

MANIPAL UNIVERSITY**FIRST BDS DEGREE EXAMINATION – JUNE 2009****SUBJECT: GENERAL HUMAN ANATOMY INCLUDING EMBRYOLOGY & HISTOLOGY (ESSAY)
(OLD REGULATION)**

Friday, June 12, 2009

Time: 14:20 – 17:00 Hrs.

Maximum Marks: 80

1. Describe the Parotid gland under the following headings:
 - 1A. Surfaces & borders
 - 1B. Relations and structures within it
 - 1C. Secretomotor nerve supply
 - 1D. Development
 - 1E. Applied aspects
 - 1F. Microscopic structure of parotid gland.

(2+4+2+2+2+3 = 15 marks)

- 2A. Name the constrictor muscles of the Pharynx.
- 2B. Describe the palatine tonsil under the following headings:
 - i) Location
 - ii) Relations
 - iii) Blood supply
 - iv) Development
 - v) Microscopic structure

(1+(2+4+2+3+3) = 15 marks)

3. Write short notes on:

- 3A. Interior of larynx
- 3B. Hyoid bone
- 3C. Medial wall of middle ear
- 3D. Chorda tympani nerve
- 3E. Down's syndrome
- 3F. Periosteum
- 3G. Chorion
- 3H. Development of pituitary gland
- 3I. Histology of bone
- 3J. Microscopic structure of lymph node.

(5×10 = 50 marks)



MANIPAL UNIVERSITY**FIRST BDS DEGREE EXAMINATION – JUNE 2009****SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY (ESSAY)
(NEW REGULATION)**

Saturday, June 13, 2009

Time: 14:15 – 17:00 Hrs.

Maximum Marks: 60

- ✍ Answer Section "A" and Section "B" in two separate answer books.
✍ Draw diagrams and flow charts wherever appropriate.

SECTION – A : HUMAN PHYSIOLOGY: 30 MARKS

1. Explain the Excitation Contraction Coupling in skeletal muscle. Add a note on Myasthenia Gravis. (7+3 = 10 marks)
2. **Short Notes:**
- 2A. What is deglutition? Explain the different stages of deglutition. (1+3 = 4 marks)
- 2B. Draw and explain the cystometrogram. (2+2 = 4 marks)
- 2C. Explain the role of Lymphocytes in immunity. (4 marks)
- 2D. Name the source of oxytocin and add a note on Parturition reflex. (1+3 = 4 marks)
- 2E. Define cardiac output and explain the factors regulating it. (1+3 = 4 marks)

SECTION – B : BIOCHEMISTRY: 30 MARKS

- 3A. Explain the dietary sources, RDA and functions of calcium. Add a note on in the regulation of plasma calcium level.
- 3B. Explain the formation of bilirubin and its fate in the body. Add a note on jaundice. (6+4 = 10 marks)
- 4A. Write the reactions of urea cycle.
- 4B. Describe the hormonal regulation of blood glucose level.
- 4C. Classify lipids with one example for each class.
- 4D. Calculate the approximate energy required per day by a male dental student, aged 22 years and having a body weight of 55 kgs. (3×4 = 12 marks)
- 5A. Explain the complete digestion of starch in the small intestine.
- 5B. Write a note on the denaturation of proteins.
- 5C. Write the coenzyme forms of:
i) Pyridoxine ii) Thiamin iii) Panthothenic acid iv) Riboflavin
- 5D. Describe the functions of Vitamin C and its deficiency symptoms. (2×4 = 8 marks)



MANIPAL UNIVERSITY**FIRST BDS DEGREE EXAMINATION – JUNE 2009****SUBJECT: DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY (ESSAY)
(NEW REGULATION)**

Monday, June 15, 2009

Time: 14:15 – 17:00 Hrs.

Maximum Marks: 60

✍ Answer ALL the questions.**✍ Draw diagrams and flow charts wherever appropriate.**

1. Classify oral mucosa. Describe in detail the light microscopic and ultrastructure of the gingiva.

(2+8 = 10 marks)

2. Describe in detail the morphology of the permanent maxillary first molar. Add a note on its chronology.

(8+2 = 10 marks)

3. **Write short answers on:**

3A. Advanced bell stage of tooth development.

3B. Surface structures of enamel.

3C. Theories of dentin sensitivity.

3D. Cell free Zone of the pulp.

3E. Ductal modification of saliva.

3F. Principal fibers of periodontal ligament.

3G. Five differences between primary and permanent dentition.

3H. Occlusal aspect of mandibular second premolar.

3I. Compensatory curves.

3J. Collagen seeding theory of mineralization.

(4×10 = 40 marks)

