

2106000102010101
Examination February – March 2024
SECOND MBBS
PATHOLOGY (PAPER - I) - LEVEL I

[Time: Three Hours]

[Max. Marks: 100]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination: **SECOND MBBS**
 - b. Name of the Subject: **PATHOLOGY (PAPER - I) - LEVEL I (OMR)**
 - c. Subject Code No: **2106000102010101**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

--	--	--	--	--	--

Student's Signature

SECTION – I

Q.1 Multiple choice questions (MCQs).

20*1=20

(Instruction: Encircle the correct answer)

1. Mitochondrial DNA differs from Nuclear DNA in :

- a) Being linear and open ended
- b) Having two co copies per somatic cell
- c) Monocistronic transcription pattern
- d) Having Maternal inheritance pattern

2. Wear and Tear pigment is:

- | | |
|---------------|-----------------|
| a) Lipofuscin | b) Haemosiderin |
| c) Melanin | d) Bilirubin |

3. Dystrophic calcification is seen in:

a) Hypervitaminosis D	b) Williams Syndrome
c) Atheromatous Plaque	d) Renal tubular acidosis

4. Bradykinin effects include all the following **EXCEPT**:

a) Smooth muscle contraction	b) Vasoconstriction
c) Increased Vascular permeability	d) Pain

5. Wound contraction is mediated by:

a) Collagen	b) Elastin
c) Myofibroblast	d) Granulation tissue

6. Fifth sign of Inflammation " Functiolaesa "was given by :

a) Celsus	b) Hunter
c) Virchow	d) Cohnheim

7. Apoptosis is inhibited by :

a) P53	b) π -myc
c) Ras	d) bcl2

8. The most potent antigen presenting cell for T lymphocytes is :

a) Dendritic cell	b) NK cell
c) Stem cell	d) Macrophage

9. Type I hypersensitivity reaction is mediated by :

a) IgG antibody	b) IgM antibody
c) IgE antibody	d) IgA antibody

10. Red infarct is seen in all **EXCEPT**:

a) Lung	b) Liver
c) Intestine	d) Spleen

11. Caisson disease is due to:

- a) Fat embolism
- b) Air embolism
- c) Thromboembolism
- d) Amniotic fluid embolism

12. Venous thrombus is associated with following feature:

- a) Tendency to embolise
- b) Associated with atheroma
- c) Often with turbulence
- d) Commonly Mural

13. Syphilitic involvement of aorta is observed mostly in:

- a) Descending aorta
- b) Arch of Aorta
- c) Abdominal Aorta
- d) Bifurcation of Aorta

14. Bombay Phenotype are the individuals who:

- a) Lack of H genes and therefore H substance.
- b) Possess A and B antigen
- c) Secrete excessive amount of H substance
- d) Lack C, D, E antigens

15. "Tombstone" appearance of cells is seen in which type of Necrosis?

- a) Fibrinoid
- b) Coagulative
- c) Liquefactive
- d) Fat

16. Which of the following is malignant tumour?

- a) Papilloma
- b) Melanoma
- c) Adenoma
- d) Osteoma

17. Which one of the following is an example of Metaplasia?

- a) Changes in skeletal muscles in athelets
- b) Changes in Cardiac muscles due to hypertension
- c) Barret's Oesophagus
- d) Hormonal changes in breast and uterus during Pregnancy.

18. Hypercalcaemia is associated with all of the following tumours

EXCEPT:

- a) Small cell carcinoma of the lung
- b) Squamous cell carcinoma of Lung
- c) Adult T cell Leukaemia
- d) Renal cell carcinoma

19. Placental alkaline Phosphatase is raised in :

- a) Teratoma
- b) Seminoma
- c) Endodermal Sinus tumour
- d) Lymphoma Testis

20. Role of L-selectin in inflammation:

- a) Rolling
- b) Adhesion
- c) Homing
- d) Transmigration

SECTION - II

Q.2 Case based question (compulsory to attempt)

13

45 yrs male, intravenous drug abuser presented with weight loss, oral candidiasis, generalized lymphadenopathy and symptoms of multiple opportunistic infections.

