

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2019**

CONSTRUCTION MANAGEMENT AND SAFETY 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 organizing.
2. Name any four types of contract system.
3. Define Economic Order Quantity (EOQ).
4. List any two methods of procuring the equipments for construction.
5. Define total quality management (TQM). (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. What are the main features of construction project ? Explain any two.
2. Explain the concept of project crashing.
3. Explain when the departmental execution is adopted.
4. Discuss the different modes of payments.
5. Write short notes on labour welfare measures.
6. What are the steps in the process of dealing with surplus stores and writing off ?
7. What are the merits and demerits of ISO standards ? (5×6 = 30)

PART — C

(Maximum marks : 60)

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

UNIT — I

- III (a) Explain the different stages in a construction project. 8
- (b) Draw a typical bar chart showing some items used in the construction of a residential building. 7

OR

IV (a) Draw the CPM network for the following activities required in a construction project.

- A, B and C are the activities at the beginning of the project and can be performed concurrently.
- Activity D succeeds A.
- Activity E is dependent on B and C.
- Activity F succeeds C.
- Activity G is dependent on D and E.
- Activity H is the last operation and it is dependent on F and G.

The duration of the above activities are given in the Table.

Activity	A	B	C	D	E	F	G	H
Duration in days	5	4	6	6	7	5	8	4

Determine the time estimates of EST, EFT, EPO, LST, LFT and LPO. And also mark the critical path in the network diagram.

(b) Write short notes on administrative sanction and technical sanction.

UNIT — II

V (a) Explain the details and information to be included in the tender notice.

(b) Explain the terms pre-measurement and check measurement.

OR

VI (a) Explain different types of bills used in department for making payment.

(b) State the need of supervision and write a check list for RCC construction.

UNIT — III

VII (a) Explain the role of trade unions.

(b) List the different types of cranes and explain any two of them.

OR

VIII (a) What is stores management ? And explain the classification of stores.

(b) Write the different types of bulldozer and its uses ?

UNIT — IV

IX (a) Explain the main causes and effects of accidents in construction industry.

(b) What are the factors promoting entrepreneurship ?

OR

X (a) Explain the role of small business organizations in national growth.

(b) Write short notes on BIS standard on quality system.