Sri Guru Ram Das University of Health Sciences, Sri Amritsar

BLUEPRINT OF THEORY PAPER DEPARTMENT OF PATHOLOGY

THEORY A

Duration 3 hours			
	Type of question/Number of questions	**Marks per question**	**Total Marks**
Q. No. 1	Scenario based MCQ/**TEN**	2	20
Q.NO.2	Long essay question/**ONE**	10	10
Q.NO. 3	Reasoning Questions/**Five**	3	15
Q.No. 4	Short Notes(Applied aspects)/**Four**	5	20
Q. No. 5	Explain Briefly/**Three**	5	15
Q.No. 6	Short Notes/**Three +AETCOM /ONE**	5	20

THEORY B

Duration 3 hours			
	Type of question/Number of questions	**Marks per question**	**Total Marks**
Q. No. 1	Scenario based MCQ/**TEN**	2	20
Q.NO.2	Long essay question/**ONE**	10	10
Q.NO. 3	Reasoning Questions/**Five**	3	15
Q.No. 4	Short Notes(Applied aspects)/**Four**	5	20
Q. No. 5	Explain Briefly /**Three**	5	15
Q.No. 6	Short Notes/**Three +AETCOM /ONE**	5	20

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Department of Pathology

Theory Paper A		Theory Paper B	
Topics	**Marks Distribution**	**Topics**	**Marks Distribution**
Cell injury and adaptations Infection and infestations Paediatrics and genetic diseases	**12**	Gastrointestinal tract Hepatobiliary diseases	**24**
Amyloidosis Immunopathology and AIDS Inflammation Healing and repair	**14**	Respiratory system Cardiovascular system	**24**
Neoplasia	**12**	Urinary tract Male genital tract Clinical pathology	**18**
Hemodynamics Environment and nutrition	**12**	Female genital tract Breast	**12**
Introduction to hematology Microcytic anemia Macrocytic anemia Hemolytic anemia Aplastic anaemia	**15**	Endocrine disorders Bone and soft tissue	**12**
Leukocytic disorders Lymph node and spleen Plasma cell disorders	**20**	Skin Central nervous system Eye Basic diagnostic cytology	**5**
Hemorrhagic disorders Blood bank and transfusion	**10**		
AETCOM 2.4	**5**	AETCOM 2.7	**5**
Total	**100**	**Total**	**100**

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Guidelines for question paper as per the National Medical Commission, Competency Based Undergraduate Curriculum for Indian Medical Graduate.

Theory paper should include questions from core competencies and **NOT from Non-Core Competency**

BLUEPRINT OF THEORY PAPER

Sr. No.	Type	Explanation	Topics	Distribution of marks as per weightage
1.	MCQ	Scenario Based MCQ	**10 MCQs for Paper A** **10 MCQs for Paper B**	10 X 2 = 20 10 X 2 = 20
2.	Long essay question	1. The question should pose a Clinical/ Practical problem to the students and require them to apply knowledge and integrate it with disciplines. Avoid giving one liners as questions. 2. Avoid giving one liners as questions. 3. The question stem should be structured and marking distribution should be provided. 4. Use action verbs from higher domains as given in this document.	**Paper A (ONE Questions)** 1. Structured question from core competency of a. Cell injury b. Inflammation c. Amyloidosis d. Hemodynamics e. Blood banking f. Neoplasia g. Anemia h. Neoplasia i. Leukemia j. Plasma cell disorders k. Chronic inflammation l. Hemorrhagic disorders	1 X 10 = 10

			Paper B (ONE Questions) 2. Structured question from core competency of a. Cardiovascular system b. Urinary tract c. Gastrointestinal tract d. Female genital tract e. Male genital tract f. Respiratory tract g. Hepatobiliary diseases h. Endocrine disorders i. Liver: jaundice and hepatitis j. Kidney: nephrotic and nephritic syndrome k. GIT: peptic ulcer and Inflammatory bowel disease l. Endocrine: diabetes mellitus and hyper/hypothyroidism m. CVS: RHD and MI	1X10=10
3.	Reasoning Questions	Paper A (5 Questions) Paper B (5 Questions)	**Paper A (5 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1 **Paper B (5 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1	5 x 3 = 15 5 x 3 = 15
4.	Short Notes(applied aspects)	Paper A(4 Questions) Paper B(4 Questions) All four subparts related to six integrated topics if subject is part of integrated modules. However, if a subject has less compentencies in	**Paper A (4 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1 **Paper B (4 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1	4 X 5 = 20 4 X 5 = 20

