

2019 Scheme

Q.P. Code: 214001

Reg. no.:

Second Professional MBBS Degree Supplementary (SAY) Examinations March 2025

Pathology - Paper II

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

1. Multiple Choice Questions

(20x1=20)

The MCQ questions (Q.No. i to Q.No. xx) shall be written in the space provided for answering MCQ questions at page No. 51 of the answer book (the inner portion of the back cover page (PART III)). Responses for MCQs marked in any other part/page of the answer book will not be valued

Question Numbers (i) – (v) are Single Response Type

- Presence of tumour cells in an Indian file pattern is typical of
 - Invasive lobular carcinoma
 - Medullary carcinoma
 - Papillary carcinoma
 - Cribriform carcinoma
- All are true about carcinoma endometrium EXCEPT
 - Commonly seen in post menopausal women
 - Unopposed estrogen stimulation leads to serous carcinoma
 - Endometrioid type is associated with increased signaling through P13K/AKT pathway
 - Serous carcinoma is aggressive than endometrioid type
- Reid index is diagnostic of
 - Chronic bronchitis
 - Emphysema
 - Bronchial asthma
 - Pneumonia
- Duke's criteria is often used in the diagnosis
 - Infective endocarditis
 - Rheumatic Heart Disease
 - Cardiomyopathy
 - Ischaemic Heart disease
- All are true about malignant melanoma EXCEPT
 - It has radial and vertical growth phase
 - Spontaneous regression of primary tumour may occur
 - Metastatic deposits show black colour
 - Peripheral palisading of tumour cell Nests are seen in microscopic sections

Question numbers (vi)-(x) are multiple response type questions. Read the statements & mark the answers appropriately.

- Type I diabetes mellitus
 - 1) Associated with HLADR3, HLADR4 or both
 - 2) Autoimmune destruction of β cells occurs
 - 3) Most common in childhood
 - 4) Associated with central obesity
 - a) 1, 2 and 3 are correct
 - b) 2, 3 and 4 are correct
 - c) 1, 3 and 4 are correct
 - d) 1, 2 and 4 are correct
- Epstein Barr Virus is associated with the following cancers
 - 1) Endometrial Carcinoma
 - 2) Nasopharyngeal Carcinoma
 - 3) Gastric carcinoma
 - 4) Hodgkin's Lymphoma
 - a) 1, 2 and 3 are correct
 - b) 2, 3 and 4 are correct
 - c) 1, 3 and 4 are correct
 - d) 1, 2 and 4 are correct
- Features of Helicobacter pylori infection
 - 1) It produces antral gastritis
 - 2) It releases ammonia from endogenous urea
 - 3) It invades the gastric mucosa
 - 4) Warthin starry stain is used to demonstrate it
 - a) 1, 2 and 3 are correct
 - b) 2, 3 and 4 are correct
 - c) 1, 3 and 4 are correct
 - d) 1, 2 and 4 are correct
- Small blue round cell tumours include
 - 1) Retinoblastoma
 - 2) Ewing's sarcoma
 - 3) Cholangiocarcinoma
 - 4) Neuroblastoma
 - a) 1, 2 and 3 are correct
 - b) 2, 3 and 4 are correct
 - c) 1, 3 and 4 are correct
 - d) 1, 2 and 4 are correct

(PTO)

- x. Glomerular alterations in diabetic nephropathy includes
- | | |
|--|-------------------------------|
| 1) Thickening of the basement membrane | 2) Nodular Glomerulosclerosis |
| 3) Diffuse Glomerulosclerosis | 4) Armani Epstein lesion |
| a) 1, 2 and 3 are correct | c) 1, 3 and 4 are correct |
| b) 2, 3 and 4 are correct | d) 1, 2 and 4 are correct |

Question numbers (xi) – (xv) consists of two Statements - Assertion (A) and Reason (R).

Answer these questions by selecting the appropriate options given below.

