

July-2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. Biotechnology

[Time: 3 Hours]

[Max.Marks: 80]

I SEMESTER PAPER – I (CHEMISTRY) QP CODE: 8175

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Give a detailed account on electrolytic conductance and explain faraday's law of electrolysis.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Discuss the oxidation-reduction electrode.
3. Give an account hydrocarbons and cycloalkanes.
4. Give an account on pH and dissociation constants.
5. Discuss on the concept of conductance.
6. Write a note on Boyle's law.
7. Give an account on Avogadro's principle.
8. Discuss on osmotic pressure with reference to circulatory system.
9. Discuss on the London dispersion forces.
10. Write a note on bonds involved in biomolecules interaction.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. QSAR
12. Electromagnetism
13. Debye-Huckel theory
14. Infinite dilution on conductance
15. Dalton's law of partial pressure
16. Vant Hoff's equation
17. Conductometric titration
18. Maxwell's distribution
19. Inter-ionic theory of conductance
20. Electrochemical cell
21. Kinetic gas equation

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B.Sc. BIOTECHNOLOGY

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I SEMESTER

PAPER – I (CELL BIOLOGY)

QP CODE: 8176

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Write in detail about structure and function of mitochondria with neat label diagram. Add short note on mitochondrial DNA.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write in brief about structure of nucleus
3. Active transport mechanism across cell membrane.
4. Function of ribosomes in protein synthesis.
5. Write in short about photophosphorylation and its type.
6. ECM.
7. Centriole.
8. Cytosol.
9. Describe briefly gap junctions.
10. Chemical composition of cell membrane.

Very Short Essay (Any – 10)

3 X 10 = 30 Marks

11. Define pinocytosis
12. Membrane receptors.
13. Role of ribosomes in protein synthesis.
14. Signal transduction.
15. Carcinogenic agent.
16. Active transport mechanism.
17. Nuclear pore complex.
18. Extracellular matrix.
19. Mitosis.
20. Cytoplasm.
21. Osmosis