

Enrollment No.....



Faculty of Engineering  
End Sem (Odd) Examination Dec-2018  
CE3CO04 Building Planning and Drawing

Programme: B.Tech.

Branch/Specialisation: CE

**Duration: 3 Hrs.**

**Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. The foundation in which loading on the soil beneath remains practically unchanged even after the construction of the building is done is known as \_\_\_\_\_ **1**
- (a) Step foundation (b) Grillage foundation  
(c) Raft foundation (d) Inverted arch foundation
- ii. A Stair turning through one right angle is known as a \_\_\_\_\_ stair. **1**
- (a) Quarter- turn (b) Half-turn (c) Dog-legged (d) Open navel
- iii. The science which deals with the sound insulation in a building is known as \_\_\_\_\_ **1**
- (a) Reverberation (b) Transmission  
(c) Acoustic (d) Air borne
- iv. \_\_\_\_\_ is used to indicate the architectural effect produced by elevation in relation to width, height position of doors and windows, materials employed in the construction of external walls, etc. **1**
- (a) Furniture requirements (b) Elegance  
(c) Roominess (d) Grouping
- v. The term \_\_\_\_\_ is used to indicate the science of controlling air with respect to humidity, temperature, movement of air, bacteria content, etc. **1**
- (a) Air conditioning (b) Circulation  
(c) Condensation (d) Conditioning
- vi. \_\_\_\_\_ is the process by which the required amount of moisture is taken out from the air. **1**
- (a) Condensation (b) Dehumidification  
(c) Humidification (d) Absorption

P.T.O.

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- vii. It is a vertical projection plane used to obtain the object's Perspective is **1**  
\_\_\_\_\_
- (a) Orthographic plane (b) Vertical plane  
(c) Perspective picture plane (d) Horizontal plane
- viii. It is the line drawn through the station point and perpendicular to the picture plane. It is also called axis of vision or line of sight or \_\_\_\_\_ **1**
- (a) Station point (b) X-axis  
(c) Perpendicular axis (d) Z-axis
- ix. Which factor is not considered while studying a site before construction **1** planning?
- (a) Number of gender ratio  
(b) Study of site with respect to other surrounding sites  
(c) Study of geographical and geological conditions of site  
(d) Location site
- x. What should the planner must have an interaction with the **1** master/residents to understand the following
- (a) Aim/object/purpose of building  
(b) Number of people using the building  
(c) Type of people, their education, awareness  
(d) Dressing sense of the people

Q.2 i. Define: **2**  
(a) Staircase (b) Foundation

ii. What are Foundations? Explain all types of Shallow and Deep **8** Foundations with neat sketches.

OR iii. Briefly explain any 4 types of door with neat Labelled sketches. **8**

Q.3 i. Define: **2**  
(a) FAR (b) Set Back

ii. Explain in brief the Principles of building planning. **8**

OR iii. Define Principles of Architectural Composition with example. **8**

Q.4 i. Define: **2**  
(a) Manhole (b) Inspection Chamber

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ii. For a square plot of size 800 m<sup>2</sup>, the owner allowed an equal setback of **8** 5m on two opposite sides. Within the building lines thus formed, if he constructed a two-storey house (G+1) - with the upper storey having equal area as the ground floor - what is the resultant F.A.R.? Assume wall area as 15% of the built-up area.

OR iii. Write short note on electrification of building and sanitation of building **8** (Principles of Internal and External drains).

Q.5 i. What are the "Scale" considerations before drawing a Scale plan of **2** various Buildings and Building elements?

ii. Explain and Differentiate one point and two-point perspective. **8**

OR iii. Define and illustrate with a neat Sketch. **8**

(a) Station Point

(b) Picture Plane

(c) Vanishing Point

(d) Parallel Perspective

Q.6 i. What are the necessities of Planning a Town? **2**

ii. Define and Enlist the Principles of Town Planning. **8**

OR iii. Define Educational Buildings. What are the Planning Standards of **8** Educational Buildings?

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		Definition Two Point Perspective	1 mark	
		Differences 2 marks for each Difference (3 Differences)		
		(2 marks *3)	6 marks	
OR	iii.	Define and illustrate with a neat Sketch.		<b>8</b>
		(a) Station Point	2 marks	
		(b) Picture Plane	2 marks	
		(c) Vanishing Point	2 marks	
		(d) Parallel Perspective	2 marks	
Q.6	i.	Necessities of Planning a Town Definition		<b>2</b>
	ii.	Principles of Town Planning.		<b>8</b>
		Definition	1 mark	
		1 mark For each principle(7 Principles)	7 marks	
OR	iii.	Define Educational Buildings. What are the Planning Standards of Educational Buildings?		<b>8</b>
		Definition	1 mark	
		Enrolment per Class	1 mark	
		Floor Area	1 mark	
		Room Size	1 mark	
		School Area	1 mark	
		Site Location	1 mark	
		Basic Facilities	1 mark	
		Building Height	1 mark	

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