of Oesophagus and Dysphagia



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## Records of Examinations and Internal Assessment

Sr. No.	Exam No.	Date	Theory	Date	Practical (Exam 1 and 2 – 5 marks each for journal and logbook, Prelim exam-10 marks each for journal and logbook)	Feedback provided	Signature of student	Signature of teacher
1	Exam no.1- *Phase II (end of 1 <sup>st</sup> clinical postings)		-		/40+10			
2	Exam no.2- Phase III/I (end of 2 <sup>nd</sup> clinical postings)		/50		/40+10			
3	Preliminary Examination		/100		/80+20			
4	Total		/150		/150			
5	Conversion		/30		/30			
6	Final Internal Assessment Marks (to be submitted to University)		/30		/30			

\*The practical examination conducted in phase II will be college level examination and marks of the same will not be included in the internal assessment.

  
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 Signature of Head of the Department

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 Tal. Chiplun, Dist. Ratnagiri

**PHASE II-clinical (minimum two assessments)**

Sr. No.	Competency # addressed	Name of Activity	Site Ward, skill lab, opd, casualty,	Date completed	Attempt at activity First (F) Repeat (R) Remedial (Re)	Rating Below (B) expectations Meets (M) expectations Exceeds (E) expectations OR Numerical Score	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty	Feedback received Initial of Learner	Method of assessment and Score
1.										
2.										
3.										
4.										
5.										
6.										

  
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## PHASE II-Psychomotor

Sr. No.	Competency # addressed	Name of Activity	Site Ward, skill lab, opd, casualty,	Date completed	Attempt at activity First (F) Repeat (R) Remedial (Re)	Rating  Below (B) expectations Meets (M) expectations  Exceeds (E) expectations  OR Numerical Score	Decision of faculty  Completed (C) Repeat (R)  Remedial (Re)	Initial of faculty	Feedback received Initial of Learner	Method of assessment and Score
1.										
2.										

  
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**PHASE III Part I -clinical (Minimum two assessments)**

Sr. No.	Competency # addressed	Name of Activity	Site Ward, skill lab, opd , casualty,	Date completed	Attempt at activity First (F) Repeat (R) Remedial (Re)	Rating  Below (B) expectations Meets (M) expectations  Exceeds (E) expectations  OR Numerical Score	Decision of faculty  Completed (C) Repeat (R)  Remedial (Re)	Initial of faculty	Feedback received Initial of Learner	Method of assessment and Score
1.										
2.										
3.										
4.										
5.										
6.										

  
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### PHASE III Part I-Psychomotor skill

Sr. No.	Competency # addressed	Name of Activity	Site Ward, skill lab, opd, casualty,	Date completed	Attempt at activity First (F) Repeat (R) Remedial (Re)	Rating  Below (B) expectations  Meets (M) expectations  Exceeds (E) expectations  OR Numerical Score	Decision of faculty  Completed (C) Repeat (R)  Remedial (Re)	Initial of faculty	Feedback received initial of Learner	Method of assessment and Score
1.										
2.										

  
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### PHASE III Part I - AETCOM

Sr. No.	Competency # addressed	Name of Activity	Site Ward, skill lab, opd, casualty,	Date completed	Attempt at activity First (F) Repeat (R) Remedial (Re)	Rating  Below (B) expectations  Meets (M) expectations  Exceeds (E) expectations  OR Numerical Score	Decision of faculty  Completed (C) Repeat (R)  Remedial (Re)	Initial of faculty	Feedback received Initial of Learner	Method of assessment and Score
1.										
2.										
3.										

  
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 Tal.Chiplun,Dist.Ratnagiri



# ANNEXURE 1:

## RECORDING FORM FOR MINI – CEX

EVALUATOR :

DATE :

STUDENT :

YEAR :

PATIENT DIAGNOSIS :

SETTINGS :

AMBULATORY  
IN PATIENT  
ED

NEW  
FOLLOW UP

COMPLEXITY : LOW  
MODERATE  
HIGH

PATIENT AGE :

OTHER :

PATIENT SEX :

FOCUS : DATA GATHERING / DIAGNOSIS / THERAPY / COUNSELLING

1. MEDICAL INTERVIEWING SKILLS (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

2. PHYSICAL INTERVIEWING SKILLS (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

3. HUMANISTIC QUALITIES / PROFESSIONALISM (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

4. CLINICAL JUDGEMENT (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

5. COUNSELLING SKILLS (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

6. ORGANIZATION / EFFICIENCY (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

7. OVERALL CLINICAL COMPETENCE (OBSERVED / NOT OBSERVED)

1 2 3 / 4 5 6 / 7 8 9

MINI CEX TIME : OBSERVING : \_\_\_\_\_ MINS

PROVIDING FEEDBACK : \_\_\_\_\_ MINS

UNSATISFACTORY 1,2,3

SATISFACTORY 4, 5, 6

SUPERIOR 7, 8, 9

EVALUATOR SATISFACTION WITH MINI CEX :

LOW 1 2 3 4 5 6 7 8 9 HIGH

RESIDENT SATISFACTION WITH MINI CEX :

LOW 1 2 3 4 5 6 7 8 9 HIGH

COMMENTS :

STUDENT SIGNATURE



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EVALUATOR SIGNATURE

## ANNEXURE 2:

AetCom skills can be assessed by use of Kalamazoo consensus.

Criteria
Builds relationship
Opens the discussion
Gathers information
Understands the patient's perspective
Shares information
Manages flow
Overall rating
Signature of teacher

*Communication skills rating scale adapted from Kalamazoo consensus statement.*

Rating 1-3 - Poor. 4 -6 Satisfactory, 6 -10 Superior



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Tal. Chingla, Dist. Pottaput

## Maharashtra University of Health Sciences

### Internal Assessment General Medicine

Phase	IA – 1 -Exam			IA – 2 -Exam		
	Theory {Gen Med only} (January)	Practical EOP	Total Marks	Theory {Gen Med only} (May)	Practical of Allied	Total Marks
Second MBBS	50	50	100	50	50 (divided into three allied subjects as follows)	100
					DVL = 15 marks	
					Psychiatry = 15 marks	
					Respiratory Medicine = 20 marks	

\* The marks for internal assessment - 2 shall be communicated by DVL, Psychiatry and Respiratory Medicine departments to General Medicine department immediately after completion of examination and assessment.

  
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Phase	IA – 3 -Exam			IA – 4 -Exam		
	Theory (Gen Med and Allied) (January)	Practical EOP (Including 10 marks for Journal / Log Book )	Total Marks	Theory (Gen Med and Allied) (April)	Practical of Allied	Total Marks
Third MBBS Part I	50	40+10=50	100	50	50 (divided into two allied subjects as follows)	100
					DVL = 25 marks	
					Psychiatry = 25 marks	

\* The marks for internal assessment – 4 shall be communicated by DVL and Psychiatry departments to General Medicine department immediately after completion of examination and assessment.



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Phase	IA – 5 -Exam			Prelim Exam		
	Theory (General Medicine and Allied) (May)	Practical EOP (Including 10 marks for Journal / Log Book )	Total Marks	Theory General Medicine and Allied) (November)	Practical	Total Marks
Third MBBS Part II	100	90+10=100	200	100 x 2 papers = 200	200	400

There will be End of Postings Exam at each end of posting. (There will be FORMATIVE ASSESSMENT at the End of four weeks Clinical Posting of General Medicine NOT to be added to INTERNAL ASSESSMENT).



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**Assessment in CBME is ONGOING PRCESS,**

**No Preparatory leave is permitted.**

1. There shall be 6 internal assessment examinations in General Medicine including allied.
2. The suggested pattern of question paper for internal assessment, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 50 (theory) +50 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

	Theory	Practical
Phase II	100	100
Phase III/I	100	100
Phase III/II	300	300
Total	500	500
Conversion out of	50	50
Conversion formula	Total marks in 6 IA theory examinations /10	Total marks in 6 IA Practical examinations /10
Eligibility criteria after conversion	20	20
	<b>Combined theory + Practical = 50</b>	



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4. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
33.01 to 33.49	33
33.50 to 33.99	34

5. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
6. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

**7. Remedial measures**

**A. Remedial measures for non-eligible students**

- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically.
- ii) Extra classes for such students may be arranged. If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. Only the marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.



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Remedial examination (as per final examination pattern)	Theory 200	Practical 200
Conversion out of	50	50
Conversion formula	Marks in remedial theory examinations /4	Marks in remedial Practical examinations /4
Eligibility criteria after conversion	20	20
	Combined theory + Practical = 50	

**B. Remedial measures for absent students:**

- i. If any of the students is absent for any of the 6 IA examinations due to any reasons, following measures shall be taken.
- ii. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- iii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iv. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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# Internal Assessment Practical Examinations

## II MBBS

### Internal Assessment - 1

#### General Medicine

Subject: General Medicine Practical (IA – 1)					
Case	OSCE 1	OSCE 2	Viva	Journal & log book	Practical Total
10	10	10	10	10	50

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills.

**OSCE DETAILS:** 1. History taking of a particular symptom;  
2. Demonstration of signs- Pulse/BP/JVP;  
3. Identification of General examination findings etc.  
4. Communication Skills with patient or relative etc.

**Viva on Drugs:** Drugs Indication/Contraindication/ Adverse Effects etc.

**Viva on emergency :** eg. Snake bite, OP poisoning, Status asthmatics etc.



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Internal Assessment - 2

**DVL, Psychiatry and Respiratory Medicine (to be conducted at the end of respective clinical postings)**

<b>Subject: General Medicine Allied Practical (IA – 2)</b>		
<b>Examination in DVL</b>		
<b>Case</b>	<b>Viva</b>	<b>Practical Total</b>
10	5	15
<b>Subject: General Medicine Allied Practical (IA – 2)</b>		
<b>Examination in Psychiatry</b>		
<b>Case</b>	<b>Viva</b>	<b>Practical Total</b>
10	5	15
<b>Subject: General Medicine Allied Practical (IA – 2)</b>		
<b>Examination in Respiratory Medicine</b>		
<b>Case</b>	<b>Viva</b>	<b>Practical Total</b>
15	5	20

\* The marks for internal assessment – 2 shall be communicated by DVL, Psychiatry and Respiratory Medicine department to General Medicine department immediately after completion of examination and assessment.



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III MBBS Part I

Internal Assessment - 3

General Medicine

Subject: General Medicine Practical (IA – 3)					
Case	OSCE 1	OSCE 2	Viva	Journal & log book	Practical Total
20	5	5	10	10	50

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills.

- OSCE DETAILS:**
1. History taking of a particular symptom;
  2. Demonstration of General examination findings;
  3. Demonstration of systemic findings
  4. AETCOM or Communication Skills with patient or relative.



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Internal Assessment - 4

DVL and Psychiatry

<b>Subject: General Medicine Allied Practical (IA – 4)</b>			
<b>Examination in DVL</b>			
Case	OSCE 1	Viva	Practical Total
10	5	10	25
<b>Subject: General Medicine Allied Practical (IA – 4)</b>			
<b>Examination in Psychiatry</b>			
Case	OSCE 1	Viva	Practical Total
10	5	10	25

\* The marks for Internal assessment – 4 shall be communicated by DVL / Psychiatry department to General Medicine department immediately after completion of examination and assessment.



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III MBBS Part II

Internal Assessment - 5

General Medicine

Subject: General Medicine Practical (IA - 5)							
Long Case	OSCE1	OSCE2	OSCE 3	OSCE 4	Viva	Journal & log book	Practical Total
50	5	5	5	5	20	10	100

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills.

**OSCE DETAILS-**

1. Demonstration of signs – (Deep Tendon Reflex, Tone, Power of Muscle, Palpation of spleen and liver);
2. Demonstration of systemic findings
3. Certifiable procedural skills
4. AETCOM or Communication Skills with patient or relative etc.

Viva – X-ray, ECG, Instruments, Drugs



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## MUHS final practical examination

### General Medicine

Subject: General Medicine Practical					
Long Case	Short Case – 1	Short Case -2	OSCE * 4 Stations (15 x 4)	<u>Viva</u> (Table 1 – Instruments, Drugs, Emergencies Table 2- X-rays, ECGs, Laboratory reports ) (2 tables of 20 marks each)	Practical Total
50	25	25	60	40	200

# OSCE Stations may include General examinations, Local examinations, psychomotor skills, Communication skills, AETCOM etc.

OSCE 1 – Clinical Skills

OSCE 2 – Certifiable procedural skills

OSCE 3 – Certifiable procedural skills

OSCE 4 – AETCOM related skills



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MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK  
Format / Skeleton of question paper for 1<sup>st</sup> & 2<sup>nd</sup> internal

Assessment Theory Examinations.

Instructions:

SECTION "A" MCQ

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked

SECTION "A" MCQ (10Marks)

1. Multiple Choice Questions (Total -10 MCQ of One mark each from General Medicine) (1x1=10 )
- a) b) c) d) e) f) g) h) i) j)

Instructions:

- 1) Use blue/black ball point pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.

2. Long Answer Question (Any 2 out of 3) (General Medicine) ( 2 x 10 = 20 )

a) b) c)

3. Short answer questions (Any 4 out of 5) (At least 2 Clinical reasoning question ) (General Medicine) ( 4 x 5 = 20 )

a) b) c) d) e)

Topics for 1<sup>st</sup> & 2<sup>nd</sup> internal assessment are according to the syllabus covered till date of respective internal Assessment examination.



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**Format / Skeleton of question paper for 3<sup>rd</sup> and 4<sup>th</sup> internal  
Assessment Theory Examinations (III MBBS Part I)**

**Instructions:**

**SECTION "A" MCQ**

- 5) Put  in the appropriate box below the question number once only.
- 6) Use blue ball point pen only.
- 7) Each question carries **One mark**.
- 8) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (10Marks)**


1. Multiple Choice Questions (Total -10 MCQ of One mark each from General Medicine) (1x10=10 )  
a) b) c) d) e) f) g) h) i) j)

**Instructions:**

- 1) Use blue/black ball point pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.

2. Long Answer Question (Any 2 out of 3) (General Medicine ) ( 2 x 10 = 20 )  
a) b) c)
3. Short answer questions (1 from AETCOM ) (General Medicine ) ( 2 x 5 = 10 )  
a) b)
4. Short answer questions (Any 2 out of 3) (At least 2 Clinical reasoning question ) (DVL, Psychiatry & Respiratory Medicine) ( 2 x 5 = 10 )  
a) b) c)

Separate answer sheets for question 4 (SAQ from DVL, Psychiatry & Respiratory Medicine) may be used for the ease of evaluation.

  
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# Format / Skeleton of question paper 5<sup>th</sup> internal assessment

## Theory Examinations (III MBBS Part II)

### Instructions:

- SECTION "A" MCQ**
- 9) Put  in the appropriate box below the question number once only
  - 10) Use blue ball point pen only.
  - 11) Each question carries **one mark**.
  - 12) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

### SECTION "A" MCQ (20Marks)

1. Multiple Choice Questions (Total-20 MCQ) (1 x20=20 )
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)
- k)   l)   m)   n)   o)   p)   q)   r)   s)   t)

### SECTION "B" & "C"

- Instructions:**
- 1) Use blue/black ball point pen only.
  - 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) All questions are compulsory.
  - 4) The number to the right indicates full marks.
  - 5) Draw diagrams wherever necessary.

### SECTION "B" (60Marks)

2. Long Answer Questions (Any 2 out of 3) (Structured Case Based) (General Medicine) (2x15=30)
- a)   b)   c)
3. Short Answer Questions (Any 2 out of 3) (Any one should be Clinical reasoning), 1 from AETCOM (General Medicine) (2x5=10)
- a)   b)   c)
4. Short Answer Questions (Any 4 out of 5) (General Medicine) (4 x 5 =20 )
- a)   b)   c)   d)   e)

### SECTION "C" –Allied (20Marks)

5. Short Answer Questions (allied DVL, Psychiatry & Respiratory Medicine) (4 x 5=20)
- a)   b)   c)   d)

Separate answer sheets for question 4 (SAQ from DVL, Psychiatry & Respiratory Medicine) may be used for the ease of evaluation.

