

Program: BE CIVIL Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: CEDLO5062 and Course Name: Advanced Concrete Technology

Time: 1 hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	Which equipment is used to test the setting time of cement?
Option A:	Core cutter
Option B:	Vibrator
Option C:	Universal testing machine (UTM)
Option D:	Vicat apparatus
Q2.	No fines concrete is manufactured by
Option A:	By adding finer materials from normal concrete
Option B:	By reducing its strength
Option C:	By eliminating fines materials from normal concrete
Option D:	By increasing its strength
Q3.	In Shotcreting process the water cement ratio required is?
Option A:	0.03 – 0.035
Option B:	0.04 – 0.045
Option C:	0.3 – 0.5
Option D:	0.55 – 0.60
Q4.	What is the abbreviation of PPC?
Option A:	Perfect Portland Cement
Option B:	Portland Produced Cement
Option C:	Portland Pozzolana Cement
Option D:	Productive Portland Cement
Q5.	Larger the amount of coarse aggregate with high elastic modulus in HPC leads to higher ?
Option A:	Bleeding
Option B:	Segregation
Option C:	Modulus of elasticity
Option D:	Permeability

Q6.	Light weight concrete can be classified into how many groups?
Option A:	6
Option B:	2
Option C:	8
Option D:	5
Q7.	Steam curing of concrete is adopted for:
Option A:	Precast structures
Option B:	Columns
Option C:	Beams
Option D:	Walls
Q8.	_____ has designated the concrete mixes into a number of grades as M10, M15.
Option A:	IS 456-2000
Option B:	IS 456-2010
Option C:	IS 513-1999
Option D:	IS 465-2000
Q9.	The initial setting time of OPC is
Option A:	10 min
Option B:	30 min
Option C:	45 min
Option D:	60 min
Q10.	The size of fine aggregates does not exceed
Option A:	2.75 mm
Option B:	3.00 mm
Option C:	3.75 mm
Option D:	4.75 mm
Q11.	Cube strength of controlled concrete to be used for pretensioned and post-tensioned work respectively should not be less than
Option A:	35 MPa and 42 MPa
Option B:	42 MPa and 35 MPa
Option C:	42 MPa and 53 MPa
Option D:	53 MPa and 42 MPa
Q12.	Which among the following is considered as cementitious material
Option A:	Alum
Option B:	Fly ash
Option C:	Carboxylated acrylic ester
Option D:	Plasticizer
Q13.	Creep is ____ to the strength of concrete.
Option A:	Equal

Option B:	Different
Option C:	Directly proportional
Option D:	Inversely proportional
Q14.	Which of the following can be determined in ACI method of mix design if degree of workability and placing conditions are known
Option A:	Minimum water cement ratio
Option B:	Slump Value
Option C:	Amount of mixing water
Option D:	Maximum size of aggregate
Q15.	IS: 7861 part-2 deals with _____
Option A:	Hot weathering concrete
Option B:	Cold weathering concrete
Option C:	Air entertained concrete
Option D:	OPC
Q16.	Plastic shrinkage cracking occurs in _____ hours after placing
Option A:	0.5
Option B:	24
Option C:	10
Option D:	5
Q17.	Usually stronger constituent of a composite is
Option A:	Matrix
Option B:	Reinforcement
Option C:	Both are of equal strength
Option D:	Can't define
Q18.	A composite material consisting of cement mortar or concrete and discontinuous, uniformly distributed discrete fibers of high tensile strength is known as?
Option A:	Sulphur concrete
Option B:	Plain cement concrete
Option C:	Fiber reinforced concrete
Option D:	Vacuum concrete
Q19.	For concrete exposed to a very aggressive environment the w/c should be lower than _____
Option A:	1
Option B:	0.5
Option C:	0.4
Option D:	0.8
Q20.	Addition of fibres on fibre reinforced concrete can
Option A:	Increases workability
Option B:	Decreases workability

Option C:	Have no change in workability
Option D:	Have zero workability
Q21.	For M30 grade, target compressive strength will be _____
Option A:	30
Option B:	38.25
Option C:	36
Option D:	35
Q22.	Aspect ratio of fibre is defined as
Option A:	Width/Length
Option B:	Length/Diameter
Option C:	Diameter/Length
Option D:	Width/Diameter
Q23.	If the mix proportion of the concrete is 1:2:3 then the mix will be
Option A:	Design mix
Option B:	Nominal mix
Option C:	Lean mix
Option D:	Ordinary mix
Q24.	What is the percentage of water by weight in UHPC?
Option A:	28.5
Option B:	4.4
Option C:	1.2
Option D:	6.2
Q25.	For HPC of strength 100 N / mm <sup>2</sup> the value of creep coefficient is?
Option A:	1
Option B:	2
Option C:	4
Option D:	0.5