

**E 1299**

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Reg. No.....

Name.....

**B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2015**

**Third Semester**

Core Course – PRODUCTION AND APPLICATION OF COMPOUNDS FROM PETROLEUM

(For B.Sc. Petrochemicals)

[2013 Admission onwards]

Time : Three Hours

Maximum : 60 Marks

**Section A**

*Answer all questions.*

*Each question carries 1 mark.*

1. What is Thermal cracking? Explain.
2. What are Clathrates? Give one example.
3. Give the structure of Acrylonitrile and explain its main uses.
4. How is Acetylene prepared?
5. What is Hydrogenation? Give one example.
6. What is crude oil? Crude oil has unpleasant odour? Why is it mainly due to?
7. What are petrochemicals?
8. How is TNT prepared?

(8 × 1 = 8)

**Section B**

*Answer any six questions.*

*Each question carries 2 marks.*

9. What is coking? Explain the terms : Fluidized coking and Delayed coking.
10. How are oxides classified? Explain.
11. Name the main Nitrogen compounds in petroleum.
12. How is Ethylene manufactured from petroleum?
13. What is Aldol condensation?
14. Explain compression moulding.

**Turn over**

15. What is oxo process? What are the uses of oxo-process?
16. What are Xylenes? How are they prepared?
17. Discuss the role of Hydrogen as a fuel.
18. Give one method for the manufacture of Hydrogen.

(6 × 2 = 12)

### Section C

*Answer any four questions.*

*Each question carries 4 marks.*

19. What is Ammoxidation? Discuss the applications of Ammoxidation in detail.
20. Discuss briefly on the manufacture of any *three* Nitrogen paraffins from petroleum.
21. What is Petroleum coke? Discuss briefly on its manufacture by hot oven method.
22. Discuss on the applications of oxidation in petroleum compounds.
23. What is Hydroformylation? Discuss oxo-process.
24. Differentiate between Thermo plastic and Thermosetting plastics with suitable examples.

(4 × 4 = 16)

### Section D

*Answer any two questions.*

*Each question carries 12 marks.*

25. (a) Write briefly on Hydration.  
(b) What are the applications of Hydration? Discuss in detail.
26. (a) Discuss in detail on the manufacture of Higher olefins from Naphtha.  
(b) Describe the present day procedure and its economies.
27. Describe the following in detail :  
(a) Freush process.  
(b) Union Carbide Process.
28. Give a detailed description on moulding of plastics into Articles.

(2 × 12 = 24)