PROJECT PLANNING AND MANAGEMENT
(CIVL 4283)

Time Allotted : 3 hrs   **Full Marks : 70**

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
<u>any 5 (five)</u> from Group B to E, taking <u>at least one</u> from each group.*

Candidates are required to give answer in their own words as far as practicable.

Group – A
(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: **10 × 1 = 10**

    (i)   Which of the following is correct about the network diagram?
    - (a) The events are represented graphically by circle or nodes at the beginning or end of the activity by arrows
    - (b) The tail end of the arrow represents the start of an activity
    - (c) The head of the arrow represents the end of an activity
    - (d) All of these.

    (ii)   A PERT network is
    - (a) Activity oriented
    - (b) Event oriented
    - (c) Both activity as well as event oriented
    - (d) Neither activity nor event oriented

    (iii)   Slack or slack time
    - (a) Is always zero for critical activities
    - (b) Can never be greater than zero
    - (c) Both activity as well as event oriented
    - (d) Neither activity nor event oriented.

    (iv)   An activity is
    - (a) The beginning or end of a specified job
    - (b) An element of work entailed in the project
    - (c) The movement of heavy vehicles from one place to another
    - (d) The progress of work up to a certain limit.

    (v)   A fire fighting system in which water is allowed to flow on a fire as a shower and a fire is put out is called
    - (a) Automatic sprinkler system
    - (b) Carbon dioxide system
    - (c) Dry chemical system
    - (d) Carbon monoxide system.

    (vi)   Muster Roll is the
    - (a) Attendance record of the daily labour employed

(b) Measurement of the daily work done
(c) Accounting registers for consumable materials
(d) None of these.

(vii) The occurrence of the starting of an activity, is called its
(a) Head event   (b) Tail event
(c) Dual role event   (d) Dummy.

(viii) PERT network is
(a) activity oriented   (b) event oriented
(c) both activity and event oriented   (d) neither activity nor event oriented.

(ix) Critical path
(a) Is always longest   (b) Is always shortest
(c) May be longest   (d) May be shortest

(x) While filling the tender for any work, the contractor considers
(a) Site survey   (b) Availability of construction material
(c) Availability of labour   (d) All of the above.

Group – B

2. (a) Describe Dry Riser and Wet Riser. Explain Emergency lighting and Escape Lighting.

   (b) Define habitable Room, Means of access.

   (4 + 4) + 4 = 12

3. (a) Classify Buildings based on Fire Protection.

   (b) What do you understand by ground coverage area of a building? How does FAR control the built-up area and height of a building?

   4 + (4 + 4) = 12

Group – C

4. (a) Name the different types of excavators and describe briefly about each.

   (b) What are the factors affecting the output of a shovel.

   9 + 3 = 12

5. (a) What is a Ready mix concrete? Describe dry batching and wet batching. What are the advantages and disadvantages of ready mix concrete?

   (b) Define semi automatic and automatic batching plant.

   10 + 2 = 12

Group – D

6. (a) What is the difference between event and activity?

   (b) A project consists of the following activities and activity times. Find
   (i) What is the project completion time.
   (ii) Compute the total floats and free floats for the activities.
   (iii) Critical path.

Activity	Preceded by	Time (days)
A	-	3
B	-	4
C	A,B	5
D	B	6
E	D	7
F	C,E	8
G	D	9

4 + 8 = 12

7. (a) What do you mean by slack? What are different types of slacks? Explain in brief.

   (b) Define series activities, parallel activities, predecessor activity and successor activity with example.

6 + 6 = 12

Group – E

8. (a) What is arbitration? What is the need of arbitration?

   (b) What are the wanted qualifications of arbitrator? What are the ground to challenge an arbitrator?

4 + (4 + 4) = 12

9. Explain in details about the "Organisation of PWD". Discuss the various types of tenders in details.

(6 + 6) = 12

Department & Section	Submission Link
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