



Seat No.: _____

No of Printed Pages: 2

[45]

SARDAR PATEL UNIVERSITY

Bachelor of Science (Semester 1) Examination 2022

US01CICV51: Industrial Aspects of Chemistry

Date: ~~13-12-2022~~ (Tuesday)

Total: 70 Marks

Time: 2:00 P.M to 5:00 P.M.

Note: Figures to the right indicate full marks.

Q.1 Answer the following MCQs (All are compulsory).

[10]

- The decomposition of higher hydrocarbons of petroleum to lower hydrocarbon is known as
(a) Reforming (b) Cracking
(c) Isomerization (d) All of (a, b & c).
- An average % of Carbon present in the crude petroleum is.....
(a) 15-20 (b) 25-35
(c) 50-60 (d) 84-86
- The other name for artificial silk is.....
(a) Nylon (b) Acrylic
(c) Rayon (d) Polyester
- Which of the following is the source of Starch is
(a) Maize (b) Potatoes
(c) Rice (d) All (a, b, c)
- Metals having tendency to remove electron, thus they are good
(a) Oxidizing Agent (b) Reducing Agent
(c) Reagent (d) None of these.
- The purest form of iron is.....
(a) Pig Iron (b) Wrought Iron
(c) Cast Iron (d) Steel
- Stainless steel is the alloy of which metals?
(a) Iron & Chromium (b) Iron & Nickel
(c) Iron, Chromium & Nickel (d) All of (a, b, c).
- Which of the following is an example of copper Alloy?
(a) Vitallium (b) Invar
(c) Brass (d) Solder
- The steps involved in manufacturing of Glass is....
(a) Melting (b) Forming & Shaping
(c) Annealing & Finishing (d) All of (a, b & c)
- Which of the following is a neutral refractory?
(a) Graphite (b) Silica
(c) Magnesia (d) Dolomite

Q.2 Answer the following short question (Any 10 out of 12).

[20]

- Write a note on Natural Gas.
- Write the Definition of Petroleum & Its Origin.
- What is L.P.G. Write its uses.

4. Write the uses of Clay.
5. Write the structure and uses of Methanol.
6. Write the Structure of α -Amylose and β -Amylose.
7. Define the Term Slag and Flux
8. Write any two examples of metal present in the form oxide in the ores
9. Write the Physical Properties of Metals.
10. Write the compositions of Cement
11. Define Material and Engineering Materials.
12. Write the classification of Refractory with suitable Examples.

Q.3 Answer the following long question. [10]

[A]. Describe the Proximate analysis of Coal in details.

[B]. Write a note on Mining of Petroleum.

Or

[A]. Define Coal. Write the Classification of Coal.

[B]. Write a note on Refining of Petroleum.

Q.4 Answer the following long question. [10]

[A]. Describe Cellulose as the Renewable natural resource.

[B]. Write a note on Mica.

Or

[A]. Describe Starch as the Renewable natural resource.

[B]. Describe the Structure, properties and Uses of Zeolite.

Q.5 Answer the following long question. [10]

[A]. What is ore? Write the classification of Ores.

[B]. Describe the types of Alloy.

Or

[A]. Describe the purpose of Making Alloy.

[B]. Describe the Bayer's Process for Extraction of Aluminum.

Q.6 Answer the following long question. [10]

[A]. Describe the manufacturing of Glass with neat block diagram.

[B]. Discuss the classification of Engineering Materials.

Or

[A]. Discuss various types of Glass.

[B]. Write the classification of carbon steel.

—X—