

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III(New) EXAMINATION – SUMMER 2016

Subject Code:2130607

Date:27/05/2016

Subject Name:Building Construction

Time:10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
 2. Make suitable assumptions wherever necessary.
 3. Figures to the right indicate full marks.
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Q-1	Short Questions	14
1	The portion of a brick cut across the width is called (a) Closer (b) half brick (c) bed (d) bat	
2	The portion of a brick cut across the length is called (a) king closer (b) queen closer (c) bat (d) quoin	
3	The type of bond in which every course contains both headers and stretchers is called (a) English bond (b) Flemish bond (c) Header bond (d) stretcher bond	
4	The type of bond in which alternate course are stretcher and header is (a) English bond (b) Flemish bond (c) Header bond (d) Stretcher bond	
5	Exposed portions of a vertical surface at right angles to the door or window frame are known as (a) Jambs (b) lintels (c) Reveals (d) Soffits	
6	The vertical sides of door and window openings provided in a wall are known as (a) Jambs (b) lintels (c) Reveals (d) Soffits	
7	The Filling in cavities with cement slurry is known as (a) Coping (b) Beam Filling (c) Grouting (d) Gunniting	
8	A retaining wall may be built in (a) Dry stone Masonry (b) Stone Masonry (c) Plane cement Concrete (d) All of these	
9	In a Public building the stair should be located near the _____ of building (a) Entrance (b) Centre (c) End (d) Toilet	

	10	The angle which the line of nosing of the stair makes with the horizontal is called	
		(a) Riser (b) Filler	
		(c) Soffit (d) Pitch	
	11	The width of landing should be _____ the width of stair	
		(a) Equal to (b) Less than	
		(c) Greater than (d) None of these	
	12	The Pitch of stair should never exceed	
		(a) 20° (b) 25°	
		(c) 30° (d) 40°	
	13	The minimum depth of foundation for load bearing wall of building is restricted to	
		(a) 600 mm (b) 700 mm	
		(c) 800 mm (d) 900 mm	
	14	The lowest part of a structure which transmit the load to the soil is known as	
		(a) Super Structure (b) Plinth	
		(c) Foundation (d) Basement	
Q-2	(a)	What are the different types of boring methods? Explain any one in detail	03
	(b)	Draw the Sketch of Stair	04
		(1) Helical Stair (2) Spiral Stair (3) Half turn geometrical stair	
		(4) Three –Quarter –Turn Stair	
	(c)	Explain various types of shallow foundation.	07
		OR	
	(c)	Explain Methods of Improving bearing capacity of Soil	07
Q-3	(a)	Define the Following terms	03
		(1)King Closer (2) Queen Closer (3) Throating	
	(b)	Draw the sketch of Window	04
		(1) Bay window (2) Clere Storey Window (3) Pivoted Window	
		(4)Lantern window	
	(c)	What is composite masonry. Explain it with neat sketch.	07
		OR	
Q-3	(a)	Classify the stairs and Explain half turn stair	03
	(b)	Define (1) Flight (2 Landing (3 Nosing (4) Waist	04
	(c)	Describe cast-in-situ and Precast Construction	07
Q-4	(a)	Explain about Principle and construction of Green Building	03
	(b)	Draw the sketch	04
		(1) Ashlar chamfered masonry (3) Ashlar stone arches	
		(2) Coursed rubble masnory (4) Bull’s Eye arch	

	(c)	Write in brief (1) Antitermite Treatment of Building (2) Acoustical Construction	07
		OR	
Q-4	(a)	Describe about floor with sketch (1) Reinforced brick floor	03
	(b)	Draw the Sketch (1) Steel grillage foundation (2) Combined Footing (3) Strap Footing (4) Raft foundation	04
	(c)	Discuss the Problems of Foundation in black cotton soils. Describe the Preventive Measures.	07
Q-5	(a)	Explain in brief (1) Sub Surface investigation	03
	(b)	Draw the Sketch (1) Brick Jack arch Flooring (2) Concrete jack arch flooring (3) Ribbed Flooring (4) Flag stone Floor	04
	(c)	Define shoring and water pinning. Explain any one method of each	07
		OR	
Q-5	(a)	Define the following in relation of roof (1) Ridge (2) Valley (3) Purlin	03
	(b)	Briefly Explain Damp Proofing in building	04
	(c)	Explain the methods of mixing, Placing, compacting and Curing of Concrete	07