

KATHMANDU UNIVERSITY
End Semester Examination
March/April, 2017

Marks Scored:

Level : B. E.

Year : IV

Course : CIEG 409

Semester : I

Exam Roll No. :

Time : 30 mins.

F. M. : 10

Registration No. :

Date APR 13 2017

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Tick the best answer:

1. Based on structural type, one of a building classifications is:
(a) Educational (b) Hazardous (c) Framed (d) Assembly
2. During site selection, which of these is considered as available amenity?
(a) School (b) Road (c) Water supply (d) Drainage
3. Which terminology is not associated with stone masonry?
(a) Through stone (b) Queen closure (c) Dry Rubble (d) Chamfered
4. Which brick bond has alternate stretcher and header in the same course?
(a) English (b) Flemish (c) Dutch (d) Rat-trap
5. The thickness of marble used as flooring material should not be less than:
(a) 20 mm (b) 30 mm (c) 40 mm (d) 50 mm
6. Which flooring may contain tie rods and rolled steel joists?
(a) RCC (b) RBC (c) Jack arch (d) Timber
7. Which of the followings is not a stair element?
(a) Going (b) Rise (c) Flight (d) Waste
8. An empirical formulae used in determining stair sizes is:
(a) $2R+T=450$ (b) $2R+T=600$ (c) $R+2T=450$ (d) $R+2T=600$
9. Centering is provided in:
(a) Lintels (b) Beams (c) Arches (d) Columns
10. Minimum depth of a timber lintel in mm should be:
(a) 76 (b) 86 (c) 96 (d) 100
11. The element used to provide temporary support to a relatively unstable wall is:
(a) Flying shore (b) Scaffolding (c) Racking shore (d) Underpinning
12. The type of pipes used to connect domestic and municipal water supply systems is:
(a) GI (b) PVC (c) DI (d) HDP
13. The pipe material predominantly used to drain off domestic soil water is:
(a) Salt-glazed earthenware (b) DI
(c) GI (d) CI
14. A ceiling fan is normally connected to a power point outlet of capacity:
(a) 5A (b) 10A (c) 15A (d) 32A

15. In a HVAC system, dehumidification is used during:
(a) Winter (b) Spring (c) Summer (d) Autumn
16. Acceptable noise level in a conference room in dB is:
(a) 20-25 (b) 25-30 (c) 35-40 (d) 40-50
17. An escalator operates with an usual speed in m/min of:
(a) 5-10 (b) 15-20 (c) 20-25 (d) 25-30
18. A venetian window is characterized by the provision of:
(a) Louvers (b) Pivots (c) Pulleys (d) Panels
19. Minimum plinth of any type of building in mm is:
(a) 100 (b) 150 (c) 300 (d) 450
20. Minimum score required to qualify for a golden LEED certification of green building is:
(a) 40 (b) 50 (c) 60 (d) 80

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Level : B. E.
Year : IV
Time : 2 hrs. 30 mins.

Course : CIEG 409
Semester : I
F. M. : 40

SECTION "B"

(Short answer questions)

[3Q × 4 = 12 marks]

Attempt *ANY THREE* of the followings:

1. What is a strap footing and how is it provided in a building?
2. Illustrate a Queen-post roof truss. Also describe each elements briefly.
3. Draw vertical section of a lift well in a building.
4. Write short note on maintenance of RCC elements.

SECTION "C"

(Long answer questions)

Attempt ALL questions.

5. Calculate actual Ground coverage, Total built-up area and FAR of a building for: [10]
Plot area = 150 sq.m.,
ROW = 7.0 m,
Setbacks on either sides of road = 1.5 m
120 sq. m. of plinth area is covered by ground, first and second floors and
Top floor area is 75 sq.m.
All floors have 2.7m floor to floor height and the plinth height is 450 mm.
Also check if the building height is permissible according to light plane.
6. Draw neat sketches of any three types of non-timber doors. Explain them too [9]
7. Explain with neat sketches why and how isolation joints are provided in buildings. [9]

