

Sessional Examination, 2023

B.Sc. 3rd Semester

SEC - 03; (CHEMISTRY SEC-03)

Time: 1.30 h

Marks: 40

1. What is fertilizer. Explain about different types of fertilizers. [1+3=4]
2. Answer any two of the following [2×2=4]
 - (a) Manufacture of Urea (b) Manufacture of Ammonia Nitrate (c) Manufacture of Ammonium Phosphate [1]
3. Why pigments Show Colors? [1]
4. What is surface coating? What is the major component of a coating agent? Give example of each component? [1+3=4]
[1×3=3]
5. Write any Three [1×2=2]
 - i) Oil painting ii) Fillers and thinners iii) Dyes iv) Metallic Coating
6. Answer the following:
 - A. In a lead-acid battery the energy is stored in the form of?
a) charged ions b) chemical energy c) electrostatic energy d) electromagnetic energy
 - B. Dry cell is modification of?
a) Deniel cell b) Leclanche cell c) Lead-acid cell d) Edison cell.
7. What are the differences between Primary and Secondary Batteries with examples. [3]
8. Explain the working of Solid-state electrolyte battery [3]
[4×2=8]
9. Answer any two
 - a. What is superphosphate fertilizer? How superphosphate fertilizer is synthesised? Give application of superphosphate fertilizer.
 - b. What is potassium chloride fertilizer? How potassium chloride fertilizer is synthesised? Give application of potassium chloride fertilizer.
 - c. What is potassium sulphate fertilizer? How potassium sulphate fertilizer is synthesised? Give application of potassium sulphate fertilizer.
[2×4=8]
10. Short Note (any four)
 - (a) Glassy state and its properties (b) Manufacture and processing of glass (c) Composition and properties Soda lime glass, lead glass (d) High technology ceramics and their applications (e) fullerenes carbon nanotubes and carbon fibre.