

Total No. of Questions : 4]

SEAT No. :

P8479

[Total No. of Pages : 2

Oct-22/BE/Insem-59

B.E. (Mechanical)

INDUSTRIAL ENGINEERING (Elective - III)

(2019 Pattern) (Semester - VII) (402044D)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) Solve Q.1 or Q.2, Q.3 or Q.4.
- 2) Figures to the right side indicate full marks.
- 3) Use of electronic calculator is allowed.
- 4) Assume suitable data, if necessary.

Q1) a) Discuss the characteristics of management science. [8]

b) Define Productivity and Explain productivity improvement methods for organization. [7]

OR

Q2) a) Define and explain what do you understand by industrial engineering? What is its importance? [6]

b) Output = Rs 10000, Human input = Rs 3000, Material input = Rs 200, Capital input = Rs 300, Energy input = Rs 100, Other miscellaneous input = Rs 50 The values are in terms of base year rupee value. Compute different productivity indices. [9]

Q3) a) Write short notes on : [6]

- i) Work Study
- ii) SIMO Chart

b) A group of 10 person working 8 hours per day (one shift) on a group of engine lathes produced 320 pieces of a component. During the study, it was observed that workmen were idle for 20% of the total available time and 80% of the time they worked at an average performance of 75%. Estimate standard time for the job assuming.

[9]

P.T.O.

- i) The operation to be completely manual.
- ii) The person are entitled to 20% allowance for this type of work.

OR

- Q4)** a) Describe briefly flow diagrams and string diagrams. How are they useful in plant layout study? [7]
- b) What is method study? What are its objectives? How does it differ from work measurement? [8]

