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END SEMESTER EXAMINATION, NOVEMBER-2018

Semester – 5th

Subject Code : CT-502

CONCRETE TECHNOLOGY

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

PART – A

Marks – 25

All questions are compulsory.

1. Multiple choice questions :

(i) What is the composition of making the Mortar? 2

- (a) Cement + Water
- (b) Cement + Water + Sand
- (c) Cement + Water + Sand + Gravel
- (d) Water + Sand + Gravel.

[Turn over

(ii) Which compound is liberated higher heat ? 2

(a) C3S (b) C2S

(c) C3A (d) C4AF

(iii) In M20 concrete M refers to 2

(a) Minimum (b) Maximum

(c) Mix proportion (d) None of these

(iv) The size of the coarse aggregate is more than 2

(a) 1.16 mm (b) 2.36 mm

(c) 4.75 mm (d) None of these

(v) The easiness of handling concrete is known as 2

(a) Workability (b) Consistency

(c) Hardness (d) None of these

2. Fill in the blanks :

(vi) Device which is used to find out normal consistency of cement is _____. 2

(vii) In concrete cube test, the standard size of cube is _____. 2

70/CT-502/CT (2)

(viii) Fine aggregates are the aggregates having the size less than _____. 2

(ix) The resistance of an aggregate to compressive forces is known as _____. 2

(x) The compound which gives the colour to the cement is _____. 2

(xi) The total percentage of aggregates in concrete by volume _____. 2

(xii) Chemical composition has highest content in OPC is _____. 2

(xiii) Concrete is strong in _____. 1

PART - B

Marks - 45

Answer any five questions.

3. Write short notes on : 9

(a) Ferro-cement concrete

(b) Polymer concrete

(c) Lightweight concrete

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4. Write about different types of cement and their uses. 9
5. Discuss the properties of the hardened concrete. 9
6. Discuss the properties of the fresh concrete and how they are determined ? 9
7. What are the different properties of the aggregates and how they are determined ? 9
8. What are admixtures ? What are the different types and uses of admixtures ? 9