

S.B. Roll No.....

APPLIED CHEMISTRY-II
2nd Exam/Common/2254/2451/5424/May 15

Duration: 3hrs

Max. Marks: 75

Note: Attempt all questions.

SECTION-A

Q.1 A. Fill in the blanks. Each question carries one mark.

1x10=10

- I. Sulphide ores are concentrated by_____.
- II. Chromizing is the process of depositing _____ on iron by cementation.
- III. _____ number is used for rating diesel.
- IV. Producer gas is a mixture of _____ and _____.
- V. Suspension of graphite in water is called _____.
- VI. A good refractories should have _____ porosity.
- VII. A pigment Vanish is called_____.
- VIII. The monomer of PVC is_____.
- IX. The pure metals are _____ corroded.
- X. The unit of heat is_____.

Q1B. State True or False. Each question carries one mark.

1x5=5

- I. Galvanised Sheets of iron are coated with Zinc .
- II. Purity of metal increases corrosion.
- III. A good fuel has higher moisture content.
- IV. All macro molecules are polymers.
- V. All ores are minerals.

SECTION-B

Q2. Attempt any ten questions. Each question carries three marks.

3x10=30

- I. Explain Calcination and Roasting.
- II. Describe the properties and uses of German Silver and Gun metal.
- III. What is water gas? Give its composition and uses.
- IV. What is an enamel? Write constituents of enamel.
- V. What are characteristics of good refractory material?
- VI. Differentiate between Thermoplastics and Thermosetting plastics with example.
- VII. Name the various constituents of paint. Explain function of drying oil.
- VIII. Explain vulcanization of rubber.
- IX. What is Buna – S? Name the monomer used in the preparation.
- X. What is acid rain? Explain its harmful effect.
- XI. Explain Green house effect and global warming.
- XII. What is difference between cast iron, wrought iron and steel?
- XIII. What are anti-knocking compounds? Give two examples.

Contd...

Section-C

Q3. Attempt any three questions. Each question carries ten marks.

10x3=30

1. What are theories of corrosion? Explain the rusting of iron with the help of electro chemical theory of corrosion. (3+7)
2. What are fuels? Explain calorific value of fuel. Also explain advantages of gaseous fuel over solid fuels. (3+3+4)
3. What are lubricants? Explain the following terms as applied to lubricants: (2+4+4)
 - a) Flash and fire points
 - b) Cloud and pour points
4. What are composite materials? Give example of natural composite. What are advantageous characteristics of composites? (2+1+7)
5. What is meant by term passivation? Explain prevention by material selection and design? (2+8)