

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE
B.Arch ,Summer 2017-18 Examination

Semester: 4**Date: 07/05/2018****Subject Code: 01101252****Time: 02:00pm to 05:00pm****Subject Name: Building Materials and Construction Technology - IV****Total Marks: 50**

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever required.
4. Draw suitable sketches wherever required.

Q.1 Explain formwork and state its types in detail. **(10)****Q.2** Attempt **any five** out of six : **(20)****A** Fill in the blanks:

- i) _____ is an artificial support provided below and around the precast or cast "in situ" concrete work
- ii) _____ are designed for robust operation with user-friendly controls to ensure trouble-free operation.
- iii) _____ is a hoistway through which one or more elevator cars may travel
- iv) _____ are used in buildings to accommodate vertical movement by allowing an expansion joint to be placed beneath the angle.

B Answer the following:

- i) Enlist the companies manufacturing 'Escalators'.
- ii) State the advantages of false ceiling

C Explain the uses of the following:

- i) Aircraft elevators ii) Paternoster iii) Dumbwaiters iv) Scissor lift

D Sketch the following:

- i) Single flying shoring ii) Single skin partition wall iii) Inclined raking shoring iv) Lift shaft

E Explain briefly with sketches:

- i) Ladder scaffolding ii) Strutting

F Answer the following:

- i) Explain Cavity wall and details of cavity wall for flat and inclined roof

Q.3 Answer the following (**Any 5**) **(10)**

- i) Mention the uses of Rack and pinion elevator.
- ii) State the qualities of good formwork.
- iii) State the Advantages of RCC.
- iv) Explain briefly: Partitions and Paneling.
- v) Mention the types of Lifts and elevators.
- vi) Uses of Dumb waiters.

Q.4 Explain the following (**Any 2**) **(10)**

- i) Mention the factors to be considered for designing and locating elevators in a building.
- ii) Explain in detail the process of installation of suspended ceiling with sketches
- iii) Explain with neat sketches all the elements of False ceiling.