2012-2013
B.Architecture Winter(VI-Semester) Examination
(Electrical and Mechanical)
Building Services
(AR-306)
Credits: 04

Max Marks: 60
Duration: Three Hours

Note: (i) Attempt both sections which carry equal weightage.
(ii) Draw neat sketches to explain your answers.
(iii) Assume any suitable data wherever desirable.

(SECTION-A)

Q.1 Explain the importance of air-conditioning in buildings as well as impact of air-conditioning systems on environment and historical process of heat control in buildings.

OR

Q.1* Explain calculations of heat load in a building and tonnage requirement of air conditioning system to be installed.

Q.2 Explain fire fighting systems which are commonly installed in modern buildings, emphasizing the layout of sprinkler system, its operation, merits and demerits.

Q.3 Write notes on any three of the following
1. Designing lifts for a building. 2. Types of fires and their extinguishing systems. 3. Nomenclature of refrigerants. 4. Location of service core and fire escape staircase. 5. Intelligent building. 6. Various components of common room air conditioners. 7. Location of air handling units on a floor.

(SECTION-B)

Q.1 Being an Architect you are suppose to provide electrical layout plan for Drawing cum Dining room of size 4m X 6m in a residential building, Draw the electrical layout plan for the same on suitable scale with proper legend?

Q.2 What are the different type of switches explain their functioning?

OR

Q.2* What are Gaseous discharge lamps, explain the efficiency and application of Sodium Vapour Lamp?

Q.3 What is illumination level, explain the factors on which degree of illumination depends?
2012-13
B.Arch. (Winter Semester) Examination
Architecture
Construction and Materials-IV
AR 309

Maximum Marks: 40
Credits: 06
Duration: Four Hours

Answer all the questions.
Assume suitable data if missing.
Notations used have their usual meaning.

Q.1. Draw the lintel detail of a cavity wall in section. [8]

Q.2. Draw the sectional detail of barrel enclosure for a rolling shutter. [10]

Q.3. What are the various types of panelling techniques used in building interiors? Explain each one of them in detail with neat sketches. [10]

OR

Q.3'. What are the various types of partitions used in building interiors? Explain each one of them in detail with neat sketches. [10]

Q.4. Explain the following with the help of neat sketches (any two): [2x6=12]
   a) Balconies
   b) Canopies
   c) Pre-fabrication
NOTE: i) Use of standards is permitted, however their supply in the examination hall is not guaranteed.

ii) Present the scheme through the to-scale drawn and drafted sketches.

iii) Neat presentation of Graphics and write-ups carry additional weight-age within maximum marks.

iv) Concept of design shall be evaluated through viva-voice.

v) Assumed and write any missing data/situation/dimensions

Design and present a Recreational Evening Club for the staff and officers of Ultratech Cement Plant of Grasim Industries at Afligah on a site measuring 150 mts x 450 mts (deep) on a 45 mts wide road in the east of the site adjacent to Kasimpur Thermal power Station.

Design the building/site with following features/facilities.

(1) Park and Parking for 40 cars and 40 two-wheelers in the 20 mts front setback.

(2) Entrance lounge to seat 20 people.

(3) TV/Entertainment lounge for capacity of 40 people.

(4) Indoor games like Table Tennis (4 Boards), Carrom Boards (4 Nos.), Cards Table (4 Nos.), Billiards & Snooker boards (2 each), Badminton court (1 No.), Swimming pool with diving boards (1 No.).

(5) Reading space in borrowing and lending Library for 20 people.

(6) Managers and caretaker chambers together with their support staff of 4 each.

(7) Indoor dining for 50 people.

(8) Kitchen, store, etc. for 50 indoor dining and 100 outdoor dining space.

(9) Outdoor Tennis court, Outdoor Dining space, Pools and fountains may be integrated with the landscape scheme.

(10) General Toilet for males and female.

*Present your scheme to suggest site layout, park/parking & outdoor (functioning) spaces. [08]

*Floor Plans, two elevations and two sections. [08+08+08]

*Concept(Viva) [08]