

June-2023.

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. Explain detail classification, nomenclature and properties of hydrocarbons with examples.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain in brief about theories of covalent bond formation.
3. Write about voltage generation.
4. Explain colligative properties of solution.
5. Explain Kohlrausch law.
6. What is relationship between concentration and molar?
7. Which one of the following solution is having highest number of particles? Justify with quantitation.
1M of KCl, 1m of NaCl, 10% w/w of NaCl and 10% mol fraction of KCl solution.
8. Explain weak interaction.
9. Write in short about collision theory.
10. Explain construction of hydrogen electrode and give the reaction.

Very Short Essay (Any – 10)

3 X 10 = 30 Marks

11. Electrode
12. Avogadro's principle.
13. State Van't Hoff equation.
14. Properties of alkane.
15. Conductance.
16. Electromagnetism.
17. Oswald dilution law.
18. Ionic equilibrium.
19. Single cell electrode potential.
20. Boyle's law.
21. What is common ion effect? Explain with example.

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B.Sc. BIOTECHNOLOGY

[Time: 3 Hours]

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I SEMESTER
PAPER – II (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. Explain fluid mosaic model and chemical composition of cell plasma membrane.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Structure and function of endoplasmic reticulum
3. Write about cytoskeleton.
4. Centriole.
5. Types of lysosomes and its functions.
6. Explain structure of chloroplast.
7. Function of nucleus.
8. Characteristic of cancer cell.
9. Mitochondrial genome.
10. Write in detail about ribosomes.

Very Short Essay (Any – 10)

3 X 10 = 30 Marks

11. Carcinogenic agents
12. Vacuoles.
13. Lipid layer.
14. Mitosis
15. Types of cell division.
16. Pinocytosis.
17. Nucleotide.
18. Cytosol.
19. Apoptosis.
20. Types of cancer.
21. ATP & ADP