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Roll No. _____



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SARDAR PATEL UNIVERSITY
B.Sc. (SEMESTER-I) ON DEMAND EXAMINATION
INDUSTRIAL CHEMISTRY VOCATIONAL
US01CICV51: (Industrial Aspect Of Chemistry)
Wednesday, 15th June- 2022

Time: 9:00 A.M. To 11:00 A.M.

Total Marks: 70

Note: Figures to the right indicate full marks.

Q.1 Answer the given multiple choice questions. (All are compulsory) [10]

- Which is the correct one from following in the case of naphthene?
(a) Unsaturated (b) Saturated cyclic (c) Aromatic (d) Saturated.
- Which of the following fraction is used for water proofing of roofs and road making?
(a) Grease (b) Asphalt (c) Gasoline (d) Diesel
- _____ % sulfur content in petroleum.
(a) < 5 (b) > 5 (c) 10-20 (d) 25-050
- _____ is also known as artificial silk.
(a) Rayon (b) Nylon (c) Acrylic (d) Polyester
- Which of the following are the storage polysaccharides?
(a) Starch (b) Cellulose (c) Chitin (d) Glucose
- Which of the following gives blue colour with iodine?
(a) Cellulose (b) Celluloid (c) α -amylose (d) Starch
- _____ metal present in cuprite ore.
(a) Cu (b) K (c) Ag (d) Zn
- Following is a example of Oxide ores.
(a) Zinc blend (b) Dolomite (c) Gypsum (d) Haematite
- _____ is used as a main raw material for the manufacturing of plaster of paris.
(a) Iron oxide (b) Gypsum (c) Magnesium oxide (d) Alumina
- Which of the following is a neutral refractory?
(a) Graphite (b) Silica (c) Magnesia (d) Dolomite

Q.2 Are the following statements TRUE or FALSE? (All are compulsory) [08]

- Thermal reforming is carried out in a reactor at 85 atm. Pressure.
- Petroleum ether is used as a lubricant.
- Catalytic reforming is carried out by using either a fixed-bed or fluidized bed at 10-20 atm. Pressure.
- Complete hydrolysis of cellulose gives D-fructose.
- Graphite is used as a cutting tool and in jewellery.
- Ferrous metallurgy is concerned with iron and steel and the alloys of iron and steel.
- Fat lime is suitable for making mortars.
- Natural cement is made by calcining a naturally occurring argillaceous limestone.

(1)

(P.T.O)

Q.3 Answer the following short questions (Attempt any 10 out of 12)

[20]

1. Define the term petroleum.
2. Give difference between coke and coal.
3. Enlist the petrochemicals which are derived from methane.
4. Write applications of cellulose nitrate.
5. Give the uses of carbon and zeolites.
6. Write various properties of aluminum oxide.
7. What is mean by metallurgical slag ?
8. Define the terms: (i) Ores (ii) Flux
9. What is mean by metallurgical slag?
10. List the properties of material for selection of engineering applications.
11. Write physical properties of glass.
12. Enlist various types of cement.

Q.4 Answer the following Long questions (Attempt any 4 Out of 8)

[32]

1. What is cracking? Write a note on catalytic cracking.
2. Discuss in detail with neat diagram for any two methods to synthesize petrol.
3. Write a short note on (i) Silicate (ii) Silicon dioxide
4. Write preparation, properties and uses of Starch.
5. Discuss the characteristics of metals.
6. Discuss in detail about types of alloys and purpose of making alloys.
7. What are the properties of glass? Discuss various types of glass in details.
8. Discuss the classification of engineering materials.

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(2)