

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

47, Knowledge Park-III, Greater Noida

Second Internal Assessment Examination

BDS 1st year (2015 Batch)

Subject : Physiology / Biochemistry

Time : 3 hrs

Date : 09.04.2016

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 actions of thyroid hormones. Discuss Graves' disease. [7]
- Q. 2 Write briefly on : [5]
1. Cardiac cycle [4]
 2. Functions of liver [3X3=9]
- Q. 3 Compare and contrast the following –
- a. Gigantism and Acromegaly
 - b. Cretinism and Myxoedema
 - c. Baroreceptors and chemoreceptor
- Q. 4 Write short notes on : [2X5=10]
- a. Hypoxic Hypoxia
 - b. Bohr's effect
 - c. Absorption of Fats
 - d. Factors affecting Heat Rate
 - e. Surfactant and its deficiency



PART – B (Biochemistry)

- Q. 1 a. Write the IUB classification of enzymes with one example of each. [3]
- b. Differentiate : [4]
- (i) Competitive & Non competitive Inhibition
 - (ii) Coenzyme & Isoenzyme
- Q. 2 What is β - Oxidation? Enumerate steps involved in β - Oxidation of fatty acid & calculate the energetic of oxidation of one modules of Palmitic acid. [1+3+2=6]
- Q. 3 Write in brief biochemical functions, RDA, deficiency manifestations of Vitamin 'A'. [4+3=7]
- Draw well labelled diagram of Wald's visual cycle.
- Q. 4 Write short answers of following – [3X5=15]
- (i) composition & functions of teeth
 - (ii) Significance of HMP shunt
 - (iii) Factors affecting BMR
 - (iv) Alkaptonuria
 - (v) Protein Caloric Malnutrition

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

47, Knowledge Park-III, Greater Noida

Final Internal Assessment Examination

BDS 1st year (2015 Batch)

Subject : Physiology / Biochemistry

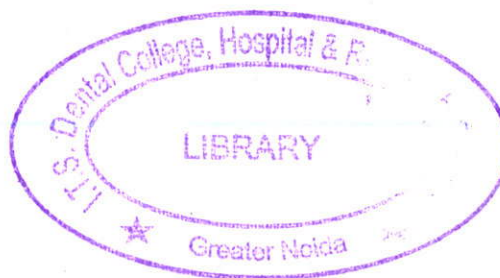
Time : 3 hrs

Date : 17.09.2016

- 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 regulation of Respiration. [7]
- Q. 2 Discuss the regulation on Blood Pressure. [7]
- Q. 3 Differentiate between the following : [2.5X4=10]
- a. Secretin and CLK – PKZ
 - b. Myopia and Hypermetropir and its correction.
 - c. Mechanoreceptors and pain receptors
 - d. Upper Motor Neuron and Lower Motor Neuron Paralysis
- Q. 4 Write briefly on : [2.5X2=5]
- a. Functions of Gonadotropins in Males and Females
 - b. Formation of Urine
- Q. 4 Write briefly on any three : [2X3=6]
- c. Properties of Cardiac Muscle
 - d. Synapse
 - e. Features of Cerebellar lesion
 - f. Cochlea



PART – B (Biochemistry)

- Q. 1 Describe the reaction of Citric Acid Cycle. How many ATP molecules are generated per molecule of Acetyl CoA entering the cycle? [6]
- Q. 2 What are Enzymes? Explain different factors affecting the enzyme activity. [6]
- Q. 3 Describe sources, biochemical functions, RDA & deficiency manifestations of vitamin A. Draw well labelled Wald visual cycle. [6]
- Q. 4 Describe structural organization of Protein & add short note on any three biological important peptides. [5]
- Q. 5 Write short note on only 4 : [4X3=12]
- a. Gout
 - b. Electron transport chain – its component & inhibitors
 - c. Fluorosis
 - d. BMR & factors affecting BMR
 - e. Jaundice
 - f. Post transcriptional modification