

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018
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. Define physiology.
2. Define cardiac output.
3. State the term "Tidal volume".
4. Name the part of the ear that maintains the equilibrium balance.
5. Recognize the function of mitochondria.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain different types of epithelial tissue.
2. Draw and label the parts of a human cell.
3. Draw and label the parts of a human brain.
4. Differentiate the functions of sympathetic and parasympathetic nervous system.
5. Sketch and label the parts of a nephron.
6. Explain any three lung volume and capacity.
7. Discuss the fat digestion in human.

(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) Write a short note on taste sensors. 8
 (b) Differentiate biphasic and monophasic recording. 7

OR

- IV (a) Discuss about different types of EMG electrodes. 7
 (b) Explain the impulse transmission through nerve fiber. 8

UNIT — II

- V (a) Summarize the functions of human cardiovascular system. 8
 (b) Explain ECG waveform and relate it with the mechanical event in the heart. 7

OR

- VI (a) Explain the structure of heart and circulation of blood. 10
 (b) Explain different EEG waveforms. 5

UNIT — III

- VII (a) Describe the anatomy of respiratory system. 8
 (b) Explain the mechanism of ventilation. 7

OR

- VIII (a) Summarize hemodialysis. 10
 (b) Draw and label the parts of excretory system. 7

UNIT — IV

- IX (a) Explain the parts of a human eye with a diagram. 10
 (b) Draw and label the human digestive system. 7

OR

- X (a) Discuss the process of hearing. 10
 (b) Explain the equilibrium balance of the body. 7