'I' Scheme

Sample Question Paper

Program Name : Civil Engineering Program Group
Program Code : CE/CR/CS
Semester : Third
Course Title : Building Construction
Max. Marks : 70

22304

Time: 3 Hrs.

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume relevant data wherever required.
(5) Provide the answers to the questions in sequential order, preferably.

Q.1 Attempt any Five of the following. 10 Marks

a. State the classification of the building structure on the basis of type of construction.
b. State any two purposes of foundation of the civil structure
c. Name any four tools required for construction of brick masonry.
d. Define the terms, "Nosing and Soffit" used in building construction.
e. Provide the names of any four means of vertical communication.
f. List four types of pointing used in stone masonry.
g. Describe the necessity of waterproofing in a civil engineering structure..

Q.2 Attempt any Three of the following. 12 Marks

a. Provide the occupancy classification of the buildings as mentioned in National Building Code Part III (2005) with example of each.
b. Explain, "Deep well method for dewatering" used during the excavation activity of a building with diagram.
c. Describe any eight characteristics of good stone masonry.
d. Distinguish between brick masonry and stone masonry used in building Construction.

Q.3) Attempt any Three of the following. 12 Marks

a. Explain the necessity of scaffolding used in brick masonry and plastering activity of a building with diagram.

b. Explain the procedure of plastering mentioning the thickness of mortar used for plastering on the internal and external surface of the building.
c. Explain the types and probable causes of nonstructural cracks observed in building construction along with the preventive measures for any one type of crack.
d. Describe the procedure of water proofing used in slabs stating its importance in building construction.

Q.4) Attempt any Three of the following. 12 Marks

a. Explain the salient features of load bearing and framed structure .
b. Explain the precautions and the procedure used in constructing one and half brick thick wall in English bond with relevant sketch.
c. Describe the procedure of any two types of flooring along with its suitability in building construction.
d. Explain the procedure of preparation of surface along with the method of application of colour wash paint on the wall.
e. Suggest the suitable materials for plinth protection with justification.

Q.5) Attempt any Two of the following. 12 Marks

a. Suggest relevant type of foundation with sketch for commercial building on sandy soil with justification.
b. You are supervising the construction of a residential building in a good locality. State any six general principles you would expect to observe during construction of brick masonry.
c. Draw labeled sketch of fully paneled door with doorframe for opening size 1200 mm X 2100 mm .

Q.6) Attempt any Two of the following. 12 Marks

a. Draw a neat labelled section of a wall passing through foundation to parapet for load bearing structure.
b. Explain the requirements of good form work with names of material proposed for beam of size 300mm X 450mm with neat labeled sketch.
c. Explain the necessity of lintel along with its classification by material. Draw a labeled sketch of reinforced concrete lintel with chajja projection.

'I' Scheme

Sample Test Paper - I

Program Name : **Civil Engineering Program Group**

Program Code : **CE/CR/CS**

Semester : **Third**

Course Title : **Building Construction**

22304

Max. Marks : **20** **Time: 1 Hour**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume relevant data wherever required.
(5) Provide the answers to the questions in sequential order, preferably.

Q.1 Attempt any FOUR. **(8 Marks)**

a) Classify the building on the basis of occupancy
b) State the types of scaffolding.
c) State four functions of foundations.
d) List out the types of shallow foundation.
e) Give the meaning following terms; 1) Facing, 2) Backing, 3) Hearting, 4) Cornice.
f) Suggest the suitability of following masonry: 1) Ashlar masonry, 2) Dry stone masonry

Q.2 Attempt any THREE. **(12 Marks)**

a) Draw the labeled sketch (Sectional elevation) of load bearing and framed structure.
b) Classify shallow foundation and deep foundation.
c) Suggest suitable type of foundation for commercial building on sandy soil.
d) List any six precautions to be followed in the constructions of stone masonry.
e) Compare brick masonry and stone masonry on the basis of cost, strength , durability and appearance

'I' Scheme

Sample Test Paper - II

Program Name : **Civil Engineering Program Group**
Program Code : **CE/CR/CS**
Semester : **Third**
Course Title : **Building Construction**
Max. Marks : **20**

22304

Time: 1 Hour

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume relevant data wherever required.
(5) Provide the answers to the questions in sequential order, preferably.

Q.1 Attempt any FOUR. **08 Marks**

a) Mention means of vertical and horizontal communication in building.
b) Suggest suitability of following door: i) Revolving door, ii) Collapsible door, iii) Rolling shutter, iv) fully paneled door
c) List any four types of floor finishes with their suitability.
d) Give the meaning of plastering and pointing
e) State two reasons for settlement of foundation.
f) State the purpose of water proofing and Grouting

Q.2 Attempt any THREE. **12 Marks**

a) Draw neat sketch of single shuttered fully paneled door(elevation) for opening size 1200mm X 2100mm
b) Draw labeled sketch (sectional elevation) of dogged legged staircase for residential building.
c) Describe the procedure of granite flooring.
d) State the any two causes and remedial measures of defects in plaster.
e) Describe the safe procedure of demolition of residential building.