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Question Paper Code: 31667

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Elective

Instrumentation and Control Engineering

01UIC913 - INSTRUMENTATION FOR PETROCHEMICAL INDUSTRIES

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List out the recovery technique in petroleum process.
2. Label the constituents of petroleum products.
3. Define isomerization.
4. Compare the alkylation and polymerization.
5. Indicate the chemical products from petroleum.
6. Outline the methane derivative from petroleum products.
7. Define intrinsic safety of instruments.
8. Identify the steps to select the measuring instruments in petrochemical industry.
9. State the degree of freedom.
10. Define catalytic cracking.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain the petroleum exploration process with a neat sketch. (16)

Or

(b) List the recovery technique and explain them in detail. (16)

12. (a) Summarize the catalytic cracking and reforming operation in petroleum industry. (16)

Or

(b) Explain the production of acetylene and propylene from petroleum. (16)

13. (a) Illustrate the methane and acetylene derivatives from petroleum products. (16)

Or

(b) Explain the ethylene and propylene derivatives from petroleum products. (16)

14. (a) Mention the parameters to be measured in refinery and petroleum industry and explain them in detail. (16)

Or

(b) Illustrate the procedure for selection and maintenance of measuring instruments in petroleum industry. (16)

15. (a) Summarize the process of controlling the distillation column in petroleum industry. (16)

Or

(b) Exemplify the polyvinyl chloride production in petroleum industry. (16)