



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agrl. Engg.) 2022 & Previous Admissions
III Semester Final Examination - February 2024

Iden.2104

Building Construction and Cost Estimation (2+0)

Marks: 50
Time: 2 hours

I Fill in the blanks (10x1=10)

1. The calcined product comes out from a cement kiln is known as
2. The gas that emits from the calcination process of calcium carbonate is.....
3. The minimum 28 days compressive strength required for 33 grade cement isN/mm².
4. The value accounted for a property after depreciation is known as.....
5. The horizontal member that supports the structures above an opening in building is called.....

State True or False

6. Cement production process is energy intensive.
7. Impact test is used for finding compressive strength of building materials.
8. Gypsum is used to control the setting action of cement.
9. The angularity index indicates the shape property of aggregate.
10. Aluminium has very poor electric conductivity.

II Write short notes on ANY FIVE of the following (5x2=10)

1. Briefly explain drain tile.
2. Write a short note on any 2 harmful ingredients in brick earth.
3. Write a short note on
 - (a) concrete block
 - (b) fly ash bricks
4. What is setting action of cement? Write down any two compounds that forms due to setting action of cement.
5. What are the common ingredients in cement mortar? List out any two applications for mortar.
6. Why is the disadvantage of sea sand for usage in construction?
7. What is the purpose of concrete curing?

III Answer ANY FIVE of the following (5x4=20)

1. What are the constituents of a good brick earth? Describe pros and consequences of each.
2. Write down any four ingredients in cement and its function in cement?
3. Write a note on bulking of sand.
4. Write a note on seasoning of timber.
5. Briefly explain any four types of buildings as per NBCI.
6. Write a note on any four methods of building estimates.
7. Write a note on the following:
 - (a) book Value
 - (b) market value
 - (c) scarp and salvage value

IV Write an essay on ANY ONE of the following (1x10=10)

1. What are mechanical properties of materials? List out any 4 mechanical properties of materials and briefly explain each including its practical importance.
2. Draw the cross-sectional diagram of a vertical wall and mark the essential components of a typical buildings. Briefly explain each.
