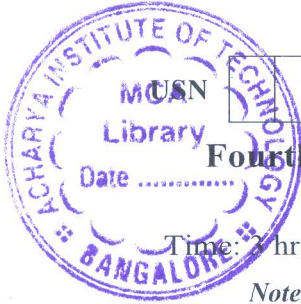


# CBCS SCHEME



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BCV405C

## Fourth Semester B.E./B.Tech. Degree Examination, June/July 2024 Concreting Techniques and Practices

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks , L: Bloom's level , C: Course outcomes.  
3. Use of code book IS 10262-2019 for mix design problem is permitted.*

		Module – 1						M	L	C
Q.1	a.	Mention different types of cement. Explain briefly.						10	L2	CO1
	b.	Explain the following : i) Fly ash    ii) Silica fumes    iii) Rice husk ash    iv) GGBS.						10	L2	CO1
<b>OR</b>										
Q.2	a.	Enumerate and explain the properties of aggregates for concrete.						10	L3	CO1
	b.	Explain the various tests conducted on Recycled concrete aggregate.						10	L2	CO1
<b>Module – 2</b>										
Q.3	a.	Explain briefly : i) Super plasticizer    ii) Accelerators						10	L2	CO2
	b.	Explain the qualities of water used for manufacture of concrete specify the limits.						10	L2	CO2
<b>OR</b>										
Q.4	a.	Mention the necessity of aggregate blending and briefly explain any one method of blending.						10	L1	CO2
	b.	Draw gradation curve and determine Fineness modulus of aggregate from following particular.						10	L3	CO2
		Sieve size (mm)	25	19	12.5	9.5	4.75	2.36	Pan	
		Mass Retained (gms)	0	405	2850	2435	2030	375	35	
<b>Module – 3</b>										
Q.5		Design a concrete mix for M25 a) Grade designation – M25 b) Type of cement – OPC43 c) Max Nominal size of Aggregate – 20mm d) Min cement content – 300Kg/m <sup>3</sup> e) Water cement Ratio – 0.50 f) Workability – 75mm slump g) Exposure condition – moderate (RCC) h) Max.cement content – 450Kg/m <sup>3</sup> i) Chemical admixture – Nil j) F.A zone – Zone 2 k) S.G of cement – 3.15 l) C.A : SG – 2.80 m) C.A : water absorption – 1% n) F.A : SG – 2.65 o) F.A : Water absorption – 2%						20	L3	CO3

OR					
Q.6	a.	List and explain factors affecting workability.	10	L2	CO3
	b.	Define slump of concrete, explain procedure to determine slump of concrete using slump cone method.	10	L2	CO3
Module – 4					
Q.7	a.	With neat sketch, explain component of batching plant.	10	L1	CO4
	b.	What are the methods of transportation of concrete used to produce good concrete? Explain.	10	L2	CO4
OR					
Q.8	a.	Explain the different methods of concrete curing and define curing of concrete.	10	L2	CO4
	b.	Enumerate necessity of R.M.C with advantages and disadvantages.	10	L2	CO4
Module – 5					
Q.9	a.	List the types of fibres used in F.R.C and discuss the factors affecting properties of F.R.C	10	L2	CO5
	b.	What is S.C.C (Self Compacting Concrete]? Explain the properties of S.C.C.	10	L1	CO5
OR					
Q.10	a.	Write a note on : i) Geo polymer concrete ii) High performance concrete	10	L2	CO5
	b.	Mention the types of Shrinkage and factors affecting Shrinkage.	10	L2	CO5

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