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B.Tech. 7th Semester, (F) Scheme (Fire Tech and Safety)

Examination, December-2018

INDUSTRIAL ENGINEERING

Paper- FT-403-F

Time allowed : 3 hours]

[Maximum marks : 100

Note: Students have to attempt 5 questions in total at least one question from each section. Question No. 1 is compulsory.

1. (a) What do you mean by Method Study?
(b) What is EOQ?
(c) Explain MPS.
(d) Discuss 3S's 4×5=20

Section-A

2. Discuss the productivity with their various method of measurement. Explain also the factors effecting the productivity and what are the strategies for improving the productivity. 20
3. Explain in detail the work measurement with their various methods and also explain the PMTS and work sampling. 20

Section-B

4. The role of consumption of a particular item is 20 Unit per year. The cost of procurement per order is Rs. 40/- The Unit Cost is Rs. 100/-. The inventory carrying cost

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is 0.16% and it depends upon the average stock.
Determine. 20

- (i) EOQ
(ii) If lead time is 3 months, determine reorder point.

5. Write short notes on the following: 4×5=20

- (a) ABC
(b) FSN
(c) SDE
(d) VED

Section-C

6. The following is the record of 4 measurements per sample for 15 samples.

Sample No	Observations	Sample No	Observations
1	31, 21, 32, 7	9	11, 22, 29, 30
2	43, 35, 53, 49	10	35, 31, 34, 27
3	24, 16, 52, 62	11	33, 17, 34, 29
4	20, 35, 34, 23	12	29, 34, 50, 50
5	28, 31, 28, 30	13	20, 31, 33, 36
6	29, 35, 23, 19	14	29, 32, 33, 28
7	33, 32, 29, 33	15	15, 23, 14, 13
8	12, 20, 19, 17		

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Determine the control limits for \bar{x} and R charts and draw these charts. 20

7. What do you mean by the following terms

- (a) JIT
(b) Master Production Schedule
(c) PPC

7,7,6

Section-D

8. Discuss the 3S's in detail. 20
9. What is MIS? Explain its importance and what is the role of MIS in the decision making? 20

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