  
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**Format / Skeleton of question paper for University  
Theory Examinations (III MBBS Part II) Paper – I  
(Subject names to be removed)**

**Instructions:**

**SECTION "A" MCQ**

- 13) Put  in the appropriate box below the question number once only.
- 14) Use blue ball point pen only
- 15) Each question carries **One mark**.
- 16) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20Marks)**

1. Multiple Choice Questions (Total-20MCQ of One mark each) – (General Medicine) (1 x20=20 )
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)  
k)   l)   m)   n)   o)   p)   q)   r)   s)   t)

**SECTION "B" & "C"**

- Instructions:**
- 1) Use blue/black ball point pen only.
  - 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) All questions are compulsory.
  - 4) The number to the right indicates full marks.
  - 5) Draw diagrams wherever necessary.

**SECTION "B"**

2. Long Answer Questions (Structured Case Based ) (General Medicine) (2x15=30)
- a)   b)
- 3.Short Answer Questions (Any one should be Clinical reasoning, 1 from AETCOM) (General Medicine) (3x5=15)
- a)   b)   c)

**SECTION "C"**

4. Long Answer Question (Structured Case Based ) (General Medicine) (1 x15=15)
- a)
- 5.Short Answer Questions (General Medicine) (Any 4 out of 5) (4 x5=20)
- a)   b)   c)   d)   e)

  
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**Format / Skeleton of question paper for University  
Theory Examinations (III MBBS Part II) Paper II  
(Subject names to be removed)**

**Instructions:**

**SECTION "A" MCQ**

- 17) Put  in the appropriate box below the question number once only.
- 18) Use blue ball point pen only
- 19) Each question carries **One** mark.
- 20) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20Marks)**

**Multiple Choice Questions (Total-20MCQ of One mark each - 15 General Medicine , 2 DVL,**

**(1 x20=20 )**

**1.**

**2 Respiratory Medicine, 1 Psychiatry)**

- a) b) c) d) e) f) g) h) i) j)  
k) l) m) n) o) p) q) r) s) t)

**SECTION "B" & "C"**

**Instructions:**

- 1) Use blue/black ball point pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.

**SECTION "B"**

**2 : Long Answer Questions (Structured Case Based ) (General Medicine)**

**(2x15=30)**

- a) b)

**SECTION "C"**

**3.Short Answer Questions (any 4 out of 5) (DVL )**

**(4x5=20)**

- a) b) c) d) e)

**4.Short Answer Questions (Any 3 out of 4) (Psychiatry)**

**(3 x5=15)**

- a) b) c) d)

**5.Short Answer Questions (Any 3 out of 4) (Respiratory Medicine)**

**(3 x5=15)**

- a) b) c) d)



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### SCHEME OF EXAMINATION - Internal Assessment

Sr. No.	Internal assessment	Date/Month /Year	Marks obtained		Out of 4.5	Signature of student
			Theory out of	Practical out of		
1	First	September				
2	Second	September				
3	Third Part I	October				
4	Third Part II	January				
	Total					
	Round up-					

### Duration and details of course

Sr. No.	Phases		Semester	No of Months
1	I	First professional Preclinical phase	Semester 1 & Semester 2	1 + 12 months
2	II	Second professional Paraclinical Phase	Semester 3 & Semester 4	11 Months
3	III Part I	Third professional Clinical Phase	Semester 5 & Semester 6	13 Months
4	Electives, skills and assessment			2 Months
5	III Part II	Third professional Clinical Phase	Semester 7, Semester 8 Semester 9	13 Months

  
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Phase	Hours	Total hrs
<b>First I</b>		
Early clinical exposure	90	
<b>Second II</b>		
Lectures	75	615 hrs
Tutorial/Seminars/Integrated learning	--	-
Self directed learning	--	--
<b>Third Part I</b>		
Lectures	25	65 hrs
Tutorial/Seminars/Integrated learning	35	
Self directed learning	5	
<b>Third Part II</b>		
Lectures	70	210 hrs
Tutorial/Seminars/Integrated learning	125	
Self directed learning	15	

## Theory teaching

**Learner – Doctor Programme (Clinical clerkship)** (Reference- The Gazette of India: Part III-sec 4 pg 74 74)

The learner will function as a part of the health care team with the following responsibilities:

- (i) Be part of the unit's outpatient services on admission days.
- (ii) Remain with the admission unit until 6 PM except during designated class hours.
- (iii) Be assigned patients admitted during each admission day for whom he/she will undertake responsibility, under the supervision of a senior resident or faculty member.
- (iv) Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician.
- (v) Follow the patient's progress throughout the hospital stay until discharge.
- (vi) Participate, under supervision, in procedures, surgeries, deliveries etc. of assigned patients (according to responsibilities outlined in table 9).
- (vii) Participate in unit rounds on at least one other day of the week excluding the admission day.
- (viii) Discuss ethical and other humanitarian issues during unit rounds.
- (ix) Attend all scheduled classes and educational activities.
- (x) Document his/her observations in a prescribed log book / case record.
- (xi) No learner will be given independent charge of the patient.

Year of curriculum	Focus of Learner- Doctor programme
Year I	introduction to hospital environment, early clinical exposure, understanding perspectives of illness

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Year 2	History taking, physical examination, assessment of change in clinical status, communication and patient education
Year 3	All of the above and choice of investigations, basic procedures and continuity of care
Year 4	All of the above and decision making, management and outcomes

**Details of internal assessment**

**Internal Assessment Subject: General Medicine**

**Applicable w.e.f October 2020 onwards examination for batches admitted from  
June 2019 onward**

Phase	I-Exam (At the end of first term)			II-Exam (At the end of second term )		
	Theory	Practical (Including 10 Marks each for Journal & Log Book )	Total Marks	Theory	Practical (Including 10 Marks each for Journal & Log Book)	Total Marks
Second MBBS	50	50	100	50	50	100

Phase	I-Exam (At the end of first term)			II-Exam (At the end of second term )		
	Theory	Practical (Including 10 Marks each for Journal & Log Book	Total Marks	Theory	Practical (Including 10 Marks each for Journal & Log Book)	Total Marks
III/I MBBS	50	50	100	50	50	100

Phase	I-Exam (at the end of first term)			II-Exam Preliminary examination		
	Theory	Practical (Including 10 Marks each for Journal & Log Book )	Total Marks	Theory	Practical (Including 10 Marks each for Journal & Log Book)	Total Marks
III/II	50	50	100	200	200	400

  
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MBBS				(100 x 2 papers)	
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1. There will be 5 internal assessment examinations (2 each in 2<sup>nd</sup> MBBS and 3<sup>rd</sup> Part I and 1 in 3<sup>rd</sup> Part II MBBS) in the Subject of General Medicine and 1 preliminary examination (3<sup>rd</sup> Part II MBBS). The structure of the internal assessment theory examinations should be similar to the structure of University examination.
2. It is mandatory for the students to appear for all the internal assessment Examinations in the respective phases. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.
3. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
4. Internal assessment marks for theory and practical will be converted to out of
5. 100. Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University.
6. Conversion Formula for calculation of marks in internal assessment examinations
7. Formula for Theory (out of 450) = Total marks/4.5 Formula for Practical (out of 450) = Total marks/4.5
8. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

9. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical Separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
10. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

  
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11. Preliminary examination (3rd Part II MBBS). The structure of the internal assessment theory examinations should be similar to the structure of University examination.
12. It is mandatory for the students to appear for all the internal assessment Examinations in the respective phases. A student who has not taken minimum required number of tests for Internal Assessment each in theory and practical will not be eligible for University examinations.
13. There will be only one additional examination for absent students (due to genuine reason) after approval by the Institutional Grievances Committee. It should be taken after preliminary examination and before submission of internal assessment marks to the University.
14. Internal assessment marks for theory and practical will be converted to out of
15. 100. Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University.
16. Conversion Formula for calculation of marks in internal assessment examinations
17. Formula for Theory (out of 450) = Total marks/4.5 Formula for Practical (out of 450) = Total marks/4.5
18. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table

<b>Internal Assessment Marks</b>	<b>Final rounded marks</b>
13.01 to 13.49	13
13.50 to 13.99	14

19. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical Separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
20. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.



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**Second MBBS Practical Mark's Structure  
Internal Assessment Examinations**

(Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards)

**II MBBS- TERM-I**

Seat No.	JOURNAL	LOG BOOK	OSCE-1	OSCE-2	OSCE-3	OSCE-4	CASE	Practical Total
Max. Marks	10	10	5	5	5	5	10	50

- **OSCE DETAILS:** 1. History taking of a particular symptom; 2. Demonstration of signs-Pulse/BP/JVP; 3. Identification of General Examination Finding; 4. Communication Skills with Pt or Relative

**II MBBS- TERM-II**

Seat No.	JOURNAL	LOG BOOK	OSCE-1	OSCE-2	OSCE-3	OSCE-4	CASE	Practical Total
Max. Marks	10	10	5	5	5	5	10	50

**OSCE DETAILS:** 1. Demonstration of Syst Exam signs; 2. Spot Diagnosis - Jaundice, Clubbing, LN etc; 3. Drugs Indication/Contraindication/ Adverse Effects Etc; 4. Equipment – Name / Indication/ Contraindications

  
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**Paper wise distribution of topics for Internal assessment**  
**Year: Second MBBS**  
**Subject: GENERAL MEDICINE**

Internal Assessment	Section	Topics
<b>I</b> <b>(50 marks)</b>	<b>Section A</b> MCQs on all topics (15x1=15 marks)	Fever & Febrile Syndromes
	<b>Section B</b> SAQ on all topics (4x5=20)	HIV
	<b>Section C</b> LAQ on all topics (15x1=15 marks)	Diarrhoeal Diseases
		Envenomation
<b>II</b> <b>(50 marks)</b>	<b>Section A</b> MCQs on all topics (15x1=15 marks)	Pneumonia
		Miscellaneous Infections
	<b>Section B</b> SAQ on all topics (4x5=20)	Poisoning
	<b>Section C</b> LAQ on all topics (15x1=15 marks)	Nutrition & Vitamin Deficiencies

  
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**Year: III-I MBBS Subject: GENERAL MEDICINE**

<b>Internal Assessment</b>	<b>Section</b>	<b>Topics</b>
I (50 marks)	<b>Section A</b>	Hypertension
	MCQs on all topics (15x1=15 marks)	Heart failure
	<b>Section B</b>	
	SAQ on all topics (4x5=20)	Acute MI/IHD
	<b>Section C</b>	The role of physician in the community
	LAQ on all topics (15x1=15 marks)	
		AET-COM



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Paper wise distribution of topics for Prelim & MUHS Annual Examination

Subject: General Medicine

Paper	Section	Topics
<b>I</b> (100 marks)	<b>Section A</b> MCQs on all topics of the paper I (20x1=20)	Fever & Febrile Syndromes
		HIV
		Diarrhoeal Diseases
		Pneumonia
	<b>Section B</b> SAQ on all topics of the paper I (7x5=35)	Envenomation
		Miscellaneous Infections
		Poisoning
		Nutrition & Vitamin Deficiencies
		Anaemia
	<b>Section C</b> LAQ on all topics of the paper I (3x15=45)	Obesity
		Hypertension
		Heart failure
		Acute MI/IHD
		The role of physician in the community
		AET-COM
<b>II</b> (100 marks)	<b>Section A</b> MCQs on all topics of the paper II (20x1=20)	GI Bleed
		Liver Diseases
		Mineral Fluid Electrolyte and acid base disorder
		Acute kidney injury and chronic renal failure
	<b>Section B</b> SAQ on all topics of the paper II (7x5=35)	Headache
		Cerebrovascular accident
		Movement disorder
		Diabetes
		Thyroid Dysfunction
	<b>Section C</b> LAQ on all topics of the paper II (3x15=45)	Rheumatological Problems
		Common Malignancies
		Geriatrics
		Psychiatry, Dermatology & Leprosy (DVL) and Respiratory Medicine including Tuberculosis
		AET - COM

  
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MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASIK  
**FORMAT / SKELETON OF QUESTION PAPER**

1. Course and Year	<b>Second ( III-I/ III-II ) MBBS</b> <i>(applicable w.e.f. August 2021 &amp; onwards examinations)</i>	2. Subject Code	
3. Subject (PSE/IT)			
4. Page	<b>07</b>	5. Total Marks	_____
		6. Total Time	<b>3 Hrs.</b>
7. Web Pattern		8. Web Skeleton	
		9. Web Syllabus	
		10. Web Old QP	

**Instructions:**

1. Use  in the appropriate box below the question number, once only.
2. Use blue ball point pen only.
3. Each question carries **One mark**.
4. Students will not be allotted marks if they do not write answers at all where asked to mark it.

**SECTION "A" MCQ**

SECTION "A" MCQ ( \_\_\_\_\_ Marks)

1. Multiple Choice Questions (Total \_\_\_\_\_ MCQs of One mark each)

a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_ f) \_\_\_\_\_ g) \_\_\_\_\_ h) \_\_\_\_\_ i) \_\_\_\_\_ j) \_\_\_\_\_

k) \_\_\_\_\_ l) \_\_\_\_\_ m) \_\_\_\_\_ n) \_\_\_\_\_ o) \_\_\_\_\_ p) \_\_\_\_\_ q) \_\_\_\_\_ r) \_\_\_\_\_ s) \_\_\_\_\_ t) \_\_\_\_\_

**SECTION "B" & "C"**

- Instructions**
1. Use **blue/black ball point pen only**.
  2. **Do not write anything on the blank portion of the question paper** (Do not attempt to scrape an attempt to resort to unfair means).
  3. **All questions are compulsory.**
  4. The number on the right indicates **full marks**.
  5. **Draw diagrams wherever necessary.**
  6. **Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the time paper pattern is to be conducted. Questions will be asked from any paper/syllabus/old QP/ques. than the given syllabus. It has only for the placement of the distribution in the**
  7. **Use of calculator is not allowed for all sections.**

**SECTION "B" ( \_\_\_\_\_ Marks)**

2. Short Answer Questions (Any \_\_\_\_\_ out of \_\_\_\_\_)
- a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_
3. Long Answer Questions (Any \_\_\_\_\_ out of \_\_\_\_\_)
- a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_

**SECTION "C" ( \_\_\_\_\_ Marks)**

4. Short answer questions (Any \_\_\_\_\_ out of \_\_\_\_\_)
- a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_
5. Long Answer Questions (Any \_\_\_\_\_ out of \_\_\_\_\_)
- a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_

  
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## Assessment of Skill competencies



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## Assessment of DOAP Sessions

Phase	Competency Nos.	Topics & Subtopics	Teaching & Learning method	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
Phase II	1.12	Pulse examination with demonstration				
	1.13	Measure BP accurately				
	1.14	JVP				
	4.10	Examination of skin, lymph node. chest and abdominal examination				
	2.7	CVS Examination with demonstration				
	3.4 & 3.5	Orientation to history taking, general examination & systemic examination of Respiratory system				
Phase III part II (fourth year)	IM 3.9/ IM 5 15	Demonstrate in a mannequin and interpret results of a pleural fluid Aspiration				
	IM5. 15	Assist in the performance and interpret the findings of an ascitic fluid analysis	Mannequins/bedside clinic/Real patient			
	M6. 15/ M 17.8 17.9	Demonstrate in a model the correct technique to perform a lumbar Puncture	Mannequins/bedside clinic/ Real patient			
<b>Feedback by Faculty-</b>						
Phase II						
Phase III Part I						
Phase III Part II						

  
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## Assessments of Skill acquisition Sessions

Phase	Competency Nos.	Topics & Subtopics	TL Method	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
Phase II	1.30	Intramuscular injection	Simulator / Mannequin/Small group discussion			
		Ward round <ul style="list-style-type: none"> <li>• Communication with patient</li> <li>• Patient Education</li> </ul>				
Phase III Part I	IM4.15	Peripheral blood smear interpretation&Perform and interpret a malarial smear	Small group discussion			
		Ryles tube insertion	Simulation/ Real patient			
	IM4.20	Interpret a PPD (Mantoux)	Small group discussion			
	IM11.19	Demonstrate( and counsel) patients on the correct technique to administer insulin	Real patient			
	IM3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and	Small group discussion			

