



C20-PET-403

**7487**

**BOARD DIPLOMA EXAMINATION, (C-20)  
OCTOBER/NOVEMBER—2023**

**DPET – FOURTH SEMESTER EXAMINATION**

PETROLEUM REFINING ENGINEERING  
AND PETROCHEMICAL TECHNOLOGY

Time : 3 Hours ]

[ Total Marks : 80

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**PART—A**

3×10=30

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Write about the exploration activities in India.
2. Write about the classification of crude oil based on residuum.
3. Explain the storage facilities regarding LPG.
4. Write the composition of diesel fuel.
5. Mention any three products obtained from atmospheric distillation unit.
6. Write the purpose of steam jet ejector.
7. Write the operating conditions required for thermal cracking.
8. Mention the catalysts employed for hydrocracking.
9. Write about bitumen.
10. Write about carbon black.

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

**11.** Write about the classification of crude oil based on °API gravity.

**(OR)**

List the theories of formation of crude oil. Explain about any one theory.

**12.** Write about the composition, methods of production and properties of kerosene.

**(OR)**

Write about the composition, properties and additives of aviation turbine fuel.

**13.** Explain vacuum distillation unit with the help of a neat sketch.

**(OR)**

Explain reflux, reboiler, condenser, steam stripping equipment.

**14.** Write about moving bed catalytic cracking with the help of a neat sketch.

**(OR)**

Write about delayed coking with the help of a neat sketch.

**15.** Write about platforming process of reforming.

**(OR)**

Write about naphtha cracking process with the help of a neat sketch.

**PART—C**

10×1=10

- Instructions :** (1) Answer the following question.  
(2) The question carries **ten** marks.  
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

**16.** Compare the refinery products and indicate their boiling ranges.

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