

MANIPAL ACADEMY OF HIGHER EDUCATION
THIRD SEMESTER B. DES. (ID) DEGREE EXAMINATION – JAN/FEB 2018
SUBJECT: BID 203 – BUILDING CONSTRUCTION AND MATERIALS – III

Tuesday, January 23, 2018

Time: 10:00 – 14:00 Hrs.

Max. Marks: 50

- ✍ **Question Number 1 is Compulsory.**
✍ **Attempt any THREE out of Question number 2, 3, 4 & 5.**

1. Design an Open –Well Staircase of material of your choice for a floor to floor height of 3.5m.
Draft the following:

- 1A. Plan - Scale-1:20
1B. Section(S)- Scale-1:20
1C. Any two details -Scale-1:5

(8+6+6 = 20 marks)

2. **Sketch the following with proper nomenclature. (Any FOUR)**

- | | | |
|-------------------------|---------------------------|------------------------------|
| a) Footing | b) Grid false Ceiling | c) Single Joist timber floor |
| d) Interstitial Ceiling | e) RCC Jack arch flooring | f) Brick flooring |

(2½ marks × 4 = 10 marks)

- 3A. Mention five polymers and their application in buildings.
3B. Write step by step process of laying flooring tiles.

(5+5 = 10 marks)

4. **Write in brief about any FIVE of the following:**

- | | | |
|---------------------|-----------|-----------|
| a) Steel | b) Iron | c) Tin |
| d) Acoustic Ceiling | e) Alloys | f) Copper |

(2 marks × 5 = 10 marks)

- 5A. Differentiate between the steel and aluminum sections used in false ceiling.
5B. Explain with the help of sketches the step by step procedure of installing false ceiling.

(5+5 = 10 marks)

