

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

INDUSTRIAL ENGINEERING

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer all questions in one or two sentences. Each question carries 2 marks.

1. Define industry.
2. List the types of forecasting.
3. Define the term work sampling.
4. Define quality.
5. List the elements of cost.

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. List and explain the functions of PPC.
2. Explain the concept of value engineering with its advantages.
3. Explain the procedure for the conduct of method study.
4. Compare floor inspection and centralized inspection.
5. Draw and explain normal distribution curve.
6. Explain the procedure for double sampling plan.
7. Explain the various causes of depreciation.

(5×6 = 30)

R9

PART — C

Marks

(Maximum marks : 60)

(Answer one full question from each unit. Each full question carries 15 marks.)

UNIT — I

- III (a) Explain the types of production. 8  
(b) Draw and explain break even analysis curve. 7

OR

- IV (a) Explain various types of plant maintenance. 8  
(b) State and explain the principles of material handling. 7

UNIT — II

- V (a) List the various therbligs and symbols. 9  
(b) Draw and explain string diagram. 6

OR

- VI (a) Explain the principles of motion economy. 9  
(b) Compare macro motion and micro motion study. 6

UNIT — III

- VII (a) List the procedure for constructing X and R charts. 9  
(b) Find the mean, median and mode of the data given below. 6  
4,2,5,6,8,9,6,6,1,3

OR

- VIII (a) Explain the components of quality costs. 9  
(b) State the advantages of C chart. 6

UNIT — IV

- IX (a) Draw and explain OC curve for general plan. 10  
(b) Distinguish between estimating and costing. 5

OR

- X (a) Describe the procedure for estimating. 9  
(b) Using straight line method find out the depreciation fund accrued at the end of 5 years for the machine whose initial cost is 1,00,000 and the scrap value after 10 years is 25000 6