  
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		indications for ventilation (K)				
	IM11.13	Bedside urine analysis & Perform and interpret urinary ketone estimation with a dipstick	Real patient			
	IM15.2 M15.11	Setting up IV infusion and calculating drip rate	Seminar/ Small group discussion /Casualty real patient			
<b>Phase III part II (fourth year)</b>	IM1.22	Assist and demonstrate the proper technique in collecting specimen for blood culture	Simulator s/mannequin			
	IM4.19	Assist in the collection of blood	Bed side clinics			
	IM11.12	Perform and interpret a capillary blood glucose test	Real patient			
	IM25.9	Assist in the collection of blood and other specimen cultures	Bed side clinic/real patients			
	IM9.19	Assist in a blood transfusion	Bed side clinic/real patients			
	IM15.13	Observe cross matching and blood / blood component transfusion	Bed side clinic/real patients			
	IM2.22	Perform and demonstrate in a mannequin BLS	DOAP			
	IM2.21	Observe and participate in a controlled environment an ACLS Program	Session in skills lab			
Feedback by Faculty						
<b>Phase III Part I</b>						

  
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### Assessments of case presentation Sessions

Phase	Competency Nos.	Topics & Subtopics	TL Method	Attempt at activity	Decision of faculty	Initial of faculty and date
				First (F) Repeat (R) Remedial (Re)	Completed (C) Repeat (R) Remedial (Re)	
Phase II	20.4 & 20.5	Medical emergency - snake bite – Elicit, present and document an detail history. Perform a systematic examination, document and present a local, appropriate cardiac and neurologic examination	Seminar/ Small Group discussion			
	CT2.20	Describe and discuss the principles and use of oxygen therapy in the hospital and at home	Lecture/ seminar/s mall group discussion /bedside clinic			
	CT2.22	Demonstrate and counsel patient on the correct use of inhaler	Small group discussion			
Phase III part II (fourth year)	IM10.21	Describe and discuss the indications for and insert a peripheral intravenous catheter	Seminar / lecture			
	IM11.20	Demonstrate to and counsel patients correct technique on the of self-monitoring of blood glucoses	Seminar/lecture			
	IM15.2	Enumerate, describe and discuss the evaluation and steps involved in	Seminar/lecture/small			



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		stabilizing a patient who presents with acute volume loss and GI Bleed	l group discussion		
	IM15.11	Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss	Seminar/lecture/small group discussion		
	AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates	Seminar/lecture/small group discussion		
	IM17.9	Interpret the CSF findings when presented with various parameters of CSF fluid analysis	Seminar/lecture/small group discussion		
Feedback by Faculty					
Phase III Part I					
Phase III Part II					

## Assessment of OSCE

Phase	Competency Nos.	Topics & Subtopics	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
Phase II	IM4.15	Perform and interpret a malarial smear			
	IM9.10	Describe, perform and interpret a peripheral smear			
	IM11.13	Perform and interpret a urinary ketone estimation with adipstick			
	Bi11.4	Perform urine analysis to estimate and determine			

  
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		normal and abnormal constituents			
		Interprete Chest X Ray			
		Interprete blood culture			
		Interprete Hemogram- CBC etc			
		Interprete Liver function tests			
		Interprete CSF analysis			
		Interprete ascitic, pleural fluid			
		Interprete ABG			
<b>Feedback by Faculty</b>					
<b>Phase III Part I</b>					
<b>Phase III Part II</b>					

## Skill acquisition Vertical integration


Phase	Comp ency Nos.	Topics & Subtopics	Teaching & Learning method	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
Phase III	OG35.17	OBGY Demonstrate the correct technique of urinary catheterization in a simulated/ supervised environment	Small group discussion / real patient/ simulation			
	CT2.20	Chest Medicine - Describe and discuss the principles and use of oxygen therapy in the hospital and at home	Seminar/ Group discussion			
	CT2.22	Chest Medicine- Demonstrate and counsel patient on the correct use of inhalers	Small group discussion / Role play/ Real patient			
	AS2.1	Enumerate the indications,	DOAP			

  
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	describe the steps and demonstrate in a simulated environment <b>basic life support in adults children and neonates</b>	Session in skills lab			
AS2.2	Enumerate the indications, describe the steps and demonstrate in a simulated environment <b>advanced life support in adults and children</b>	DOAP Session in skills lab			
Feedback by Faculty					
Phase III Part I					
Phase III Part II					

### Integrated teachings-

Phase	Subject	Hours	Competency Nos. Topics & Subtopics	Teaching & Learning method	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
<b>III Part I</b>		<b>Total 9 hours (3 hours each for clinical Pharmacology, clinical Pathology and Clinical microbiology)</b>					
	Clinical Pharmacology	3hours	Clinical pharmacokinetics-1 hr Adverse drug reaction-1 hr Drug-Drug interaction-1 hr				
	Clinical Pathology	3hours	Anaemia and haemoglobinopathies-1 hr Hematological malignancies-1 hr Platelet disorder-1 hr				
	Clinical Microbiology	3hours	Pyrexia of unknown origin - 1 hr Antimicrobial resistance - 1 hr Viral haemorrhagic fever -1 hr				
<b>III Part II</b>		<b>Integrated teachings- Total 19 hours</b>					
	Care of patients during Pandemics	6 hours	Interactive Discussion- 2 hours Triage practices to be followed Primary care to be given to a patient on reaching hospital				 DEAN B.K.L. Walahikar Rural Medical College Alkasanwadi, Post, Sawade Tal. Chiplun, Dist. Ratnagur

			<p>Steps to be taken to reduce transmission of infections in emergency area</p> <p>Role Play- 1 hour</p> <p>Visit to hospital with discussion with staff- 2 hour</p> <p>Debriefing and feedback- 1 hour</p>				
	Emergency Procedures during Pandemics	8 hours	<p>Interactive Discussion - 2 hours</p> <p>I. Indications for invasive procedures in Pandemics</p> <p>2. Points to be verified before emergency procedures.</p> <p>3. Steps to be taken to reduce transmission of infections</p> <p>4. Attitude and Communication Issues related to complicated procedures</p> <p>II. Skill development program with mannequins e.g. intubation, CPR, ALS, PALS etc - 4 hours (This may be linked with the routine Skill training component as well)</p> <p>III. Role Plays for communication skills and documentation - 1 hour</p> <p>IV. Debriefing and Feedback - 1 hour</p>				
	Managing Death during Pandemics	2 hours	<p>Interactive discussion - 1 hour</p> <p>a. Confirmation and documentation of death</p> <p>b. Steps to be taken to reduce transmission of infections</p> <p>c. Attitude and Communication Issues related to handling of dead bodies</p> <p>d. Responding to media</p> <p>ii. Role Play for communication skills and documentation with debriefing and feedback - 1 hour</p>				
	Geriatrics	3 hours	<p>Polypharmacy</p> <p>Falls</p> <p>Incontinence</p>				

Feedback by Faculty

Phase III Part I

Phase III Part II



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# AETCOM

**75% Attendance is required for eligibility to appear for final examination in each professional year.**

<b>Maharashtra University of Health Sciences</b>			
<b>General Medicine Task Force for CBME Implementation</b>			
<b>Summary of AETCOM modules for Third and Fourth professional years</b>			
	<b>Third professional Year</b>	<b>Fourth Professional Year</b>	<b>Total</b>
Number of Modules	5	9	14
Number of Hours for training	19	28	47
Number of Hours for SDL	06	16	22
<b>Number of hours to be shown in time table of respective departments for AETCOM</b>			
Hours of training by Medicine	10	15	25
Hours of training by Surgery	10	15	25
Hours of training by OBGY	05	09	14
Hours of training by Pediatrics	00	05	05



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## Assessment of AETCOM -

Phase	Competency Nos.	Topics & Subtopics	Teaching & Learning method	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
<b>II</b>	26.20	Demonstrate ability to communicate to patients in a respectful, non threatening, non judgemental and empathetic manner	Small group discussion/Role play			
	26.21 & 26.22	- Demonstrate respect to patient privacy - Demonstrate ability to maintain confidentiality in patient care	Lecture/ Small group discussion			
	26.19 , 26.24 & 26.25	- Demonstrate ability to work in a team of peers and superiors - Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers- Demonstrate responsibility and work ethics while working in the health care team	Lecture/ self directed learning/Small group discussion			
	26.35	Demonstrate empathy in patient encounters	Role play/ Case presentation			
<b>III Part I</b>	26.29 - 26.31	Role of Physician in Community- Communicate diagnostic and therapeutic options to patient and family in a simulated environment Communicate care options to patient and family with a terminal illness in a simulated environment Demonstrate awareness of limitations and seeks	Lecture/ Small group discussion/Role play			

  
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		help and consultations appropriately				
Module 3.3		Administer informed consent and appropriately address patient queries to a patient undergoing a Surgical/ therapeutic procedure in a simulated environment	Small group discussion/ Real patient/ Role play			
Module 4.4		Communication, Attitude and Ethics <b>Empathy, Doctor Patient Relationship , Effective Communication in terminally ill</b>	CBL /video with interactive lecture, role play / small group session with standardized patient in soft skills lab.			
Module 4.5		Ethics and attitude <b>Doctor Industry relationship- Conflicts of interests in patients care and professional</b>	Role play/ CBL with interactive lecture			
Module 4.8		Communication, Attitude and Ethics <b>Empathy, Death declaration, Handling emotions during death, Euthanasia , Breaking Bad News effectively</b>	CBL /video with interactive lecture.  role play / small group session with standardized patient as relative in soft skills lab.			
<b>Phase III Part II</b>						
Module 4.1		<b>Foundation of Communication 5 Effectively communicating Diagnosis, Prognosis and therapy (Counseling skills)</b>	<b>Small group teaching with soft skills lab session related to Counseling skills</b>			
Module 4.2		Ethics Abortion, MTP, Reproductive rights and ethical conflicts	CBL with interactive lecture (Can be a large class teaching )			

  
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Module 4.9	Ethics Legal aspects of Care, Medical negligence and malpractices	CBI. with interactive lecture/ small group discussions			
Feedback by Faculty					
Phase III Part I					
Phase III Part II					

## Assessment of Tutorials

Phase	Topic	Hours	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
<b>III Part I</b>	Medical emergencies	1 hr			
	Valvular heart disease in adults	1 hr			
	Acynotic congenital heart disease in adults (ASD,VSD,PDA)	1 hr			
	Cynotic congenital heart disease in adults (TOF)	1 hr			
	Instruments- Video of procedures/Real/casewise	1 hr			
	Instruments	1 hr			
	X rays	1 hr			
	X rays	1 hr			
	ECG- Approach to basics of ECG	1 hr			
ECG- How to read ECG?	1 hr				
<b>III Part II</b>	ECG-	10 Hours			
	How to interpret ECG?	1 hr			
	ECG-Diagnosing Myocardial infarctions	1 hr			
	ECG; Chamber enlargement	1 hr			
	ECG-Bundle branch blocks	1 hr			
	Electrolyte abnormalities on ECG	1 hr			
	Narrow Complex tachyarrhythmias	1 hr			

  
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Bradyarrhythmias	1 hr		
Valvular Heart diseases	1 hr		
ECG Quiz	1 hr		
Miscellaneous	1 hr		
<b>Radiology-</b>	<b>11 Hours</b>		
Basics of Chest X Ray	1 hr		
Reading Normal X Ray Chest	1 hr		
Abnormalities on Chest X Ray – Cardiovascular system	1 hr		
Pulmonary venous hypertension vs pulmonary arterial hypertension	1 hr		
Chest X ray – Respiratory system	1 hr		
Abdominal system( Chest & Abdomen X Ray)	1 hr		
Miscellaneous X ray	1 hr		
Basics of CT Scan	1 hr		
Basics of MRI	2 hr		
Basics of PET scan	1 hr		
<b>Drugs- Case based approach</b>	<b>13 Hours</b>		
Anti epileptics	1 hr		
Cardiovascular Drugs	1 hr		
Anti Tubercular Therapy	1 hr		
Anti Retroviral Therapy	1 hr		
Emergency Drugs	1 hr		
Antiviral Drugs	1 hr		
Drugs in respiratory system	1 hr		
Glucocorticoids	1 hr		
Drugs in Rheumatology	1 hr		
Anticoagulants	1 hr		
Inotropes and inodilators	1 hr		
Anti hypertensives	1 hr		
Antidiabetic drugs	1 hr		
<b>Interpretation of Lab Charts</b>	<b>12 Hours</b>		
Interpretation of Ascitic fluid analysis			
Interpretation of Pleural fluid analysis			
Interpretation of Cerebrospinal fluid analysis			

  
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	Interpretation of Abnormal LFT				
	Interpretation of Anemia				
	Interpretation of thyroid function test				
	Interpretation of Peripheral blood smear				
	Interpretation of urine analysis				
	<b>Interpretation of Fundus examination</b>				
	Interpretation of renal function tests				
	Interpretation of Bone marrow studies				
	Interpretation of ABG				
Feedback by Faculty					
Phase III Part I					
Phase III Part II					

## Assessment of Seminars

Phase	Topic	Hours	Attempt at activity First (F) Repeat (R) Remedial (Re)	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date
<b>III Part I</b>	<b>Seminars</b>	<b>16 Hours</b>			
	Clinical approach to Ascites				
	Clinical approach to Anaemia				
	Clinical approach to lymphadenopathy				
	Clinical approach to Jaundice				
	Clinical approach to chest pain				
	Clinical approach to headache				
	Clinical approach to bleeding diathesis				
	Clinical approach to Comatose patient				
	Portal hypertension and its complications				
	Pulmonary arterial hypertension				
	Pulmonary function tests				
	Thyroid function tests				
	Grave's disease				
	Micro-vascular complications of DM				
	Macro-vascular complications of DM				

  
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	Insulin and analogues			
III Part II	Seminars	<b>45 hours</b>		
	Clinical approach to Hypertensive emergencies			
	Clinical approach to Acute myocardial infarction			
	Clinical approach to solitary Seizure			
	Clinical approach to ischemic stroke			
	Clinical approach to intracranial bleed			
	Clinical approach to Heart Failure			
	Clinical approach to Acute renal failure			
	Clinical approach to Chronic kidney disease			
	Clinical approach to hyponatremia			
	Clinical approach to potassium imbalance disorders			
	Clinical approach to disorders of calcium metabolism			
	Interpretation of ABG			
	Mixed Acid Base disorders			
	Emerging Viral Infections			
	Clinical approach to Geriatric Syndromes			
	Clinical approach to a case of Pulmonary Tuberculosis			
	Clinical approach to a case of Extra Pulmonary Tuberculosis			
	Clinical Approach to a case of PLHIV			
	Clinical approach to opportunistic infections in a case of PLHIV			
	Clinical approach to prescription of ART			
	Clinical approach to a case of Dengue			
	Clinical approach to a case of Complicated malaria			
	Recent advances in the diagnosis of tuberculosis			
	Vaccines for tuberculosis			
	Recent advances in anti retroviral drugs			
	Clinical approach to a case of Interstitial lung disease			
	Clinical approach to a case of snake bite			

  
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Clinical approach to a case of electric injury			
Clinical approach to a case of acute meningitis			
Clinical approach to a case of Chronic meningitis			
Ageing			
Human Microbiome			
Clinical approach to oncological emergencies			
Clinical approach to a case of Acute Leukemia			
Clinical approach to a case of Chronic leukemia			
Medicolegal, socioeconomic and ethical issues as it pertains to organ donation			
Role of physician in community			
Medicolegal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care			
Medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care			
Medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects			
Medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty)			
Documentation in health care (including correct use of medical records)			
Use of information technology that permits appropriate patient care and continued learning			
Understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors			
Conflicts of interest in patient care and professional			



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	relationships and describe the correct response to these conflicts			
	Clinical approach to a case of DIC			
	Clinical approach to a case of arthritis			
	Clinical approach to a case of multisystem involvement			
	Clinical approach to a case of peripheral neuropathy			
	Clinical approach to a case of flaccid quadriparesis			
Feedback by Faculty				
<b>Phase III Part I</b>				
<b>Phase III Part II</b>				

## Assessment of Theory Competencies



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Competency # addressed	Name of Activity	Date completed: dd-mm-yyyy	Attempt at activity First or Only (F) Repeat (R) Remedial (Re)	Rating Below (B) expectations Meets (M) expectations Exceeds (E) expectations OR Numerical Score	Decision of faculty Completed (C) Repeat (R) Remedial (Re)	Initial of faculty and date	Feedback Received  Initial of learner


