



Answer the following questions (All questions to be answered):

**I. Choose the correct answer: (20 marks)**

1. What is the cause of increased vascular permeability in acute inflammation?  
A. Chemical mediators  
B. Direct toxic effect  
C. Endocrinal effect  
D. Neurogenic effect
2. Which of the following types of cell injury can be seen in a patient with Alzheimer's disease?  
A. Apoptosis  
B. Necrosis  
C. Hyalinosis  
D. Steatosis
3. When infection by schistosomiasis occurs, which of the following is recognized by the immune system?  
A. Calcified ova  
B. Dead ova  
C. Dead worms  
D. Living worms
4. Which of the following organs is the least affected by ischaemia?  
A. Brain  
B. Heart  
C. Lung  
D. Kidney
5. Which of the following diseases are caused by the same virus?  
A. Chickenpox and herpes simplex  
B. Chickenpox and herpes Zoster  
C. Smallpox and herpes simplex  
D. Smallpox and herpes Zoster
6. In melanoma, which of the following corresponds to Clark's level IV?  
A. Epidermis  
B. Papillary dermis  
C. Reticular dermis  
D. Subcutaneous fat
7. Which of the following ulcers has a punched out edge?  
A. Amoebic  
B. Syphilitic  
C. Tuberculous  
D. Typhoid
8. Which of the following types of hypertrophy occurs in the muscular wall of hollow organs to overcome a distant resistance?  
A. Adaptive  
B. Compensatory  
C. Disuse  
D. Physiologic
9. What is the term that describes a carcinoma that manifest itself for the first time as metastasis?  
A. Carcinoma insitu  
B. Choriostoma  
C. Latent carcinoma  
D. Occult carcinoma
10. Which of the following tumours have best response to radiotherapy?  
A. Carcinomas  
B. Germ cell tumours  
C. Melanoma  
D. Sarcomas
11. Which of the following aneurysms may cause myocardial ischaemia?  
A. Atherosclerotic  
B. Berry  
C. Dissecting  
D. Mycotic

**12. Which of the following bone lesions may be caused by chronic renal failure?**

- A. Osteitis fibrosa cystica
- B. Osteoporosis
- C. Paget's disease
- D. Fibrous dysplasia

**13. Which zone of the liver is mostly affected by ischaemia?**

- A. Zone 1
- B. Zone 2
- C. Zone 3

**14. Which of the following types of anaemias may predispose to oesophageal carcinoma?**

- A. Aplastic anaemia
- B. Iron deficiency anaemia
- C. Megaloblastic anaemia
- D. Sickle cell anaemia

**15. What is the final grade of a prostatic with Gleason score (6)?**

- A. High grade
- B. Low grade
- C. Medium grade

**16. What is the type of urinary stones formed in alkaline urine?**

- A. Calcium oxalate stones
- B. Tripple phosphate stones
- C. Urate stones

**17. Which of the following tumours does not show evidence of good immunity?**

- A. Dysgerminoma
- B. Medullary carcinoma
- C. Nasopharyngeal carcinoma
- D. Endometroid carcinoma

**18. Which of the following thyroid carcinomas are characterized by presence of "orphan annie nuclei"?**

- A. Anaplastic carcinoma
- B. Follicular carcinoma
- C. Medullary carcinoma
- D. Papillary carcinoma

**19. Which of the following types of meningeal haemorrhage is commonly caused by rupture of cerebral aneurysm?**

- A. Extradural haemorrhage
- B. Subarachnoid haemorrhage
- C. Subdural haemorrhage

**20. Which of the following ovarian tumours is characterized by presence of "Call-Exner bodies"?**

- A. Brenner's tumour
- B. Endodermal sinus tumour
- C. Endometrioid tumour
- D. Granulosa cell tumour

**II. Give an account on:**

**(50 marks)**

1. Aetiology and effects of acute intestinal obstruction.
2. Classification of Hodgkin's lymphoma (with description of the characteristic cells).
3. Types of ovarian cysts.
4. Prognostic factors of breast cancer.
5. Causes and pathological features of obstructive jaundice.

**III. Mention the causes of:**

**(25 marks)**

1. Secondary hypertension.
2. Male infertility.
3. Lymphadenopathy (lymph node enlargement).
4. Haematochazia (bleeding per rectum).
5. Right sided heart failure.



**Mention the complications of:**

(25 marks)

1. Lobar pneumonia.
2. Acute haematogenous osteomyelitis.
3. Hydronephrosis.
4. Puerperal sepsis.
5. Leukaemias.

**V. Case studies:**

(30 marks)

1. A 50-year-old male presented to the emergency department with acute abdomen. Serum levels of amylase and lipase enzymes were elevated.

- A. What is the diagnosis of this case?
- B. Mention the aetiology of this disease?
- C. Mention the pathogenesis of this disease?
- D. What are the complications of this disease?
- E. Enumerate other causes of acute abdomen?

2. A 40-year-old female complained of recurrent attacks of loin pain, dysuria, and frequency of micturition. One year later, she was presented to hospital by hypertension, generalized oedema, electrolyte disturbances, and elevated urea and creatinine levels. Ultrasonography showed non functioning asymmetrically contracted right kidney. Nephrectomy showed multiple large U-shaped fibrous scars on its external surface with adherent capsule.

- A. What is the diagnosis of this lesion?
- B. What is the aetiology of this lesion?
- C. What is the characteristic picture of the renal tubules in this lesion?
- D. Mention 2 differences between this lesion and another chronic kidney lesion causing contracted kidney?
- E. Mention other causes of contracted kidney?

3. A 30-year-old male presented to the hospital with hypertension. Ultrasonography revealed a large dusky brown soft spherical tumour 10x10 cm originating from the adrenal gland.

- A. What is the diagnosis of this case?
- B. What is the cell of origin of this tumour? And what are the tumour markers expected to be positive in this tumour?
- C. What is the behaviour of this tumour?
- D. What is the substance secreted by tumour cells? And what is its diagnostic test?
- E. Mention other tumour having the same histology present in another site of the body?

*End of the exam  
With best wishes*

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