		integrated module than atleast 2 sub-parts from integrated modules.	Marks for each part should be indicated separately	
5.	Explain Briefly	Paper A (3 Questions) Paper B (3 Questions)	**Paper A (3 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1 **Paper B (3 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1	3 X 5 = 15 3 X 5 = 15
6.	Short Notes	Paper A (4 Questions) One subpart of 5 marks from AETCOM (2.4) Paper B (4 Questions) One subpart of 5 marks from AETCOM(2.7)	**Paper A (4 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate, VOLUME 1 **Paper B (4 Questions)** From Core Competencies as per competency based undergraduate curriculum for the Indian Medical Graduate , VOLUME 1	4 X 5 = 20 4 X 5 = 20

Total Marks 200(Paper A- 100 marks, Paper B-100 marks)

Blueprinting in knowledge domain
(Representative example only. Actual figures may vary with the subject and phase)

Level	Topic A	Topic B	Topic C	Topic D	Total
Knowledge	1	2	1	1	5(20%)
Comprehension	1	1	1	2	5(20%)
Application	2	1	1	1	5(20%)
Analysis	1	1	2	2	6(24%)
Synthesis		1		1	2(8%)
Evaluation	1		1		2(8%)
Total	6(24%)	6(24%)	6(24%)	7(28%)	25(100%)

Verbs in various levels in Knowledge domain (Bloom's taxonomy)

Knowledge	Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State, Choose ,Indicate, isolate, Order, Recognize, Underline
Comprehension	Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalise, Identify, Illustrate, Interpret, Review, Summarise, Extrapolate, Update
Application	Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use
Analysis	Analyse, Characterise, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorise
Synthesis	Compose, Construct, Create, Verify, Determine, Design, Develop, Integrate, Organise, Plan, Produce, Propose, rewrite
Evaluation	Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritise, Prove, Rank

The question part of the MCQ (item) is called STEM; correct answer is called the KEY and the rest of the options are called DISTRACTORS.

Steps in writing:

1. Select the specific learning objectives which you want to test.
2. Write the stem, it should be self-explanatory and complete, avoid using terms like (NOT, EXPECT, NEVER, ALWAYS, SOMETIMES) in the stem, if the terms are being used they should be in UPPERCASE and **bold** letter.
3. Write unambiguous and unarguably the correct answer to the stem.
4. Select the most plausible alternatives and arrange them in the form of options.
5. Avoid window dressing of the stem. This means adding superfluous and unnecessary words which confuses the student.
6. Abbreviations should be avoided.
7. Options should be grammatically parallel to the key, and should be parallel and have the same relation to the stem.
8. When writing options, avoid duplications or making options all inclusive, e 1-6, 6-10 etc.
9. The options should be arranged in rank order, eg. 256, 266, 280, 290 and not 290, 266, 280, 256.
10. “All the above” and “None of the above” should be avoided as an option.

Distribution of Marks: - Pathology

Papers		Marks	Total Marks	Minimum Passing Marks
Theory (Summative Assessment) (100 +100=200 Marks)	Theory Paper I (Sample paper Attached)	100	200	Mandatory to get 40% marks separately in theory and in practical and with minimum 50% in aggregate for theory plus practical.
	Theory paper II(Sample paper Attached)	100		
Practical *(Summative Assessment) (80 + 20= 100 Marks) 1. Practical/clinical examinations will be conducted in the laboratories and /or hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion.) 2. Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, identification of specimens, etc. is to be also assessed.	Histopathology and Haematology slides - 18 Marks Differential Leucocyte count - 12 marks Haematology exercise – 5 marks Staining exercise – 10 Marks Urine examination – 15 marks OSPE – 20 Marks	80	100	
	Viva (oral examination should focus on the application and interpretation) (oral examination should focus on the application and interpretation) Charts, Graphs, Photograph & Instrument etc.	20		
Internal Assessment (Not added to the marks of the university examinations and should be shown separately in the grade card)	Theory	100	200	50% Combined in theory and practical (not less than 40% in each for eligibility for appearing for university examination
	Practical	100		

