

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B.Tech PIE
Subject (Course): Value Engineering
Course Code: IPEG 432
No. of page/s: 2

Semester– V
Max. Marks: 100
Duration: 3 Hrs

SECTION A [20 Marks]

Note: Attempt all questions. All question carry equal marks. Be brief and specific.

- Q1:** Explain PDCA methodology.
- Q2:** Explain the Product life cycle.
- Q3:** List down the steps in the process of evaluation of function.
- Q4:** Define the term Value along with its different types.

SECTION B [40 Marks]

Note: Attempt all questions. All question carry equal marks. Be brief and specific.

Q5: Discuss the effect of Value engineering on following:

- | | | |
|----------------|------------------|---------------|
| 1. Engineering | 2. Manufacturing | 3. Management |
|----------------|------------------|---------------|

Or

- | | | |
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| 1. Purchasing | 2. Quality Control | 3. Marketing |
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Q6: Discuss the concept of TQM. Differentiate between Traditional approach and Continuous Improvement.

Q7: Explain the concept of “Understanding the Decision Environment”.

Q8: Explain the job plan for a problem solving system.

SECTION C [40 Marks]

Note: Attempt all questions. All question carry equal marks. Be brief and specific.

Q9: Discuss the following result accelerators with examples:

- 1) Avoid generalities
- 2) Get all available costs
- 3) Blast, create and refine



- 4) Utilize and pay for vendor's skill and knowledge
- 5) Utilize vendor's available functional products.

Q10: Explain the FAST technique with its advantages. Discuss the FAST technique for 'Lead Pencil' with block diagram.

Or

Explain the FAST technique with its advantages. Discuss the FAST technique for 'Ball Point Pen' with block diagram.