



QP CODE: 21103146



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Reg No :

Name :

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

DECEMBER 2021

Second Semester

B.Sc Chemistry Model III Petrochemicals

Core Course - CH2PCT02 - TEST METHODS AND PETROLEUM PROCESSES

2017 ADMISSION ONWARDS

F054EC71

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What is meant by flammability limit?
2. What is Cetane number?
3. Define calorific value.
4. Give expression for Diesel Index.
5. How is bitumen produced?
6. What is meant by aviation fuels?
7. Give an example of antioxidant used in aviation fuels.
8. As the aromatic content of a fuel increases, smoke point
9. What you meant by cracking?
10. What you meant by platforming?
11. What are the advantages of catalytic reforming over thermal reforming?
12. Explain the term isomerisation in Petroleum Industry.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Compare the characteristics of gasoline and diesel fuel.
14. Illustrate the following (i) Pour point (ii) Octane number (iii) Flash point
15. Write a note on Reid vapour pressure.
16. Describe WSIM test for aviation fuels.





17. What is the importance of jet fuel thermal oxidation stability of aviation fuels? Describe the use of antioxidant in aviation fuels .
18. Write a short note on sulphur mercaptans in aviation gasoline.
19. Briefly describe the reaction mechanism of thermal cracking process.
20. Write an explanatory note on Visbreaking.
21. What is catalytic cracking? What properties of a catalyst govern its action?

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Discuss the following (a) Naphtha (b)LPG (c) Bitumen
23. Discuss the following (a) Flash point (b) Viscosity (c) Octane number
24. Explain the following
(a) WSIM (b) JEFTOT (c) Freezing point
25. Write an explanatory note about hydrocracking? Discuss the different types of hydrocracking processes.

(2×10=20)