***During practical examinations you are requested to use different methods of assessment tools to improve authenticity. Please refer to competency based assessment module for UG medical education for more examples of assessment tools.**

Formative & Internal Assessment: - Internal assessment shall be based on day-to-day assessment. Efforts should be made to use multiple tools even for a given competency to improve validity and reliability of assessment

It shall relate to different ways in which learners participate in learning process which is day to day recorded in record book and log book in the form of :-

a) Assignments,
b) Preparation for seminar,
c) Clinical case presentation,
d) Preparation of clinical case for discussion,
e) Clinical case study/problem solving exercise participation in project for health care in the community,
f) Proficiency in carrying out a practical or a skill in small research project etc.

Regular periodic examination shall be conducted throughout the course as per following schedule:-

SRI GURU RAM DAS INSTITUTE OF MEDICAL SCIENCES & RESEARCH												
DEPARTMENT OF PATHOLOGY / PHARMACOLOGY/ MICROBIOLOGY												
MBBS	**Year/phase 2nd Prof.**						**Session --**					**Cumulative percent of Theory & Practical**
			Formative Assessment				**Continuous Internal Assessment (Theory)**					
S.No.	**Roll No.**	**Name of Student**	**1st Theory**	**Mid-Term Theory**	**Second Theory**	**Send up**	**Assignments**	**Seminars/ Class Test**	**Attendance (Theory)**	**Total**	**Percentage Theory (Minimum cut off 40%)**	**Theory + Practical=100+100=200 (Minimum cut off 50%)**
			10	**15**	**10**	**30**	**15**	**15**	**05**	**100**		
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8.												

SRI GURU RAM DAS INSTITUTE OF MEDICAL SCIENCES & RESEARCH											
DEPARTMENT OF PATHOLOGY / PHARMACOLOGY/ MICROBIOLOGY											
MBBS	**Year/phase 2nd Prof.**								**Session --**		
			Formative Assessment			**Continuous Internal Assessment (Practical)**					
S.No.	**Roll No.**	**Name of Student**	**1st Practical**	**Mid-term Practical**	**Send up**	**Log Book**	**AETCOM**	**Case Base Discussion / Viva/ Museum**	**Attendance (Practical)**	**Total**	**Percentage Practical (Minimum cut off 40%)**
			10	**10**	**15**	**30**	**15**	**15**	**05**	**100**	
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SRI GURU RAM DAS UNIVERSITY OF HEALTH SCIENCES, SRI AMRITSAR

MBBS 1st Professional Examination
(Session 2026)
Subject- Pathology (New Scheme)
Paper-A

Maximum Marks: 100 Time: 3 Hours

Note:
1. Attempt all questions. Illustrate your answer with suitable diagrams where applicable.
2. Question No. I (Multiple Choice Questions (1-10)) is to be attempted on OMR Sheet in first 30 minutes of the start of exam.
3. Question No. II-VI are to be attempted on the main answer book. No supplementary sheet shall be provided.
4. Students must write QP code in the space provided on OMR sheet as well as on the title page of the main answer book.

QP Code: MBN201A

Multiple Choice Questions (MCQs): [10X2=20]

I. 1. A 2 years old child presented with moderate hepatosplenomegaly and developmental delay. Bone marrow examination revealed many large macrophages with moderate to abundant cytoplasm having wrinkled tissue paper appearance and small eccentric to centric dark nuclei. The most probable diagnosis is:
a. Gaucher disease
b. Niemann Pick disease
c. Juvenile Myelomonocytic leukemia
d. Tay-Sachs disease

2. A patient underwent bone marrow transplantation developed necrotizing pneumonia. Biopsy revealed septate acute angle branching hyphae. This is consistent with:
a. Candidasis
b. Aspergillosis
c. Mucormycosis
d. Pneumocystis jiroveci infection

3. Which among these is the example of locally invasive tumor, which does not metastasize?
a. Basal cell carcinoma
b. Squamous cell carcinoma
c. Adenocarcinoma
d. Squamous cell carcinoma

4. On a routine visit to the physician, an otherwise healthy 51-year-old man has a blood pressure of 150/95 mm Hg. If his hypertension remains untreated for years, which the following cellular alterations would most likely be seen in his myocardium?
a. Atrophy
b. Hyperplasia
c. Metaplasia
d. Hypertrophy

