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SARDAR PATEL UNIVERSITY
B.Sc. (SEMESTER-I) ON DEMAND EXAMINATION
INDUSTRIAL CHEMISTRY VOCATIONAL
US01CICV21: (Industrial Aspect Of Chemistry)
Monday, 13th 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]

1. What is the average % of carbon in petroleum crude?
(a) 15-20 (b) 84-86 (c) 25-35 (d) 50-60
2. Which of the following fraction is used for water proofing of roofs and road making?
(a) Grease (b) Asphalt (c) Gasoline (d) Diesel
3. De emulsification process is used in crude oil to remove _____
(a) Salt (b) Sulphur (c) Water (d) Amines
4. _____ is also known as artificial silk.
(a) Rayon (b) Nylon (c) Acrylic (d) Polyester
5. Which of the following polysaccharides stored in plants?
(a) Starch (b) Glycogen (c) Dextrin (d) None of these
6. Which is used as a cutting tool and in jewellery?
(a) Graphite (b) diamond (c) fullerene (d) None of these
7. _____ metal present in cuprite ore.
(a) Cu (b) K (c) Ag (d) Zn
8. Following is a example of Oxide ores.
(a) Zinc blend (b) Dolomite (c) Gypsum (d) Haematite
9. _____ is used as a main raw material for the manufacturing of plaster of paris.
(a) Iron oxide (b) Gypsum (c) Magnesium oxide (d) Alumina
10. Which of the following is a neutral refractory?
(a) Graphite (b) Silica (c) Magnesite (d) Dolomite

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

1. LPG is obtained as a by-product, during the cracking of heavy oils or from natural Gas.
2. Gasoline is cheaper than LPG.
3. Ethylene chlorohydrin is produced by the reaction of ethylene and hydrogen chloride gas.
4. Zeolite is used as ion exchange beds in domestic and commercial water purification.
5. The principal ore of aluminium is bauxite.
6. Ferrous metallurgy is concerned with iron and steel and the alloys of iron and steel.
7. Fat lime is suitable for making mortars.
8. 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. Give origin of petroleum.
2. Enlist the steps for refining of crude oil.
3. Enlist the advantages of catalytic cracking.
4. Write applications of cellulose nitrate.
5. What are the properties of acetate silk?
6. List out various uses of starch.
7. What is mean by metallurgical slag?
8. Define the terms: (i) Ores (ii) Flux
9. Write physical properties of metal.
10. Give the classification of refractories.
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)

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1. What is cracking? Write a note on catalytic cracking.
2. Discuss about the refining of crude oil in detail.
3. Write a short note on (i) Clay (ii) Silicon dioxide
4. Write preparation, properties and uses of Starch.
5. Explain in details about the classification of Ores.
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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