Printed Pages: 3



EBM-503

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Roll No.										

B. Tech.

(SEM. V) (ODD SEM.) THEORY EXAMINATION, 2014-15

TISSUE ENGINEERING

Time: 2 Hours] [Total Marks: 50

Note: Attempt all questions

1 Answer any two parts:

 $7\times2=14$

- (a) With the help of neat diagrams explain the structure and functions of human cell.
- (b) Explain with the help of suitable diagrams, generation of action potential in a cell.
- (c) Explain the different types of human tissues and give their functions.

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2 Answer any four parts:

- $3 \times 4 = 12$
- (a) Discuss cardiovascular system and its functioning.
- (b) Explain the different sense organs.
- (c) Discuss the functioning of endocrine system.
- (d) Explain the different types of human muscles with examples.
- (e) What is CNS? Explain its functioning in humans.
- (f) Explain the human respiratory system.
- 3 Answer any two parts:

 $6 \times 2 = 12$

- (a) Explain generation of cardiac cycle. What are the different heart valves? Give their functioning. Discuss systemic and pulmonary circulation.
- (b) Discuss the exchange in gases in the alveoli. What is artificial respiration? Explain how is spirometer is employed to test the human respiratory system.
- (c) Discuss the various organs of human alimentary system. How does digestive system functions? Explain

4 Answer any two parts:

 $6 \times 2 = 12$

- (a) Explain the composition of blood. Give the functions of different blood cells. How is blood cell counting done?
- (b) With help of neat diagrams explain the human excretory system. What is Nephron? Discuss its structure and functioning in formation of urine.
- (c) Explain the human nervous system and its functions. What is Reflex action and reflex arc? Explain the functioning of sympathetic nervous system.