



**MC-21259**

Seat No. \_\_\_\_\_

**First Year B. D. S. Examination**

**July - 2016**

**Biochemistry**

**(Nutrition & Dietetics)**

Time : **3 Hours**

[Total Marks : **70**

- Instructions :**
- (1) Write each question in separate answer book.
  - (2) Draw figure wherever necessary.
  - (3) Figures on right indicate marks.
  - (4) Attend all the questions.

**SECTION - I**

- 1** Define blood pressure. Define the terms systolic blood pressure, diastolic blood pressure, mean blood pressure, pulse pressure. **10**  
Describe the mechanism involved in short-term regulation of blood pressure.

**OR**

- 1** Describe the intrinsic and extrinsic pathway of coagulation of blood. What is hemophilia ? **10**
- 2** Short notes : (any two) **10**
- (a) Pulmonary function tests
  - (b) Functions of saliva
  - (c) Neuro-muscular junction.
- 3** (A) Write short notes : (any two) **10**
- (a) Stretch Reflex
  - (b) Cortisol
  - (c) Estrogen.
- (B) Answer in one sentence : (any **five**) **5**
- (a) Enumerate any two pumps involved in primary active transport.
  - (b) Enumerate the triad of symptoms involved in Parkinson's disease.

- (c) Enumerate the mechanisms involved in the transport of carbon dioxide in the blood.
- (d) What is Graves disease ?
- (e) What is the difference between Type I and Type II diabetes mellitus ?
- (f) Enumerate the differences between upper and lower motor neuron lesion.

## SECTION - II

- 4 Describe briefly : (any two) 10
- (a) Classify lipids. Describe functions of Phospholipids
  - (b) Describe types of normal hemoglobin. Write about significance of 2, 3-BPG in O<sub>2</sub> carrying by hemoglobin.
  - (c) Describe regulation of Blood glucose.
- 5 Short notes : (any two) 10
- (a) Dietary Fibers
  - (b) BMR
  - (c) Classification of enzymes.
- 6 (a) Write short notes : (any two) 10
- (a) Buffer system in our body
  - (b) Functions of bile salts
  - (c) Structure and functions of DNA.
- (b) Answer the following : (any five) 5
- (a) Normal fasting and Post-prandial Blood Glucose level.
  - (b) Key enzymes of glycolysis.
  - (c) Types of jaundice.
  - (d) Biomedical importance of glucuronic acid.
  - (e) Functions of Vitamin K.
  - (f) Name of Trace Elements for our body.