

**TED(15) - 3241
(REVISION-2015)**

MODEL

**THIRD SEMESTER DIPLOMA EXAMINATION IN BIOMEDICAL ENGINEERING
BASIC MEDICAL SCIENCE**

(Maximum Marks : 100)

TIME : 3HRS

PART - A

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

I.

- 1) Define tissue?
- 2) List two cold applications in medicine?
- 3) State "expiratory reserve volume"?
- 4) Write the role of enzymes in digestion?
- 5) Name any four receptors present in human body?

5x2=10 marks

PART - B

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

II.

- 1) Differentiate between monophasic and biphasic recording?
- 2) Describe different types of EMG electrode?
- 3) Explain electromyography?
- 4) Describe the general organization of brain?
- 5) Comprehend the physiology of respiration?
- 6) Draw and mark the parts of kidney?
- 7) Explain the role of liver in digestion?

5x6=30 marks

PART - C

Answer one full question from each Unit. Each question carries 15 marks.

UNIT I

- III** a) With a neat sketch explain the role of rod cells? **8**
b) Explain different types of epithelial tissues? **7**

OR

- IV.** a) Sketch the wave form of action potential and explain its different phases? **8**
b) Explain the mechanism of action of osmoreceptors? **7**

UNIT II

- V.** a) Describe the temperature regulation in human body? **9**
b) Classify different types of cardiac myopathies? **6**

OR

- VI** a) Write a short note on heat application in medicine? **6**
b) Describe cardio vascular system? **9**

UNIT III

- VII** a) Draw and label the parts of respiratory system? **8**
B) Explain the role of kidney in maintenance of water balance? **7**

OR

- VIII** a) Summarize the mechanism of formation of urine? **8**
b) Explain the different phases of respiration? **7**

UNIT IV

- IX** a) Describe the digestion of fat? **8**
b) Distinguish the absorption process of digested food products? **7**

OR

- X** a) Outline the mechanism of equilibrium balance? **8**
b) Explain the role of vitamin A in photochemistry of vision? **7**

15x4=60