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Total No. of Printed Pages: [01]

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B.Sc. (Hons.) Chemistry (Semester – 6th)
INORGANIC MATERIALS OF INDUSTRIAL IMPORTANCE
Subject Code: BCHMD1-613
Paper ID: [19131641]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a) Write composition of soda lime glass.
- b) What is role of gypsum in cement?
- c) Which chemicals are used as fire retardant?
- d) Define anodization in coating
- e) Write the reactions involved in lead acid battery
- f) Differentiate between cast iron and steel
- g) Write a short note on 'Fuel cells'.
- h) Which material is used as rocket propellant and why?
- i) Why are fuel cells important?
- j) What are azo dyes?

Section – B

(5 marks each)

Q2. Discuss superconducting oxides, carbon nanotubes and fullerenes

Q3. Discuss classification of surface coatings with examples.

Q4. Differentiate primary and secondary batteries

Q5. Write a note on following

- a) Phase transfer catalysts
- b) Heterogeneous catalysis

Q6. Discuss manufacture of urea and superphosphate

Section – C

(10 marks each)

Q7. Discuss manufacturing and setting of cement

Q8.A) Elaborate the classification of surface coatings

B) Write a note on solar cells

Q9.A) Explain the importance of alloy formation with different examples of alloys

B) Write composition and properties of borosilicate and safety glasses