- xi. (A) Prophylactic colectomy is to be done in all patients with Familial Adenomatous Polyposis (FAP)
 (R) Minimum 100 polyps are necessary for the diagnosis of FAP
- | | |
|---|--------------------------------|
| a) Both A & R are correct and R is the reason for A | c) A is correct R is incorrect |
| b) Both A & R are correct but R is not reason for A | d) A is incorrect R is correct |
- xii. (A) Intestinal type of gastric adenocarcinoma present as polypoid bulky tumour
 (R) E-cadherin expression is lost in intestinal type of gastric adenocarcinoma
- | | |
|---|--------------------------------|
| a) Both A & R are correct and R is the reason for A | c) A is correct R is incorrect |
| b) Both A & R are correct but R is not reason for A | d) A is incorrect R is correct |
- xiii. (A) Hepatitis E virus is the most common cause for transfusion associated Hepatitis
 (R) Hepatitis E infection in pregnancy carries higher mortality
- | | |
|---|--------------------------------|
| a) Both A & R are correct and R is the reason for A | c) A is correct R is incorrect |
| b) Both A & R are correct but R is not reason for A | d) A is incorrect R is correct |
- xiv. (A) Psammoma bodies are seen in cases of papillary carcinoma thyroid
 (R) Dystrophic calcification of tumour necrosis produces Psammoma bodies
- | | |
|---|--------------------------------|
| a) Both A & R are correct and R is the reason for A | c) A is correct R is incorrect |
| b) Both A & R are correct but R is not reason for A | d) A is incorrect R is correct |
- xv. (A) Charcot Leyden Crystals are seen in sputum of patients with Bronchial Asthma
 (R) Remodeling of the bronchial wall occurs in cases of Bronchial Asthma
- | | |
|---|--------------------------------|
| a) Both A & R are correct and R is the reason for A | c) A is correct R is incorrect |
| b) Both A & R are correct but R is not reason for A | d) A is incorrect R is correct |

Question numbers (xvi) – (xx) Read the following case scenario and answer subsequent questions based on this

A 58 year old female presented the surgical OPD with a lump in her right breast – 3 weeks. No pain or sudden increase in size O/E Solitary, ill-defined firm to hard nodular mass in the outer upper quadrant of breast. Examination of right axillary region shows four palpable nodes. contralateral breast is normal.

- xvi. Microscopy of this lesion will show all EXCEPT
- | | |
|---|--|
| a) Tumour cells forming tubules and irregular sheets | |
| b) Nuclear pleomorphism and numerous mitosis | |
| c) Malignant cells separated by dense fibrous stroma | |
| d) Ducts lined by epithelial and myoepithelial cells and stroma proliferating circumferentially | |
- xvii. Which one of the following is NOT included in the triple assessment of breast lumps
- | | |
|-------------------------|------------------------------------|
| a) MRI scan | c) Mammogram |
| b) Clinical Examination | d) Fine Needle Aspiration Cytology |
- xviii. All of the following are prognostic parameters in the evaluation of Breast Carcinoma EXCEPT
- | | |
|------------------------------|----------------------------|
| a) Tumour grade | c) Hormone Receptor status |
| b) Axillary Lymphnode status | d) Parity status |
- xix. Morphologic type of invasive carcinoma breast with excellent prognosis
- | | |
|----------------------|------------------------|
| a) Tubular carcinoma | c) Medullary carcinoma |
| b) Lobular carcinoma | d) Mucinous carcinoma |
- xx. All are true statement about HER2 positive invasive carcinoma breast EXCEPT
- | |
|---|
| a) More common in young women |
| b) Metastasize early to viscera and brain |
| c) Targeted therapy available |
| d) Most common carcinoma associated with BRCA 2 germline mutation |

(PTO)

Long Essays**(2x10=20)**

2. A 6 year old school going boy was brought by his father to the Paediatric OPD with complaints of swelling in the face and leg for the past one week with passing of reduced amount of high coloured urine since 3 days. The father also gave a past history of the boy having scabies, detected and treated in his school health programme. On examination the boy is under nourished, periorbital edema present, pedal edema present. His Blood pressure was 130/100 mm of Hg. Pulse rate was 94/mt regular.

- What is your provisional diagnosis
- Aetiopathogenesis of this condition
- List the investigations and their interpretations to support your diagnosis
- What is the prognosis of this condition
- Enumerate the common complication of this condition

(1+4+4+1)

3. Discuss in detail the pathogenesis of acute myocardial infarction. Discuss the gross and microscopic features of myocardial infarction. Add a note on the complications

(4+3+3)**Short Essays****(6x6=36)**

- Pathogenesis and morphology of Emphysema
- Pathogenesis and Pathology of Hashimoto's Thyroiditis
- Pathology of Seminoma testis
- Alcoholic liver disease
- Hodgkin's lymphoma
- Pathogenesis and screening methods of carcinoma cervix

Short Answers**(6x4=24)**

- Germ cell tumours of Ovary
- Meningioma
- Enlist four common situations in which the Confidentiality principle of Bioethics could be breached
- Pleomorphic adenoma
- Compare and contrast four important microscopic features of Crohn's disease and Ulcerative Colitis
- Osteoclastoma