5. In an experiment, antigen is used to induce an immediate (type D) hypersensitivity by response. Cytokines are secreted that are observed to stimulate IgE production B cells, promote mast cell growth, and recruit and activate eosinophils in this response. Which of the following cells is most likely to be the source of these cytokines?
a. CD4+ lymphocytes
b. Natural killer cells
c. Macrophages
d. Dendritic cells

6. A 70 years old male has a pathologic fracture of femur. The lesion appears a lytic on X-rays film with a circumscribed punched out appearance. The curetting from fracture site is most likely to show which of the following?
a. Diminished and thinned trabecular bone
b. Sheets of atypical plasma cells
c. Metastatic prostatic adenocarcinoma
d. Malignant cells forming osteoid bone

7. **A 60 years old patient with diagnosed with chronic myeloid leukemia which of the following findings will not be associated with the disease?**
   a. Associated with Philadelphia chromosome
   b. Spleen enlargement is seen
   c. Massive enlargement of cervical lymph nodes is observed
   d. Peripheral blood shows increased total leucocyte count

8. **A 55 years old male patient diagnosed with Primary amyloidosis which of the following type of fibril protein deposition will be associated with Primary amyloidosis.**
   a. AL
   b. AA
   c. ATTR
   d. AANF

9. **65 years old male patient had high hypoxic cell death. On autopsy brain shows which type of necrosis.**
   a. Coagulative
   b. Liquefactive
   c. Caseous
   d. Fibrinoid

10. **A 68 years old male patient had non-caseating granulomas, which of following can be diagnosis except:**
    a. Byssinosis
    b. Hodgkin's Lymphoma
    c. Metastatic carcinoma of lung
    d. Tuberculosis

II. Discuss the thromboembolism in following headings: [10]

a. Etiopathogenesis.
b. Complications.

III. Reasoning Questions (Why): [5X3=15]

a. Enumerate the test done in diagnosis of multiple myeloma
b. Why DNA synthesis is impaired in megaloblastic anaemia
c. Why Iron overload occurs in Thalassemia major patient on regular blood transfusion.
d. Discuss the pathogenesis of Sickle cell Anemia
e. Role of Coombs test is done in haemolytic disease of Newborn

IV. Write short notes (Applied questions) on: [4X5=20]

a. Classify amyloidosis and discuss the various stains used for its diagnosis?
b. Enumerate the differences between healing by primary and secondary intention.
c. Enumerate the differences between necrosis and apoptosis.
d. Write briefly about Viral carcinogenesis.

V. Explain briefly: [3X5=15]

a. Discuss the etiopathogenesis & lab diagnosis of Idiopathic thrombocytopenic purpura.
b. Discuss FAB classification of Acute Myeloid Leukemia.
c. Classify hodgkins disease and describe its morphology.

VI. Write short notes on: [4X5=20]

a. Tumor markers and their utility
b. Discuss briefly about Polycythemia vera
c. Describe in detail about transfusion transmitted infection.
d. Discuss the importance of effective communication skills in medical profession.

SRI GURU RAM DAS UNIVERSITY OF HEALTH SCIENCES, SRI AMRITSAR

MBBS 1st Professional Examination
(Session 2026)
Subject- Pathology (New Scheme)
Paper-B

Maximum Marks: 100 Time: 3 Hours

Note:
1. Attempt all questions. Illustrate your answer with suitable diagrams where applicable.
2. Question No. I (Multiple Choice Questions (1-10)) is to be attempted on OMR Sheet in first 30 minutes of the start of exam.
3. Question No. II-VI are to be attempted on the main answer book. No supplementary sheet shall be provided.
4. Students must write QP code in the space provided on OMR sheet as well as on the title page of the main answer book.

QP Code: MBN202A

Multiple Choice Questions (MCQs): [10X2=20]

I. 1. A 6 Years old boy presented with progressive swelling all over the body; his urine showed marked proteinuria. Which of the following is not true about the diagnosis?
a. Selective albumin loss in urine
b. Routine renal biopsy shows loss of foot processes in podocytes.
c. Electron microscopy shows normal glomerular basement membrane.
d. Protein and lipid droplets in proximal convoluted tubular epithelial cells.

