

COURSE CODE(CREDITS): 18B1WCE531

MAX. MARKS: 15

COURSE NAME: Construction Technology and Management

COURSE INSTRUCTORS: Mr. Kaushal Kumar

MAX. TIME: 1 Hour

*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

**Q1. Short Answer Type Questions.** *CO-1, CO-2 [1x5 = 5 Marks]*

- (a). What are the objectives and key elements of project management?
- (b). What is a milestone chart? Explain with a neat sketch.
- (c). What are the shortcomings of bar charts? How are these removed?
- (d). What do you understand by a dummy? What are its uses?
- (e). What is Work breakdown structure in project management? Cite an example.

**Q2.** The following project is to be represented by a Bar Chart. The duration for each activity is in days. These are the actual work days. The project commences on Wednesday, November 15, with five work days a week. Draw the bar chart with the horizontal scale denoting calendar dates. [Graph Paper to be provided] *CO-1, CO-2 [ 5 Marks]*

Activity 1	8 days
Activity 2	4 days
Activity 3	7 days
Activity 4	9 days
Activity 5	3 days
Activity 6	3 days
Activity 7	5 days
Activity 8	6 days

Activities 1 and 2 can occur concurrently, Activity 3 can take place after activity 2 is completed. Activities 4, 6 and 3 can occur concurrently. Activity 8 can start 4 days after the commencement of activity 6. Activity 7 should follow activity 5. Activity 5 can begin concurrently with activity 8.

- (a). On what calendar date can we expect the project to be completed?
- (b). On December 3, what is the progress report?

**Q3.** A project consists of 16 activities having their predecessor relationship as follows:

- a) A is the first activity of the project.*
- b) B, C and D follow A and can be done concurrently.*
- c) E and G cannot begin until C is completed, and can be performed simultaneously.*
- d) F is the immediate successor to activities B and E.*
- e) H and K run in parallel, and both succeed G.*
- f) L succeeds F and H.*
- g) I and J are immediate successor activities to activity D.*
- h) M and N are immediately successor to I and K. However, both M and N can be performed concurrently.*
- i) Activities O and P are the last activities. Activity O is the immediate successor to N and L. Activity P is the immediate successor of M and J.*

Draw the network and number the events.

**CO-2 [5 Marks]**

-----End of Paper-----