QP CODE: 24026880

24026880

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

B.Sc Chemistry Model III Petrochemicals

Core Course - CH3PCT03 - PRODUCTION AND APPLICATION OF COMPOUNDS FROM PETROLEUM

2017 Admission Onwards

675C1AE6

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is sweet crude?
2. List out the advantages of hydrogen as a fuel.
3. How is petroleum coke manufactured?
4. How will you prepare aniline from nitrobenzene?
5. State True or Fase
   Ammoxidation is an industrial process for the production of aldehyde.
6. Name any two organic sulphur compounds present in petroleum.
7. State True or False
   Hydroformylation is an important industrial process for the production of aldehydes.
8. What are Clathrates?
9. State True of False.
   Aldox process can be used for the preparation of higher hydrocarbons.
10. State True or False.
    Dow's process is used for the preparation of acrolein from acrylonitrile.
11. State True or False.
    Sodium forms an oxide that reacts with water to give an acidic solution.
12. What is the monomer unit in Nylon 6?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain manufacture of sulphur from H2S.
14. Distinguish between fluidized coking and delayed coking. Write uses of petroleum coke.
15. Why acidic oxides are called acid anhydrides?
16. Develop industrial applications of Aldol condensation.
17. Construct a method for the preparation of isopropyl alcohol by direct and indirect method.
18. Estimate the application of oxidation in petroleum compounds.
19. Write the economic aspect of steam naphta cracking.
20. Write a note on moulding constituents of plastic.
21. Asses the Properties of polycarbonate thermoplastic Polymer that make it Suitable for Mobile Phone Casings.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the preparation of hydrogen from naphtha cracking and by partial oxidation of hydrocarbon. Discuss the application of hydrogen in chemical industry and their uses.
23. Explain the following with suitable examples and uses:-

    (a) Ammoxidation (b) Hydration (c) Hydroformylation (d) Hydrogenation
24. Discuss briefly on steam naphtha cracking of Hydrocarbon.
25. Discuss the different moulding techniques used for moulding plastics into articles. Discuss each type in detail.

(2×10=20)