

Roll No.

Total No. of Questions : 09]

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B.Tech. (Sem. - 3rd)

BUILDING MATERIALS

SUBJECT CODE : CE - 205

Paper ID : [A0603]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 x 2 = 20)

- a) Classify the following stone and give their specific use in building construction :
 - (i) Granite.
 - (ii) Sandstone.
 - (iii) Marble.
 - (iv) Slate.
- b) How are bricks classified? How do they differ in compressive strength?
- c) What are the characteristics of a good lime?
- d) Differentiate between **Portland Cement and white cement**.
- e) What is Reinforced Cement Concrete? What are its advantages over Plain cement concrete?
- f) What is meant by water cement ratio?
- g) What is meant by voids in fine aggregate? How is it measured?
- h) Distinguish between white washing and distempering.
- i) Define sheet glass and plate glass? Give their uses.
- j) What are differences between asphalt and bitumen?

Section - B

(4 x 5 = 20)

- Q2) What are artificial stones? What their advantages and disadvantages?
- Q3) If you were moulding bricks in a field where the clay was more sandy, what precaution you would take to ensure that the burnt bricks measure the same size?
- Q4) Explain the terms :
- (a) Real mix.
 - (b) Field mix.
 - (c) Nominal mix.
- Q5) Describe two methods of seasoning of timber.
- Q6) How do you proceed to paint on an old work? What is meant by covering power of the paint?

Section - C

(2 x 10 = 20)

- Q7) A bungalow with open verandah and flat roof is to be constructed in Punjab. Write briefly about the materials you specify for the following parts of the building giving reasons for your choice :
- (a) foundation.
 - (b) superstructure masonry.
 - (c) Paneled windows and doors.
 - (d) roof.
 - (e) floor.
- Q8) Describe the importance of the following in RCC work.
- (a) Water Cement Ratio.
 - (b) Compaction of concrete.
 - (c) Curing of the Concrete.
 - (d) Fineness modulus.
 - (e) Bulking of Sand.
- Q9) Write short notes on
- (a) Ferro-cement.
 - (b) Terazzo finish.
 - (c) Efflorescence.
 - (d) Creep and shrinkage of concrete.

