

April 2025
B.A./B.Sc.
Second Semester
MULTI-DISCIPLINARY COURSE – 2
CHEMISTRY
Course Code: CHO 2.11
(Inorganic Materials of Industrial Importance)

Total Mark: 50

Pass Mark: 20

Time: 2 hours

I. Answer the following questions.

1. (a) Discuss the manufacture of the following fertilizers: 2×3=6
 - (i) Urea
 - (ii) Potassium sulphate
 - (iii) Ammonium nitrate
- (b) Write notes on the battery components and their role. 4
- (c) Write any two differences between battery and fuel cell. 2

2. (a) Explain the manufacture of steel by open hearth furnace. Give two advantages of it. 4+2=6
- (b) Mention the essential raw materials of cement. 2
- (c) Describe the manufacture of cement with diagram. Give the reaction involved. 4

3. (a) What are organic and inorganic coatings? Give examples. 2+2=4
- (b) Give the paint formulation formula for pigment volume concentration (PVC). 2
- (c) What are binders? Discuss in detail any one of the binders in modern paint. 1+3=4
- (d) What are heat retardant paints? 2

II. Answer any two of the following questions.

4. Write notes on the manufacture of superphosphate of lime. Discuss the working of lead acid battery. 3+4=7

5. (a) What is quick setting cement? Mention the uses of it. 1+3=4
- (b) Name two alloys of copper. Mention their uses. 1+2=3

6. Write a note each on the following:

2+2+2+1=7

- (i) Lake pigments
 - (ii) Enamel paints
 - (iii) Wax polishing
 - (iv) Abbreviation of HVOF
-