



MCL-21259

Seat No. _____

First Year B. D. S. Examination

January – 2017

Physiology, Biochemistry, Nutrition & Dietetics

Time : Hours]

[Total Marks : 70

- Instructions :**
- (1) Write answers of each section in separate answer book.
 - (2) Answers should be brief and draw necessary diagrams whenever necessary.
 - (3) Illegible writing will not fetch any marks.
 - (4) Figures to the right indicate full marks.
 - (5) Attend all the questions.

SECTION-I : (PHYSIOLOGY)

- 1 Write different stages of erythropoiesis and regulation of it. 10
OR
- 1 Describe the regulations of arterial blood pressure. 10
- 2 Write notes on : (Any two) 10
- (a) Oxygen haemoglobin dissociation curve
 - (b) Hormones regulating calcium metabolism
 - (c) Functions of basal ganglia.
- 3 Answer in few sentences : (Any five) 15
- (a) Functions of platelets
 - (b) Physiological basis of presbyopia
 - (c) Physiological basis of resting membrane potential
 - (d) Adrenal medulla is not essential for life
 - (e) Safe period
 - (f) Functions of Juxtaglomerular apparatus.

SECTION - II
(Biochemistry, Nutrition & Dietetics)

- 4 Describe Briefly : (Any two) 10
- (a) Metabolic role and deficiency manifestation of Vitamin C & Niacin (vitamin B3)
 - (b) Plasma proteins with their functions.
 - (c) Structure and function of DNA & RNA.
- 5 Short Notes : (Any Two) 10
- (a) Oxygen dissociation curve and factors affecting it
 - (b) Basal metabolic rate and factors affecting it
 - (c) Enzyme inhibitors with examples.
- 6 (1) Write Short Notes : (Any two) 10
- (a) Factor affecting iron absorption. Write on Iron deficiency anemia.
 - (b) Chronic complications of Diabetes Mellitus.
 - (c) Beta oxidation of fatty acids with Energetics.
- (2) Answer the following : (Any five) 5
- (a) Lactose intolerance leads to diarrhoea.
 - (b) Dietary fibers are good for health.
 - (c) Glucuronic acid is important for detoxification of bilirubin.
 - (d) Ketosis occurs in starvation
 - (e) Immunoglobulin M is important for primary immune response
 - (f) Pyruvate is a substrate for gluconeogenesis.