### Heart Failure


IM1.10	Elicit, document and present an appropriate history that will establish the diagnosis, cause and severity of heart failure including presenting complaints, precipitating and exacerbating factors, risk factors						
IM1.11	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of heart sounds and murmurs, abdominal distension and splenic palpation						
IM1.12	Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure						
IM1.13	Measure the blood pressure accurately, recognise and discuss alterations in blood						 DEAN


	pressure in valvular heart disease and other causes of heart failure and cardiac tamponade						
IMI.14	Demonstrate and measure jugular venous distension						
IMI.15	Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations						
IMI.16	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis						
IMI.17	Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures						
IMI.18	Perform and interpret a 12 lead ECG						
IMI.20	Determine the severity of valvular heart disease based on the clinical and laboratory and imaging features and determine the level of intervention required including surgery						
IMI.21	Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy						
IMI.22	Assist and demonstrate the proper technique in collecting specimen for blood culture						 DEAN

IM1.23	Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations						
IM1.26	Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology						
IM1.30	Administer an intramuscular injection with an appropriate explanation to the patient						
<b>Acute Myocardial Infarction/ IHD</b>							
IM2.6	Elicit document and present an appropriate history that includes onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication, history of atherosclerosis, IHD and coronary syndromes						
IM2.7	Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation						
IM2.8	Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on "cannot miss", most likely diagnosis and severity						
IM2.9	Distinguish and differentiate between stable and unstable angina and AMI based on the						 DEAN

	clinical presentation						
IM2.10	Order, perform and interpret an ECG						
IM2.11	Order and interpret a Chest X-ray and markers of acute myocardial infarction						
IM2.12	Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context						
IM2.22	Perform and demonstrate in a mannequin BLS						
IM2.24	Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes						
<b>Pneumonia</b>							
IM3.4	Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk						
IM3.5	Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease						
IM3.6	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation						 DEAN

IM3.7	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG						
IM3.8	Demonstrate in a mannequin and interpret results of an arterial blood gas examination						
IM3.9	Demonstrate in a mannequin and interpret results of a pleural fluid aspiration						
IM3.10	Demonstrate the correct technique in a mannequin and interpret results of a blood culture						
IM3.11	Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialised testing						
IM3.12	Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum						
IM3.13	Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum.						
IM3.14	Perform and interpret a sputum gram stain and AFB						
IM3.18	Communicate and counsel patient on family on the diagnosis and therapy of						 DEAN

	pneumonia						
<b>Fever and febrile syndromes</b>							
IM4.9	Elicit document and present a medical history that helps delineate the aetiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use						
IM4.10	Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)						
IM4.11	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes						
IM4.12	Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine						 DEAN


	and culture and QBC						
IM4.13	Perform and interpret a sputum gram stain						
IM4.14	Perform and interpret a sputum AFB						
IM4.15	Perform and interpret a malarial smear						
IM4.17	Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment						
IM4.19	Assist in the collection of blood and wound cultures						
IM4.20	Interpret a PPD (Mantoux)						
IM4.23	Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs						
IM4.24	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis						
IM4.25	Communicate to the patient and family the diagnosis and treatment						
IM4.26	Counsel the patient on malarial prevention						
<b>Liver diseases</b>							
IM5.9	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and						 DEAN


	includes clinical presentation, risk factors, drug use, sexual history, vaccination history and family history						
IM5.10	Perform a systematic examination that establishes the diagnosis and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of portosystemic hypertension and hepatic encephalopathy						
IM5.14	Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology						
IM5.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis						
<b>HIV</b>							
IM6.7	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status						
IM6.8	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom						
IM6.14	Perform and interpret AFB sputum						



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IM6.15	Demonstrate in a model the correct technique to perform a lumbar puncture						
IM6.19	Counsel patients on prevention of HIV transmission						
IM6.20	Communicate diagnosis, treatment plan and subsequent follow up plan to patients						
IM6.21	Communicate with patients on the importance of medication adherence						
IM6.22	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV						
IM6.23	Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles						
<b>Rheumatologic problems</b>							
IM7.11	Elicit document and present a medical history that will differentiate the aetiologies of disease						
IM7.12	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease						
IM7.15	Enumerate the indications for and interpret the results of : CBC, anti- CCP, RA, ANA, DNA and other tests of autoimmunity						
IM7.17	Enumerate the indications and interpret plain radiographs of joints						 DEAN

IM7.18	Communicate diagnosis, treatment plan and subsequent follow up plan to patients						
IM7.20	Select, prescribe and communicate appropriate medications for relief of joint pain						
IM7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies						
IM7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions						
IM7.24	Communicate and incorporate patient preferences in the choice of therapy						
IM7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions						
IM7.26	Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well being, work and family						
<b>Hypertension</b>							
IM8.9	Elicit document and present a medical history that includes: duration and levels, symptoms, comorbidities, lifestyle, risk factors, family history, psychosocial and environmental factors, dietary assessment, previous and concomitant therapy						 DEAN

IM8.10	Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart						
IM8.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology						
IM8.15	Recognise, prioritise and manage hypertensive emergencies						
IM8.16	Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake						
IM8.17	Perform and interpret a 12 lead ECG						
IM8.18	Incorporate patient preferences in the management of HTN						
IM8.19	Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family						
<b>Anemia</b>							
IM9.3	Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, and family history						





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IM9.4	Perform a systematic examination that includes : general examination for pallor, oral examination, DOAP session of hyper dynamic circulation, lymph node and splenic examination						
IM9.5	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology						
IM9.6	Describe the appropriate diagnostic work up based on the presumed aetiology						
IM9.9	Order and interpret tests for anemia including hemogram, red cell indices, reticulocyte count, iron studies, B12 and folate						
IM9.10	Describe, perform and interpret a peripheral smear and stool occult blood						
IM9.13	Prescribe replacement therapy with iron, B12, folate						
IM9.15	Communicate the diagnosis and the treatment appropriately to patients						
IM9.16	Incorporate patient preferences in the management of anemia						
IM9.19	Assist in a blood transfusion						
IM9.20	Communicate and counsel patients with methods to prevent nutritional anemia						


**Acute kidney injury and chronic renal failure**

  
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IM10.1 2	Elicit document and present a medical history that will differentiate the aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and systemic causes						
IM10.1 3	Perform a systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uraemia and associated systemic disease						
IM10.1 5	Describe the appropriate diagnostic work up based on the presumed aetiology						
IM10.1 7	Describe and calculate indices of renal function based on available laboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance)						
IM10.1 8	Identify the ECG findings in hyperkalemia						
IM10.2 0	Describe and discuss the indications to perform arterial blood gas analysis; interpret the data						
IM10.2 1	Describe and discuss the indications for and insert a peripheral intravenous catheter						
IM10.2 2	Describe and discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter						 DEAN

IM10.2 3	Communicate diagnosis treatment plan and subsequent follow up plan to patients						
IM10.2 4	Counsel patients on a renal diet						
<b>Diabetes Mellitus</b>							
IM11.7	Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease						
IM11.8	Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries)						
IM11.1 1	Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile						
IM11.1 2	Perform and interpret a capillary blood glucose test						
IM11.1 3	Perform and interpret a urinary ketone estimation with a dipstick						

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IM11.1 9	Demonstrate and counsel patients on the correct technique to administer insulin						
IM11.2 0	Demonstrate to and counsel patients on the correct technique of self monitoring of blood glucoses						
<b>Thyroid Dysfunction</b>							
IM12.5	Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity						
IM12.6	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings						
IM12.7	Demonstrate the correct technique to palpate the thyroid						
IM12.9	Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan						
IM12.1 0	Identify atrial fibrillation, pericardial effusion and bradycardia on ECG						
IM12.1 1	Interpret thyroid function tests in hypo and hyperthyroidism						 DEAN


IM12.1 4	Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status						
<b>Common malignancies</b>							
IM13.8	Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer						
<b>Obesity</b>							
IM14.6	Elicit and document and present an appropriate history that includes the natural history, dietary history, modifiable risk factors, family history, clues for secondary causes and motivation to lose weight						
IM14.7	Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities						
IM14.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis						
IM14.9	Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc.						




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IM14.1 1	Communicate and counsel patient on behavioural, dietary and lifestyle modifications						
IM14.1 2	Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgemental way						
<b>GI Bleeding</b>							
IM15.2	Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed						
IM15.4	Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors						
IM15.5	Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination						
IM15.7	Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent						
IM15.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely						 DEAN


	diagnosis						
IM15.9	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test.						
IM15.1 3	Observe cross matching and blood / blood component transfusion						
IM15.1 8	Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options						
<b>Diarrheal diseases</b>							
IM16.4	Elicit and document and present an appropriate history that includes the natural history, dietary history, travel, sexual history and other concomitant illnesses						
IM16.5	Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination						
IM16.7	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis						
IM16.8	Choose and interpret diagnostic tests based on the						 DEAN


	clinical diagnosis including complete blood count, and stool examination						
IM16.9	Identify common parasitic causes of diarrhea under the microscope in a stool specimen						
IM16.10	Identify vibrio cholera in a hanging drop specimen						
IM16.15	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis						
<b>Headache</b>							
IM17.2	Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches						
IM17.4	Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis						
IM17.5	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation						
IM17.6	Choose and interpret diagnostic testing based on the clinical diagnosis including imaging						
IM17.8	Demonstrate in a mannequin or equivalent the correct technique						 DEAN

	for performing a lumbar puncture						
IM17.9	Interpret the CSF findings when presented with various parameters of CSF fluid analysis						
IM17.1 4	Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy						
<b>Cerebrovascular accident</b>							
IM18.3	Elicit and document and present an appropriate history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accident						
IM18.5	Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history						
IM18.6	Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion						
IM18.7	Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech						
IM18.1 0	Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA)						




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IM18.1 7	Counsel patient and family about the diagnosis and therapy in an empathetic manner						
<b>Movement disorders</b>							
IM19.3	Elicit and document and present an appropriate history including onset, progression precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the movement disorders						
IM19.4	Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales						
IM19.5	Generate document and present a differential diagnosis and prioritise based on the history and physical examination						
IM19.6	Make a clinical diagnosis regarding on the anatomical location, nature and cause of the lesion based on the clinical presentation and findings						
IM19.7	Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders						
<b>Envenomation</b>							
IM20.2	Describe, demonstrate in a volunteer or a mannequin and educate (to other health care workers / patients) the correct initial management of patient						 DEAN

	with a snake bite in the field						
IM20.4	Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite						
IM20.5	Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination						
IM20.6	Choose and interpret the appropriate diagnostic testing in patients with snake bites						
<b>Poisoning</b>							
IM21.7	Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy						
<b>Nutritional and Vitamin deficiencies</b>							
IM23.5	Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet						
<b>Geriatrics</b>							
IM24.2	Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components						
<b>Miscellaneous infections</b>							
IM25.4	Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the						 DEAN

	evolution and pattern of symptoms, risk factors, exposure through occupation and travel						
IM25.5	Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)						
IM25.6	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes						
IM25.7	Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC						
IM25.9	Assist in the collection of blood and other specimen cultures						
IM25.11	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis						

  
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IM25.1 2	Communicate to the patient and family the diagnosis and treatment of identified infection						
IM25.1 3	Counsel the patient and family on prevention of various infections due to environmental issues						
<b>The role of physician in the community</b>							
IM26.1 9	Demonstrate ability to work in a team of peers and superiors						
IM26.2 10	Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empathetic manner						
IM26.2 11	Demonstrate respect to patient privacy						
IM26.2 12	Demonstrate ability to maintain confidentiality in patient care						
IM26.2 13	Demonstrate a commitment to continued learning						
IM26.2 14	Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers						
IM26.2 15	Demonstrate responsibility and work ethics while working in the health care team						
IM26.2 16	Demonstrate ability to maintain required documentation in health care (including correct use of medical records)						
IM26.2 17	Demonstrate personal grooming that is adequate and appropriate for health care						 DEAN




	responsibilities						
IM26.2 8	Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning						
IM26.2 9	Communicate diagnostic and therapeutic options to patient and family in a simulated environment						
IM26.3 0	Communicate care options to patient and family with a terminal illness in a simulated environment						
IM26.3 1	Demonstrate awareness of limitations and seeks help and consultations appropriately						
IM26.3 2	Demonstrate appropriate respect to colleagues in the profession						
IM26.3 3	Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors						
IM26.3 4	Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts						
IM26.3 5	Demonstrate empathy in patient encounters						
IM26.3 6	Demonstrate ability to balance personal and professional priorities						


  
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IM26.3 7	Demonstrate ability to manage time appropriately						
IM26.3 8	Demonstrate ability to form and function in appropriate professional networks						
IM26.3 9	Demonstrate ability to pursue and seek career advancement						
IM26.4 0	Demonstrate ability to follow risk management and medical error reduction practices where appropriate						
IM26.4 1	Demonstrate ability to work in a mentoring relationship with junior colleagues						
IM26.4 2	Demonstrate commitment to learning and scholarship						
IM26.4 8	Demonstrate altruism						
IM26.4 9	Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment						
<b>Integration</b>							
<b>Anatomy</b>							
AN20.8 Vertical integration	Identify & demonstrate palpation of femoral, popliteal, post tibial, anti tibial & dorsalis pedis blood vessels in a simulated environment						
AN20.9 Vertical integration	Identify & demonstrate Palpation of vessels (femoral, popliteal, dorsalis pedis, post tibial), Mid inguinal point, Surface projection of: femoral nerve, Saphenous opening, Sciatic, tibial, common peroneal & deep peroneal						




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	nerve, great and small saphenous veins						
AN24.2 Vertical integration	Identify side, external features and relations of structures which form root of lung & bronchial tree and their clinical correlate						
AN25.7 Vertical integration	Identify structures seen on a plain x-ray chest (PA view)						
AN25.8 Vertical integration	Identify and describe in brief a barium swallow						
AN25.9 Vertical integration	Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & Surface projection of valves of heart						
AN56.1 Vertical integration	Describe & identify various layers of meninges with its extent & modifications						
AN62.2 Vertical integration	Describe & demonstrate surfaces, sulci, gyri, poles, & functional areas of cerebral hemisphere						
AN62.6 Vertical integration	Describe & identify formation, branches &						 DEAN

al integr- ation	major areas of distribution of circle of Willis						
PY4.9 Vertical integrati on	Discuss the physiology aspects of: peptic ulcer, gastro- oesophageal reflux disease, vomiting, diarrhoea, constipation, Adynamic ileus, Hirschsprung's disease						
PY5.13	Record and interpret normal ECG in a volunteer or simulated environment						
PY5.16	Record Arterial pulse tracing using finger plethysmography in a volunteer or simulated environment						
PY11.1 4 Vertical integrati on	Demonstrate Basic Life Support in a simulated environment						
PY6.8 Vertical Integrati on	Demonstrate the correct technique to perform & interpret Spirometry						
BI11.4 Vertical integrati on	Perform urine analysis to estimate and determine normal and abnormal constituents						
BI1.26 Vertical integrati on	Calculate albumin: globulin (AG) ratio and creatinine clearance						
BI1.27 Vertical integrati on	Calculate energy content of different food items, identify food items with high and low glycemic index and explain the importance of these in the diet						
PA13.5	Perform, Identify and describe the peripheral						 DEAN

	blood picture in anemia						
PA14.3 Vertical integration	Identify and describe the peripheral smear in microcytic anemia						
PA21.3	Differentiate platelet from clotting disorders based on the clinical and hematologic features						
PA24.3	Describe and identify the microscopic features of peptic ulcer						
PA25.6	Interpret a liver function and viral hepatitis serology panel. Distinguish obstructive from non obstructive jaundice based on clinical features and liver function tests						
PA27.8	Interpret abnormalities in cardiac function testing in acute coronary syndromes						
PA35.3 Vertical integration	Identify the etiology of meningitis based on given CSF parameters						
MI2.3	Identify the microbial agents causing Rheumatic heart disease & infective Endocarditis						
MI2.6	Identify the causative agent of malaria and filariasis						
MI3.2	Identify the common etiologic agents of diarrhea and dysentery						
MI5.3	Identify the microbial agents causing meningitis						

  
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MI6.2	Identify the common etiologic agents of upper respiratory tract infections (Gram Stain)						
MI6.3	Identify the common etiologic agents of lower respiratory tract infections (Gram Stain & Acid fast stain).						
PH1.12	Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction						
PH2.4	Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations						
PH3.1	Write a rational, correct and legible generic prescription for a given condition and communicate the same to the patient						
PH3.3	Perform a critical evaluation of the drug promotional literature						
PH3.5	To prepare and explain a list of P-drugs for a given case/condition						
PH5.1	Communicate with the patient with empathy and ethics on all aspects of drug use						
PH5.4	Explain to the patient the relationship between cost of treatment and patient compliance						
CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of						 DEAN

	individuals, families and the community by using the appropriate method						
CM5.4	Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment						
CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data						
CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs						
CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion						
CM7.4	Define, calculate and interpret morbidity and mortality indicators based on given set of data						
CM7.6	Enumerate and evaluate the need of screening tests						
CM7.7	Describe and demonstrate the steps in the investigation of an epidemic of communicable disease and describe the principles of control measures.						

