AAG-003-001636 Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

April/May - 2016

BC-601 : Human Physiology & Clinical Biochemistry

Faculty Code : 003

Subject Code : 001636

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) Question 1 covers 20 MCQ questions of 20 marks.

(2) Figures in the right indicates marks.

(3) Give answers of MCQ in main answer sheet.

SECTION - I

1 Multiple choice questions : **20**

(1) The process by which nucleus disappears in erythropoiesis is called _____

(A) Pyknosis (B) Erythrocytosis

(C) Orthochromic (D) All of above

(2) Blood brain barrier is made up of :

(A) Astrocytes (B) Oligodendrocytes

(C) Oligodendroglia (D) Microglia

(3) An abnormal reduction in the number of granulocytes is called _____

(A) Granulocytopenia (B) Granulocytosis

(C) Agranulocytosis (D) Leukocytosis

(4) Which of the following are examples of nucleated RBC ?

(A) Humans (B) Bats

(C) Camels (D) Dogs

(5) Almost 90% of the carbon dioxide is carried as

(A) Dissolved form (B) Carbonic acid

(C) Carbonic anhydrase (D) Bicarbonate

(6) Which one of the following is not a part of brain stem?

(A) Medulla (B) Midbrain

(C) Pons (D) Cerebellum

(7) Pernicious anemia is :

(A) Microcytic hypochromic anemia

(B) Microcytic hyperchromic anemia

(C) Macrocytic hyperchromic anemia

(D) Macrocytic hypochromic anemia

(8) Normal Glomerular Filtration rate is (in ml/min) :

(A) 225 (B) 325

(C) 125 (D) 85

(9) Which of the following are anticoagulants?

(A) Heparin (B) Oxalate

(C) Citrate (D) All of above

(10) The normal RBC count is :

(A) 4 to 5.5 million/cumm

(B) 5 to 5.5 million/cumm

(C) 4 to 4.5 hundreds/cumm

(D) 5 to 5.5 hundreds/cumm

(11) Glucose absorption from proximal renal tubules and intestine is an example of

(A) Primary active transport

(B) Secondary active transport

(C) Facillited diffusion

(D) Phagocytosis

(12) The digestive function of bile pigments

(A) In digestion of carbohydrate

(B) In digestion of protein

(C) In digestion of lipid

(D) No digestive function

(13) Normal systolic pressure is

(A) 80 mm Hg (B) 120 mm Hg

(C) 40 mm Hg (D) 160 mm Hg

(14) The conduction velocity in a myelinated nerve fibre is directly proportional to :

(A) Branching of axon

(B) Diameter of the fibre

(C) Length of the fibre

(D) Diameter of the dendrites

(15) Which one of these is kidney function test?

(A) Urea (B) Billirubin

(C) SGPT (D) None of the above

(16) The normal serum billirubin level is _____

(A) 0.5 to 1.5 mg/dl

(B) 0.2 to 2.5 mg/dl

(C) 5 to 5.5 mg/dl

(D) 5.5 to 6.5 mg/dl

(17) Uncontrolled flow of saliva outside the mouth is called _____

(A) Mumps (B) Xerostomia

(C) Drooling (D) All of above

(18) Inactive chymotrypsin which is activated into chymotrypsin by _____

(A) Hcl (B) Trypsin

(C) Nacl (D) None of above

(19) Pulse rate in adults is _____

(A) 130 / minute (B) 72 / minute

(C) 90 / minute (D) 150 / minute

(20) Nerve cell body is :

(A) Perikaryon (B) Dendrite

(C) Axon (D) All of above

SECTION - II

2 (a) Write three out of **six** : **6**

(1) Give importance of blood groups.

(2) Write the functions of the white blood corpuscles

(3) Give causes and symptoms of Gastritis

(4) Describe the role of Astrocytes

(5) Define Micturition

(6) Give role of Anticoagulants.

(b) Write three out of **six** : **9**

(1) Discuss structural and functional classification of neurons

(2) How the process of respiration is controlled?

(3) Draw the diagram of internal structure of heart and label it.

(4) Write the functions of Saliva

(5) Write the function of P, Q, R, S and T waves in normal ECG.

(6) What is the cause of the renal stones

(c) Answer two out of **five** : **10**

(1) Describe in detail about the process of Erythropoiesis

(2) Write a note on Cardiac cycle

(3) Write a short note on Liver Function Test

(4) Discuss causes and symptoms of Icterus

(5) Give microscopic structure of Kidney.

SECTION - III

3 (a) Write three out of **six** : **6**

(1) Write the cause of Hemolytic Anemia

(2) Describe Synapse with diagram

(3) Give types of granulocytes

(4) Give role of Plasma Proteins

(5) Give structure and function of uterus

(6) Write a note on digestion and absorption of Carbohydrate.

(b) Write three out of **six** : **9**

(1) Give functional classification of Synapse.

(2) Describe Chemical composition, functions and control of secretion of Pancreatic Juice.

(3) Write a description about the disorders/disease of upper respiratory tract.

(4) Describe structure and function of the Voice Box.

(5) Discuss functional anatomy of Salivary Glands.

(6) Write a note of blood clotting factors.

(c) Write two out of **five** : **10**

(1) Discuss properties and functions of RBC

(2) Write the mechanism of Urine formation

(3) Discuss in detail Hematological Disorder

(4) Write a note on Intrinsic and Extrinsic pathways for blood coagulation

(5) Describe different blood group systems.