# ITS DENTAL COLLEGE, HOSPITAL & RESEARCH CENTRE

47, KNOWLEDGE PARK III, GREATER NOIDA

## Second Internal Assessment Examination

# BDS 1st year (2018 Batch)

# Subject: Physiology/ Biochemistry

Time: 3 hrs

9/3/2019

(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)

- Q.1. Define Cardiac Output and give its normal value. Describe regulation of cardiac output. Discuss its measurements. (1+4+2=7)
- Q.2. Write briefly:

(4X2 = 8)

- a. Chemical regulation of respiration
- b. Give composition of pancreatic juice and discuss functions of pancreatic enzymes
- Q.3. Difference between:

(3X4=12)

(2X4 = 8)

- a. Segmentation and Peristalsis
- b. Red muscle fibres and White muscle fibres
- c. Hypoxic hypoxia and Anaemic Hypoxia
- d. Hepatic and Liver bile

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- Q.4. Draw well labelled diagram of:
  - a. Myelinated Nerve
  - b. Pressure changes in left ventricle and aorta during cardiac cycle
  - c. Static lung volume and capacities
  - d. O<sub>2</sub> hemoglobin dissociation curve

# PART -B (Biochemistry

- Q.1. Enumerate the factors that influence the absorption of Calcium. Give in details how blood calcium levels are regulated? (4x2=8)
- Q.2. How Bilirubin is formed in the body? Classify Jaundice & it's evaluation. Describe in brief Liver Function Test. (3x3=9)
- O.3. Write Short Notes on any 04 -

(4x4=16)

- a. ETC it's Components & inhibitors
- b. Free radicals & antioxidants
- c. Diagnostic use of enzymes
- d. Protein energy malnutrition
- e. Deficiency manifestations of Vitamin D

# ITS DENTAL COLLEGE, HOSPITAL & RESEARCH CENTRE 47, KNOWLEDGE PARK III, GREATER NOIDA

### Sent Up Examination

# BDS 1st year (2018- Batch)

### Subject: Physiology/ Biochemistry

### INSTRUCTIONS

- 1. DO NOT USE MOBILE PHONES / CHEATING MATERIALS DURING EXAMS.
- DO NOT USE WASHROOMS IN FIRST & LAST HALF HOURS OF EXAMINATIONS.
- 3. MAXIMUM 5 MINUTES WILL BE ALLOWED TO USE THE WASHROOM. ENTRY MUST BE MADE IN TIME IN & OUT SHEET AVAILABLE AT INVIGILATOR DESK.
- DO NOT WRITE ANYTHING ON THE PAPER EXCEPT YOUR NAME & ROLL NO.
- 5. PLEASE HANDOVER THE ANSWER SHEETS TO INVIGILATOR BEFORE LEAVING EXAMINATION ROOM.

Time: 3 hrs NOTE 19/08/2019 (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)

(MM: 35)

- Q.1. Define Cardiac Output and describe the factors affecting it. Discuss the measurements of cardiac output. (7X1= 7)
- Q.2. Write briefly:

(4X2 = 8)

- a. Pain and its pathway
- b. Digestion and absorption of Carbohydrates
- Q.3. Compare and contrast:

(4X3 = 12)

- a. Pulmonary ventilation and Alveolar ventilation
- b. Facilitated diffusion and Secondary active transport
- c. Cretinism and Myxedema
- d. White muscle fibre and Red muscle fibre
- Q.4. Write short note on:
  - a. Surfactant
  - b. Rh Blood Group
  - c. Visual Pathway
  - d. TmG

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### PART -B (Biochemistry)

(MM: 35)

Q1. Explain the steps of beta -oxidation of palmitic acid. Give its energetic also.

(4+2=6)

Q2. What are iso enzymes? Give their clinical significance in detail.

(2+3=5) (3X8=24)

- Q3. Write Short Notes on:
  - A. Macronutrients Vs Micronutrients
  - B. Uncouplers and inhibitors of Electron transport chain.
  - C. Post Trancriptional Modification.
  - D. Respiratory & Metabolic acidosis.
  - E. Hormonal Regulation of Blood sugar.
  - F. Coenzyme role of Vitamin B<sub>3</sub>.
  - G. Transamination reaction
  - H. Gout