  
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FM14.2	Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico-legal report in a simulated/supervised environment						
FM14.3	Assist and demonstrate the proper technique in collecting, preserving and dispatch of the exhibits in a suspected case of poisoning, along with clinical examination .						
DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination						
DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations						
DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted diseases						
DR10.7	Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)						
DR11.2	Identify and distinguish the dermatologic manifestations of HIV its complications, opportunistic infections and adverse reactions						
DR12.7	Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions						
DR16.1	Identify and distinguish skin lesions of SLE						

  
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DR16.2	Identify and distinguish Raynaud's phenomenon						
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency						
AS2.1 Vertical integration	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates						
AS2.2	Enumerate the indications, describe the steps and demonstrate in a simulated environment advanced life support in adults and children						
AS3.2 Horizontal integration	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation						
AS3.3 Horizontal integration	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery						
AS3.4 Horizontal integration	Choose and interpret appropriate testing for patients undergoing Surgery						
AS3.5 Horizontal integration	Determine the readiness for General Surgery in a patient based on the preoperative evaluation						
PS4.2 Horizontal integration	Elicit, describe and document clinical features of alcohol and substance use disorders						


  
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PS4.3 Horizontal integration	Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse disorders						
PS10.2 Horizontal integration	Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders						
PS10.3 Horizontal integration	Enumerate and describe the indications and interpret laboratory and other tests used in somatoform, dissociative and conversion disorders						
PS12.2 Horizontal integration	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders						
PS12.3 Horizontal integration	Enumerate and describe the indications and interpret laboratory and other tests of psychosomatic disorders						
PS16.4 Horizontal integration	Demonstrate family education in a patient with psychiatric disorders occurring in the elderly in a simulated environment						
PE32.3 Horizontal integration	Interpret normal Karyotype and recognize Trisomy 21						
PE28.20	Counsel the child with asthma on the correct use of inhalers in a simulated environment						
PE34.5	Able to elicit, document and present history of contact with tuberculosis in every patient						 DEAN

	encounter						
PE34.6	Identify a BCG scar						
PE34.7	Interpret a Mantoux test						
PE34.8	Interpret a Chest Radiograph						
PE34.9	Interpret blood tests in the context of laboratory evidence for tuberculosis						
PE34.11	Perform AFB staining						
PE28.19	Describe the etio-pathogenesis, clinical features, diagnosis, management and prevention of asthma in children						
PM4.5 Horizontal integration	Demonstrate correct assessment of muscle strength and range of movements						
PM6.1 Horizontal integration	Perform and demonstrate a clinical examination of sensory and motor deficits of peripheral nerve						
CT1.5	Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations						
CT1.6	Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a) general examination, b) examination of						





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	the chest and lung including loss of volume, mediastinal shift, percussion and auscultation (including DOAP session of lung sounds and added sounds) c) examination of the lymphatic system and d) relevant CNS examination						
CTI.7	Perform and interpret a PPD (mantoux) and describe and discuss the indications and pitfalls of the test						
CTI.10	Perform and interpret an AFB stain						
CTI.11	Assist in the performance, outline the correct tests that require to be performed and interpret the results of a pleural fluid aspiration						
CTI.15	Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and co- morbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS)						
CTI.17	Define criteria for the cure of Tuberculosis; describe and recognise the features of drug resistant tuberculosis, prevention and therapeutic regimens						
CTI.18	Educate health care workers on National Program of Tuberculosis and administering and monitoring the DOTS program						
CTI.19	Communicate with patients and family in an empathetic manner about the diagnosis, therapy						 DEAN

CT2.8	Elicit document and present a medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants						
CT2.10	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology						
CT2.11	Describe, discuss and interpret pulmonary function tests						
CT2.12	Perform and interpret peak expiratory flow rate						
CT2.13	Describe the appropriate diagnostic work up based on the presumed aetiology						
CT2.14	Enumerate the indications for and interpret the results of pulse oximetry, ABG, Chest Radiograph						
CT2.15	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology						
CT2.18	Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids						
CT2.19	Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, antimicrobial therapy						
CT2.21	Describe discuss and counsel patients appropriately on smoking cessation						
CT2.22	Demonstrate and counsel patient on the correct use of inhalers						

  
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CT2.23	Communicate diagnosis treatment plan and subsequent follow up plan to patients						
CT2.9	Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation pleural effusion and pneumothorax						
DR5.2	Identify and differentiate scabies from other lesions						
DR6.2	Identify and differentiate pediculosis from other skin lesions						
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency						
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates						
PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence						
PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment						
PS15.3	Elicit and document a history and clinical examination and choose appropriate						 DEAN

	investigations in a patient with mental retardation						
OG18.2	Demonstrate the steps of neonatal resuscitation in a simulated environment						
PM3.4	Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy						
PS1.1	Establish rapport and empathy with patients						
PS1.3	Demonstrate breaking of bad news in a simulated environment						
PS1.4	Describe and demonstrate the importance of confidentiality in patient encounters						
PS3.3	Elicit, present and document a history in patients presenting with a mental disorder						
PS3.4	Describe the importance of establishing rapport with patients						
PS3.5	Perform, demonstrate and document a minimal examination						
PS3.9	Describe the steps and demonstrate in a simulated environment family education in patients with organic psychiatric disorders						
PS4.2	Elicit, describe and document clinical features of alcohol and substance use disorders						
PS4.3	Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse						 DEAN

	disorders						
PS4.5	Demonstrate family education in a patient with alcohol and substance abuse in a simulated environment						
PS5.2	Enumerate, elicit, describe and document clinical features, positive s						
PS5.4	Demonstrate family education in a patient with schizophrenia in a simulated environment						
PS6.2	Enumerate, elicit, describe and document clinical features in patients with depression						
PS6.3	Enumerate and describe the indications and interpret laboratory and other tests used in depression						
PS6.5	Demonstrate family education in a patient with depression in a simulated environment						
PS7.2	Enumerate, elicit, describe and document clinical features in patients with bipolar disorders						
PS7.3	Enumerate and describe the indications and interpret laboratory and other tests used in bipolar disorders						
PS7.5	Demonstrate family education in a patient with bipolar disorders in a simulated environment						

  
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PS8.2	Enumerate, elicit, describe and document clinical features in patients with anxiety disorders						
PS8.3	Enumerate and describe the indications and interpret laboratory and other tests used in anxiety disorders						
PS8.5	Demonstrate family education in a patient with anxiety disorders in a simulated environment						
PS9.2	Enumerate, elicit, describe and document clinical features in patients with stress related disorders						
PS9.3	Enumerate and describe the indications and interpret laboratory and other tests used in stress related disorders						
PS9.5	Demonstrate family education in a patient with stress related disorders in a simulated environment						
PS10.2	Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders						
PS10.3	Enumerate and describe the indications and interpret laboratory and other tests used in somatoform, dissociative and conversion disorders						
PS10.5	Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a						 DEAN

	simulated environment						
PS11.2	Enumerate, elicit, describe and document clinical features in patients with personality disorders						
PS11.3	Enumerate and describe the indications and interpret laboratory and other tests used in personality disorders						
PS11.5	Demonstrate family education in a patient with personality disorders in a simulated environment						
PS12.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders						
PS12.3	Enumerate and describe the indications and interpret laboratory and other tests of psychosomatic disorders						
PS12.5	Demonstrate family education in a patient with psychosomatic disorders in a simulated environment						
PS13.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosexual and gender identity disorders						
PS13.3	Enumerate and describe the indications and interpret laboratory and other tests used in psychosexual and gender identity disorders						



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PS13.5	Demonstrate family education in a patient with psychosexual and gender identity disorders in a simulated environment						
PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence						
PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment						
PS15.3	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation						
PS16.4	Demonstrate family education in a patient with psychiatric disorders occurring in the elderly in a simulated environment						
PH5.6	Demonstrate ability to educate public & patients about various aspects of drug use including drug dependence and OTC drugs.						
IM17.1 4	Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy						
IM24.2	Perform multidimensional geriatric assessment that includes medical.						 DEAN

	psycho-social and functional components						
DR1.2	Identify and grade the various common types of acne						
DR3.1	Identify and distinguish psoriatic lesions from other causes						
DR3.2	Demonstrate the grattage test						
DR4.1	Identify and distinguish lichen planus lesions from other causes						
DR5.2	Identify and differentiate scabies from other lesions in adults and children						
DR6.2	Identify and differentiate pediculosis from other skin lesions in adults and children						
DR7.2	Identify Candida species in fungal scrapings and KOH mount						
DR8.2	Identify and distinguish herpes simplex and herpes labialis from other skin lesions						
DR8.3	Identify and distinguish herpes zoster and varicella from other skin lesions						
DR8.4	Identify and distinguish viral warts from other skin lesions						
DR8.5	Identify and distinguish molluscum contagiosum from other skin lesions						
DR8.6	Enumerate the indications, describe the procedure and perform a Tzanck smear						
DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an						 DEAN

	appropriate neurologic examination						
DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations						
DR10.2	Identify spirochete in a dark ground microscopy						
DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted disease						

### General Medicine

Subject: General Medicine

Third Year MBBS

Sub Item: Theory lectures/ Clinical postings/Tutorials/seminars/self directed learning/ Electives

### Final Summary

Sr. No	Description	Dates		Attendance percentage	Status Complete/ Incomplete	Signature Teacher	of
		From	To				
1	Theory lectures						
2	Clinical postings						
3	AETCOM Module						
4	Electives						
5	Vertical Integraon						

  
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6	Extracurricular activities					
7	Sports /Physical Education					



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## Internal Assessment

**Subject: General surgery and allied including Orthopedics**

**Applicable for batches admitted from 2019 and onwards**

Phase	IA – 1 -Exam			IA – 2 -Exam		
	Theory General Surgery Only (January)	Practical EOP	Total Marks	Theory General Surgery Only (May)	Practical of Allied EOP	Total Marks
Second MBBS	50	50	100	50	Orthopedics = 25	100
					Radiodiagnosis = 25	

Phase	IA – 3 -Exam			IA – 4 -Exam		
	Theory General Surgery + allied (January)	Practical EOP	Total Marks	Theory General Surgery + allied (April)	Practical of Allied EOP	Total Marks
III MBBS Part I	50	50	100	50	Orthopaedics =25	100
					Anaesthesia =25	

Phase	IA – 5 - Exam			Prelim Exam (As per university pattern)		
	Theory Gen Surgery + Allied (May)	Practical End of 8 Weeks posting	Total Marks	Theory (November)	Practical (November)	Total Marks
III MBBS Part II	100	100	200	100 x 2 papers = 200	200	400

(There will be FORMATIVE ASSESSMENT at the End of four weeks Clinical Posting of General Surgery NOT to be added to INTERNAL ASSESSMENT).

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**Assessment in CBME is ONGOING PRCESS,**

**No Preparatory leave is permitted.**

1. There shall be 6 internal assessment examinations in General Surgery including allied.
2. The suggested pattern of question paper for internal assessment internal examinations, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 50 (theory) +50 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University.
4. **Conversion Formula for calculation of marks in internal assessment examinations**

	<b>Theory</b>	<b>Practical</b>
Phase II	100	100
Phase III/I	100	100
Phase III/II	300	300
<b>Total</b>	<b>500</b>	<b>500</b>
<b>Conversion out of</b>	<b>50</b>	<b>50</b>
<b>Conversion formula</b>	<b>Total marks in 6 IA theory examinations /10</b>	<b>Total marks in 6 IA Practical examinations /10</b>
<b>Eligibility criteria after conversion</b>	<b>20</b>	<b>20</b>
	<b>Combined theory + Practical = 50</b>	



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5. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
33.01 to 33.49	33
33.50 to 33.99	34

6. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
7. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

8. Remedial measures

A. Remedial measures for non-eligible students

- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically. Extra classes for such students may be conducted, if needed.
- ii) If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students.
- iii) Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iv) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. Extra classes for such students may be conducted for such students. The pattern for this repeat internal assessment examination shall be similar to the final University examination. Only the marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.



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	Theory	Practical
Remedial examination (as per final examination)	200	200
Conversion out of	50	50
Conversion formula	Marks in remedial theory examinations /4	Marks in remedial Practical examinations /4
Eligibility criteria after conversion	20	20
	<b>Combined theory + Practical = 50</b>	

**B. Remedial measures for absent students:**

- i. If any of the students is absent for any of the 6 IA examinations due to any reasons, following measures shall be taken.
- ii. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- iii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iv. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator of 500.




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**Internal Assessment Practical Examinations**  
**II MBBS**  
**Internal Assessment - 1**  
**General Surgery**

Clinical A (30)			OSCE & Viva B (20)		Grand Total A + B = 50
Long Case	Demonstration of clinical signs	Communication skills	OSCE & Table viva (20)		
			OSCE of Psychomotor Skills	Table viva [Surgical pathology, X rays, Instruments, Logbook, Journal]	
20	5	5	10	10	50

**Internal Assessment - 2**  
**Orthopaedics and Radiodiagnosis (to be conducted at the end of respective clinical postings)**

Subject: General Surgery Allied Practical (IA – 2)				
<b>Examination in Orthopaedics</b>				
Case	OSCE 1	Viva (Surgical Pathology, Radiology, Instruments and Surgical Procedure, Journal / log book)		Practical Total
10	5	10		25
Subject: General Surgery Allied Practical (IA – 2)				
<b>Examination in Radiodiagnosis</b>				
X-Ray and other diagnostic modalities - Basics	Viva (Knowledge of legal aspects, radiation protection etc)		Journal / log book	Practical Total
15	5		5	25
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\* The marks for internal assessment – 2 shall be communicated by orthopedics / Radiology department to General Surgery department immediately after completion of examination and assessment.

### III MBBS Part I

#### Internal Assessment - 3

#### General Surgery

Clinical A (30)			OSCE & Viva B (20)		Grand Total A + B = 50
Long Case	Demonstration of clinical signs	Communication skills	OSCE & Table viva		
			OSCE of Psychomotor Skills	Table viva [Surgical pathology, X rays, Instruments, Logbook, Journal]	
20	5	5	10	10	50

#### Internal Assessment - 4

#### Orthopaedics and Anaesthesia

Subject: General Surgery Allied Practical (IA – 2)


#### Examination in Orthopaedics

Case	OSCE 1	Viva (Surgical Pathology, Radiology, Instruments and Surgical Procedure, Journal / log book)	Practical Total
10	5	10	25

Subject: General Surgery Allied Practical (IA – 2)

#### Examination in Anesthesia

OSCE	Drugs, Instruments	Viva	Practical Total
10	8	7	

  
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\* The marks for Internal assessment – 4 shall be communicated by orthopedics / Anaesthesia department to General Surgery department immediately after completion of examination and assessment.

### III MBBS Part II

#### Internal Assessment - 5

#### General Surgery

Clinical A (60)			OSCE & Viva B (40)		Grand Total A +B= 100
Long Case	Demonstration of clinical signs	Communication skills	OSCE & Table viva (40)		
			OSCE of Psychomotor Skills	Table viva [Surgical pathology, X rays, Instruments, Logbook, Journal]	
40	10	10	20	20	100



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## MUHS final practical examination

### General Surgery

Seat No.	Long Case General Surgery including communication skill (60)		Short Case 1 General Surgery (30)		Short Case 2 Ortho (30)		General Surgery (60) OSCE # & Table viva			Ort ho (20)	Grand Total
	Long case	Communication skills *	Short case	Clinical signs demo	Short case	Clinical signs demo	Instruments +Procedure+ Log book	X rays + Surgical Pathology +Journal	OSCE (10) + Table (10)		
	50	10	20	10	20	10	20	20	20	20	200

# OSCE Stations may include General examinations, Local examinations, psychomotor skills, Communication skills, AETCOM etc.

\*Communication skills to be assessed by Kalamazoo Consensus, clinical signs to be assessed by either GLOBAL Rating Scale or OSCE, Psychomotor Skills to be assessed by OSCE with checklist. If the skills are small, 2 or 3 skills may be combined.