- a) What is your Probable diagnosis? 1
- b) Enumerate the investigations carried out to support the diagnosis? 4
- c) Describe the pathogenesis of the disease. 5
- d) Describe the Natural History and stages of the Disease 3

Q.3 Long Essay Questions
(Attempt any 3 out of 4)

27

1. Define Apoptosis. Describe the molecular mechanisms of Apoptosis. 1+5+3
Illustrate contrasting features of Apoptosis from Necrosis.

- | | |
|--|---------|
| 2. Define Shock. Enumerate the classification and etiology of Shock.
Describe the pathogenesis of Septic Shock. Describe the stages of Shock. | 1+2+3+3 |
| 3. Define Metastasis. Write three different routes of Metastasis.
Describe cell biology of Invasion and Metastasis Cascade. | 1+3+5 |
| 4. Describe the pathogenesis of Cell Injury. Write the distinguishing features of Reversible and Irreversible Cell Injury. | 5+4 |

SECTION – III

Q.4 (Attempt any 8 out of 10) (5 marks Each)

40

- 1) Difference between Transudate and Exudate.
- 2) Describe healing by First intention (Primary Union)
- 3) Enumerate the Liver Function tests and explain the clinical significance of each.
- 4) Enumerate the contrasting features of initiator and promoter carcinogens.
- 5) Describe Mismatched blood transfusion.
- 6) Difference between Kwashiorkor and Marasmus.
- 7) Define Edema. Write pathophysiology of Edema.
- 8) Clinical features and cytogenetic abnormalities of Down Syndrome.
- 9) Enumerate special stains in Amyloidosis.
- 10) Describe Paraneoplastic syndrome.

2106000102010102
Examination February – March 2024
SECOND MBBS
PATHOLOGY (PAPER - II) - LEVEL 1

[Time: Three Hours]

[Max. Marks:100]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **SECOND MBBS**
 - b. Name of the Subject : **PATHOLOGY (PAPER - II) - LEVEL 1 (OMR)**
 - c. Subject Code No : **2106000102010102**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. No negative marks

Seat No:

--	--	--	--	--	--

Student's Signature

SECTION – I

Q.1 Multiple choice questions (MCQs).

20*1=20

(Instruction: Encircle the correct answer)

1. Erythropoietin is produced by
 - a) Liver
 - b) Lungs
 - c) Bone marrow
 - d) Kidney
2. Which is NOT SEEN in Megaloblastic anaemia?
 - a) Hyper segmented neutrophil
 - b) MCV < 80
 - c) Evidence of dyserythropoiesis
 - d) Giant metamyelocytes
3. Howell Jolly bodies in red cells seen in:
 - a) Hereditary Spherocytosis
 - b) Lead Poisoning
 - c) Post Splenectomy
 - d) Iron deficiency anemia

4. The pathognomonic abnormality in β -thalassaemia minor is:
 - a) marked rise in HbA₂
 - b) marked rise in HbF
 - c) marked unconjugated hyperbilirubinaemia
 - d) marked anaemia

5. Small warty vegetations along the lines of closure of Valves on mitral and aortic valves are observed in :
 - a) Infective endocarditis
 - b) Rheumatic fever
 - c) Libman -Sach's endocarditis
 - d) Non-Bacterial thrombotic endocarditis

6. The commonest vessel involved in Myocardial Infarction:
 - a) Right Coronary artery
 - b) Left Circumflex artery
 - c) Left Anterior Descending artery
 - d) Posterior Descending artery

