

KATHMANDU UNIVERSITY
End Semester Examination
June/July, 2023

Marks Scored:

Level : B.Arch.

Year : II

Exam Roll No. :

Time: 30 mins.

Course : ARCH 215

Semester : II

F. M. : 10

Registration No.:

Date : 27-june-2023

SECTION "A"

[20Q × 0.5 = 10 marks]

Encircle the most appropriate answer.

- The quality of timber does not depend upon
a. Type of tree b. Maturity of Tree c. Size of Tree d. Time of Felling
- Seasoning of Timber is the process of
a. Removing of Moisture b. Adding preservatives
c. Burning of Timber d. Adding Glaze
- The function of _____ is to make the paint thin so that it can be applied on surface easily:
a. Solvent b. Pigment c. Base d. Carrier
- _____ essentially consists of oil and strong drier
a. Asbestos paint b. Cement paint
c. Anti- corrosive paint d. Cellulose paint
- Which of the following types of wall is constructed for both thermal & sound insulation?
a. Curtain wall b. Cavity wall c. Partition wall d. Glass partition
- Which of the following is not a sound insulation material?
a. Glass wool b. Cellular concrete c. Cork Sheet d. Tiles
- Which of the following statement is not true for describing hollow tiled floors?
a. They are light in weight. b. They are heavy.
c. They provide Thermal Insulation d. They provide Sound Insulation.
- _____ flooring is the cheapest flooring material option and can be only adopted for ground floor.
a. Rubber b. Plastic c. Stone d. Moorum
- Corrosion of ferrous metals is known as
a. Enameling b. Galvanizing c. Rusting d. Coal Tarring
- Which of the following is **NOT** a property of wrought iron?
a. It is ductile & malleable b. It fuses easily
c. Its specific gravity is about 7.8 d. It can be easily forged & welded

11. Which of the following is an example of wall with self finish?
 - a. Plastered wall
 - b. Painted wall
 - c. Stone exposed wall
 - d. Tile cladded wall
12. Which of the following material is **NOT** used in Ferro cement?
 - a. Steel mesh
 - b. Cement
 - c. Skeleton steel
 - d. Bricks
13. How is fire load calculated?
 - a. (Caloric value of combustible material X weight of all combustible material)/ floor area
 - b. Floor area/ amount of heat liberated
 - c. (Caloric value of combustible material X Floor area) / Weight of all combustible material
 - d. (weight of all combustible material X floor area) / Caloric value of combustible material
14. The function of potash in glass manufacturing is to
 - a. Impart colour, brightness and shine
 - b. Prevent loss of Alkali
 - c. Act as accelerator for fusion
 - d. Make glass infusible and fire resistant
15. Which of the following is **NOT** a loose fill insulation?
 - a. Cellulose fiber wood
 - b. Cellular concrete block rock
 - c. Rock wool
 - d. Glass wool
16. The adhesive and tensile property of lime mortar can be further increased by adding
 - a. Water
 - b. Lime
 - c. Cement
 - d. Chopped hemp
17. Which of the following statements **does not** hold true as the difference between plastering and pointing?
 - a. Plastering corrects defects of masonry whereas pointing does not
 - b. For plastering, cement, sand, lime, mud, etc is used as mortar but for pointing only cement and surkhi is used
 - c. Larger amount of material is required for plastering then pointing
 - d. Plastering can be done in all kind of brick wall whereas pointing can be done only in third class brick wall
18. Canfor finish is also known as:
 - a. Glass mosaic finish
 - b. Marble finish
 - c. Faux finish
 - d. Laminate finish
19. Soil stabilization helps in:
 - a. Improving soil strength
 - b. Speedy construction
 - c. Improving aesthetics
 - d. Making it Cost effective
20. Which metal is used in galvanization of iron?
 - a. Zinc
 - b. Sodium
 - c. Silver
 - d. Copper

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27 JUN 2023

Level : B.Arch.
Year : II
Time : 2 hrs. 30 mins.

Course : ARCH 215
Semester : II
F. M. : 40

SECTION "B"
[10Q × 4 = 40 marks]

Attempt *ALL* questions. Assume suitable data if required. Clarify your answer with the help of figures as per need.

1. Explain any four defects observed in timber. Support your answer with sketches.
2. Derive a comparison between pig iron, cast iron and wrought iron on the basis of their properties, uses, etc.
3. How is steel manufactured in the Bessemer process? Explain with a diagram. Explain stainless steel along with its properties and uses. [2+2]
4. What is paint composed of? Explain any three of its constituents in detail. [1+3]
5. What are the objectives of plastering? Explain the method of plastering for 2 coat cement plaster. What are the tools used for plastering? [1+2+1]
6. What is Ferro cement? What are the advantages of Ferro Cement construction? Explain the manufacturing process of glass. [1+1+2]
7. How can we inhibit sound insulation in a room? Explain thermal insulation materials. [2+2]
8. Explain cement concrete floor along with its classification. Describe PVC flooring and tile flooring. [2+1+1]
9. What is rammed earth construction? What are the advantages and disadvantages of hollow concrete blocks? [2+1+1]
10. Write short notes on ANY TWO. [2×2=4]
 - a. Textured Wall finish
 - b. Fire resisting materials
 - c. Aluminum as building material