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MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK  
Format / Skeleton of question paper for 1<sup>st</sup> & 2<sup>nd</sup> internal

**Assessment Theory Examinations.**

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **one mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (10Marks)**

1. Multiple Choice Questions (Total -10 MCQ of One mark each from General surgery) (1x10=10 )
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)

- 1) Use **blue/black** ball point pen only
  - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- Instructions:**
- 3) **All questions are compulsory**.
  - 4) The number to the **right** indicates **full marks**.
  - 5) Draw diagrams **wherever** necessary

2. Long Answer Question (Any 2 out of 3) (General surgery) (2 x 10 = 20 )

a)   b)   c)

3. Short answer questions (Any 4 out of 5) (At least 2 Clinical reasoning question ) (General surgery) (4 x 5 = 20 )

a)   b)   c)   d)   e)



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Tal. Chitambur, Dist. Patnagar

**Format / Skeleton of question paper for 3<sup>rd</sup> and 4<sup>th</sup> internal  
Assessment Theory Examinations (III MBBS Part I)**

<b>Instructions:</b>	<b>SECTION "A" MCQ</b>
	5) Put <input type="checkbox"/> in the appropriate box below the question number once only.
	6) Use blue ball point pen only.
	7) Each question carries <b>One mark</b> .
	8) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.
	<b>SECTION "A" MCQ (10Marks)</b>
1. Multiple Choice Questions (Total -10 MCQ of One mark each from General surgery)	(1x10=10)
a)   b)   c)   d)   e)   f)   g)   h)   i)   j)	

<b>Instructions:</b>	1) Use <b>blue/black</b> ball point pen only.
	2) <b>Do not</b> write anything on the <b>blank portion of the question paper</b> . If written anything, such type of act will be considered as an attempt to resort to unfair means.
	3) <b>All questions are compulsory</b> .
	4) The number to the <b>right</b> indicates <b>full marks</b> .
	5) Draw diagrams <b>wherever</b> necessary
2. Long Answer Question (Any 2 out of 3) (General surgery)	(2 x 10 = 20)
b)   b)   c)	
3. Short answer questions (1 from AETCOM) (General surgery)	(2 x 5 = 10)
a)   b)	
4. Short answer questions (Any 2 out of 3) (At least 2 Clinical reasoning question) (Orthopaedics)	(2 x 5 = 10)
a)   b)   c)	

Separate answer sheet for question 4 (SAQ from orthopaedics) may be used for the ease of evaluation.

  
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# Format / Skeleton of question paper 5<sup>th</sup> internal assessment

## Theory Examinations (III MBBS Part II)

### Instructions:

- SECTION "A" MCQ**
- 9) Put  in the appropriate box below the question number once only.
  - 10) Use blue ball point pen only
  - 11) Each question carries **One mark**.
  - 12) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

### SECTION "A" MCQ (20Marks)

1. Multiple Choice Questions (Total-20MCQ of One mark each - 15 General surgery, 2 orthopaedics, 1 anesthesia, 1 dentistry and 1 radiology) (1 x 20=20)
- a) b) c) d) e) f) g) h) i) j)
- k) l) m) n) o) p) q) r) s) t)

### SECTION "B" & "C"

- Instructions:**
- 1) Use **blue/black** ball point pen only
  - 2) **Do not** write anything on the **blank portion of the question paper** if written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory**
  - 4) The number to the **right** indicates **full marks**
  - 5) Draw diagrams **wherever necessary**.

### SECTION "B"

2. Long Answer Questions (Structured Case Based) (General Surgery) (1x15=15)
- a) b)
3. Short Answer Questions (Any 3 out of 4) (Any one should be Clinical reasoning). 1 from AETCOM (General Surgery) (3x5=15)
- a) b) c) d)

### SECTION "C"

4. Short Answer Questions (1 Orthopaedics, 1 Anesthesia, 1 Dentistry or Radiodiagnosis) (4 x 5=20)
- a) b) c) d)
5. Long Answer Question (Structured Case Based) (Orthopaedics) (1 x 15=15)
- a)

Separate answer sheet for question 5 (LAQ from orthopaedics) may be used for the ease of evaluation.

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**Format / Skeleton of question paper for University  
Theory Examinations (III MBBS Part II) Paper – I  
(Subject names to be removed)**

**Instructions:**

**SECTION "A" MCQ**

- 13) Put  in the appropriate box below the question number once only.
- 14) Use blue ball point pen only.
- 15) Each question carries **One mark**.
- 16) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20Marks)**

1. Multiple Choice Questions (Total-20MCQ of One mark each) – (General surgery) (1 x20=20)
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)
- k)   l)   m)   n)   o)   p)   q)   r)   s)   t)

**SECTION "B" & "C"**

- Instructions:**
- 1) Use **blue/black** ball point pen only.
  - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All questions are compulsory**
  - 4) The number to the **right** indicates **full marks**.
  - 5) Draw diagrams **wherever** necessary

**SECTION "B"**

2. Long Answer Questions (Structured Case Based ) (General Surgery) (2x15=30)
- a)   b)
- 3.Short Answer Questions (Any one should be Clinical reasoning, 1 from AETCOM) (General Surgery) (3x5=15)
- a)   b)   c)

**SECTION "C"**

4. Long Answer Question (Structured Case Based ) (General Surgery) (1 x15=15)
- a)
- 3.Short Answer Questions (General Surgery) (Any 4 out of 5) (4 x5=20)
- a)   b)   c)   d)   e)

  
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**Format / Skeleton of question paper for University  
Theory Examinations (III MBBS Part II) Paper II  
(Subject names to be removed)**

**Instructions:**

**SECTION "A" MCQ**

- 17) Put  in the appropriate box below the question number once only.
- 18) Use blue ball point pen only
- 19) Each question carries **One mark**.
- 20) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked

**SECTION "A" MCQ (20Marks)**

1. Multiple Choice Questions [Total-20MCQ of One mark each - 15 General surgery, 2 orthopedics, 1 anesthesia, 1 dentistry and 1 radiology] (1 x 20 = 20)
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)
- k)   l)   m)   n)   o)   p)   q)   r)   s)   t)

**SECTION "B" & "C"**

**Instructions**

- 1) Use **blue/black** ball point pen only
- 2) **Do not** write anything on the **blank portion of the question paper** if written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory.**
- 4) The number to the **right** indicates **full marks**.
- 5) Draw diagrams **wherever** necessary.

**SECTION "B"**

2. Long Answer Questions (Structured Case Based) (General Surgery) (1 x 15 = 30)
- a)   b)
3. Short Answer Questions (any 5 out of 6) (1 Gen. Surgery, 2 Radiodiagnosis, 2 Anesthesia, 1 Dentistry) (5 x 5 = 25)
- a)   b)   c)   d)   e)   f)

**SECTION "C"**

4. Long Answer Question (Structured Case Based) (Orthopedics) (1 x 15 = 15)
- a)
3. Short Answer Questions (Any 2 out of 3) (Orthopedics) (2 x 5 = 10)
- a)   b)   c)

  
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S.K.L. Walawalkar Pimpri Medical College  
A. K. Sasawadi, Pimpri, Barambe  
Tal. Chiplun, Dist. Ratnagiri

Paper wise distribution of topics for Prelim & MUHS Annual Examination

Year: III-II MBBS Subject: General Surgery and allied

Paper	Section	Topics
I	A	MCCQs on all topics of paper I of Surgery
	B	Metabolic response to injury, Shock, Blood and blood components, Burns, Wound healing and wound care, Surgical infections, Surgical Audit and Research, Nutrition and fluid therapy, Transplantation, Biohazard disposal, Trauma, Skin and subcutaneous tissue, Developmental anomalies of face, mouth and jaws, Oropharyngeal cancer, Disorders of salivary glands, Endocrine General Surgery, Thyroid and parathyroid, Adrenal glands, Breast, Vascular diseases, Ethics & AETCOM ( module 4, 3, 4, 5, 4, 6)
	C	Abdomen- including Hernia, Peritoneum, GIT tract including esophagus, stomach, small intestine, colon, rectum and anal canal, Liver, Spleen, Pancreas, Biliary tract, Minimally invasive Surgery, Pediatric surgery
II	A	MCCQs on all topics of the paper II including orthopaedics, anaesthesia, radiology, radiotherapy and dentistry.
	B	Cardio-thoracic - Chest - Heart and Lungs, Urinary System- Kidney, ureter and urinary bladder, Penis, Testis and scrotum, Plastic surgery, Oncology, Investigation of surgical patient, Pre, intra and post-operative management, Radiology, Radiotherapy, Anesthesia and pain management, Dentistry
	C	Orthopedics

  
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B.K. Jaisankar Rural Medical College  
Akshaynagar, Post, Solapur  
Tal. Chitambar, Dist. Parbhani

# ANNEXURE 1

Paper wise distribution of topics for Prelim & MUHS Annual Examination  
 Year: III-II MBBS Subject: General Surgery and allied

Paper	Section	Topics
I	A	MCQs on all topics of paper I of Surgery
	B	Metabolic response to injury, Shock, Blood and blood components, Burns, Wound healing and wound care, Surgical infections, Surgical Audit and Research, Nutrition and fluid therapy, Transplantation, Biohazard disposal, Trauma, Skin and subcutaneous tissue, Developmental anomalies of face, mouth and jaws, Oropharyngeal cancer, Disorders of salivary glands, Endocrine General Surgery, Thyroid and parathyroid, Adrenal glands, Breast, Vascular diseases, Ethics & AETCOM( module 4,3,4,5,4,6)
	C	Abdomen- including Hernia, Peritoneum, GIT tract including esophagus, stomach, small intestine, colon, rectum and anal canal, Liver, Spleen, Pancreas, Biliary tract, Minimally invasive Surgery, Pediatric surgery
II	A	MCQs on all topics of the paper II including orthopaedics, anaesthesia, radiology and dentistry.
	B	Cardio-thoracic - Chest - Heart and Lungs, Urinary System- Kidney, ureter and urinary bladder, Penis, Testis and scrotum, Plastic surgery, Oncology, Investigation of surgical patient, Pre, intra and post-operative pain management management and Anesthesia, Radiology,
	C	Orthopedics,

  
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B.K.L. Walmikar Rural Medical College  
 At, Nasarwad, P.D. Samard  
 Tal. Chiplun, Dist. Ratnagur

## Internal Assessment

### Obst. & Gynaec.

Applicable w.e.f August 2019 onwards examination for batches admitted  
from June 2019 onwards

Phase	IA – 1 -Exam			IA – 2 -Exam		
	Theory (January)	Practical EOP	Total Marks	Theory (May)	Practical	Total Marks
Second MBBS	50	50	100	50	50	100

Phase	IA – 3 Exam			IA – 4 - Exam		
	Theory (January)	Practical EOP	Total Marks	Theory (April)	Practical	Total Marks
Third MBBS Part I	50	50	100	50	50	100

Phase	IA – 5 - Exam			Prelim Examination		
	Theory (May)	Practical EOP (after 8 weeks posting)	Total Marks	Theory (November)	Practical	Total Marks
Third MBBS Part I	100	100	200	100 x 2 papers = 200	200	400

  
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**Internal Assessment Practical Examinations  
II MBBS**

**Internal Assessment - 1**

**OBGY**

<b>Subject: OBGY Practical (IA - 1)</b>					
Spotting	OSCE 1	OSCE 2	Viva	Journal & log book	Practical Total
10	10	10	10	10	50

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills.

<b>Subject: OBGY Practical (IA - 2)</b>					
<b>Long Case</b>					
History	Examination	Investigation	Treatment	AETCOM	Practical Total
10	10	10	10	10	50

<b>Subject: OBGY Practical (IA - 3)</b>					
Spotting	OSCE 1	OSCE 2	Viva	Journal & log book	Practical Total
10	10	10	10	10	50

# OSCE: Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills.

  
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<b>Subject: OBGY Practical (IA – 4)</b>					
<b>Long Case</b>					
History	Examination	Investigation	Treatment	AETCOM	Practical Total
10	10	10	10	10	50

<b>Subject: OBGY Practical (IA –5)</b>				
Long Case (Obstetrics)	Gynaecology Case	Family Planning	Journal & log book	Practical Total
50	20	20	10	100

<b>Subject: OBGY Practical (Prelim)</b>								
ANC Case	Gynaecology Case	PNC / Post – Op Case	Family Planning Viva	Obstetrics Table Viva	Gynaec Table Viva	Spotting (2 x 10 spots)	Journal & log book	Practical Total
50	25	20	25	20	20	20	20	200

<b>Subject: OBGY Practical (MUHS Final)</b>							
ANC Case	Gynaecology Case (Diagnosis and discussion)	PNC / Post – Op Case (Diagnosis and discussion)	Family Planning Viva	Obstetrics Table Viva	Gynaec Table Viva	Spotting (4 x 10 spots)	Practical Total
50 *	25	20	25	20	20	40	200

\* 10 marks each for history, examination, AETCOM, investigation & treatment.

  
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**Assessment in CBME is ONGOING PROCESS,**

**No Preparatory leave is permitted.**

1. There shall be 6 internal assessment examinations in OBGY.
2. The suggested pattern of question paper for internal assessment, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 50 (theory) +50 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

	<b>Theory</b>	<b>Practical</b>
<b>Phase II</b>	<b>100</b>	<b>100</b>
<b>Phase III/I</b>	<b>100</b>	<b>100</b>
<b>Phase III/II</b>	<b>300</b>	<b>300</b>
<b>Total</b>	<b>500</b>	<b>500</b>
<b>Conversion out of</b>	<b>50</b>	<b>50</b>
<b>Conversion formula</b>	<b>Total marks in 6 IA theory examinations /10</b>	<b>Total marks in 6 IA Practical examinations /10</b>
<b>Eligibility criteria after conversion</b>	<b>20</b>	<b>20</b>
	<b>Combined theory + Practical = 50</b>	

4. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

<b>Total Internal Assessment Marks</b>	<b>Final rounded marks</b>
33.01 to 33.49	33
33.50 to 33.99	34



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5. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
6. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

7. **Remedial measures**

**A. Remedial measures for non-eligible students**

- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically.
- ii) Extra classes for such students may be arranged. If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. Only the marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.

	<b>Theory</b>	<b>Practical</b>
<b>Remedial examination (as per final examination pattern)</b>	<b>200</b>	<b>200</b>
<b>Conversion out of</b>	<b>50</b>	<b>50</b>
<b>Conversion formula</b>	<b>Marks in remedial theory examinations /4</b>	<b>Marks in remedial Practical examinations /4</b>
<b>Eligibility criteria after conversion</b>	<b>20</b>	<b>20</b>
	<b>Combined theory + Practical = 50</b>	



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**B. Remedial measures for absent students:**

- i. If any of the students is absent for any of the 6 IA examinations due to any reasons, following measures shall be taken.
- ii. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- iii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iv. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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Tal, Chiplun, Dist, Ratnagur

**Format for Internal Assessment  
Theory Examination  
IA – 1, IA – 2, IA – 3 & IA - 4**

Question No.	Type of Question	No. of Questions (no. To be solved)	Max. Marks
1.	MCQ	10	10 (1 marks each)
2.	SAQ	6 (Any 5 out of 6)	25 (5 marks for each question x 5 questions)
3.	LAQ	1 (Compulsory)	15
		Total	50

**Format for Internal Assessment  
Theory Examination IA - 5**

Question No.	Section	Type of Question	No. of Questions	Max. Marks
1.	A	MCQ	20	20 (1 marks each)
2.	B	LAQ	4 (Any 3 out of 4)	45 (15 marks for each question x 3 LAQ )
3.	C	SAQ	7 (Any 6 out of 7)	30 (5 marks for each question x 6 SAQ)
4.	C	SAQ	1 question from AETCOM	5
			Total	100

  
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Tal. Chiplun, Dist. Ratnagur

## Format for MUHS Final Theory Examination Paper I & II

Question No.	Section	Type of Question	No. of Questions	Max. Marks
1.	A	MCQ	20	20 (1 marks each)
2.	B	LAQ	4 (Any 3 out of 4)	45 (15 marks for each question x 3 LAQ )
3.	C	SAQ	7 (Any 6 out of 7)	30 (5 marks for each question x 6 SAQ)
4.	C	SAQ	1 question from AETCOM	5
			Total	100



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Tal, Chiplun, Dist, Ratnagur

## Internal Assessment

### Subject – Ophthalmology

Applicable w.e.f batches admitted from 2019 and onwards

Phase	Assessment	
	Theory	Practical
Second MBBS	-	EOP Practical Examination may be conducted. However, these marks shall not be added to the Internal Assessment.

