

First B.D.S. Examination
General Human Physiology and Biochemistry

Date : 26-07-2019, Friday]

[Time : 3 Hours

[Max. Marks : 70

- Instructions :** (1) Figure to the right indicates marks.
 (2) Draw diagram wherever necessary.
 (3) Write legibly.
 (4) Use Separate answer books for each section.

Section A

- Q.1. Describe ANY TWO (2 × 7 = 14 marks)
- A. Define Hemostasis and describe its stages
 - B. Define Blood Pressure and describe its regulation
 - C. Define Deglutition and describe its stages
- Q.2. Write short notes on ANY THREE (3 × 5 = 15 marks)
- A. Role of Chemoreceptors in regulation of Respiration
 - B. Define and classify Reflexes
 - C. Explain the Countercurrent Multiplier mechanism in nephron of kidney
 - D. Functions and regulation of secretion of Oxytocin
- Q.3. Write briefly in one or two sentences (ANY SIX) (6 × 1 = 06 marks)
- A. Enumerate the functions of middle ear
 - B. In Myasthenia Gravis, autoantibodies are formed against which protein?
 - C. State Fick's law of Diffusion
 - D. Enumerate the functions of different teeth in Mastication
 - E. State the 'Subliminal fringe' property of Synapse
 - F. What is Myopia?
 - G. Enumerate the different types of taste sensation.
 - H. Explain the cause of Pernicious Anemia?

SECTION 2 (BIOCHEMISTRY)

- Q-4 Describe the following (any two) 14
- A. Stem cells
 - B. Glycogenolysis and its regulation
 - C. Calcium Homeostasis
- Q-5 Write short notes on (any three) 15
- A. Pantothenic acid
 - B. Markers of glomerular permeability
 - C. Functional classification of protein
 - D. Prostaglandin
- Q-6 Write briefly in one or two sentences (Any six) 06
- A. Enumerate primary and secondary ketone bodies
 - B. Define basal metabolic rate
 - C. Define body mass index
 - D. Enumerate various method for quantitative estimation of protein
 - E. Recommended daily allowances of thiamine ,pyridoxine and cobalamin
 - F. Write only one source reaction of NADPH
 - G. Name the compounds synthesized from glycine
 - H. Name fat soluble vitamins.

First B.D.S. Examination
Dental Anatomy, Embryology and Oral Histology

Date : 30-07-2019, Tuesday]

[Max. Marks : 70

[Time : 3 Hours

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SECTION - I

1. Write briefly **any two** of the following. (14)
 - (a) Write about the concepts of Occlusion.
 - (b) Classify oral mucous membrane. Write in detail the differences between Keratinized and Non-keratinized Oral Mucosa.
 - (c) Classify cementum. Write about Chemical composition, histological structure, development and applied aspects of cementum.

2. Describe **any three** of the following. (15)
 - (a) Anatomy and histology of Maxillary Sinuses
 - (b) Write in detail about Primary, Secondary and Tertiary Dentin
 - (c) Write about Permanent Maxillary Lateral Incisor.
 - (d) Write differences between Maxillary first and second premolars

3. Answer the following in one or two sentences. **(Any Six)** (6)
 - (a) Name the parts of gingiva.
 - (b) Write dental formulae for deciduous and permanent teeth.
 - (c) Enumerate the various elevations seen on a tooth surface.
 - (d) Define and classify grooves.
 - (e) Name the types of salivary gland acini.
 - (f) What is Hertwig's epithelial root sheath?
 - (g) Enumerate the functions of teeth.
 - (h) What are Sharpey's Fibers?

SECTION - II

4. Write briefly **any two** of the following. (14)
 - (a) Write in detail about permanent mandibular first molar.
 - (b) Compare and contrast permanent maxillary and mandibular canines.
 - (c) Enumerate the Morphological stages of tooth development. Write in detail about cap stage.

5. Describe **any three** of the following. (15)
 - (a) Development of tongue.
 - (b) Principal fibers of periodontal ligament.
 - (c) Write differences between occlusal surfaces of Maxillary first and second Molars
 - (d) Theories of tooth eruption.

6. Answer the following in one or two sentences. **(Any Six)** (6)
 - (a) What is hypercementosis?
 - (b) What is curve of spee?
 - (c) What are Mamelons?
 - (d) What are anatomical and clinical crowns?
 - (e) Name any three tooth numbering systems
 - (f) Name the cellular zones of Pulp.
 - (g) What is enamel spindle?
 - (h) Name the parts of Periodontium.

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