



Year: 2018-19

School of Technology

Program: F Y B-Tech.

Course Code: FYT 123

Course title: Biology for Engineers Semester: II

Day and Date:

*Wednesday 22<sup>nd</sup> May 2019*  
Instructions for Students:

End Semester Exam (ESE)

Time: 3 hrs.

Max Marks: 100

Section B: 80marks

*10:30 to 1:30 pm*

1) All questions are compulsory.

2) Label the diagrams neatly, wherever necessary.

CO's Marks Blooms

Level

SECTION B

**Q2). Answer the following**

**(15)**

A) What do you understand by cell communication? Explain the mechanism involved in cell communication.

CO1 (7) L2

B) Discuss in detail about the importance of neurotransmitters in the conduction of an electric impulse.

CO4 (8) L3

OR

B) What is synapse? With the help of a well labeled diagram explain the flow of signals in neurons.

CO4 (8) L3

**Q3). Answer the following**

**(15)**

A) Define Cell membrane? What is the role played by cell membrane in creating a membrane potential?

CO4 (7) L2

B) With the help of a well labeled diagram explain the structure of a bacterial motor.

CO3 (8) L3

OR

B) Discuss in detail the importance of protein structure with respect to its functionality?

CO3 (8) L3

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**ESE**

- Q4). Answer the following (15)**
- A) State the components of extracellular matrix with their functions and importance. CO2 (7) L1
- B) What do you understand by membrane potential? Write an account on action potential. CO4 (8) L3

OR

- B) . What do you understand by chemical bonding? Explain the types of chemical bonds. CO4 (8) L3

**Q5). Answer the following. (15)**

- A) With the help of a neat labeled diagram explain the parts of a neuron. CO4 (7) L2
- B) Define reflex action. Name the steps that make up a reflex arc. CO3 (8) L1

OR

- B) Nutrition is directly proportional to the health of your brain. Justify the statement. CO4 (8) L4

**Q6. Write short notes on any 4 of the following. (20)**

1. Transcription. CO2 (5) L1
2. Animal cell components. CO1 (5) L3
3. Protein vibrations. CO3 (5) L1
4. Electric potential. CO4 (5) L2
5. Mitochondria as the powerhouse of cell. CO1 (5) L1
6. Evolution and development. CO2 (5) L3

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**ESE**