

# I.T.S DENTAL COLLEGE, HOSPITAL & RESEARCH CENTRE

47, Knowledge Park-III, Greater Noida

## BDS 1<sup>st</sup> year (2017 Batch)

### Sent-up Internal Assessment Examination

#### Subject : Physiology / Biochemistry

Time : 3 hrs

Date :05.10.2018

MM:70

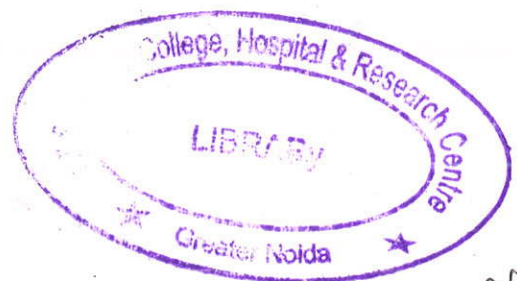
- All questions are compulsory
- Use separate sheet for Part A and Part B
- Draw a well labelled diagram wherever necessary

#### PART – A (Physiology) - M.M - 35

- Q. 1 Enumerate the hormones secreted by Pituitary gland. Discuss the action of growth hormone and its applied aspect. [7]
- Q. 2 Compare and contrast the following : [3X4=12]
- a. Segmentation and Peristalsis
  - b. Major and Minor Thalassaemia
  - c. Hypoxic Hypoxia and Anaemic Hypoxia
  - d. Excitatory Post Synaptic Potential and Inhibitory Post Synaptic Potential
- Q. 3 Write briefly on : [2X4=8]
- a. Short term regulation of blood pressure
  - b. Gastro-intestinal Hormones
- Q. 4 Write short notes on : [2X4=8]
- a. Endocytosis
  - b. Myelination of nerves
  - c. Spermatogenesis
  - d. Auditory reflex

#### PART – B (Biochemistry) – M.M. - 35

- Q. 1 What is the major catabolic pathway of glucose under anaerobic condition? Mention the pathway and indicate the key enzymes. [7]
- Q. 2 Describe the sources, RDA, Biochemical function & deficiency manifestations of vitamin A. Draw the well labelled diagram of wald Visual cycle. [7]
- Q. 3 Explain protein synthesis in a bacterial cell under following headings : [7]
- a. Initiation
  - b. Elongation
  - c. Termination
  - d. Post translation modification
- Q. 4 Write short notes on any 07 : [7X2=14]
- a. Diagnostic significance of isoenzymes
  - b. Hormonal regulation of Blood glucose level
  - c. Factors affecting BMR
  - d. Hypothyroidism & Hyperthyroidism
  - e. Oncogenes
  - f. Immunoglobulin
  - g. Inborn errors of amino acid metabolism
  - h. Atherosclerosis



ACTSH  
(AC SH)

# ITS DENTAL COLLEGE, HOSPITAL & RESEARCH CENTRE

47, KNOWLEDGE PARK III, GREATER NOIDA

## First Internal Assessment Examination

**BDS 1<sup>st</sup> year (2018 Batch)**

**Subject : Physiology/ Biochemistry**

Time: 3 hrs

28/11/2018

(MM: 70)

- All questions are compulsory.
- Use separate sheet for Part A and Part B
- Draw a well labelled diagram wherever necessary

### **PART -A (Physiology)**

Q1. Draw well labelled diagram of neuromuscular junction. Describe various events occur at the junction. (7)

Q2. Write briefly:

(4x2=8)

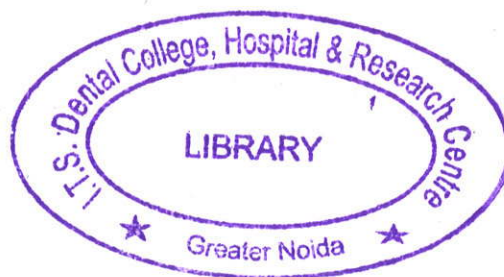
- a) Clotting mechanism.
- b) Define Erythropoiesis and describe different stages of development in adult.

Q3. Compare and contrast: (3x4=12)

- a) Adult Haemoglobin and Foetal Haemoglobin.
- b) Myelinated Nerve and unmyelinated nerve.
- c) Major and minor Thalassemia.
- d) Humoral and cellular Immunity.

Q4. Write short notes on: (2x4=8)

- a) All or none Law
- b) Erythroblastosis Foetalis.
- c) Jaundice.
- d) Action Potential.



### **PART -B (Biochemistry)**

Q1. Describe the reactions of TCA cycle. How many ATP molecules are generated per molecule of Acetyl Co A entering the cycle. (6)

Q2. What are amino acids? How are these classified? Give one example of each. (7)

Q3. Explain the steps of  $\beta$  – Oxidation of Palmitic acid (16C). Give its energetics also. (7)

Q4. Write Short Notes on (any 5):

(3x5=15)

- A. Significance of HMP shunt.
- B. Enzyme Inhibition.
- C. Ammonia toxicity.
- D. Fatty Liver and Lipotropic factors.
- E. Inborn errors of amino acid metabolism.
- F. Isoenzymes and their therapeutic uses.

