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

47, Knowledge Park-III, Greater Nioda

# First Internal Assessment Examination BDS 1<sup>st</sup> year (2016 Batch)

Subject: Physiology / Biochemistry

Time: 3 hrs

Date: 04.02.2017

M.M: 70

All questions are compulsory

Use separate sheet for Part A and Part B

Draw a well labelled diagram wherever necessary

#### PART – A (Physiology)

Discuss the composition, functions and regulation of salivary reaction. Q. 1 [5] Q. 2 Write briefly on: [2X4=8] a. Myocardial action potential and Pace Maker potential. b. Intrinsic and Extrinsic mechanism of coagulation Q. 3 Compare and contrast the following: [4X3=12] a. Cellular Immunity and Humoral immunity b. Secretin and CCK-PKZ Hospital & c. Red muscle and white muscle d. Diffusion and Active transport Q. 4 Write short notes on: [2X5=10] LISRARY a. Molar unit b. Action potential in a Neuron c. Peristalsis Greater Noida d. Mechanism of reaction of Hcl in stomach

#### PART – B (Biochemistry)

- Q. 1 Draw TCA Cycle .What are the normal values of blood Glucose? What is blood sugar [6] level regulated in our body? Q. 2 Describe structural organization of protein & add short notes on any three biological [6] Important peptides. Q. 3 How heam is degraded? Classify jaundice & its evaluation. Describe is brief liver [6] function test. How Sources, Functions RDA & deficiency manifestation of Vit-A. Draw well labelled Q. 4 [5] diagram of wald's visual cycle. Write Short Notes on:-[6X2=12]
  - a. Role of lipoproteins in health & disease.
  - b. Essential fatty acids
  - c. Glucose tolerance test
  - d. Von-Gierke's Disease
  - e. Beri-beri

e. Blood groups

f. Rickets v/s osteomalacia

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## **Second Internal Assessment Examination**

## BDS 1st year (2016 Batch)

Subject: Physiology / Biochemistry

Time: 3 hrs

Date: 29.05.2017

M.M: 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 Discuss the Neural and chemical regulations of Respiration.

[8]

Q. 2 Write briefly on:

[4X2=8]

- 1. Discuss the measurement and regulation of cardiac output.
- 2. Describe the actions of growth hormones and its related disorders.
- Q. 3 Compare and contrast the following –

[3X3=9]

- a. Cretinism and Myxoedema
- b. Bohr's effect and Haldane's effect
- c. Baroreceptors and chemoreceptor
- Q. 4 Write short notes on:
  - a. Tetany
  - b. Hypovolumic shock
  - c. Rh factor
  - d. Enzymes of Pancreatic juice
  - e. Motor unit



#### PART – B (Biochemistry)

- Q. 1 What is  $\beta$  Oxidation? Enumerate steps involved in  $\beta$  Oxidation of Palmitic acid [6] (16c) Give energetic.
  - /242.2 29
- Q. 2 What is IUB classification of Enzymes. Add a short note on diagnostic. Importance of Enzymes.
- [6]
- Q. 3 Enumerate the factors influencing the absorption of calcium. Give in detail how Blood calcium levels are regulated.
- [6]
- Q. 4 Elucidate cyclic process of Urea Synthesis. Discuss clinical significance of Urea in Blood & metabolic disorders of Urea cycle.
- [5]

[6X2=12]

- Q. 5 Write short note
  - a. Gout
  - b. Fluorides
  - c. Phenyl ketonuria
  - d. Jaundice
  - e. Hypothyroidism
  - f. Competitive v/s non-competitive inhibition

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47, Knowledge Park-III, Greater Nioda

## Eirst Internal Assessment Examination

## BDS 1st year (2016 Batch)

Subject : Physiology / Biochemistry

Time: 3 hrs

Date: 09.10.2017

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Greater Noida

M.M: 70

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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 Enumerate the hormones of anterior pituitary. Discuss the actions and disorders of growth hormones.

[7]

Q. 2 Discuss the composition, functions and regulation of Secreation of Saliva.

[7]

Q. 3 Compare and contrast the following:

[2.5X4=10]

- a. Universal donor and universal recipientb. Superficial pain and deep pain
- c. Hypoxic Hypoxia and anaemic Hypoxia
- d. Myopia and Hypermetropia
- Q. 4 Discuss in brief:

[2.5X2=5]

[2X3=6]

- a. Short term regulation of Blood pressure
- b. Ovarian changes in Menstrual cycle
- Q.5 Write short notes on any three:
  - a. Sensory pathways
  - b. Juxtaglomerular apparatus
  - c. Herring Breuer's reflex
  - d. Smooth muscles

# PART – B (Biochemistry)

Q. 1 Describe the sources, normal requirements, biochemical functions & deficiency manifestations of Vitamins 'A'. Also discuss Wald's visual cycle.

[5]

Q. 2 Explain the steps of  $\beta$  oxidation of palmitic acid (C16) giving energetic.

[5]

Q. 3 Describe the process of DNA replication. Name two inhibitions of replication.

[5]

Q. 4 Write short notes on the following:

[8X2.5=20]

- Significance of HMP shunt pathway
- b. Secondary structure of proteins
- c. Enzymes profile in MI
- d. Phospholipids
- e. Hypothyroidism
- Factors affecting absorption of calcium
- g. Free radicals
- h. Types of jaundice & biochemical changes in blood & urine in different type of jaundice