

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM – SEMESTER – 3- EXAMINATION – WINTER - 2018**

**Subject Code: BP304TT****Date: 10/12/2018****Subject Name: Pathophysiology****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

1. Attempt five questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Choose correct option for following questions **16**
- 1 Find out the correct statement with regards to tuberculosis:  
(a) *Mycobacterium tuberculosis* is a facultative aerobic organism  
(b) Primary infection of tuberculosis is in GI tract  
(c) It represents granulomatous inflammation  
(d) Type of cell death in tuberculosis is apoptosis
  - 2 Find out pair of major phagocytes of blood:  
(a) Monocyte, Neutrophils (c) Lymphocyte, Neutrophils  
(b) Basophil, Eosinophil (d) Lymphocyte, Monocyte
  - 3 Which of the following gland undergoes physiological atrophy with increase in age?  
(a) Thymus (c) Adrenal gland  
(b) Spleen (d) Pituitary gland
  - 4 Expression of pro-apoptotic molecules is a novel target for treatment of:  
(a) Diabetes (c) Alzheimer's disease  
(b) AIDS (d) Cancer
  - 5 Find out arachidonic acid metabolite which induces platelet aggregation  
(a) Thromboxane A<sub>2</sub> (c) Histamine  
(b) Prostaglandin I<sub>2</sub> (d) Serotonin
  - 6 Formation of uric acid crystals in synovial joints resulting in inflammation of synovial joints is known as:  
(a) Osteoarthritis (c) Rheumatism  
(b) Gouty arthritis (d) Spondylitis
  - 7 Peptic ulcer is due to infection of:  
(a) *Helicobacter pylori* infection in ileum  
(b) *Helicobacter pylori* infection in pylorus  
(c) *Entamoebica histolytica* infection in ileum  
(d) *Entamoebica histolytica* infection in pylorus
  - 8 Carcinoma refers to cancer of:  
(a) Epithelial tissue (c) Nervous tissue  
(b) Connective tissue (d) Muscular tissue
  - 9 Widal test is used for diagnosis for:  
(a) Syphilis (c) Gonorrhoea  
(b) Typhoid (d) AIDS
  - 10 Commonly observed bone disorder in menopause is:  
(a) Rickets (c) Osteomalacia

- (b) Osteomyelitis (d) Osteoporosis
- 11** Hemophilia-A occurs due to deficiency of:  
 (a) Clotting factor XII (c) Clotting factor VII  
 (b) Clotting factor VIII (d) Clotting factor V
- 12** Pulmonary edema is commonly observed complication in:  
 (a) Essential hypertension (c) Congestive cardiac failure  
 (b) Secondary hypertension (d) Megaloblastic anaemia
- 13** Hyperkalaemia can be observed due to:  
 (a) Hyperaldosteronism (c) Cushing's syndrome  
 (b) Excess insulin therapy (d) Addison's disease
- 14** Epilepsy may result in convulsions when neuronal firing increases in  
 (a) Medulla oblongata (c) Midbrain  
 (b) Motor cortex (d) Cerebellum
- 15** Diabetes insipidus refers to:  
 (a) Sodium and water retention  
 (b) Increased urine formation due to deficiency of aldosterone  
 (c) Increased urine formation due to increase in urine sugar  
 (d) Increased urine formation due to deficiency of anti-diuretic hormone
- 16** Find out the correct statement with regards to urinary tract infection:  
 (a) Upper urinary tract infections are more common as compare to lower urinary tract infections.  
 (b) Urinary tract infections are more common in female as compared to male.  
 (c) Major causative organisms of urinary tract infection are gram positive in nature.  
 (d) Diuresis is a commonly observed symptom of urinary tract infection.
- Q.2** (a) Enlist hereditary anaemia. Add a note on sickle cell anaemia. **06**  
 (b) Compare and contrast: Type 1 and Type 2 diabetes mellitus. Write complications of diabetes in brief. **05**  
 (c) Describe pathogenesis of congestive cardiac failure. **05**
- Q.3** (a) Explain following terms: (i) Homeostasis (ii) Negative feedback system **06**  
 (iii) Metaplasia  
 (b) Describe pathogenesis of cancer in brief. **05**  
 (c) What is angina pectoris? Classify it. Discuss pathogenesis of angina pectoris in brief. **05**
- Q.4** (a) Give comment on: **06**  
 (i) Hypertension is a silent killer.  
 (ii) Vitamin B<sub>12</sub> deficiency is referred as megaloblastic anaemia.  
 (iii) Schizophrenia is a neurodevelopmental disorder.  
 (b) Define inflammation. Describe cellular events of acute inflammation in detail. **05**  
 (c) Describe pathogenesis, symptoms and complications for acute renal failure. **05**
- Q.5** (a) Draw life cycle of HIV virus. Discuss diagnosis, symptoms and pathogenesis of AIDS. **06**  
 (b) Enlist various types of hepatitis. Discuss etiology, symptoms and complications of hepatitis A. **05**  
 (c) Describe etiology and pathogenesis of rheumatoid arthritis. **05**
- Q.6** (a) Write symptoms for following disease: **06**  
 (i) Cretinism (ii) Depression (iii) Inflammatory bowel disease

- (b) Explain the processes involved in healing of skin wounds in brief. **05**
- (c) Discuss symptoms and pathogenesis of COPD. **05**
- Q.7** (a) Enlist various factors leading to cell injury. Discuss reversible cell injury due to ischaemia. **06**
- (b) Define apoptosis. Write in detail about mechanism of apoptosis. **05**
- (c) Enlist neurodegenerative diseases. Write neurochemistry and symptoms of Parkinson's disease. **05**

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