

**FIFTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY — MARCH, 2015**

CONSTRUCTION MANAGEMENT AND SAFETY ENGINEERING

(Common for AR, CE, EN, WR and QS)

[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. What is meant by construction management ?
2. What is meant by PERT ?
3. Define the term nominal muster roll.
4. Define the term entrepreneur.
5. List two ways to implement T.Q.M.

(5×2=10)

PART—B

(Maximum marks : 30)

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

1. Distinguish between A.S. and T.S.
2. Explain the concept of construction schedule.
3. Write any six documents to be included in the tender.
4. List the rules to be followed in recording measurement.
5. What are the aspects of human resource management ?
6. Explain the role of site engineer/supervisor in preventing accidents.
7. What are the statutory requirements of small scale industry ?

(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) Describe the advantages of CPM network in the execution of a project. 7

(b) Explain :

- (i) Preliminary estimate (ii) Detailed estimate.

(2×4=8)

OR

- IV (a) Explain the role of Superintending Engineer. 7
- (b) Construct the arrow network for a project based on following data.
- (i) A and B can be performed concurrently and start off the project.
 - (ii) A must precede C and D.
 - (iii) G must follow C.
 - (iv) M is dependent on both D and G.
 - (v) Neither E nor F can start before B is completed but E and F can be performed concurrently.
 - (vi) D must precede H.
 - (vii) J is dependent on both E and F.
 - (viii) K can begin only after J, M and H are completed.
 - (ix) L is the last operation which follows K. 8

UNIT—II

- V (a) Write the important points that should be included in the tender notice. 7
- (b) What are the essential features of piece work system and item rate system ? 8

OR

- VI (a) Explain the merits and limitations of each contract system. 7
- (b) Explain EMD and SMD and reasons for collecting it. 8

UNIT—III

- VII (a) Mention the situation when organization of stores becomes necessary. 7
- (b) Differentiate selection, appointment and recruitment of workers. 8

OR

- VIII (a) Explain the procedure of taking delivery from station yard. 7
- (b) Explain the method to choose the proper excavation equipment. 8

UNIT—IV

- IX (a) Briefly explain the institutions set up in development of small scale industries. 7
- (b) Differentiate between entrepreneurial style and managerial style. 8

OR

- X (a) List the functions of management. 7
- (b) Explain the various elements of quality system. 8