

**PROJECT PLANNING AND MANAGEMENT
(CIVL 3214)**

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one 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) Front open space for residential building up to 15.5 m height as per municipal building rule, is?
(a) 1.5 m (b) 1.2 m (c) 2.0 m (d) 1.8 m
 - (ii) The contractor quotes rate for each item of work in
(a) Lump sum contract (b) Percentage contract
(c) Target contract (d) Unit rate contract.
 - (iii) Minimum width of stair in your college should be
(a) 1 m (b) 1.2 m (c) 1.5 m (d) 2 m
 - (iv) A Turn-Key contract means
(a) To design and Build
(b) To perform all the functions from inspection to completion of the construction
(c) To build the structure only.
(d) The same as the unit price contract.
 - (v) For any residential building if floor area is 2, and the plot size is up to 500sq.m maximum permissible ground coverage should be
(a) 60% (b) 50% (c) 65% (d) 55%
 - (vi) 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.
 - (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 stands for
(a) Programme estimation and reporting technique
(b) Programme evaluation and review technique
(c) Process estimation and review technique
(d) Planning estimation and resulting technique.
- (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) Write short notes on : (i) Roominess (ii) Kolkata Building rules for Bathroom and water closet .
(b) What are the building bye-laws?
6 + 6 = 12
3. (a) A building is to be constructed on a plot area of 1500 sq.m. The site is adjacent about two streets, one of 30m width and the other of 20 m, FAR is 2.0. If each storey contains 3 flats, determine the built up area of the building and its height. Ground coverage is maximum 50%.
(b) What are the basic requirements of building planning?
6 + 6 = 12

Group – C

4. (a) Find the output of 5 cum power shovel excavating material whose swell is 30% . It handles on average heaped loose volume of 5.5 cum. With cycle time of 50 secs. Assume efficiency as 1.
(b) Write short notes on Clamshell and Grader with their schematic diagram.
4 + 8 = 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) The activities mentioned below constitute a project

Task	A	B	C	D	E	F	G	H	I
Duration (Days)	8	10	8	10	16	17	18	14	9
Preceding Activity	-	-	-	A	A	B,D	C	C	F,G

Draw the network to find the critical path. Also determine total, free, independent float of each activity.

$$4 + 8 = 12$$

7. (a) State the difference between Pert and CPM networks.
- (b) Define dummy activity. What are the uses of dummy?
- (c) A project consists of 10 activities as detailed below. Draw an arrow diagram representation of the project.

Job activity	Immediate Predecessors
M	-
N	M
O	M
P	M
Q	N
R	O
S	P
T	P
U	Q,R,S
V	T,U

$$4 + 4 + 4 = 12$$

Group – E

8. Write short notes on: (4 × 3) = 12
- (i) Earnest Money Deposit (EMD)
- (ii) Security Deposit
- (iii) Retention Money.
9. (a) What is arbitration? What is the need of arbitration?
- (b) Discuss any three types of tender in details.

$$6 + 6 = 12$$

Department & Section	Google classroom joining code	Submission Link
CE Sec A	jvh4qnr	https://classroom.google.com/u/1/w/MzY0NTI1ODM1MDcy/t/all
CE Sec B	jvh4qnr	https://classroom.google.com/u/1/w/MzY0NTI1ODM1MDcy/t/all