Govt. Medical College, Datia

Tentative Scheme of Examination: Medical First Professional according to M.P. Medical Science University, Jabalpur M.P.

INTERNAL ASSESSMENT FOR ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Total Marks: 40- Theory 20 and Practical 20

THEORY: 20 Marks

Minimum of three examinations are recommended. The sessional examination preceding the university examination may be similar to the pattern of university examination. Average of any two best marks obtained in the notified internal examinations may be taken into consideration for calculating internal assessment. The total marks be reduced to 20 and sent to the university.

PRACTICALS: 20 Marks

There will be two terminal practical examinations. 5 marks will be for records and 15 marks for terminal tests. Average marks of the two terminal examinations shall be reduced to 15 marks and added to the marks obtained for records and sum of the two shall be sent to the university.

The internal assessment marks both theory and practical obtained by the candidates should be sent to the university as per academic calendar of MPMSU and notifications.

SCHEME OF EXAMINATION: ANATOMY

UNIVERSITY EXAMINATION

There shall be two examinations annually (Main and Supplementary) conducted at an interval of not less than four to six months.

A. THEORY : 100 Marks

There shall be two theory papers of 50 marks each and duration of each paper will be of 3 hours. Distribution of chapters for paper I and II with weightage of marks in Anatomy for University Examination

PAPER – 1	
Topics	**Marks**
Head and Neck	15
Brain, spinal cord	5
Upper limb	10
Thorax including diaphragm	10
General Anatomy	10
General Embryology	
General Histology	
Total	50

PAPER – 2	
Topics	**Marks**
Abdomen	15
Pelvis & Perineum	10
Lower limb	10
Systemic Histology-10}	15
Genetics – 10 }	
Systemic Embryology-10 }	
Total	50

PAPER I				**PAPER II**		
Type of Questions	**Number of Questions**	**Marks for each question**	**Total**	**Number of Questions**	**Marks for each question**	**Total**
Long Essay **Any one of the two questions may be a Case scenario based on Applied aspects.**	2	5	10	2	5	10
Short Essay	10	3	30	10	3	30
Short Answer	10	1	10	10	1	10
TOTAL MARKS			**50**	**TOTAL MARKS**		**50**

Chapter wise distribution of type of Questions and Marks will be as under *:

The pattern of questions would be of three types.

Paper-1

Head & Neck, Brain and Spinal cord, Thorax including diaphragm and upper limb and also relevant systemic Embryology **(One of the Long essay may be a case scenario based on applied aspects)**	Long Essay 2 x 5 Marks	**10**
Head & Neck, Brain and Spinal cord, Thorax including diaphragm and upper limb and General & Systemic Embryology & Histology	Short Essays 10 x 3 Marks	30
General Anatomy, General Histology, General Embryology and also Head & Neck, Brain and spinal cord, Thorax including diaphragm and upper limb also relevant systemic Embryology & Histology	Short Answer 10 x 1 Marks	10

Paper - 2

Gross Anatomy of Abdomen, Pelvis and Lower limbs and relevant systemic Embryology	Long Essay 2 x 5 Marks	**10**
Gross Anatomy of Abdomen, Pelvis and Lower limbs and relevant systemic Embryology & Histology + Genetics	Short Essays 10 x 3 Marks	30
Relevant Systemic Histology, Embryology, Genetics and also abdomen, Pelvis and Lower limbs	Short Answer 10 x 1 Marks	10

*****The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

B. PRACTICAL :40 Marks

Gross Anatomy: 25

a. Spotters: Identification of structures in given specimen, each carrying One mark, five specimens to be kept, one of which shall be a cross section = 5 marks

b. Discussion on two given dissected specimens, each carrying 7.5 marks
Structures above diaphragm and diaphragm – 7.5 marks
Structures below diaphragm – 7.5marks = 15 marks

c. Surface Anatomy = 5 marks

a + b + c = 25 Marks

Histology – 15 marks

a. Identification of 4 slides and interpretation of one chart On genetics, each carrying one mark = 5 marks

b. Discussion on two given slides 5 x 2 = 10 marks

a + b = 15 marks

C. Viva-Voce Examination : 20 Marks

The Viva-Voce examination will be conducted by four examiners individually. The distribution of topics and marks for each examiner will be as under:

I. Questions on embryology (with models) 5 marks

II. Applied and Radiological anatomy including ultrasound, C.T. and MRI 5 marks

III. Osteology and soft parts in the regions of head and neck, brain and spinal Cord, thorax including diaphragm and upper limb. 5 marks

IV. Osteology and soft parts in the region of abdomen, pelvis and lower limb 5 marks

20 Marks

SCHEME OF EXAMINATION: PHYSIOLOGY

University Examination

A. THEORY : 100 MARKS

There shall be two theory papers of 50 marks each and duration of each paper will be of 3 hours. The pattern of questions would be of three types.

