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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES



End Semester Examination, April 2017

Program Name: B.Tech ET LLB IPR

Semester – XII

Course Name : Industrial Engineering

Max. Marks : 100

Course Code : IMGT 304

Duration : 3 Hrs

No. of page/s : 2

Section A: 12 marks each (Attempt all questions)

- 1) Why Quality is required for a product or service & how it is different from the inspection?
- 2) What is Statistical Quality Control? Name the tools of SQC & explain its benefits over quality control.
- 3) Explain the Cost of Quality (COQ) with its type. How the cost of poor quality can decrease?
- 4) What is the Producer's risk & Consumer's Risk Represent the AQL, LTPD, α , & β in an OC curve.
- 5) What are the characteristics related to the Quality? Explain the three important Aspects of Quality with a suitable example

Section B: 20 marks each (Attempt any two)

- 6) a) Scott Paper tests its toilet paper by subjecting 15 rolls to a wet stress test to see whether and how often the paper tears during the test. Following are the number of defectives found over the last 15 days: 2, 3, 1, 2, 2, 1, 3, 2, 2, 1, 2, 2, 1, 0, and 0. Construct a control chart for the process and comment on whether the process is "in control."
b) What is the purpose of constructing P & C chart.
- 7) a) Demonstrate the model for computing AOQ .Management has selected the following parameters:
AQL = 0.01 α = 0.05
LTPD = 0.06 β = 0.10
 n = 100 c = 3
What is the AOQ if p = 0.05 and N = 3000?
b) What is Double Sampling plan? Draw a flow chart for the same.

8) Explain the following:-

- a) JIT
- b) MRP
- c) Kanban System
- d) Acceptance Sampling