



**MV-9003-9005**

Seat No. \_\_\_\_\_

**Second Year B. Physiotherapy Examination**

**January - 2018**

**Pathology & Microbiology & Biochemistry**

Time : 3 Hours]

[Total Marks : 100

- Instructions :** (1) Write section-I and section-II in separate answer sheet.  
(2) Draw figures wherever necessary.  
(3) Figures on right indicate full marks.

**SECTION - I**  
**(Pathology & Microbiology)**

- 1** Answer any **two** : **20**
- (a) Define necrosis and discuss types of necrosis in brief.
  - (b) Describe Morphology, Pathogenicity and Laboratory diagnosis of Staphylococcus aureus.
  - (c) Define granuloma and describe, three granulomatous inflammations.
- 2** Write short notes on any **two** : **10**
- (a) Hypersensitivity
  - (b) Describe factors influencing wound healing.
  - (c) Describe Life cycle and Pathogenicity of Ascariasis Lumbricoides.
- 3** Write answers in 2-3 sentences : **10**
- (a) Difference between Exotoxin and Endotoxin
  - (b) Name 4 Motile bacteria
  - (c) Define Antigen
  - (d) Describe sjogren's syndrome.
  - (e) Name four signs of acute inflammation.
  - (f) Name four cellular adaptations.

4 Encircle most appropriate (Single) answer all Compulsory : 10

- (1) The organ of adhesion in bacteria is
  - (a) Flagella
  - (b) Fimbriae
  - (c) Capsule
  - (d) Mesosomes
- (2) The earliest immunoglobulin to be synthesized by fetus is
  - (a) Ig G
  - (b) Ig E
  - (c) Ig M
  - (d) Ig A
- (3) Rice watery stool is present in
  - (a) Vibrio Cholerae
  - (b) Mycoplasma
  - (c) Leptospira
  - (d) Listeria
- (4) Among these which one is protozoa?
  - (a) Ascaris lumbricoides
  - (b) Plasmodium
  - (c) Tinea solium
  - (d) W.bancrofti
- (5) Coagulase test is positive in
  - (a) Staphylococcus aureus
  - (b) Streptococcus
  - (c) E. coli
  - (d) Pseudomonas
- (6) Out of the following which is a benign tumour?
  - (a) Fibroadenoma
  - (b) Melanoma
  - (c) Lymphoma
  - (d) Sarcoma
- (7) Out of the following which is a chromosomal disorder ?
  - (a) HIV
  - (b) Down's syndrome
  - (c) Silicosis
  - (d) Beriberi
- (8) Out of the followinig which is not a nutritional disorder?
  - (a) Scurvy
  - (b) Rickets
  - (c) Pellagra
  - (d) Gaucher disease
- (9) All are endogenous pigment except,
  - (a) Melanin
  - (b) Lipofuscin
  - (c) Porphyrins
  - (d) Anthracotic pigment
- (10) All are autoimmune disorder except,
  - (a) SLE
  - (b) Wilson's disease
  - (c) Grave's disease
  - (d) Scleroderma

## SECTION - II (Biochemistry)

- 5** Long Essays : (any **two**) **2×10=20**
- (1) Polysaccharides-Types and functions
  - (2) Electron transport chain and Oxidative Phosphorylation.
  - (3) Sickle Cell anemia and Thalassemia
- 6** Explain the following : (any **two**) **2×5=10**
- (1) Ketone body metabolism
  - (2) Prostaglandins
  - (3) Iron Metabolism
- 7** Write Short Notes : (any **five**) **5×2=10**
- (1) Km value and its importance
  - (2) Importance of Glycated Hemoglobin
  - (3) Transport Proteins
  - (4) LDL-Cholesterol
  - (5) Creatinine Importance
  - (6) Glycine functions
- 8** Multiple Choice Questions (Write correct response in Answer Book) **10×1=10**
- (1) Which Phospholipid is act as a surfactant?
    - (a) Cephalin
    - (b) Lecithin
    - (c) Plasmalogen
    - (d) Sphingolipid
  - (2) Which carbohydrate is used to measure Glomerular Filtration Rate?
    - (a) Dextran
    - (b) Chitin
    - (c) Inulin
    - (d) Cellulose
  - (3) Fetal Hemoglobin is made up of which 2 globin chain?
    - (a)  $\alpha_2\beta_2$
    - (b)  $\alpha_2\gamma_2$
    - (c)  $\alpha_2\delta_2$
    - (d)  $\alpha_2\zeta_2$

- (4) Which lipoprotein carries fat from Intestine?  
(a) VLDL (b) LDL  
(c) HDL (d) Chylomicron
- (5) Example of uncoupler is  
(a) Thermogenin (b) Cyanide  
(c) Barbiturates (d) Oligomycin
- (6) Prostacyclin acts as a  
(a) Vasoconstrictor  
(b) Platelet aggregator  
(c) Platelet aggregation inhibitor  
(d) Anaphylactic agent
- (7) Methemoglobinemia is characterized by  
(a) Ferrous form of iron  
(b) Carry oxygen  
(c) Reddish discoloration of skin  
(d) Ferric form of Iron
- (8) Which Immunoglobulin can cross the placental barrier?  
(a) Immunoglobulin A (b) Immunoglobulin E  
(c) Immunoglobulin G (d) Immunoglobulin M
- (9) Which Protein maintains colloidal osmotic pressure?  
(a) Globulin (b) Albumin  
(c) Transferrin (d) Ceruloplasmin
- (10) In which form Iron is absorbed?  
(a) Ferrous (b) Ferric form  
(c) Ferritin (d) Transferrin
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