



J-9003-9004-9005

Seat No. _____

Second Year B. Physiotherapy Examination

July – 2019

Biochemistry & Pathology & Microbiology

Time : 3 Hours]

[Total Marks : 100

Instructions :

- (1) Write Section-I and Section-II in separate answer book.
- (2) Figure on right side indicates full marks.
- (3) Draw a figure wherever necessary.
- (4) Write legible and to the point.

SECTION - I

(Pathology & Microbiology)

- 1** Answer any two : **20**
 - (a) Define inflammation. Discuss cellular events in Acute Inflammation.
 - (b) Describe morphology, culture characteristics of Staphylococcus aureus.
 - (c) Define Metastasis. Discuss various routes of Metastasis in detail.

- 2** Write short notes on any two : **10**
 - (a) Describe life cycle and pathogenesis of Entamoeba histolytica.
 - (b) Classify Anemias. Discuss Hemolytic Anemias.
 - (c) Write about laboratory diagnosis of HIV/AIDS.

- 3** Write answer in very short : (any five) **10**
 - (a) Describe principle and applications of autoclave.
 - (b) Name causative agent of Typhoid fever & cholera.
 - (c) Name various Antigen- Antibody reactions.
 - (d) Gangrene
 - (e) Define Thrombosis and Embolism.
 - (f) Tumor Markers.

4 Give most appropriate (single) answer : (All Compulsory). 10

- (1) Which of the following is Gram negative cocci ?
 - (a) Streptococci
 - (b) Staphylococci
 - (c) Pneumococci
 - (d) Meningococci
- (2) Louis pasteur is known as the father of :
 - (a) Bacteriology
 - (b) Antiseptic surgery
 - (c) Microbiology
 - (d) Chemotherapy
- (3) Following is spore bearing bacilli :
 - (a) E. coli
 - (b) Klebsiella
 - (c) Clostridia
 - (d) Proteus
- (4) The virus can be transmitted by blood transfusion is :
 - (a) Hepatitis A
 - (b) Hepatitis B
 - (c) Rabies
 - (d) Polio
- (5) Widal test is used in which disease ?
 - (a) Malaria
 - (b) Filaria
 - (c) Typhoid
 - (d) Cholera
- (6) In atrophy, cells are :
 - (a) Dead cells
 - (b) Irreversible injured cells
 - (c) Shrunken cells
 - (d) Reversible injured cells
- (7) Nut meg liver seen in :
 - (a) Chronic venous congestion
 - (b) Thrombosis
 - (c) Hemorrhage
 - (d) Cirrhosis
- (8) Caseous necrosis seen in :
 - (a) Pneumonia
 - (b) Meningitis
 - (c) TB
 - (d) Peptic ulcer
- (9) Carcinoma of cervix caused by :
 - (a) Human papilloma virus
 - (b) Hepatitis B virus
 - (c) Pox virus
 - (d) EBV
- (10) Microcytic hypochromic anemia caused by deficiency of :
 - (a) Lead
 - (b) Zinc
 - (c) Copper
 - (d) Iron

SECTION - II
(Biochemistry)

- 5** Long Essay : (any two out of three) **10×2=20**
- (a) Explain bilirubin metabolism with different types of jaundice.
 - (b) Explain blood sugar regulation in our body.
 - (c) Explain renal function test
- 6** Explain any two of the following : **5×2=10**
- (a) Ketone body formation and breakdown
 - (b) Gout
 - (c) Role of kidney in regulation of pH.
- 7** Write short notes on any five of the following : **2×5=10**
- (a) Explain enzyme induction and repression
 - (b) RNA - types and its function
 - (c) Explain beriberi.
 - (d) Causes of fatty liver
 - (e) Explain transamination reaction and its importance
 - (f) Write name of enzyme used in liver function test.
- 8** Multiple choice questions : (Write correct answer in the answer book) **1×10=10**
- (1) The coenzyme form of vitamin B1 is :
 - (a) TPP
 - (b) PLP
 - (c) FMN
 - (d) FAD
 - (2) The bond which maintains the primary structure of protein is :
 - (a) Peptide
 - (b) Hydrophobic
 - (c) Vanderwal' s
 - (d) Hydrogen
 - (3) Deficiency of Folic acid leads to :
 - (a) Microcytic anemia
 - (b) Normochromic anemia
 - (c) Macrocytic anemia
 - (d) Hypochromic; anemia

- (4) Reference interval for Serum Total Ca^{++} is :
- (a) 9-11 g/dL (b) 9-11 mg/dL
(c) 4-6 g/dL (d) 4-6 mg/dL
- (5) Milk is deficient in which vitamins ?
- (a) Vitamin B1 (b) Vitamin A
(c) Vitamin B6 (d) Vitamin C
- (6) The principle site for Gluconeogenesis :
- (a) Liver (b) Kidney
(c) Muscle (d) Adipose tissue
- (7) From the biological viewpoint, solutions can be grouped into :
- (a) Isotonic (b) Hypertonic
(c) Hypotonic (d) All of the above
- (8) Oxidation of which substance in the body yields the most calories :
- (a) Glucose (b) Nucleic acid
(c) Protein (d) Lipid
- (9) Warfarin is antagonist to :
- (a) Tocopherol (b) Ascorbic acid
(c) Thiamine (d) Menadione
- (10) Which metal is present in hemoglobin ?
- (a) Iron (b) Calcium
(c) Copper (d) Cobalt
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