

Total Pages – 4

B.Sc. RNLKWC(A)-/DSE-3T/22

2022

CHEMISTRY

[Honours]

B.Sc. Sixth Semester End Examination - 2022

PAPER - DSE-3T

Full Marks : 40

Time : 2 hours

*The figures in the right-hand margin indicate marks.
Candidates are required to give their answers in their own
words as far as practicable.*

Illustrate the answers wherever necessary.

Group - A

1. Answer any five from the following: - 5×2=10
- (a) Why additives are essential for oil painting?
 - (b) Discuss the role of ingredient in cement setting process.
 - (c) What do you mean by setting of cement?
 - (d) Write down the formula of Gypsum. What is its role in portland cement preparation? (1+1)=2

(Turn Over)

(2)

- (e) Why solid polymer electrolytes are more advantage than gel polymer electrolytes.
- (f) What is photosensitive glass? Cite one example.
- (g) Discuss the origin of explosive.
- (h) What is different between phase transfer catalyst and heterogenous catalyst.

Group - B

Answer any four from the following : $5 \times 4 = 20$

2. (a) Discuss the mechanism of charging and discharging in Li-polymer battery.
- (b) Write the difference between primary and secondary battery. $3+2=5$
3. Discuss synthesis and explosive property of PETN. 5
4. (a) What is demagnetisation of steel.
- (b) Step wise show hoe catalyst are regenerated. $2+3=5$
5. (a) Write down the differences between chain silicate and sheet silicate.

(3)

- (b) Write down the inportance of thinners in painting process. $2+3=5$
6. (a) Discuss importance of ceramics in technology.
- (b) Write a short note on carbon nano fibre. $2+3=5$
7. (a) Discuss the advantages of mixed fertilizers.
- (b) Write down the chemical reactions involved for the manufacture of super phosphate. $2+3=5$

Group - C

Answer any one from the following : $1 \times 10 = 10$

8. Write short notes (any four) $(2\frac{1}{2} \times 4) = 10$
- (i) Metallic coating
- (ii) De-phosphorization of steel.
- (iii) Armoured glass.
- (iv) Fullerenes.
- (v) Fuel cells.
- (vi) Setting of cement.

(4)

9. (a) What is pseudo gap? What is the relation between superconductivity and pseudo gap? 4
- (b) Discuss the importance of clays. 3
- (c) Write down the classification of surface coating. 3