

# Question Paper

Exam Date & Time: 17-May-2024 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Pathophysiology [PPR-BP204T-S1]

Marks: 75

Duration: 180 mins.

### I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Programmed cell death by which abnormal cells die and are eliminated called as ----- (1)

[Apoptosis](#)

[Necrosis](#)

[Inflammation](#)

[Cancer](#)

2) Which of the following is NOT considered a Secondary Cause of Hypertension? (1)

[Renal Artery Stenosis](#)

[Cushing's Syndrome](#)

[Essential Hypertension](#)

[Primary Hyperaldosteronism](#)

3) Which formula is used to calculate the ejection fraction (EF) in cardiac physiology? (1)

[EF = \(SV + EDV\) × 100](#)

[EF = \(SV × EDV\) × 100](#)

[EF = \(SV - EDV\) × 100](#)

[EF = \(SV/EDV\) × 100](#)

4) Which type of Acute Kidney Injury (AKI) is frequently observed due to diminished renal perfusion resulting from conditions such as hypovolemia or decreased cardiac output? (1)

[Pre-renal AKI](#)

[. Intrinsic AKI](#)

[Post-renal](#)

[AKI](#)

[All the above](#)

5) Angina due to physical activity is also called.----- (1)

[Stable Angina](#)

[Prinzmetal angina](#)

[variant angina](#)

[Unstable Angina](#)

6) Episodes of ischemia that last more than 30 minutes----- (1)

[Hypertension](#)

[Hypotension](#)

[Myocardial infarction](#)

Stroke

- 7) Atherosclerosis is produced by----- (1)
- Endothelial injury
  - Accumulation of lipoproteins
  - Monocyte adhesion
  - All of the above
- 8) The causative organism of Peptic Ulcer Disease is due to----- (1)
- Aedes aegypti
  - Helicobacter Pylori
  - Ae. albopictus
  - Salmonella
- 9) Which gastrointestinal condition is more commonly associated with the symptom of rectal bleeding or blood in stools? (1)
- Ulcerative colitis
  - Crohn's disease
  - Irritable bowel syndrome (IBS)
  - Diverticulitis
- 10) When MCV < 100 the type anaemia classified as ----- (1)
- Microcytic Anaemia
  - Macrocytic Anaemia
  - Anaemia due to chronic disease
  - Hypochromic anaemia
- 11) Which of the following belongs long-term complications of diabetes? (1)
- Neuropathy
  - Nephropathy
  - Retinopathy
  - All of the above
- 12) The deficiency of thyroid stimulating hormone leads ----- (1)
- Hypothyroidism
  - Hyperthyroidism
  - Rheumatoid Arthritis
  - GOUT
- 13) Which of the following is not preformed elements of inflammation----- (1)
- Prostaglandins
  - Serotonin
  - Histamine
  - Lysosomal enzymes
- 14) Which of following hormone deficiency causes diabetes? (1)
- Insulin
  - Thyroxine
  - Glucagon
  - Trypsin

- 15) Calcification of dead cells leads to deposition of ----- (1)
- [Calcium](#)  
[Fibrous tissue](#)  
[Potassium](#)  
[Lipids](#)
- 16) The bacteria that cause bacterial meningitis are common inhabitants of the----- (1)
- [Oral cavity](#)  
[Nasopharynx](#)  
[GI tract](#)  
[Bladder](#)
- 17) Which staining technique is commonly used to identify acid-fast bacilli (AFB)? (1)
- [Gram staining](#)  
[Ziehl-Neelsen staining](#)  
[Wright staining](#)  
[Giemsa staining.](#)
- 18) Which of the following is the most common cause of UTIs? (1)
- [Klebsiella](#)  
[Proteus mirabilis](#)  
[Escherichia coli](#)  
[None of the above](#)
- 19) Which of the following is the causative agent of syphilis? (1)
- [Treponema pallidum](#)  
[Neisseria gonorrhoeae](#)  
[Chlamydia trachomatis](#)  
[Haemophilus ducreyi](#)
- 20) The first person who discovered Mycobacterium tuberculosis was \_\_\_\_\_. (1)
- [Louis Pasteur](#)  
[Robert Koch](#)  
[Edward Jenner](#)  
[None of the above](#)

## II Long Answers

Answer all the questions.

- 1) Define cell injury and enlist different causes of cell injury. Classify and explain different types of necrosis. (10)
- 2) Define Cell cycle. Classify Cancer and explain characteristic of cancer cell. (10)

## III Short Answers

Answer all the questions.

- 1) Explain any four mechanism of cell injury. (5)
- 2) Explain the pathophysiology of acute kidney injury. (5)
- 3) Explain the pathophysiology of Systolic heart failure. (5)
- 4) Define Diabetes. Explain pathophysiology of type 1 diabetes. (5)
- 5) Explain the pathophysiology of myocardial infarction. (5)

- 6) Explain the pathophysiology of meningitis. (5)
- 7) Write the clinical manifestations and pathophysiology of Acute Cystitis in urinary tract infection. (5)

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