



QP CODE: 21102809



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Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021**

**Fourth Semester**

B.Sc Chemistry Model III Petrochemicals

**Core Course - CH4PCT06 - PETROLEUM INDUSTRIES IN INDIA**

2019 Admission only

CE00C46A

Time: 3 Hours

Max. Marks : 60

**Part A**

Answer any **ten** questions.

Each question carries **1** mark.

1. What is meant by renewable energy resources?
2. What is biogas?
3. What is nuclear fission?
4. Expand the term GAIL, RIL, BPCL and HPC.
5. List out two Indian petrochemical industries in private sector.
6. Point out some Indian petroleum reserves.
7. Write one example for hydrotreating catalyst.
8. What is Ziegler catalyst?
9. Justify the statement "carbon dioxide functions as a global thermostat".
10. Name any two toxic heavy metal ions causing water pollution.
11. What is meant by COD?
12. What are the effects of oil pollution?

(10×1=10)

**Part B**

Answer any **six** questions.

Each question carries **5** marks.

13. Write briefly on coal as an alternative to oil.
14. How does solar energy works? Discuss the merits, demerits and challenges facing solar energy.
15. Describe the advantages and disadvantages of wind energy.
16. Explain production cost.



17. Summarizes the R & D economics in petrochemical industry.
18. Explain catalytic cracking. Name any one catalyst used for it.
19. Discuss briefly the pollution from petroleum industry.
20. Discuss on physical and chemical control methods of pollution .
21. What do you know about National standards of air pollution?

(6×5=30)

**Part C**

Answer any **two** questions.

Each question carries **10** marks.

22. Comment on energy crisis and alternative to it in the present scenario.
23. Discuss in detail about the functions of ONGC.
24. Discuss the preparation, structure, selectivity and application of enzyme catalysts.
25. Briefly explain air pollution and its effects. Explain the control measures to reduce air pollution.

(2×10=20)