2. A 40 years' male presented with hematuria and dysuria, his urine examination showed – pus cells, red blood cells and 'Coffin lid' crystals. What is most likely nature of the stones?
a. Calcium oxalate stones
b. Calcium phosphate stones
c. Cystine stones
d. Uric acid stones

3. A 54 year male presents with complaints of jaundice since last 6 months. On examination, Patient is anaemic and icteric with increase in S. Alpha feto Protein levels. What is the likely diagnosis?
a. Renal cell carcinoma
b. Lung Carcinoma
c. Colorectal adenocarcinoma
d. Hepatocellular carcinoma.

4. A 52 years old male patient had a left renal mass on USG. Hls CBC revealed: Hb – 20.5 g/dl. What is the most likely diagnosis of the lesion in the kidney?
a. Polycystic kidney disease
b. Renal cell carcinoma
c. Transitional cell carcinoma
d. Hydronephrosis

5. A 35 years old female patient was operated for an ovarian tumor. Histopathological examination of the tumor revealed glomerulus like structures composed of central blood vessels enveloped by germ cells within a space lined by germ cells. What is the diagnosis?
a. Sertoli-Leydig cell tumor
b. Granulosa cell tumor
c. Endodermal sinus tumor
d. Dysgerminoma

6. A 30 years old female presents with intermittent attacks of mild to severe diarrhea, with history of fever and pain abdomen. Barium meal shows positive string sign. Colonoscopy shows serpentine ulcers with cobblestone mucosa. Colonic biopsy may show all of the following except:
a. Skin lesions
b. Transmural inflammation
c. Caseating granulomas
d. Non-caseating granulomas

7. **A 50 years old female presents with excessive thrist and excessive urination for the last two months. She also complains of weakness and loss of weight, though her appetite remains good. In the last two days she has developed skin boils. Which of the following investigations will help you clinch the diagnosis?**
   a. Blood sugar level
   b. Blood culture
   c. Urine culture
   d. Skin biopsy

8. **A 64 year female presents with a hard palpable lump 5x4 cm in the upper outer quadrant of left breast. Two lymph nodes 2x1 cm and 1.5x1 cm are palpable in the left axilla. Mammography shows a BI-RADS 5 lesion. Biopsy is done.**
   a. Firbocystic Disease
   b. Fibroadenoma
   c. Carcinoma Breast
   d. Benign Phylloides Tumor

9. **A 70 years old female presented with postmenopusal bleeding. On USG endometrial thickness was 15 mm and right ovary was enlarged measuring 15x12x8 cm. Microscopic examination of ovarian tumours shows the presence of Call-Exner bodies. Most probable diagnosis is:**
   a. Yolk Sac tumour
   b. Teratoma
   c. Granulosa Cell Tumour
   d. Choriocarcinoma

10. **A 58 years old male with history of dyspnea on brisk walking and climbing stairs presented in emergency with discomfort in chest and epigastric pain radiating to arm with profuse sweating and low BP.**
   a. Acute Gastritis
   b. Myocardial infarction
   c. Pneumonia
   d. Rheumatic fever

II. Discuss alcoholic liver disease under following heading: [10]

a. Etiopathogenesis
b. Morphology

III. Reasoning Questions (Why): [5X3=15]

a. How can H. pylori survive in acidic medium?
b. Why heart is affected in Rheumatic fever?
c. Why secondary TB causes more damage to lungs than Primary TB?
d. How is Nephritic syndrome different from nephrotic syndrome?
e. How are typhoid ulcer different from tubercular ulcer in intestine?

IV. Write short notes (Applied questions) on: [4X5=20]

a. Describe the CSF findings in meningitis
b. Discuss the Serology of Hepatitis.
c. Write about Lab diagnosis of Myocardial infarction.
d. Elaborate about Lab diagnosis of Diabetes Mellitus.

V. Explain briefly: [3X5=15]

a. Describe types and morphology Teratoma
b. Describe morphology Giant cell Tumor of Bone
c. Describe morphology Seminoma

VI. Write short notes on: [4X5=20]

a. Describe briefly about Fibroadenoma
b. Describe briefly about Wilm's Tumor
c. Write Pathogenesis of Bronchial Asthma.
d. Discuss Principles of Bioethics.