



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST BDS DEGREE EXAMINATION - JANUARY 2018
SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY
Wednesday, January 17, 2018 (14.15 - 17.00 Hrs.)

SECTION - A : GENERAL HUMAN PHYSIOLOGY (30 MARKS)

Essay:

- 1A) Define blood pressure. Give normal value. Explain the role of baroreceptors in blood pressure regulation. (6)
(1+1+4 = 6 marks)
- 1B) Draw a neat labelled diagram of pain pathway from face. (4)
2. **Short notes on:**
- 2A) Define the following terms and give their normal value. (4)
i) Dead space ii) Alveolar ventilation iii) Compliance iv) Tidal volume
(1+1+1+1 = 4 marks)
- 2B. Explain micturition reflex with a neat labelled diagram. (4)
(2+2 = 4 marks)
- 2C. List the functions of saliva. Explain its regulation. (4)
(1+3 = 4 marks)
- 2D. I) Draw a neat labelled diagram of taste pathway. (2)
II) Define the following: (2)
i) Anosmia ii) Presbyopia iii) Ageusia iv) Myopia
- 2E. Draw a neat labelled diagram of neuromuscular junction. Explain briefly neuromuscular transmission. (4)
(2+2 = 4 marks)

SECTION - B : BIOCHEMISTRY (30 MARKS)

- 3A) Discuss glycogen metabolism. Add a note on significance of liver glycogenolysis. (5)
- 3B) Explain bilirubin metabolism. (5)
4. **Explain the followings:**
- 4A) Proteolytic enzymes of pancreas. (3)
- 4B) Structure of collagen. (3)
- 4C) Protein energy malnutrition. (3)
- 4D) Structure of tRNA. (3)
5. **Write briefly on:**
- 5A) Niacin deficiency. (2)
- 5B) Specialized compounds formed from glycine. (2)
- 5C) Iron absorption. (2)
- 5D) Activation of Vitamin D. (2)

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