

E-1131

B. E. IIIrd Semester (Main & Re) Examination, Decmeber 2019

BUILDING MATERIAL & CONSTRUCTION

Branch : (CE)

Paper : ESC-302

Time : Three Hours]

[Maximum Marks : 60

Note : Attempt *all* questions from *Section – A* *four* questions from *Section – B* and *three* questions from *Section – C*.

Section : A : Filling the blanks/MCQ/True, false.

$1 \times 10 = 10$

Section- B : Short answer type questions.

$5 \times 4 = 20$

Section- C : Long/ descriptive answer type questions.

$10 \times 3 = 30$

SECTION – A

1. A rock formed due to solidification of molten mass laying below or above the earth surface are called :
 - (a) Aqueous rock
 - (b) Sedimentary rock
 - (c) Metamorphic rocks
 - (d) Igneous rocks
2. The specific gravity of stone should not be less then :
 - (a) 1
 - (b) 1.5
 - (c) 2
 - (d) 2.5
3. The process of mixing clay, water and other ingredients to make bricks, is known as :
 - (a) Tempering
 - (b) Pugging
 - (c) Kneading
 - (d) Moulding
4. The frog of a brick is normally made on its :
 - (a) Longer face
 - (b) Shorter face
 - (c) Bottom face
 - (d) Top face

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5. The lime which consists almost entirely of calcium oxide, is called :
(a) Poor lime (b) Rich lime
(c) Hydraulic lime (d) Limestone
6. The cementing property in cement is mainly due to :
(a) Lime (b) Silica
(c) Iron oxide (d) Alumina
7. The Addition of pozzolana to Portland cement causes :
(a) Less heat of hydration (b) Increase in shrinkage
(c) Decrease in permeability (d) All of these
8. The defect in timber caused by imperfect seasoning is called :
(a) Wet rot (b) Dry rot
(c) Honey combing (d) Cup shake
9. Which of the following foundation is used for weaker soil ?
(a) Column footing (b) Grillage footing
(c) Raft footing (d) All
10. Minimum width of landing should be :
(a) Equal to width of stairs (b) Half the width of stairs
(c) Twice the width of stairs (d) One fourth the width of stairs

SECTION – B

1. Explain quarrying of stones.
2. Write the qualities of first class bricks.
3. Explain the functions of good mortar.
4. Mention different types of partition walls.
5. Classify building based on occupancy.
6. Draw a neat sketch of paneled door and show important elements.

SECTION – C

1. Mention the different test conducted on bricks. Explain any *two*.
 2. What is fineness modulus of fine aggregate ? Explain the method to determine fineness modulus of fine aggregate.
 3. Draw the elevation of English and Flemish bond and compare them.
 4. What are the requirements of good roof ? Draw a neat sketch of kingpost truss and show important elements.
 5. Explain Procedure for :
 - (i) Painting on new iron and steel work
 - (ii) Lime plaster with three coats.
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