



PT-9003-9004-9005 Seat No. _____

Second Year B. Physiotherapy Examination

July - 2018

Biochemistry & Pathology & Microbiology

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.
 - (4) Illegible writing will not be assessed.

SECTION - I

(PATHOLOGY & MICROBIOLOGY)

- 1** Answer any Two : **20**
 - (a) Describe cellular adaptations.
 - (b) Describe Pathogenicity and laboratory Diagnosis of *Salmonella Typhi*.
 - (c) Describe "acquired immunodeficiency syndrome (AIDS)".

- 2** Write short notes on any Two : **10**
 - (a) Immunoglobulin M
 - (b) Describe biological carcinogens
 - (c) Laboratory diagnosis of Malaria.

- 3** Write answers in 2-3 sentences : (any Five) **10**
 - (a) Principle and uses of Autoclave.
 - (b) Name two Selective Media.
 - (c) Name two oxidase positive organisms.
 - (d) Name four endogenous pigments.
 - (e) Name four sings of acute inflammation.
 - (f) Name four tumor markers.

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

- (1) Motility of bacteria is due to :
- (a) Capsule (b) Spore
(c) Flagella (d) Fimbria
- (2) Hepatitis virus that spreads by fecal-oral route :
- (a) Hepatitis A (b) Hepatitis B
(c) Hepatitis C (d) Hepatitis D
- (3) Which test is used for Diagnosis of *Staphylococcus aureus* ?
- (a) Optochin (b) Coagulase
(c) Bacitracin (d) Bile solubility
- (4) Most effective mode of transmission of HIV :
- (a) Sexual (b) Blood product
(c) Needle (d) Mother to fetus
- (5) Anaphylaxis is an example of :
- (a) Type I hypersensitivity (b) Type II hypersensitivity
(c) Type III hypersensitivity (d) Type IV hypersensitivity
- (6) Beside nucleus, the only other place in the cell having RNA is,
- (a) Ribosome (b) Golgi apparatus
(c) Mitochondria (d) Cell membrane
- (7) Diabetic foot is an example of,
- (a) Dry gangrene (b) Wet gangrene
(c) Gas gangrene (d) Granuloma
- (8) All are granulomatous disease except,
- (a) Tuberculosis (b) Leprosy
(c) Pellagra (d) Sarcoidosis
- (9) All are bacterial disease except,
- (a) Typhoid (b) Hepatitis B
(c) Tuberculosis (d) Syphilis
- (10) All are fat soluble vitamins except,
- (a) Vitamin C (b) Vitamin A
(c) Vitamin D (d) Vitamin K

SECTION - II (Biochemistry)

- 5 Long Essay : (Any Two) 2×10=20**
- (1) Phenylketonuria
 - (2) Jaundice - Types, causes, clinical features and laboratory diagnosis
 - (3) Kidney function tests.
- 6 Explain the following : (Any Two) 2×5=10**
- (1) Albumin - function and deficiency features.
 - (2) Ketone body metabolism.
 - (3) HDL and LDL Cholesterol metabolism.
- 7 Write Short Notes : (Any Five) 5×2=10**
- (1) Why Met-hemoglobin cannot carry oxygen ?
 - (2) Competitive enzyme inhibition
 - (3) Functions of Calcium
 - (4) Importance of dietary fibre
 - (5) Importance of Glycated hemoglobin
 - (6) Example of essential fatty acids.
- 8 Multiple Choice Questions : 10×1=10**
- (Write correct response in Answer book)
- (1) Iron is transported in blood by
 - (a) Transferrin
 - (b) Ferritin
 - (c) Albumin
 - (d) Haptoglobin
 - (2) Which metal is present in Myoglobin ?
 - (a) Cobalt
 - (b) Magnesium
 - (c) Calcium
 - (d) Iron
 - (3) Vitamin K deficiency leads to
 - (a) Rickets
 - (b) Bleeding
 - (c) Infertility
 - (d) Night blindness

- (4) Rate limiting enzyme of glycogenolysis is
(a) Glycogen synthase (b) De branching enzyme
(c) Glycogen phosphorylase (d) Branching enzyme
- (5) Muscle lacks which enzyme ?
(a) Phosphofructokinase
(b) Glucose 6 phosphate dehydrogenase
(c) Hexokinase
(d) Glucose 6 phosphatase
- (6) Alkaptonuria is characterized by all except
(a) Urine turns black on standing
(b) Mental retardation
(c) Ochronosis
(d) Back pain
- (7) Creatinine is made up of all the following amino acid except
(a) Glycine (b) Arginine
(c) Methionine (d) Serine
- (8) All the following are risk factor for atherosclerosis except
(a) High LDL Cholesterol (b) High HDL Cholesterol
(c) Smoking (d) Hypertension
- (9) Tumor marker for prostate cancer is
(a) Prostate specific antigen
(b) Alpha feto protein
(c) Carcinoembryonic antigen
(d) CA-125
- (10) Which of the following is ketone body ?
(a) Succinate (b) Carnitine
(c) Beta-hydroxy butyrate (d) Creatinine