

B.Arch. (Sem.-7) (N.S.) Examination

AR 702

Advanced Building Construction

March 2019

Time : 2-00 Hours]

[Max. Marks : 50

Duration 2 hrs.

Time:

INSTRUCTIONS:

- 1) Attempt all question.
- 2) Figures on the right indicate full marks.
- 3) Draw neat sketches wherever required.
- 4) Assume suitable additional data if required.

Q1. Attempt All Of The Following**[09]**

- a) Lift Slab Construction and Slip Form Construction
- b) Bottom up and Top down process in Lift Slab Construction
- c) Make sketch of inclined Slip Form Construction detail

Q2 Write in Brief the given Questions Any 2**[08]**

- a) Explain pre-stress and prefabricated concrete
- b) Advantages of using sandwich insulated prefabricated structure
- c) Why post tensioning is required in prefabricated beams.

Q3 Write in short. Any 2**[08]**

- a) Explain PDCA cycle
- b) What are the safety measures to be adopted for ongoing projects
- c) Roll of the site Engineer and the site supervisor


Q4. Write In Briefe all**[09]**

- a) Prevent waste and recycle management & Role in the process
- b) How to prevent waste from construction & Recycle construction material
- c) Reduce. Reuse. Recycle. 3R explain the concept with example.

Q5. Write In Brief Any 2**[08]**

- a) Explain Orientation and sun path diagram on the different latitudes
- b) Why solar chimneys and Trombe walls are useful for the cold
- c) Green house and Sun Space

Q6 Define the Following Any 2**[08]**

1. Explain Terminology: repairing, retrofitting, restoration, remodeling.
 2. Discuss any one (Jacketing, Fiber reinforced plastic, epoxy coatingl).
 3. Write about the process of checking the damage to the building.
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AR 704

Project Management

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Time : 2-00 Hours]

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- Instruction:
1. Write answer to the point.
 2. Figure to the right indicates full marks.
 3. **Assume data / Logic** where required

Q-1 Answer the following question (Any two) (10)

- a) Define Project Management. Write main objectives of Project Management. Which are the main responsibilities of Project manager.
- b) What are the Key areas of Construction Project management and explain any two areas in detail.
- c) Explain CPM and Pert in Brief, and write down the difference between CPM and PERT.

Q-2. A) Answer the following (any Three) (3)

- (a) Gantt Bar Chart
- (b) Milestone Chart
- (c) Network Diagram
- (d) Circle Diagram

B) The activity breakdown for a certain project is as under (7)
Prepare bar chart and find completion period.

Activity no	Duration (DAYS)
A	10
B	5
C	10
D	7
E	8
F	10
G	10

- 1) Activity A & activity B can start simultaneously at zero time & both the activities are independent; however activity B has less duration, hence completed earlier than A
- 2) Activity C can only Start when activity B is complete
- 3) Activities D,E,F are independent activities , but they start simultaneously only when activity A is complete .
- 4) Activity G can start only when the activity C is complete. End of activity G marks the completion of Project.

P.T.O

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Q-3 (A) True or False (4)

- 1) Man power and Material has nothing to do with management of project.
- 2) Construction management has relation with Project Management.
- 3) PERT is "projects edit and research technology"
- 4) The length of arrow in network diagram neither represent the magnitude of work involved nor the time required for its completion.

Q-3 (B) Write any Two. (6)

- a) Explain causes of construction accident.
- b) Explain pre tender and post tender.
- c) CPM in determining extra Items beyond the scope of work.

Q-4. Write any two (10)

- 1) Explain project supervision on construction project.
- 2) Suggest some of the basic rules for safety/precaution taken by Construction project manager for preventing construction failure.
- 3) Explain breakdown structure of load bearing structure bungalow.

Q-5. Project involves 8 activities duration is also given in figure. Determine critical path with the help of EFT and LFT. Also prepare table showing scheduling of activity including total float, free float and interfering float. (10)
(See.fig.1)

