



MCA-1603120102020500 Seat No. _____

M. Sc. (Biochemistry) (Sem. II) (CBCS) Examination

April / May - 2018

CBC - 5 : Human Physiology & Endocrinology

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

[Total Marks : 70

1 Answer briefly any **seven** of the following questions : **14**

- (A) What is Boyle's law ? Explain it in context with respiratory process.
- (B) Give the classification of nervous system.
- (C) Note on layers of the heart wall.
- (D) Write a brief note on chemical digestion in small intestine.
- (E) Define common biliary duct and give its functions.
- (F) Role of Creatine Phosphate in muscle contraction.
- (G) What are the sources of daily water gain and loss in the body?
- (H) Define systolic and diastolic blood pressure
- (I) What is the effect of parathormone on kidneys?
- (J) How is secretion of testosterone regulated?

2 Answer any **two** of the following questions : **14**

- (A) Discus in detail about systemic and pulmonary circulation.
- (B) Discus the Dalton's law and Henry's law for understanding the exchange of oxygen and carbon dioxide.
- (C) Explain synthesis and secretion of insulin.

- 3 (A) Describe the reproductive hormones of males and females along with their functions and regulation by hypothalamus. 7
- (B) Discuss the lung volumes and capacities with Spirogram. 7

OR

- (C) Write note on effects of glucocorticoids. 7
- (D) Give the overview of smooth muscle tissue. 7
- 4 Answer the following questions : 14
- (A) Explain in detail about basic processes for digestive system.
- (B) Discuss the mechanism for formation of dilute urine.
- 5 Answer the following questions : (Any Two) 14
- (A) Explain mechanism of absorption of monosaccharide, vitamins and lipids.
- (B) Explain about energy source for muscle and oxygen consumption after exercise.
- (C) Discuss various types of synapses and neuroreceptors.
- (D) Write down hormonal regulation of blood pressure.
