BSc Degree (CBCSS)Examination Model Question Paper

BSc Chemistry Model III Petrochemicals-Second Semester

Core course--- TEST METHODS AND PETROLEUM PROCESSES

Time: 3 Hours **Max. Marks: 60**

PART –A

Answer Any ten Questions (Each question carries 1 marks)

1. What is catalytic cracking? Name two catalyst used in catalytic cracking..
2. What are the different types of aviation fuels?
3. What are pour point depressants? Give examples.
4. Define diesel index?
5. Explain potential gum test?
6. Give the composition and uses of Natural gas.
7. Give the composition and uses of fuel oil?
8. Discuss visbreaking.
9. What are the criteria of good gasoline?
10. Explain ductility of Bitumen.
11. Briefly explain plat forming.
12. Explain Aniline point. What is its significance?

(1x10=10)

PART –B

Answer any six Questions (Each question carries 5 marks)

13. Explain hydro cracking. How does it differ from hydro treating?
14. Distinguish between cloud point and pour point.
15. What is Isomerisation? Explain Penex process of isomerisation.
16. Explain copper corrosion test and silver corrosion test? Explain in detail.
17. What is Doctor solution .Explain its use.
18. Give a short note on ASTM method of product testing.
19. Explain rubberised bitumen and bitumen emulsion.
20. Differentiate between road octane number and motor octane number.

21.Write a note on Abels and PMC methods of analysis. **(5 x 6= 30)**

PART-D

Answer any two questions (Each question carries 10 marks)

27. Discuss briefly on different types of thermal cracking.

28. Write briefly on catalytic cracking. What are its advantages over thermal cracking?

29. a) Discuss in detail analysis of Aviation fuel.
b) Explain the various methods for measuring viscosity of oil?

30. Discuss any five techniques used for the evaluation of quality parameters of Diesel and petrol.

(10x 2= 20)