D-003-001636 Seat No. _____

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

April / May – 2015

Biochemistry : Paper - 601

Faculty Code : 003
Subject Code : 001636

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

1 Select the correct answer for the questions from the given choices : **20**

(1) What is not a function of blood?

(A) Carries waste products away

(B) Controls balance of chemicals in body

(C) Controls temperature

(D) Produces acid

(2) Vasodilation is

(A) Vessels under the skin expand

(B) Vessels under the skin shrink

(C) Muscles expand

(D) Muscles shrink

(3) The largest cells in the blood that leave the bloodstream to become macrophages are the

(A) eosinophils (C) monocytes

(B) basophils (D) neutrophils

(4) Which clotting factor is released from damaged tissue, and initiates a chain of clotting events?

(A) Prothrombin (C) thrombin

(B) fibrin (D) tissue thromboplastin

(5) Which of the following microorganisms are involved in causing hyper acidity of stomach?

(A) Campylobacter Jajuni

(B) Enterococcus Fecalis

(C) Toxoplasma Gondii

(D) Halicobacter Pylorie

(6) Saliva secretion is stimulated by..

(A) Thought of the food

(B) Smell of the food

(C) Taste of the food

(D) All of the above

(7) Identify the enzyme that is capable of hydrolyzing only the short and medium chain triglycerides and had no effect on long chain triglycerides.

(A) Gastric lipase (C) Pancreatic lipase

(B) Intestinal lipase (D) All of the above

(8) Contraction of gall bladder and secretion of bile juice in duodenum is induced by....

(A) Gastrin (C) Pancreozymin

(B) Cholecystokinin (D) Secretin

(9) Cerebrospinal fluid (CSF) is produced by...

(A) Astrocytes

(B) Eppendymal cells

(C) Oligodendroglial cells

(D) Microglial cells

(10) Acetylcholine esterase enzyme has a role in _____.

(A) Transport of acetylcholine

(B) Secretion of acetylcholine at synapse

(C) Synthesis of acetylcholine

(D) Degradation of acetylcholine.

(11) Which contains de-oxygenated blood?

(A) Left ventricle (C) Bicuspuid valve

(B) Pulmonary artery (D) Aorta

(12) Formula for cardiac output is

(A) SV/HR (C) HR/SV

(B) HR + SV (D) HR × SV

(13) If someone had an upper-respiratory infection, where might it be located ?

(A) sinuses (C) bronchioles

(B) larynx (D) lungs

(14) What connects the throat with the middle ear so that air pressure can be equalized on the eardrum?

(A) pharynx (C) Eustachian tubes

(B) tracheolas (D) larynx passageways

(15) Which of the following is NOT a stage of urine formation ?
(A) glomerular filtration
(B) tubular secretion
(C) glomerular secretion
(D) tubular reabsorption

(16) In a patient who is dehydrated from vomiting and diarrhea, which is likely to be higher than normal in blood :
(A) ADH only
(B) ANP only
(C) aldosterone only
(D) both ADH and aldosterone

(17) Deficiency of glucose-6-phosphate leads to _____ disease
(A) Tarui's
(B) Mcardle's
(C) Von Girke's
(D) Pompe's

(18) _____ fluid is used for prenatal diagnosis
(A) synovial
(B) Amniotic
(C) Umbilical
(D) uterine

(19) Which one of this fluid is found in between the joints?
(A) plural fluid
(B) synovial fluid
(C) peritoneal fluid
(D) pericardial fluid

(20) How will you differentiate transudate from exudates?
(A) by performing protein
(B) by observing the color and appearance
(C) by counting the number of cells
(D) all of above

2 (a) Answer any **three** of the following questions : **2×3=6**
(1) Write about the classification of WBCs along with diagrams.
(2) Write importance of mastication.
(3) Describe the role of oligodendroglial cells in CNS
(4) Draw labelled diagram of respiratory system.
(5) Write any one kidney function test.
(6) Write the functions of platelets.

(b) Answer any **three** of the following questions : **3×3=9**
(1) Enlist the functions of plasma proteins.
(2) Explain the importance of high surface area of small intestine. What structural properties of small intestine are involved in providing very high surface area to small intestine in comparison to the cylinder of the same size?
(3) Describe synapse with a labelled diagram.
(4) How muscles of respiration help in the process of respiration?

(5) Write the clinical significance of peritoneal fluid examination.
(6) Explain Rh incompatibility in fetus.

(c) Answer any **two** of the following questions : **5×2=10**
(1) Describe in detail about the process of erythropoiesis.
(2) Write a short note on composition and functions of pancreatic juice.
(3) Describe the experiment that led to discovery of neurotransmitter "Vegusstoff".
(4) Explain anatomy and physiology of trachea.
(5) Write in detail the examination of gastric fluid.

3 (a) Answer any **three** of the following questions : **2×3=6**
(1) Why blood is known as fluid of health?
(2) Write the importance of enterokinase.
(3) How conducting system of heart works?
(4) Define and state different forms of Diabetes Insipidus.
(5) How CSF is produced and how will you collect it for analysis?
(6) Write in brief about ECG.

(b) Answer any **three** of the following questions : **3×3=9**
(1) Write in brief about nutritional deficiency anemia.
(2) Write a brief note on Gall bladder stones.
(3) Draw labelled diagram of how blood flows through heart.
(4) State role of ADH and Aldosterone.
(5) State chronic complications of hyperglycemia.
(6) Write about the process of internal and external respiration.

(c) Answer any **two** of the following questions : **5×2=10**
(1) Explain coagulation pathway.
(2) Discuss the process of digestion and absorption of carbohydrates in human GIT.
(3) Describe in detail along with labelled diagram of internal structure of heart.
(4) Briefly describe role of Kidney.
(5) Write a short note on Glycogen Storage disease.
