



RX-003-1016036

Seat No. _____

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

March - 2019

Biochemistry : Paper - 601

(Human Physiology and Clinical Biochemistry)

Faculty Code : 003

Subject Code : 1016036

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (A) Write the correct answer for the questions : 4
- (1) Which cell is also known as thrombocyte?
 - (2) What do you mean by erythroblastosis foetalis?
 - (3) What is hemostasis?
 - (4) Which vitamin is important during blood coagulation process?
- (B) Write the Answer in Brief : (Any One out of Two) 2
- (1) Give the composition of plasma
 - (2) Give maturation factors required for RBC.
- (C) Write the Answer in detail : (Any One out of Two) 3
- (1) What are the functions of blood?
 - (2) Explain ABO systems.
- (D) Write Short note : (Any One out of Two) 5
- (1) Explain erythropoiesis.
 - (2) Blood coagulation.

- 2 (A) Write the correct answer for the questions : 4
- (1) What does urase enzyme digest?
 - (2) What is the zymogen form of pepsin?
 - (3) Why trypsin is called an activator enzyme?
 - (4) Which cell of gastric glands release hydrochloric acid?
- (B) Write Answer in Brief : (Any **One** out of Two) 2
- (1) Name the three types of salivary glands
 - (2) Which two things are required for the action of pancreatic lipase?
- (C) Write Answer in detail : (Any **One** out of Two) 3
- (1) Draw well labelled diagram of Digestive system.
 - (2) Explain the histology of gastrointestinal tract .
- (D) Write a Short note : (Any **One** out of Two) 5
- (1) Give the function of succus entericus.
 - (2) How are carbohydrates digested and absorbed in human body ?
- 3 (A) Write the correct answer for the questions 4
- (1) Which vessels carry and drain blood from kidneys?
 - (2) Define Glomerular Filiteration Rate.
 - (3) By what mechanism tubular reabsorption of substances takes place ?
 - (4) Name any two renal disorders .

- (B) Write the Answer in Brief : (Any **One** out of Two) **2**
- (1) Differentiate between cortical and juxtamedullary nephron.
 - (2) Give two functions of kidney
- (C) Write the Answer in detail : (Any **One** out of Two) **3**
- (1) Describe the structure of Nephron.
 - (2) Give the characteristics of normal urine
- (D) Write Short note : (Any **One** out of Two) **5**
- (1) Discuss in detail renal function tests.
 - (2) Regulation of water balance.
- 4** (A) Write the correct answer for the questions : **4**
- (1) Write structural classification of neurons
 - (2) What is myelin? What is its functional role?
 - (3) Define neurotransmitter.
 - (4) What are Nissl granules found in neurons?
- (B) Write the Answer in Brief : (Any **One** out of Two) **2**
- (1) Write about different types of glial cells.
 - (2) Classify the neurons based on the structure.
- (C) Write the Answer in detail : (Any **One** out of Two) **3**
- (1) Briefly write about the Peripheral nervous System
 - (2) Classify the neurotransmitters based on their chemical nature with examples.

- (D) Write a Short note : (Any **One** out of Two) **5**
- (1) Write a brief note on neuro muscular junction with the help of diagram.
 - (2) Discuss different stages involved in nerve impulse conduction.
- 5** (A) Write the correct answer for the questions : **4**
- (1) What is Chloride shift?
 - (2) What is closed circulation?
 - (3) Define systole.
 - (4) Which are the special tissues present in heart which can generate electrical impulses?
- (B) Write the Answer in Brief : (Any **One** out of Two) **2**
- (1) What is pulmonary circulation?
 - (2) Give three forms used by CO_2 for transportation in blood
- (C) Write the Answer in detail : (Any **One** out of Two) **3**
- (1) What is the role played by Haemoglobin in transport of oxygen?
 - (2) What are the factors affecting the oxygen haemoglobin dissociation curve.
- (D) Write a Short note : (Any **One** out of Two) **5**
- (1) Give the gross anatomy of respiratory system.
 - (2) Describe the cardiac cycle.