3 <sup>rd</sup> Year (III MBBS, PART I)						
Phase	I-Exam (March)			II-Exam Prelim (August)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
III/I MBBS	50	50	100	100	100	200

**Assessment in CBME is ONGOING PROCESS,**

**No Preparatory leave is permitted.**

1. There shall be 2 internal assessment examinations in Ophthalmology including Prelim.
2. The suggested pattern of question paper for internal assessment internal examinations, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 25 (theory) + 25 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

  
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	Theory	Practical
Phase II	-	-
Phase III/I	150	150
Total	150	150
Conversion out of	25	25
Conversion formula	Total marks in 2 IA theory examinations /6	Total marks in 2 IA Practical examinations /6
Eligibility criteria after conversion	10	10
	<b>Combined theory + Practical = 25</b>	

1. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

2. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
3. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.
4. Remedial measures

#### A. Remedial measures for non-eligible students



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- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically. Extra classes for such students may be arranged.
- ii) If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. The marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.

	Theory	Practical
Remedial examination	100	100
Conversion out of	25	25
Conversion formula	Marks in remedial theory examinations /4	Marks in remedial Practical examinations /4
Eligibility criteria after conversion	10	10
	<b>Combined theory + Practical = 25</b>	

#### **B. Remedial measures for absent students:**

If any of the students is absent for any of the 2 IA examinations due to any reasons, following measures shall be taken.

- i. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.

  
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- ii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iii. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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## Format for Practical Examinations

### Ophthalmology

#### Internal Assessment Practical

Seat No.	Long case including communication skills	OSCE (2 stations of 5 marks each)	Viva including Dark room instruments, Operative instruments	Log book and Journal viva	Practical Total
Max Marks	20	10	10	10	50

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills., history taking of a particular symptom.

#### Prelims and MUHS Final Practical

Seat No.	Long case including communication skills	OSCE (4 stations)	Log book and Journal viva	Dark room instruments	Operative instruments	Practical & Oral
Max. Marks	50	20	10	10	10	100

\*Communication skills to be assessed by Kalamazoo Consensus, clinical signs to be assessed by either GLOBAL Rating Scale or OSCE, Psychomotor Skills to be assessed by OSCE with checklist. If the skills are small, 2 or 3 skills may be combined.



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## Internal Assessment Theory Examination (I)

### Ophthalmology

**Instructions:**

**SECTION "A" MCQ**

- 1) Put  in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **One mark**.
- 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (10 Marks)**

1. Multiple Choice Questions (Total 10 MCQ of One mark each) (1 x 10 = 10)
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)

**Instructions:**

- 1) Use **blue/black** ball point pen only.
- 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All questions are compulsory**.
- 4) The number to the right indicates **full marks**.
- 5) Draw diagrams **wherever necessary**.
- 6) Use a common answer book for all sections.

**SECTION "B" (40 Marks)**

2. Long Answer Questions - structured clinical questions (15 x 1 = 15)
- a) (5 x 3 = 15)
3. Short Answer Questions (Any 5 out of 6), (including 1 on A+T/DM)
- a)   b)   c)   d)   e)   f)



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# MUHS Final Theory Examination

## Ophthalmology

### MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK FORMAT / SKELETON OF QUESTION PAPER

**Instructions:**

- SECTION "A" MCQ**
- 5) Put  in the appropriate box below the question number once only
  - 6) Use blue ball point pen only
  - 7) Each question carries **One mark**.
  - 8) Students will not be allowed mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (1x20=20)
- a)    b)    c)    d)    e)    f)    g)    h)    i)    j)
- k)    l)    m)    n)    o)    p)    q)    r)    s)    t)

**SECTION "B" & "C"**

**Instructions**

1. Use blue/black ball point pen only
2. **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
3. **All questions are compulsory**.
4. The number to the right indicates full marks.
5. Draw diagrams **whenever necessary**.
6. Use a common answer book for all sections

**SECTION "B" (40 Marks)**

- 2 Long Answer Questions (Any 2 out of 3) structured clinical questions (15 x 2=30)

a)    b)    c)

- 3.Short Answer Questions (All 3) including 1 on AETCOM (5 x 3=15)

a)    b)    c)

**SECTION "C" (40 Marks)**

- 4 Long answer questions (15x1=15)

a)

- 5 Short answer questions (any 4 out of 5) (Clinical Reasoning) (5x4=20)

a)    b)    c)    d)    e)

  
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## Internal Assessment

### Subject – Pediatrics

Applicable w.e.f October 2020 onwards examination for batches admitted from June 2019 onwards

Phase	Internal Assessment	
	Theory	Practical
Second MBBS	-	EOP Practical Examination may be conducted. However, these marks shall not be added to the Internal Assessment.

3 <sup>rd</sup> Year (III MBBS, PART I)						
Phase	I-Exam (January)			II-Exam (April)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
III/I MBBS	50	50	100	50	50	100

4 <sup>th</sup> Year (III MBBS, PART II)						
Clinical posting- 4 weeks						
Theory- lectures- 20, tutorials- 35, self-directed learning-10. Total 65 hrs						
Phase	III-Exam (May)			IV-Exam (Preliminary examination) (November)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
III/II MBBS	50	50	100	100	100	200



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Tal. Chiplun, Dist. Ratnagur

**Assessment in CBME is ONGOING PROCESS,**

**No Preparatory leave is permitted.**

1. There shall be 4 internal assessment examinations in Pediatrics including Prelim.
2. The suggested pattern of question paper for internal assessment examinations, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 25 (theory) + 25 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University. **Conversion Formula for calculation of marks in internal assessment examinations.**

	Theory	Practical
Phase II	-	-
Phase III/I	100	100
Phase III/II	150	150
Total	250	250
Conversion out of	25	25
Conversion formula	Total marks in 4 IA theory examinations /10	Total marks in 4 IA Practical examinations /10
Eligibility criteria after conversion	10	10
	<b>Combined theory + Practical = 25</b>	



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1. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

2. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
3. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.
4. Remedial measures

**A. Remedial measures for non-eligible students**

- i) At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically. Extra classes for such students may be arranged.
- ii) If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be eligible for final examination.
- iii) Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. The marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.



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Remedial examination	Theory 100	Practical 100
Conversion out of	25	25
Conversion formula	Marks in remedial theory examinations /4	Marks in remedial Practical examinations /4
Eligibility criteria after conversion	10	10
	Combined theory + Practical = 25	

### B. Remedial measures for absent students:

If any of the students is absent for any of the 4 IA examinations due to any reasons, following measures shall be taken.

- i. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- ii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iii. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.



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## Internal Assessment Practical Examinations

### Pediatrics

#### Internal Assessment Practical – I, II and III

Subject: Pediatrics Practical (IA – I, II and III)				
Case	OSCE 1	OSCE 2	Journal & log book	Practical Total marks
20	10	10	10	50

# OSCE Stations to include Signs of General examinations, Local examinations, Psychomotor skills and Communication skills., history taking of a particular symptom; nutrition history, developmental history, immunization history.

#### Prelim Practical

Subject: Pediatrics Practical (Prelims)					
Long Case (Including clinical skills demonstration)	Short Case (Including communication skills)	OSCE (4 stations x 10 marks each)	Viva	Journal & log book	Practical Total marks
25	15	40	10	10	100

OSCE 1 – Clinical Skills , OSCE 2 – Anthropometry assessment, OSCE 3 – Certifiable procedural skills , OSCE 4 – AETCOM related skills

#### MUHS Final Practical

Subject: Pediatrics Practical (Prelims)				
Long Case (Including clinical skills demonstration)	Short Case (Including communication skills)	OSCE (4 stations x 10 marks each)	Viva	Practical Total marks
30	20	40	10	100

OSCE 1 – Clinical Skills , OSCE 2 – Anthropometry assessment, OSCE 3 – Certifiable procedural skills , OSCE 4 – AETCOM related skills

  
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## Internal Assessment Examination (I, II and III) Pediatrics

### Instructions:

- SECTION -A- MCQ**
- 1) Put  in the appropriate box below the question number once only.
  - 2) Use blue ball point pen only.
  - 3) Each question carries **One mark**.
  - 4) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

### SECTION -A- MCQ (10 Marks)

1. Multiple Choice Questions (Total 10 MCQ) of (One mark each)

( 10 x 1 = 10 )

- a) b) c) d) e) f) g) h) i) j)

### SECTION -B & -C

### Instructions:

- 1) Use blue-black ball point pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.
- 6) Use a common answer book for all sections.

### SECTION -B- (20 Marks)

2. Short Answer Questions (Five marks each) (Any 5 out of 6)

(5x5=25)

- a) b) c) d) e) f)

3. Long Answer Questions

(15x1=15)

- a)

  
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## MUHS Final Theory Examination

### Paediatrics

#### MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK FORMAT / SKELETON OF QUESTION PAPER

**Instructions:**

- SECTION "A" MCQ**
- Put  in the appropriate box below the question number once only.
  - Use blue ball point pen only.
  - Each question carries **One mark**.
  - Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

**SECTION "A" MCQ (20 Marks)**

1. Multiple Choice Questions (Total 20 MCQ of One mark each) (1x20=20)
- a)   b)   c)   d)   e)   f)   g)   h)   i)   j)  
k)   l)   m)   n)   o)   p)   q)   r)   s)   t)

**SECTION "B" & "C"**

- Instructions:**
- Use **blue/black** ball point pen only.
  - Do not write anything on the blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - All questions are compulsory**.
  - The number to the right indicates full marks.
  - Draw diagrams **wherever necessary**.
  - Use a common answer book for all sections.

**SECTION "B" (40 Marks)**

- 2 Long Answer Questions (Any 2 out of 3) structured clinical questions (15 x 2=30)
- a)   b)   c)
- 3 Short Answer Questions (All 3), (including 1 on AFTCOM) (15 x 3=45)
- a)   b)   c)

**SECTION C (40 Marks)**

- 4 Long answer questions (15x1=15)
- a)
- 5 Short answer questions (any 4 out of 5) (Clinical Reasoning) (15x4=60)
- a)   b)   c)   d)   e)

  
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**Annexure- 4.**  
**Exam Pattern – Paediatrics**

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**Theory Paper (100 marks)**

- 1. Section A- MCQ:-
- 2. Section B-
- 3. Section C-

**Practical exam (100 marks)**

- Long case-
- Short case/ New born-
- Table viva- (Drugs, Instruments, Nutrition, Vaccines and X-Rays-
- OSCE-

**Internal Assessment:**

- 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University

**University Examination**

- Mandatory 50% marks separately in theory and practical (practical = practical/ clinical + viva)
- 

  
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**Annexure- 5**  
**Distribution of journal marks**  
**Total- 10 marks**

Parameter	Total	Marks	Phase
Long cases	-	-	Phase: II (Second year)
	6 (CNS-2, RS-1, PA-1, CVS-2)	1	Phase: III-I (Third Minor)
	66 (CNS-2, RS-1, PA-1, CVS-2)	1	Phase: III-II (Third Major)
Short cases	3	1/2	Phase: II (Second year)
	3	1/2	Phase: III-I (Third Minor)
	3	1/2	Phase: III-II (Third Major)
Newborns	3	1/2	Phase: II (Second year)
	3	1/2	Phase: III-I (Third Minor)
	3	1/2	Phase: III-II (Third Major)
Emergencies	5	1	Phase: III-I (Third Minor)
Procedures	5	1	Phase: III-II (Third Major)
Vaccines	All vaccines as per Government of India.	1	Phase: III-I
Drugs	10	1	Phase: III-II
Instruments	10	1/2	Phase: III-II
Nutrition	10	1/2	Phase: III-II
<b>Total- 10 marks</b>			

  
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## PEDIATRICS (CODE: PE) IN GENERAL

**Competencies:** The student must demonstrate:

1. Ability to assess and promote optimal growth, development and nutrition of children and adolescents and identify deviations from normal.
2. Ability to recognize and provide emergency and routine ambulatory and First Level Referral Unit care for neonates, infants, children and adolescents and refer as may be appropriate.
3. Ability to perform procedures as indicated for children of all ages in the primary care setting.
4. Ability to recognize children with special needs and refer appropriately.
5. Ability to promote health and prevent diseases in children.
6. Ability to participate in National Programmes related to child health and in conformation with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Strategy.
7. Ability to communicate appropriately and effectively.

**Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for neonates, infants, children and adolescents based on a sound knowledge of growth, development, disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

**Table 1: Time distribution of MBBS Programme & Examination Schedule**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							Foundation Course	I MBBS			
I MBBS								Exam I MBBS	II MBBS		
II MBBS								Exam II MBBS	III MBBS		
III MBBS Part I								Exam III MBBS Part I	Exercises & Skills		
III MBBS Part II											
Exam III MBBS Part II	Internship										
Internship											

\* One month is provided at the end of every professional year for completion of examination and declaration of results.

  
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**Table 2: Distribution of subjects by Professional Phase**

Phase & year of MBBS training	Subjects & New Teaching Elements	Duration#	University examination
First Professional MBBS	<ul style="list-style-type: none"> <li>Foundation Course (1 month)</li> <li>Human Anatomy, Physiology &amp; Biochemistry, introduction to Community Medicine, Humanities</li> <li>Early Clinical Exposure</li> </ul>	1 + 13 months	I Professional
Second Professional MBBS	<ul style="list-style-type: none"> <li>Attitude, Ethics, and Communication Module (AETCOM)</li> <li>Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology.</li> <li>Introduction to clinical subjects including Community Medicine</li> <li>Clinical postings</li> <li>Attitude, Ethics &amp; Communication Module (AETCOM)</li> </ul>	12 months	II Professional
Third Professional MBBS Part I	<ul style="list-style-type: none"> <li>General Medicine, General Surgery, Obstetrics &amp; Gynecology, Pediatrics, Orthopedics, Dermatology, Psychiatry, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Respiratory medicine, Radiotherapy &amp; Radiotherapy, Anesthesiology</li> <li>Clinical subjects /postings</li> <li>Attitude, Ethics &amp; Communication Module (AETCOM)</li> </ul>	13 months	III Professional (Part I)
Electives	<ul style="list-style-type: none"> <li>Electives, Skills and assessment*</li> </ul>	2 months	
Third Professional MBBS Part II	<ul style="list-style-type: none"> <li>General Medicine, Pediatrics, General Surgery, Orthopedics, Obstetrics and Gynecology including family welfare and allied specialties</li> <li>Clinical postings/subjects</li> <li>Attitude, Ethics &amp; Communication Module (AETCOM)</li> </ul>	11 months	III Professional (Part II)

\*Assessment of electives shall be included in Internal Assessment



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**Table 6: Third Professional Part I teaching hours**

Subjects	Teaching Hours	Tutorials/Seminars /Integrated Teaching (hours)	Self- Directed Learning (hours)	Total (hours)
General Medicine	25	15	5	65
General Surgery	25	15	5	65
Obstetrics and Gynaecology	25	15	5	65
Pediatrics	20	10	5	55
Orthopaedics	15	20	5	40
Forensic Medicine and Toxicology	25	45	5	75
Community Medicine	40	60	5	105
Dermatology	20	5	5	30
Psychiatry	25	10	5	40
Respiratory Medicine	10	5	2	20
Otorhinolaryngology	25	40	5	70
Ophthalmology	10	60	10	100
Radiodiagnosis and Radiotherapy	10	5	2	20
Anesthesiology	5	10	2	20
Clinical Postings*				150
Attitude, Ethics & Communication Module (AETCOM)		15	10	25
<b>Total</b>	<b>300</b>	<b>400</b>	<b>60</b>	<b>1550</b>

\* The class of postings in the third professional part I shall be 15 hours per week (1 hrs per day from Monday to Saturday)

**Table 7: Third Professional Part II teaching hours**

Subjects	Teaching Hours	Tutorials/Seminars / Integrated Teaching (hours)	Self - Directed Learning (hours)	Total* (hours)
General Medicine	70	125	15	210
General Surgery	70	125	15	210
Obstetrics and Gynaecology	80	125	15	210
Pediatrics	20	15	10	65
Orthopaedics	20	25	5	60
Clinical Postings**				150
Attitude, Ethics & Communication Module (AETCOM)***	25		16	41
Electives				200
<b>Total</b>	<b>290</b>	<b>415</b>	<b>60</b>	<b>1760</b>

\* 25% of allotted time of third professional shall be utilized for integrated learning with pre- and para-clinical subjects and shall be assessed during the clinical subjects examination. This allotted time will be utilized as integrated teaching by para-clinical subjects with clinical subjects (as Clinical Pathology, Clinical Pharmacology and Clinical Microbiology)

  
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**Table 8: Clinical postings**

Subjects	Period of training in weeks			Total weeks
	II MBBS	III MBBS Part I	III MBBS Part II	
Electives			8* (4 regular clinical postings)	4
General Medicine <sup>1</sup>	4	4	8+4	20
General Surgery	4	4	8+4	20
Gynaecology & Obstetrics <sup>2</sup>	4	4	8+4	20
Pediatrics	2	4	4	10
Community Medicine <sup>3</sup>	4	0		10
Orthopedics - including Trauma <sup>4</sup>	2	4	2	8
Otorhinolaryngology	4	4		8
Ophthalmology	4	4		8
Respiratory Medicine	2			2
Psychiatry	2	2		4
Radiodiagnosis <sup>5</sup>	2			2
Dermatology, Venereology & Leprosy	2	2	2	6
Dentistry & Anesthesia		2		2
Casualty		2		2
	46	42	48	126

\* In four of the eight weeks of electives, regular clinical postings shall be accommodated.

