

SEAT No. \_\_\_\_\_

No. of Printed Pages: 02

C34J

# Sardar Patel University

B. Sc. (Semester –I) Examination

Date: 30-01-2021, Saturday

Time: 02:00 – 04:00

## Industrial Chemistry Vocational

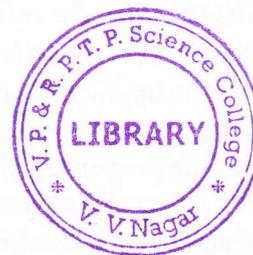
COURSE NO: US01CICV21 - Industrial Aspect of Chemistry

Notes: Figures to the right indicate full marks.

Total marks: 70

Q.1 Answer the following 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. Girbotol process is used in crude oil to remove \_\_\_\_\_.  
a) Salt                                      c) Sulfur  
b) Water                                      d) None of these
3. Which of the following is the main constituent of coal gas?  
a) Methane                                      c) CO  
b) H<sub>2</sub>    d) O<sub>2</sub>
4. Which of the following polysaccharides stored in plants?  
a) Glycogen                                      c) Starch  
b) Dextrin                                        d) Cellulose
5. What is the other name for artificial silk?  
a) Nylon    c) Rayon  
b) Acrylic    d) Polyester
6. Which of the following is an alloy of copper?  
a) Vitallium                                      c) Brass  
b) Invar    d) Solder
7. Which of the metal if present will make the alloy ferrous?  
a) Aluminium                                      c) Lead  
b) Zinc    d) Iron
8. The Hall-Heroult process is used in the production of  
a) Mg    c) Fe  
b) Al    d) Au
9. The main constituent of glass is.....  
a) CaO    c) SiO<sub>2</sub>  
b) Al<sub>2</sub>O<sub>3</sub>    d) Boron
10. Mild steel contains carbon in the range of  
a) 0.15 to 1.5%                                      c) 0.15 to 0.30%  
b) 0.30 to 0.80%                                      d) 0.8 to 1.5%



Q.2 Are the following statements true or false? (All are compulsory)

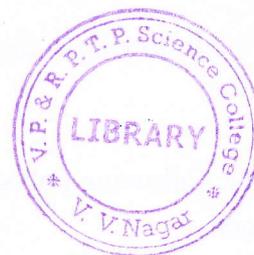
(08)

1. LPG is obtained as a by-product, during the cracking of heavy oils or from natural gas.
2. Thermal reforming is carried out in a reactor at 85 atm. Pressure.
3. Graphite is used as a cutting tool and in jewellery.
4. Ethylene chlorohydrin is produced by the reaction of ethylene and hydrogen chloride gas.
5. Mond's process is used to extract nickel metal.
6. Metal are very good conductor of heat and electricity.
7. Microstructure used for magnification range 0.15 to 0.2 microns.
8. Metals and their alloys classified in according to major area of use.

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

(20)

1. Define term Petroleum.
2. Enlist the steps for refining of crude oil.
3. Give the characteristics of an ideal gasoline.
4. Write the application of cellulose nitrate.
5. What are the properties of acetate silk?
6. Write the properties of starch.
7. Enlist the various types of furnaces.
8. Define flux and smelting.
9. Define non-metal and metalloids.
10. Enlist various uses of Cement.
11. Define term "Refractoriness".
12. Enlist the raw materials of glass manufacturing.



Q.4 Answer the following Long questions (Attempt Any 04 out of 08)

(32)

1. Discuss the refining of crude oil in detail.
2. Discuss the Fischer-Tropsch method with neat diagram, to obtain synthetic petrol.
3. Discuss the properties sources and uses of zeolite.
4. Write the preparation, properties and uses of starch.
5. Discuss the purposes of making an alloy.
6. Discuss hall electrolytic cell process for manufacture of aluminium.
7. Manufacturing of Portland cement with wet process.
8. Write about type of glass.

— X —