

R.N.G.PATEL INSTITUTE OF TECHNOLOGY-RNGPIT
(An Autonomous College U/s UGC Act 1956)

B.Tech. SEMESTER-I, SEMESTER END EXAMINATION - WINTER 2024

Subject Code: 1CV102

Date: 21-12-2024

Subject Name: BUILDING CONSTRUCTION TECHNOLOGY

Time: 11:00 AM to 01:30 PM

Total Marks: 70

Instructions

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Write answers of **Section A** and **Section B** in **separate answer books**.
3. Attempt all questions from both **Section A** and **Section B**.
4. Each section carries **35 marks**, with a total of **70 marks** for the examination.
5. The figures to the right of each question indicate full marks, make suitable assumptions with justification.
6. BL - Bloom's Taxonomy Levels (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

SECTION A

	Marks BL CO		
Q.1 Objective-Type Questions	[05]		
(a) Upper horizontal member of a door frame is called _____	1	U	3
(i) Sill			
(ii) Head			
(iii) Crown			
(iv) Frame			
(b) The vertical portion between each tread on the stair is called	1	U	3
(i) Going			
(ii) Nosing			
(iii) Winder			
(iv) Riser			
(c) The floors directly resting on the ground are known as _____ floors while the floors of each storey are known as _____ floors.	1	R	4
(i) Top, Lower			
(ii) Ground, Upper			
(iii) Top, Upper			
(iv) Ground, Lower			
(d) Roof which slopes in four direction is called _____	1	U	4
(i) Lean to roof			
(ii) Gable			
(iii) Hipped roof			
(iv) Sloped			

- (e) A temporary rigid structure having platforms to enable labours to work at different stage of a building is known as 1 U 5
- (i) Scaffolding (ii) Dead Shore
- (iii) Racking Shore (iv) Under pinning

Q.2 Attempt Any Two [10]

- (a) Enlist the various types of the door and explain collapsible steel door with neat sketch. 5 U 3
- (b) Write a short note on quarter turn stair. 5 U 3
- (c) Differentiate between paneled door and glazed door. 5 R 3

Q.3 Attempt Any Two [10]

- (a) Explain the essential requirement of good roof. 5 U 4
- (b) Write short note on "Terrazzo flooring". 5 A 4
- (c) Differentiate between timber roof truss and steel roof truss. 5 R 4

Q.4 Attempt Any Two [10]

- (a) Enlist Types of Scaffolding and explain any two in detail. 5 U 5
- (b) Explain with neat sketches, the formwork for the RCC column. 5 A 5
- (c) Explain the purposes of timbering in trenches, scaffolding, shoring, and underpinning. 5 U 5

SECTION B

	Marks	BL	CO
Q.5 Objective-Type Questions	[05]		
(a) _____ bond is better in appearance than English bond. (i) Flemish (ii) Double Flemish (iii) Single Flemish (iv) Poly Flemish	1	R	2
(b) The lowest part of a structure which transmits the load of soil is known as _____. (i) super structure (ii) plinth (iii) foundation (iv) basement	1	U	1
(c) Based on the function, piles can be classified into _____ types. (i) 4 (ii) 6 (iii) 8 (iv) 3	1	R	1
(d) In which bond brick is laid with its length in the direction of a wall? (i) Header (ii) Flemish (iii) Stretcher (iv) English	1	R	2
(e) The piles that are used for protecting structures from ships and floating object is _____. (i) Anchor piles (ii) Fender piles (iii) Compaction piles (iv) Batter piles	1	U	1
Q.6 Attempt Any Two	[10]		
(a) Differentiate between Shallow foundation and Deep foundation.	5	R	1
(b) What is Pile foundation? What are the types of Pile foundation?	5	R,U	1
(c) Write down the causes of failure of foundation and immediate measures can be adopted.	5	R	1
Q.7 Attempt Any Two	[10]		
(a) What is shallow foundation? Explain different types of shallow foundations.	5	R,U	1
(b) Write the difference between English bond and Flemish bond.	5	U	1
(c) Classify the arches based on the material and workmanship.	5	R	2

Q.8 Attempt Any Two

[10]

(a) Write the difference between Rubble masonry and Ashlar masonry.

5 R 2

(b) What is Cavity wall? Write down the advantages of Cavity walls.

5 U 2

(c) Enlist types of bonds in brickwork. Explain any one in detail.

5 R,U 2