Clinical postings may be adjusted within the time framework.

<sup>1</sup> This posting includes Laboratory Medicine (Para-clinical) & Infectious Diseases (Phase III Part I)

<sup>2</sup> This includes maternity training and family welfare (including Family Planning)

<sup>3</sup> This posting includes Physical Medicine and Rehabilitation

<sup>5</sup> This posting includes Radiotherapy, wherever available

  
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## List of abbreviations

A	Attitude
AETCOM	Attitude Ethics and Communication
Anat	Anatomy
Biochem	Biochemistry
Cardio	Cardiology
Com Med	Community Medicine
Derm	Dermatology
DOAP	Demonstrate Observe Assist Perform
ENT	ENT
Forensic	Forensic Medicine
Gastro	Gastroenterology
K	Knows
KH	Know How
S	Shows
C	Communication
Med	Gen Medicine
Micro	Microbiology
N	No
OBG	Obstetrics & Gynecology
Ophthal	Ophthalmology
OSCE	Objective Structured Clinical Examination
OSPE	Objective Structured Practical Examination
Psych	Psychiatry
PMR	Physical Medicine Rehabilitation
Path	Pathology
Physio	Physiology
Pharm	Pharmacology
SAQ	Short Answer Question
SGD	Small Group Discussion
Surg	Gen Surgery
RadioD	Radio diagnosis
Resp Med	Respiratory Medicine
Y	Yes

📌 Pages for all the phases will be added and color coded as follows-

Phase II : yellow

Phase III-I: Green

Phase III-II: Brown.

  
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# RADIODIAGNOSIS

## Course Content

Second / III-I/ III-II MBBS

**Subject : Radio Diagnosis Theory / Practical**

(Based on Medical Council of India, Competency based Undergraduate curriculum for the Indian Medical Graduate, 2018. Vol. 2 / 3; page nos. 161 to166)

I. Total Teaching hours :20

A. Lectures (hours): 10


B. Self directed learning ( hours ) : 2

C. Small group teachings/tutorials/Integrated teaching/Practicals (hours): 8 hours

D. Clinical Postings ( hours): 2 weeks ( 3hours /day x 12 days Monday to Saturday

### Term I/II

**A. Lectures/ Large Group Teachings Total Number of Competencies: 13**  
**In institutes where radiotherapy facility is available 2 hours will be allotted to Radiotherapy department. Time Table in these institutes will be prepared by Radio Diagnosis and Radiotherapy department in joint collaboration**

Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
LEC 1	RDI 1	Define radiation and the interaction of radiation and importance of radiation protection	Lecture, Demonstration	1		
	RDI 2	Describe the evolution of Radiodiagnosis Identify various radiological equipments in the current era				
LEC 2	RDI 3	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and	Lecture, Demonstration	1		ENT  DEAN

Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
		interpret findings in common conditions pertaining to disorder of ENT				
LEC 3	RD1.4	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy	Lecture, Demonstration	1		Obstetrics & Gynaecology
	RD1.12	Describe the effects of radiation in pregnancy and the methods of prevention/ minimization of radiation exposure				
	RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications				
LEC 4	RD1.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine				Medicine
LEC 5	RD1.6	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to				Surgery




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Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
		disorders in surgery				
LEC 6	RDI.7	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics				Pediatrics
LEC 7	RDI.8	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies				All clinical departments
LEC 8	RDI.9	Describe the role of Interventional Radiology in common clinical conditions				All clinical departments
LEC 9	RDI.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments				All clinical departments
LEC 10	RDI.11	Describe preparation of patient for common imaging procedures	Lecture, Demonstration			All clinical departments

**B - Self Directed Learning      2 hours**

  
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Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
Serial No.	Competency No.	Topics & Sub Topics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
SDL 1	RDI.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine	Small group discussion, Quiz, etc	1		All clinical departments
	RDI.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments	Small group discussion, Quiz, etc			
SDL 2	RDI.4	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy	Small group discussion, Quiz, etc	1		Obstetrics & Gynaecology
	RDI.13	Describe the components of the PC & PNDT Act and its medicolegal implications				
	RDI.1	Define radiation and the interaction of radiation and importance of radiation protection				
C	<p align="center"><b>C. Small group teachings/tutorials/Integrated teaching/Practicals(hours): 8 hours</b></p> <div style="text-align: right;">   DEAN </div>					
Serial No.	Competency No.	Topics & Sub	Suggested	Hours	Vertical	Horizontal

Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
		Topics	Teaching Method		Integration	Integration
SGT 1	AN20.6, AN25.7, AN43.7, AN43.9, AN51.1, AN51.2, IM7.18	Identify anatomical parts on radiographic images	Lecture/ Small group discussion	3		Anatomy & All Clinical Departments
SGT 2	AN25.8, AN54.2	Role of Barium Studies in gastro Intestinal Tract Evaluation	Lecture/ Small group discussion	3		Medicine, Surgery
SGT 3	IM1.9	Medicolegal aspects in Radiology	Lecture/ Small group discussion	1		Forensic Medicine
SGT 4	IM1.19, IM5.7 IM3.11, M13.12, PE34.8, PE23.13	Role of Radiology in Chest Diseases	Lecture/ Small group discussion	1		Medicine, Pediatrics
SGT 5	SU25.3	Role of Radiology in Breast Diseases	Lecture/ Small group discussion	1		Surgery
SGT 6	PE28.17	Role of Radiology in Ear Nose Throat and Eye Diseases	Lecture/ Small group discussion	1		ENT & Ophthalmology
SGT 7	IM10.19, PE21.12, IM10.19, AN54.2	Role of Radiology in Diseases of the Genito Urinary System	Lecture/ Small group discussion	1		Medicine
SGT 8	IM19.7, PE30.23, IM6.12, AN43.7, AN43.8, AN43.9	Role of Radiology in Central Nervous System	Lecture/ Small group discussion	1		Medicine, Surgery, Pediatrics, DEAN

Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
		Diseases				
<b>D</b>	<b>D. Clinical Postings( hours): 2 weeks ( 3hours /day x 12 days Monday to Saturday. In institutes where radiotherapy facility is available 6 hours will be allotted to Radiotherapy department. Time Table in these institutes will be prepared by Radio Diagnosis and Radiotherapy department in joint collaboration</b>					
CP 1	RD1.1 RD1.2	Introduction to All modalities under Radiodiagnosis and Radiation Protection.	Lecture, Demonstration, Small group teaching	1		
CP 2	RD1.5	Role of Radiology in Chest Conditions lungs and heart	Lecture, Demonstration, Small group teaching			Medicine and Pediatrics
CP 3	RD1.6	Role of Radiology in Abdominal Conditions hepatobiliary system and Gastrointestinal System	Lecture, Demonstration, Small group teaching	3		Surgery
CP 4	RD1.6	Role of Radiology in Abdominal Conditions - Genitourinary system	Lecture, Demonstration, Small group teaching	3		Surgery
CP 5	RD1.4 & RD 1.5	Role of Radiology in Obstetrics and Gynaecology	Demonstration, Small group teaching	3		Obstetrics & Gynecology
CP 6	RD1.6	Role of	Demonstration,	3		DEAN Orthopedics



Serial No.	Competency Nos.	Topics & Subtopics	Suggested Teaching Method	Hours	Vertical Integration	Horizontal Integration
CP 7	RD1.6	Radiology in Musculoskeletal system Role of Radiology in Diseases of Central Nervous System	Small group teaching Demonstration, Small group teaching	3		All clinical Branches
CP 8	RD1.2	Basic Principles of Computed Tomography	Demonstration, Small group teaching	3		
CP 9	RD1.2	Basic Principles of Magnetic Resonance Imaging	Demonstration, Small group teaching	3		
CP 10	RD1.1	Radiation Hazards and Radiation Protection	Demonstration, Small group teaching	3		
CP 11	RT	Radiotherapy related topics	Radiotherapy related topics	3		
CP 12	RT	Radiotherapy related topics	Radiotherapy related topics	3		

### Learning Resource Material

Sr.no.	Author	Title of book/ Material	Publisher
1	David Sutton	Text Book of Radiology and Medical Imaging for Medical Students Seventh Edition	Elsevier
2	David Sutton	Text Book of Radiology & Imaging Students Seventh Edition	Elsevier
3	Grainger Allison	Diagnostic Radiology	Elsevier

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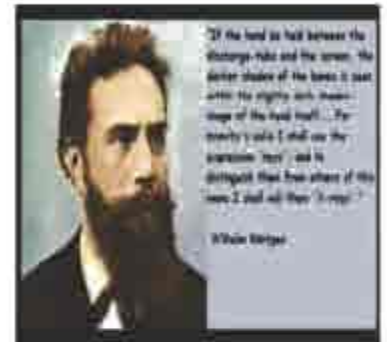


Name of the Institute



**LOG BOOK**

**DEPARTMENT OF RADIODIAGNOSIS**



  
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## **CONTENTS**

<b>Sr. No.</b>	<b>Subject</b>	<b>Page No.</b>
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4	LIST OF COMPETENCIES	08
5	PHASE III/I	10



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## RADIODIAGNOSIS LOGBOOK CERTIFICATE

This is to certify that this logbook is the bonafide record of Mr. /  
Ms..... Roll No.....  
Admission Year ..... of the Department of RadioDiagnosis at  
..... Medical  
College.

The logbook is as per the guidelines of Competency Based Undergraduate  
Medical Education Curriculum, Graduate Medical Regulation 2019.

He / She has satisfactorily attended/ completed all assignments mentioned in this  
logbook as per the guidelines prescribed by National Medical Commission.

Head of Department  
Department of Radio Diagnosis  
Signature with Date



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## **INTERNAL ASSESSMENT EXAMINATION IN RADIO DIAGNOSIS**

Please refer General Surgery Syllabus (available on <https://www.muhs.ac.in/upload/syllabus/Third%20MBBS%20General%20Surgery%20Syllabus%20030621.pdf>) for details internal assessment in radio diagnosis

### **Format / Skeleton of question paper for University**

Please refer General Surgery Syllabus (available on <https://www.muhs.ac.in/upload/syllabus/Third%20MBBS%20General%20Surgery%20Syllabus%20030621.pdf>) for details question paper for university in radio diagnosis.

## **Self-Directed Learning: Seminars, Tutorials, Projects, Quizzes, Extra-curricular activities**

<b>Sr. No.</b>	<b>Self- directed learning (Seminars, Tutorials, Projects, Quizzes, Extracurricular activities)</b>	<b>Date</b>	<b>Phase III/I</b>	<b>Signature of Teacher</b>
1				
2				



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**Reflection (minimum 200 words) –1**

**Date:**

**TOPIC:**



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## LOGBOOK CLINICAL SKILLS : LIST OF COMPETENCIES

Clinical skills can be assessed by case presentation, case-based discussion, objective structured clinical assessment the checklist, MiniCex, as per the institutional preference.

<b>Sr. No</b>	<b>Competencies Addressed</b>	<b>Name of the Activity</b>
1	PE21.12	How will you interpret a KUB Report?
2	PE23.13	How will you report a Chest radiograph and rule out cardiomegaly?
3	PE23.16	How will you use the ECHO reports in management of case of Cardiac disease ?
4	PE30.23	How will you interpret CT scan and MRI Report?

## **Radiotherapy**

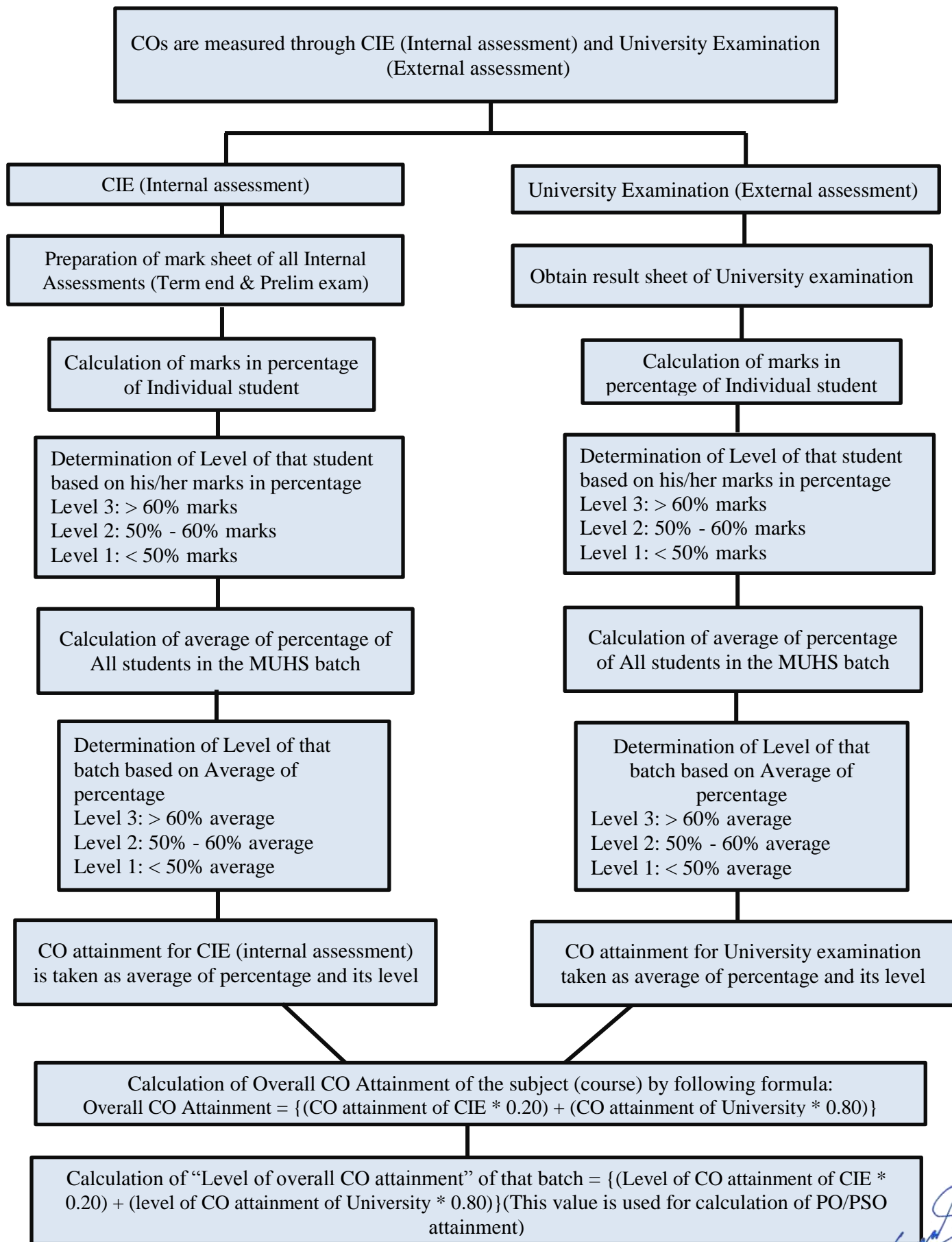
**For theory Competencies to be included in Surgery & Radiology Syllabus**

**Clinical Postings-3 days where ever department exists**

  
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## Flow chart of CO (Course Outcome) Attainment

CO: Course Outcome  
PO: Program Outcome



  
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