7. Which of the following is associated with the development of bronchogenic carcinoma and mesothelioma?

a) Silicosis	b) Asbestosis
c) Siderosilicosis	d) Anthracosis

8. Patients are designated as pink puffers in:

a) Chronic Bronchitis	b) Bronchiectasis
c) Emphysema	d) Pneumoconiosis

9. Essential diagnostic criteria for nephrotic syndrome in adults is :
 - a) Anasarca with orbital puffiness
 - b) 24hrs urinary excretion of protein 3.5 gm or greater
 - c) Hypoalbuminemia
 - d) A constellation of hypertension, hyperlipidemia and lipiduria

10. Typical "Grain Leather" appearance of kidney is seen in :

a) Benign nephrosclerosis	b) Malignant nephrosclerosis
c) Nephrocalcinosis	d) Necrotising Papillitis

11. Toxic Megacolon is complication of:
- a) Crohn's Disease
 - b) Ulcerative Colitis
 - c) Necrotising Enterocolitis
 - d) Pseudomembranous Colitis
12. The most common site for hydatid cyst is
- a) Liver
 - b) Lungs
 - c) Spleen
 - d) Brain
13. The most common mechanism in pathogenesis of chronic pyelonephritis is
- a) Ascending infection
 - b) Reflux nephropathy
 - c) Obstructive nephropathy
 - d) Haematogenous infection
14. Cirrhosis in Wilson's disease is related to:
- a) Zinc
 - b) Copper
 - c) Mercury
 - d) Iron
15. Ovarian tumour arising from Stromal cells is :
- a) Dysgerminoma
 - b) Brenner tumour
 - c) Granulosa theca cell tumour
 - d) Krukenberg Tumour
16. Giant cell tumour arises from:
- a) Diaphysis
 - b) Metaphysis
 - c) Articular cartilage
 - d) Epiphysis
17. Gout is characterised by deposition of crystals of
- a) Uric acid
 - b) Hydroxy apatite
 - c) Pyrophosphate
 - d) Urate
18. Mutation characteristic of polycythaemia vera
- a) JAK2
 - b) Bcr-abl
 - c) p53
 - d) RAS

19. Medullary carcinoma of thyroid arises from:

- a) C-cells of thyroid
- b) Follicular cells
- c) Parathyroid cells
- d) Primitive pluripotent cell of thyroid

20. Which type of Nevus most commonly progresses to Malignant Melanoma:

- a) Blue cell Nevus
- b) Spindle cell Nevus
- c) Dysplastic Nevus
- d) Compound Nevus

SECTION – II

Q.2 Case based Question (Compulsory to attempt)

13

1. A 50year male with history of chronic alcohol consumption presented with distended abdomen .ultrasound scan show reduced size of liver.

a. What is the probable diagnosis?

1

b. Describe the pathogenesis of this condition

5

c. Describe gross and microscopic findings.

4

d. Enumerate three Complications of the condition.

3

Q.3 Long Essay Questions: (Attempt any 3 out of 4)

9*3=27

1. Describe the Clinical features, pathogenesis and Lab findings in β Thalassemia Major.

3+3+3

2. Describe etiopathogenesis, gross and microscopy & complications of ulcerative colitis.

4+3+2

3. Describe the Pathogenesis and stages of lobar pneumonia.

3+6

4. Describe etiopathogenesis of Hypertension vascular Disease. Write About Benign and Malignant Nephrosclerosis. 4+5

SECTION – III

Q.4 (Attempt any 8 out of 10) (5 marks each) 40

1. Describe clinical findings, inheritance in von Willebrand disease.
2. Classify germ cell Tumour. Describe Morphological features of Seminoma.
3. Describe Major and Minor criteria to diagnose Rheumatic Heart disease.
4. Write the staging Classification of Hodgkin Lymphoma.
5. Giant cell Tumour of Bone
6. Atherosclerosis
7. Squamous cell carcinoma
8. Lab findings in Megaloblastic Anaemia
9. Describe morphologic features of Fibroadenoma.
10. Describe the Pathogenesis and morphology Of Bronchiectasis.
