

Theory Question Bank

Unit I:

- Explain the selection of scale for various drawings and plans
- Explain importance of building drawing in civil engineering in construction & estimation
- Explain the importance of dimensioning & conventional representations in the drawing.
- What is the importance of abbreviations & graphical symbols in building drawing? Give examples
- What are the various types of lines used in civil engineering drawings
- Draw the symbols for the following as per IS 962
 - Brick work
 - UCR Masonry
 - Concrete
 - Tile flooring
 - Teak wood
 - Plastering
 - Reinforced concrete
 - Urinals
 - Concrete
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- Differentiate between first angle projection and third angle projection.
- What are the various requirements of drawing as per plan sanctioning authority
- Explain the terms plan, elevation, typical section with example.
- What do you mean by R.F.
- How the layout of sheet for civil engineering drawing prepared? Show with neat sketch

Unit II:

- Explain the concept of foundation plan and its use in building construction of load bearing and framed structure.
- Briefly explain the requirement of submission of working drawings with reference to scale and various drawings
- Explain Site plan, Block plan, Layout plan
- Develop given line plans of residential buildings with respect to the data given. (Examples of line plans and specifications from previous question papers)
 - Develop Working Plan
 - Elevation
 - Section
 - Schedule of openings
 - Area statement
 - Site plan

Unit III:

- What are the principles of planning? Explain them with neat sketches
- Explain the following:
 - Orientation
 - Aspect
 - Prospect
 - Privacy
 - Grouping
 - Roominess,
 - Circulation,
 - Ventilation
- What do you mean by orientation of building? How do you achieve it?
- Explain climate consideration for design of building with neat sketches
- What do you mean by climate? How climate considerations affect planning? Explain with reference to tropical zone the various building criteria.
- What is the importance of economy in building planning
- Explain the role of Vastu-shastra in building planning.
- What is the necessary data to be collected for planning of residential building
- Explain the following types of buildings :
 - Individual Bungalow
 - Twin Houses
 - Apartments
- Explain criteria for earthquake resistant planning of building.
- Design & Developing the Plans, Elevation, Sections, Schedule of openings, furniture arrangement for different requirement as asked in previous question paper Ex.
 - Doctor's Bungalow
 - Class I officer having 2 daughter & a son
 - Lecturer of medical college in a plot size 15m X 20m
 - Lawyer's family having four adults & two children.

Unit IV:

- Explain the importance of free hand sketching in civil engineering
- What is the importance of building bye-laws in the context of town planning
- What do you mean by mezzanine floor?
- Under which circumstances you will recommend mezzanine floor, balcony and porch in building.
- What are the common facilities provided for apartment? Explain their standards.
- Draw free hand sketch of combined W.C. and Bath
- Draw free hand sketch of R.C.C. dog-legged staircase with reinforcement.
- Draw free hand sketch of R.C.C. open well staircase with reinforcement
- Draw free hand sketch of furniture arrangement in kitchen, dining, living room.
- Differentiate between Isometric view and Perspective view with neat sketch and also mention the various types of perspective drawings
- State the different elements of perspective drawing. Explain them with drawing a perspective of cube.
- Explain the importance of perspective drawing. Also differentiate between one point and two point perspective drawing
- Define :
 - Picture plane
 - Vanishing point
 - C.V.R.
 - Angle of vision
- Draw line plan for the different public buildings from the given data (Examples from previous question papers)
Ex :
 - Post office
 - Primary school building
 - Shopping Complex
 - Co-operative bank building

Viva-Voce Question Bank

Unit I:

- Which scales are generally preferred for plan, elevation, section, site plan etc
- Explain the importance of dimensioning
- What is the importance of abbreviations
- List out the abbreviations used in building drawing
- What is the importance of graphical symbols in building drawing
- Give examples of graphical symbols used in building drawing
- What are the various types of lines used in civil engineering drawings
- Draw the symbols for the following as per IS 962
 - Brick work
 - UCR Masonry
 - Concrete
 - Tile flooring
 - Teak wood
 - Plastering
 - Reinforced concrete
 - Urinals
 - Concrete
- Explain first angle projection
- Explain third angle projection.
- What are the various requirements of drawing as per plan sanctioning authority
- Define plan, elevation, typical section with example.
- What do you mean by R.F.

Unit II:

- What is foundation plan? What it contains?
- What is the use of foundation plan in building construction
- What is the difference in foundation plan for load bearing and framed structure.
- List the requirement of submission of working drawings
- Define Site plan, Block plan, Layout plan
- Define FSI
- What are the general sizes of doors & windows
- What are the contents of area statement chart
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Unit III:

- What are the principles of planning?
- Define :
 - Orientation
 - Aspect
 - Prospect
 - Privacy
 - Grouping
 - Roominess,
 - Circulation,
 - Ventilation
- What do you mean by orientation of building?
- How do you achieve the orientation of building?
- What are the climate considerations for design of building?
- How do climate considerations affect planning?
- What is the importance of economy in building planning?
- How can we achieve the economy in building planning?
- Explain the role of Vastu-shastra in building planning.
- What is the necessary data to be collected for planning of residential building?
- Define the following types of buildings :
 - Individual Bungalow
 - Twin Houses
 - Apartments
- What points should be kept in mind while planning for earthquake resistant building.

Unit IV:

- What is the importance of building bye-laws
- What are the building bye laws
- What do you mean by mezzanine floor?
- When you will recommend mezzanine floor, balcony and porch in building.
- What are the common facilities provided for apartment?
- Draw free hand sketch of combined W.C. and Bath
- Draw free hand sketch of R.C.C. dog-legged staircase with reinforcement.
- Draw free hand sketch of R.C.C. open well staircase with reinforcement
- Draw free hand sketch of furniture arrangement in kitchen, dining, living room.
- Define Isometric view
- Define Perspective view
- State the different elements of perspective drawing.
- Differentiate between one point and two point perspective drawing
- Define :
 - Picture plane
 - Vanishing point
 - C.V.R.
 - Angle of vision
- Draw line plan for the different public buildings from the given data (Examples from previous question papers)
Ex :
 - Post office
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