

Bio 53

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

BASIC MEDICAL SCIENCE

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Differentiate between anatomy and physiology.
2. Define tachycardia.
3. Define vital capacity.
4. Name the part of ear which maintains the equilibrium balance.
5. Identify systolic and diastolic pressure values. (5 × 2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Classify the different types of epithelial tissues.
2. Differentiate between monophasic and biphasic recording.
3. Explain the structure of human heart.
4. Describe the structure of a nerve fiber with a sketch.
5. Explain anatomy of urinary system.
6. Explain the physiology of respiration.
7. Draw and label the parts of human eye. (5 × 6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

- III (a) Describe the mechanism of sensing smell with diagram. 8
 (b) Explain the generation of action potential in cells with sketches. 7

OR

- IV (a) Identify the different bio-potential electrodes for recording ECG. 8
 (b) Explain the structure of human cell with diagram. 7

UNIT — II

- V (a) Summarize the electrical activity of heart. 8
 (b) Explain Electromyography. 7

OR

- VI (a) Describe the physical classification of nervous system. 10
 (b) Describe the temperature regulation in human body. 5

UNIT — III

- VII (a) Explain the haemodialysis. 8
 (b) Identify the different lung volumes and capacities with a spirogram. 7

OR

- VIII (a) Summarize the function of nephron with a diagram. 8
 (b) Describe the structure of respiratory system. 7

UNIT — IV

- IX (a) Explain the structure of human ear with diagram. 9
 (b) Describe the process of vision. 6

OR

- X (a) Explain structure of digestive system with sketch. 9
 (b) Describe the process of maintaining equilibrium balance. 6