

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2024

Marks Scored:

Level : B.ARCH
Year : III

Course : ARCH 305
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date : 05 AUG 2024

SECTION "A"

[15 Q. × 0.5 = 7.5 marks]

Choose and encircle in the most appropriate option from each set of choices

1. The standard width and height of the door is
a. 3'-0" x 6'-6" b. 2'-6" x 6'-6" c. 3'-0" x 7'-0" d. 2'-6" x 7'-0"
2. Bow in doors should not exceed _____ m.
a. 1 b. 0.1 c. 0.01 d. 0.001
3. Jalouse windows give _____ % ventilation.
a. 0 b. 50 c. 75 d. 100
4. The moisture content of timber at the time of assembly should be _____ % or less.
a. 15 b. 17 c. 19 d. 25
5. The normal height of window with vent is _____ mm.
a. 900 b. 1050 c. 1200 d. 1500
6. Precast concrete can be pre-stressed _____.
a. in factory b. on site c. near site d. on building
7. The thickness of conventional slab is _____.
a. 4" b. 5" c. 6" d. 7"
8. The maximum possible span suitable for waffle RCC slab without post-tensioning is _____ m.
a. 7 b. 16 c. 19 d. 21
9. The traditional pitched roof is constructed with at least _____ slope.
a. 20° b. 40° c. 60° d. 80°
10. The ridge board is one continuous length of _____ mm thick softwood.
a. 28 b. 30 c. 32 d. 38
11. The rafter that projects over the face of wall is _____.
a. horn b. hip c. ridge d. eaves
12. Retaining wall is a structure that is designed and constructed to withstand _____ pressure of soil.
a. strong b. lateral c. brace d. high

13. Gravity retaining wall is economical for a height up to _____ m.
a. 3 b. 6 c. 9 d. 10
14. The soleplate of beam/lintel formwork is of size _____ mm².
a. 25 x 50 b. 75 x 25 c. 100 x 75 d. 225 x 75
15. The angular member wedged between stakes and horizontal members in timber wall formwork is called
a. vertical posts b. wedges c. rakers d. End posts

SECTION "B"

[5 Q. × 0.5 = 2.5 marks]

Fill in the blanks with appropriate answer.

16. Doors should be designed so as to provide secure _____ against unauthorized entry.
17. Because of tight fit, weather strips are _____ to replace.
18. For _____ slab, the formwork may consist only of sidewalls pushed to the ground.
19. The construction of a pitched roof relies on _____ frames of sloping rafters tied together with horizontal ceiling joist.
20. Pile retaining wall is constructed by driving reinforced concrete piles _____ To each other.

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Students are encouraged to support their answers with necessary figures, illustration and drawings.

SECTION "C"

[5 Q. × 3 = 15 marks]

Attempt ANY FIVE question.

1. How do doors help to maintain privacy?
2. How is putty used to fix glazing onto window frames?
3. Describe in brief about structural glazing.
4. Describe briefly about RCC column.
5. Differentiate between King post truss and Queen post truss.
6. How is Crib retaining wall different from Gravity retaining wall?
7. Write shortly about steel formwork.

SECTION "D"

[5 Q. × 5 = 25 marks]

Attempt ALL question.

8. Define match boarded door with help of sketches.
9. How are wooden windows fixed to a brick masonry wall?
10. Illustrate the design of Waffle slab with help of sketches.
11. Describe in brief the different elements of traditional newari roof.
12. Describe with the help of sketches the construction of Gabion retaining wall.

