Max Marks : 40
Duration Time: Three Hours

Note:
- Answer all questions.
- Neat drafting/sketching will be credited.
- Assume suitable data and scale wherever necessary.

1. Draw the complete details of an RCC staircase for an office building leading from ground to the first floor. Floor to floor height is to be 3150mm, the width of the staircase is to be 1200mm. Take suitable size of the tread and riser.

OR

1' Draw the plan and sectional details of RCC one way slab having the span of 3.0m x 6.0m.

2. Draw the sectional details of the following on suitable scale:
   a) Details of timber form work for a square/rectangular RCC column.
   b) Reinforcement in L & T beam
   c) Column and footing connections
   d) Provision of DPC for buildings on ordinary soil

3. Briefly discuss any Three of the following:
   i) Casting and curing of various RCC components
   ii) Compaction of concrete
   iii) Sources of dampness
   iv) Types of ground floor
   v) Order and method of removing Form Work
Answer all questions.

Draw neat sketches to support your answers.

1. What is the significance and need of studying history of architecture with reference to present day contemporary architecture? Explain in brief.

2. What are orders in Greek architecture? Explain them with neat sketches.

3. Explain in brief any FOUR of the followings:
   a) Obelisk
   b) Atrium
   c) Ziggurat
   d) Peristyle
   e) Campanile
   f) Rose Window

4. Discuss any ONE of the followings:
   a) Pyramids at Giza
   b) Parthenon at Athens

5. What are the different architectural characteristics that help in recognising the following styles. Explain any TWO
   a) Gothic
   b) Renaissance
   c) Baroque

6. Explain in brief any TWO of the followings:
   a) Optical Correction introduced by the Greeks in their buildings.
   b) Different materials used by Romans and how did they help in constructing massive structures.
   c) Construction Techniques by the Byzantines.
I. Describe the necessity of building bye-laws. What are the problems which are likely to be encountered in the absence of building bye-laws.

OR

1’. Describe the requirement of drawings to accompany with the application form for obtaining permission from the Development Authority for the construction of a residential building.

2. Differentiate any Three of the following:
   a) Permissible FAR and FAR achieved
   b) Dwelling House and Dwelling Unit.
   c) Land use Plan and Layout Plan.
   d) Plinth and Plinth area.

3. Discuss the provisions in the building bye-laws with respect to following:
   i) Width and length of means of access.
   ii) Side open space.
   iii) Light and ventilation with respect to different climatic zones.

4. A Commercial Plot measuring 70m x 80m located on the Ram (that road subjected to the maximum ground coverage of 60% and FAR 300 with fullest land utilization and uniform floor areas. How many floors can be built on the plot?

   Calculate the area required for parking and total number of cars for which parking is required if the parking is provided in the basement.

5. Write short notes on any Three of the following:
   a) Classification of buildings.
   b) Cul-de-sacs.
   c) Skip floor.
   d) Floating F.S.I. or transferable development rights (TDR).
Design a Guest House for a newly established National Institute of Fashion Technology (NIFT) in Lucknow. The site measuring 40 m X 55 m having approach road toward east (on shorter side of the site) is located within the campus of NIFT. You are required to design the above mentioned Guest House with following requirements:

**Design Requirements:**

1. Entrance lobby/reception/enquiry
2. Twelve Double Bed Rooms(with attached toilet)
3. Six Single Bed Rooms (with attached toilet)
4. Office
5. Common Room
6. Dining Hall
7. Kitchen (store, pantry and wash)
8. Toilet for male and female
9. Parking for 5 cars 10 two-wheelers

**Drawings Requirements:**

- All Plans on 1:100 scale (to be evaluated through viva)
- Elevations
- Sections

**Area**

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**Marks**

- 25
- 08
- 07