



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Ag. Engg.) 2017 Admission
III Semester Final Examination-January 2019

Iden.2104

Building Construction and Cost Estimation (2+0)

Marks: 50
Time: 2 hours

I Fill in the blanks: (10x1=10)

- 1 The major constituent of Portland cement is _____
- 2 The calcined product in the manufacture of cement is known as _____
- 3 The rocks which are formed by cooling of magma are called _____
- 4 Maximum permissible moisture content in timber is _____
- 5 The exterior angle or corner of a wall is known as _____
- 6 The nominal size of a modular brick is _____
- 7 The vertical member which is used to support the handrail of a stair is known as _____
- 8 The bottom horizontal part of a window frame is known as _____
- 9 Unit for estimation of concrete floor is _____
- 10 Generally number of standard bricks required for 10 cubic meter brick work is _____

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

- 1 Qualities of good building stone
- 2 Soundness of cement
- 3 Curing of concrete
- 4 Requirements of Good Plaster
- 5 English Bond
- 6 Salvage value
- 7 Properties of mild steel

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

- 1 What are the objectives of seasoning of timber? Explain briefly the method of artificial seasoning of timber
- 2 Explain the various processes in the manufacturing of brick.
- 3 How will you test the qualities of cement in the laboratory?
- 4 What is meant by workability of concrete? Explain any one method to determine the workability of concrete in detail
- 5 What are the points to be considered while supervising a brick masonry work?
- 6 Explain in detail the procedure of estimation by using Centre line Method.
- 7 What are the purposes of valuation ?

P.T.O

Answer ANY ONE of the following

(1x10=)

- 1 Inside dimension of a single room building is 5m x 4m. Details of foundation and super structure are as follows:

Foundation Lime concrete: 90cm x 30cm

I Class brickwork with standard modular brick in lime mortar for -

- i First footing: 60cm x 30cm
- ii Second footing: 50cm x 30cm
- iii Basement: 40cm x 60cm
- iv Super structure: 30cm x 350cm

Estimate the quantities of

- (1) Earth work in excavation
- (2) Concrete in foundation
- (3) Brick work in Foundation and basement
- (4) Brick work in super structure

- 2 Estimate the quantities of a masonry platform 6m x 5m with the following specifications.
Depth of foundation = 70cm

- i Foundation-Lime concrete 80cm x 20cm
- ii Masonry footing & super structure in 1st class brick work in lime mortar
- (a) 1st footing - 60cm x 20cm
- (b) 2nd footing - 50cm x 10cm
- (c) Wall above footing-40cm x 220cm

Estimate

- 1) Earth work in excavation
- 2) Foundation concrete
- 3) Brick work
