1103

Code : 15AR33D

Register Number | | | | | | | | | | |

III Semester Diploma Examination, Nov./Dec. 2018

BUILDING CONSTRUCTION AND DRAWING – I

Time : 4 Hours] **[Max. Marks : 100**

Note : (i) Answer any **Eight** questions from Part – **A**.
(ii) Answer any **Three** questions from Part – **B**.

PART – A

1. Define safe bearing capacity of soil and list the methods of improving the safe bearing capacity of soil. **5**

2. List the various types of shallow foundation and explain raft foundation with a sketch. **5**

3. Explain under-reamed piles with a neat sketch. **5**

4. State the various types of stone masonry and explain random rubble masonry with a neat sketch. **5**

5. Explain composite masonry with neat sketch. **5**

6. List the different types of finishes of dressing stones and explain any two with sketch. **5**

7. State the general principles of brick masonry construction. **5**

8. Define brick masonry and list the different types of brick bonds. **5**

9. Explain briefly revolving door with a neat sketch. **5**

10. Define the following terms :
(i) Sill (ii) Jamb (iii) Rail (iv) Mullion (v) Panel **5**

11. State the various types of windows and explain dormer window with a sketch. **5**

12. List the various types of fixtures and fastenings for doors and windows. **5**

PART – B

13. Prepare a detailed drawing of a R.C. column with isolated footing to a scale 1 : 20. for the following details :
Column size 230 mm × 450 mm, Footing size 1200 mm × 1500 mm, Depth of footing at face of the column – 500 mm,
Depth of footing @ free end – 200 mm.
P.C.C. bed – 150 mm, column height above the footing level, 4 m, column has 6 bars of 16 mm dia. and 8 mm dia. lateral strength @ 200 mm c/c.
Footing is provided with 12 mm dia. Bars @ 120 mm c/c in both the directions.
Draw the following views.
(a) Sectional elevation
(b) Sectional plan **20**

14. Draw one brick thick English bond to a scale 1 : 10.
(a) plan of odd and even course
(b) elevation
(c) isometric view **20**

15. Draw battened ledged and braced door to a scale 1 : 20. Assume all necessary data required. Opening size 0.9 m × 2.1 m, prepare the following views :
(a) Elevation
(b) Sectional plan
(c) Sectional elevation
(d) Any one enlarged joint details **20**

16. Draw framed and fully glazed door for an opening 1.2 m × 2.1 m to a scale 1 : 20. Assume necessary data required. Prepare the following views :
(a) Elevation
(b) Sectional plan
(c) Sectional elevation
(d) Any one joint detail to an enlarged scale. **20**

17. Draw corner window for an opening 2.4 m × 1.5 m to a scale 1:10. Assume all necessary data required. Prepare the following views :
(a) Elevation
(b) Sectional plan
(c) Sectional Elevation
(d) Any one joint detail to an enlarged scale. **20**