PAPER I				PAPER II		
Type of Questions	**Number of Questions**	**Marks for each question**	**Total**	**Number of Questions**	**Marks for each question**	**Total**
Long Essay **Any one of the two questions may be a Case scenario based on Applied aspects.**	2	5	10	2	5	10
Short Essay	10	3	30	10	3	30
Short Answer	10	1	10	10	1	10
TOTAL MARKS			**50**	**TOTAL MARKS**		**50**

Distribution of chapters and suggested marks in parenthesis for Paper I and Paper II in Physiology for University examination are as follows*:

PAPER-I

General Physiology (2), Blood (10), cardiovascular system (12), Respiratory system (10). Gastrointestinal system (10), Renal system (6) (Note: Marks for Renal and Gastrointestinal system can be interchanged. (Figures shown in parentheses are weightage of marks recommended for the different topics)

PAPER II

Endocrine (10), Special senses (10), Reproduction (6), Central Nervous System (14), Muscle-Nerve (8), Skin and body Temperature (2), (Note: Marks for Endocrines and Reproduction can be interchanged. (Figures shown in parentheses are weightage of marks recommended for the different topics)

* The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

B. PRACTICAL : 40 Marks

There shall be two practical sessions, Practical I and II, each carrying 20 marks, each practical will be of 2 hrs. duration. The distribution of content and marks for the practical would be:

Practical I : 20 marks

1. Clinical Examination - 10 marks
2. Human subjects - 10 marks

Practical II : 20 Marks

1. Hematology - 10 marks
2. Interpretation of case histories/problems/charts - 10 marks

C. Viva-Voce Examination : 20 Marks

The viva-voce examination shall carry 20 marks and all examiners will conduct the examination

Table 1-Portions of Paper I - 5 Marks
Table 2-Portions of Paper II - 5 Marks
Table 3- General Physiology - 5 Marks
Table 4- Applied Physiology - 5 Marks

SCHEME OF EXAMINATION: BIOCHEMISTRY

University examination

A. THEORY : 100 MARKS

There shall be two papers. The total marks will be 100, with each paper carrying 50 marks. The total duration of both papers would be 3 hours. There shall be three types of questions. The distribution of topics and weightage of marks in Biochemistry for University examination is as under*:

Type of question and distribution of marks in each paper

PAPER I				**PAPER II**		
Type of Questions	**Number of Questions**	**Marks for each question**	**Total**	**Number of Questions**	**Marks for each question**	**Total**
Long Essay **Any one of the two questions may be a Case scenario based on Applied aspects.**	2	5	10	2	5	10
Short Essay	10	3	30	10	3	30
Short Answer	10	1	10	10	1	10
TOTAL MARKS			**50**	**TOTAL MARKS**		**50**

Distribution of topics for each paper and weightage of marks in university examination

PAPER I

		Weightage of marks
1.	Cell structure and function, sub cellular organelles, cell membranes, transport across the membranes.	5
2.	Chemistry, digestion, absorption and metabolism of Carbohydrates	20
3.	Chemistry, digestion, absorption and metabolism of lipids	
4.	Amino acids and protein chemistry, general reactions of amino acids, digestion and absorption, urea cycle and metabolism of amino acids	
5.	Vitamins	5
6.	Minerals	5
7.	Endocrine functions and Biochemical tests	5
8.	Detoxification and Xenobiotics	5
9.	Enzymes, Biological oxidation, integration of metabolism, TCA cycle and regulation of metabolism	5

PAPER II

		Weightage of marks
1.	Nucleotides and nucleic acid chemistry	5
2.	Purine and pyrimidine metabolism, DNA metabolism RNA metabolism, Protein Biosynthesis	5
3.	Molecular genetics, regulation of gene expression, recombinant DNA technology, PCR and gene therapy	5
4.	Electrolyte and water balance, acid base balance	20
5.	Nutrition and energy metabolism	
6.	Haem metabolism, normal and abnormal haemoglobins, Plasma proteins and immunoglobulins	
7.	Free radicals and antioxidants, biochemistry of ageing.	5
8.	Biochemistry of cancer, Oncogenes and tumor markers	5
9.	Liver function tests	5
10.	Kidney function tests	5
11.	Clinical chemistry, quality control interpretation and reference values and analysis	5

Note:

*The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

B. Practical Examination : 40 Marks

The Practical examination consists of two exercises, Practical I and II, each of two hours duration and each exercise carrying 20 marks.

1. Quantitative estimation – Every candidate shall perform one given procedure.
   a. Principle and procedure for the estimation asked in the question should be written by the candidate in the first five minutes
   b. After collecting the papers, correct procedure for the estimation is given and practical examination is done. Total marks would be 15 and the distribution of marks would be:
      (i) Results (values) 5 Marks
      (ii) Calculations and reporting 5 Marks
      (iii) For interpretation of results and application of the estimation 5 Marks
   c. Case studies, Graphs and Charts – Discussion 1x5 = 5 marks

2. Qualitative analysis – Every candidate shall perform one given procedure such as Identification of Carbohydrates, Proteins, substance of Physiological importance, Analysis of Normal Urine, Analysis of abnormal Urine. Total Marks would be 15 and Distributions of marks would be:
   For selection of appropriate reactions - 5 marks
   For reasoning of analysis and correct reporting - 5 marks
   For interpretation of results and application of the estimation - 5 marks
3. Five Spotters Biochemical Techniques – chromatography, Electrophoresis, Osazone preparation, Biochemical Tests and Reagents 1x5 = 5 marks

The viva-voce examination shall carry 20 marks and all examiners will conduct the examination

Table 1-Portions of Paper I - 5 Marks
Table 2-Portions of Paper II - 5 Marks
Table 3- General Biochemistry- 5 Marks
Table 4- Applied Biochemistry- 5 Marks