

**A**

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 54102**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Fourth Semester

Civil Engineering

15UCE402 - CONSTRUCTION TECHNIQUES, EQUIPMENTS AND PRACTICES

(Regulation 2015)

(IS 10262:2009 permitted)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

1. The initial Setting time of cement is CO1- R  
(a) 10 minutes      (b) 30 seconds      (c) 30 minutes      (d) 60 minutes
2. Following is not the method of mix design CO1- R  
(a) I.S. method      (b) ACI method      (c) Normal mix method      (d) All the above
3. Following one is not the types of stone masonry CO2- R  
(a) Ashlar masonry      (b) Rubble masonry  
(c) Rough masonry      (d) Dry rubble masonry
4. A course is a \_\_\_\_\_ layer of bricks CO2- U  
(a) vertical      (b) horizontal      (c) inclined      (d) oblique
5. \_\_\_\_\_ is used as a binding material CO3- U  
(a) Soil      (b) Sand      (c) Brick      (d) Cement

6. Driers in varnish are used as CO3- R
- (a) Reducers                      (b) Retarders                      (c) accelerators                      (d) Oxidisers
7. Shrinkage in concrete increases with \_\_\_\_\_ in humidity CO4-U
- (a) Increases                      (b)decreases                      (c) equal                      (d) Unequal
8. Freezing and thaw means CO4- R
- (a) Wetting                      (b) Wetting& drying                      (c) Drying                      (d) Cooling
9. Following one is not the type of scrapper CO5- R
- (a) Single engine scraper                      (b) Twin engine scraper
- (c)Angle scraper                      (d) Auger scraper
10. A tractor is a machinery is used for different types of woks related to CO5- R
- (a) Cement work                      (b) Mortar work                      (c) Earthwork                      (d) water work

PART – B (5 x 2= 10Marks)

11. What is meant by batching? CO1- R
12. Illustrate bond in masonry. CO2- R
13. Write the constituents of a paint CO3- R
14. What is the use of grouting. CO4- R
15. Recall the process of dredging. CO5- R

PART – C (5 x 16= 80Marks)

16. (a) Give the step by step procedure for the concrete mix design using IS method. CO1- App (16)
- Or
- (b) Write short notes on CO1- U (16)
- (i) Batching and mixing of concrete
- (ii) Segregation of concrete.

17. (a) Elaborate with neat sketches the different types of brick masonry. CO2- App (16)
- Or
- (b) Discuss about construction joints and expansion joints with neat sketches. CO2- Ana (16)
18. (a) Enlist the various causes for dampness and the remedial measures taken. CO3- Eva (16)
- Or
- (b) Write short notes on CO3- U (16)
- (i) Distemping
- (ii) Fire protection and thermal insulation
19. (a) Explain with flow chart the assessment for a damaged structure. CO4- U (16)
- Or
- (b) What are the various causes of damage in a buildings, explain in detail. CO4- Ana (16)
20. (a) List the various earth equipments and list the factors for selection of an equipment for an earthwork. CO5- App (16)
- Or
- (b) Discuss the equipment for compaction and concreteing. CO5- U (16)

