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CE 181304

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BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017
2019

B.Tech. 3rd Semester End-Term Examination
BUILDING CONSTRUCTION AND PLANNING
(New Regulation- w.e.f. 2017-18) &
(New Syllabus - w.e.f 2018-19)

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer Question No. 1 and any *four* from the rest.

1. Choose the correct answer: (10 × 1 = 10)
- (i) Which of the following is shallow foundation?
(a) Well foundation (b) Raft foundation
(c) Pile foundation (d) Caisson
- (ii) The portion of the brick obtained by cutting into
two portions longitudinally is called
(a) bat (b) king closer
(c) queen closer (d) mitred closer

[Turn over

- (iii) In a three coat plastering the first coat is known as
- (a) rendering coat (b) floating coat
(c) setting coat (d) base coat
- (iv) A flooring which is made of thin laminated stone slabs of regular geometric shape laid on concrete bedding is called
- (a) Flag stone flooring
(b) Tiled flooring
(c) Granolithic flooring
(d) Stone block flooring
- (v) The inner curve of an arch is known as
- (a) Spandril (b) Extrados
(c) Intrados or soffit (d) Arcade
- (vi) A vertical member supporting the hand rail is known as
- (a) newel (b) strut
(c) stud (d) baluster
- (vii) Dog-legged stair is
- (a) half-turn stair
(b) quarter-turn stair
(c) three-quarter stair
(d) continuous stair
- (viii) How many treads would be there in a dog-legged stair connecting two floors with a height difference of 3.6 m ? The rise is 15 cm
- (a) 22 (b) 23
(c) 24 (d) 26

- (ix) As per Indian Standards, the door designated as 10 DT 20 means
- (a) a single shuttered door of 1 m × 2 m
 - (b) a double shuttered door of 1 m × 2 m
 - (c) a single shuttered door of 2m × 1 m
 - (d) a double shuttered door of 2 m × 1 m.
- (x) The bond consists of alternate courses of headers and stretchers is known as
- (a) English bond
 - (b) Flemish bond
 - (c) Racking bond
 - (d) Stretcher bond

2. (a) Explain four different types of stair cases with sketches. (8)
- (b) Describe various methods of damp proofing in a building. (7)
3. (a) Define shallow foundation. Name different types of footing and distinguish each type with sketches. (8)
- (b) Name different types of flooring commonly used in building. Explain any two of them stating their merits and demerits. (7)
4. (a) Distinguish between R.C.C building and Assam Type building. (3)
- (b) Write short notes on any three of the following: (3 × 4 = 12)
- (i) Cavity wall
 - (ii) Panelled doors
 - (iii) Underpinning
 - (iv) Scaffolding
 - (v) Post construction anti-termite treatment

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5. (a) What is meant by building planning ? State the basic needs of Building Planning. (1+4 = 5)
- (b) Explain aspect and prospect consideration in building planning. (10)
6. (a) State the procedure involved for obtaining permission from the local authority to construct a residential building within the jurisdiction of the authority. Explain briefly mentioning the documents/drawings to be furnished with the prescribed form. (10)
- (b) Briefly explain the following terms:
- (i) F.A.R and FSI
- (ii) Set back line (5)
7. Write short notes on any three of the following: (3 × 5 = 15)
- (a) Factors affecting the site plan of a building.
- (b) Principle of Vastu Shastra.
- (c) Concept of Green buildings
- (d) Provision of fire safety services in different buildings
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