Program: BE **Civil** Engineering

Curriculum Scheme: **Revised 2016**

Examination: Third Year Semester **V**

Course Code: **CE-DLO 5062** and Course Name: **Advanced Concrete Technology**

Time: **1 hour** Max. Marks: **50**

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

Q1.	Workability of concrete is measured by
Option A:	Vicat apparatus test
Option B:	Slump cone test
Option C:	Minimum void method
Option D:	Marsh cone test
Q2.	A higher water/cement ratio _____ the gel/space ratio _____ the porosity thereby _____ the strength of concrete.
Option A:	decreases, increasing, decreasing
Option B:	increases, increasing, increasing
Option C:	decreases, decreasing, decreasing
Option D:	decreases, decreasing, increasing
Q3.	Which type of curing gives the desirable strength within 24 hours?
Option A:	Saturated wet curing
Option B:	Internal moist curing
Option C:	Forms left in place
Option D:	Steam curing
Q4.	One of the serious difficulty encountered in the mix design of Light Weight Concrete is
Option A:	Different degrees of water absorption by different light weight aggregates
Option B:	Light Weight aggregate contains lot of entrapped air.
Option C:	It consumes large quantity of Cement
Option D:	Difficult to find the densities of different aggregates
Q5.	The concrete for which formwork can be removed faster than the conventional concrete can be identified as
Option A:	Gap Graded Concrete
Option B:	No fines Concrete
Option C:	Aerated Concrete
Option D:	Ultra light weight concrete

Q6.	As per ACI method, nominal maximum size of aggregate is 19 mm, fineness modulus of fine aggregate is 3.00, volume of coarse aggregate per unit volume is 0.6 and dry rodded unit weight of coarse aggregate is 1640 kg/m^3, what will be the quantity of coarse aggregate in weight (Kg)
Option A:	547 Kg
Option B:	984 Kg
Option C:	911 Kg
Option D:	1640 Kg
Q7.	In which code superplasticizer and mineral admixture are not considered?
Option A:	ACI 211.1-91
Option B:	IS 9103:1999
Option C:	IS 10262:1982
Option D:	IS 10262:2009
Q8.	Lower the w/c ratio, strength of concrete will be
Option A:	Higher
Option B:	Lower
Option C:	Poor
Option D:	Moderate
Q9.	If mass and specific gravity of the admixture is 3.5 Kg and 1.14, what will be the volume of admixture?
Option A:	0.003 cum
Option B:	0.114 cum
Option C:	0.001 cum
Option D:	0.002 cum
Q10.	Maximum nominal size of aggregates to be used in concrete may be as large as possible within the limits prescribed by _____
Option A:	IS 800-2000
Option B:	IS 456-2010
Option C:	IS 513-1999
Option D:	IS 465-2000
Q11.	In concrete mixture design, to attain the best packing arrangement of aggregates, _____of aggregate particles must be used
Option A:	a uniform gradation
Option B:	a continuous gradation
Option C:	a gap gradation
Option D:	dense gradation
Q12.	Which of these material suitable as reinforcement for bulletproof application?
Option A:	Carbon Fibre
Option B:	Glass Fibres
Option C:	Aramid Fibres

Option D:	Honeycomb cores
Q13.	Which of these is not a classification of composite?
Option A:	Particle Reinforced
Option B:	Fibre Reinforced
Option C:	Structural
Option D:	Aerocomposite
Q14.	Give definition of composites
Option A:	Combination of at least three material that can be distinguished physically or visibly
Option B:	Combination of fibre glass and Polyester resin
Option C:	Combination of at least two materials that can be distinguished physically or visibly
Option D:	A stack of lamina
Q15.	Fibre reinforced concrete is concrete containing fibrous material which _____ its structural integrity
Option A:	increases
Option B:	decreases
Option C:	doesn't change
Option D:	slightly change
Q16.	Reinforced cement concrete is equally strong in taking
Option A:	Tensile & compressive stresses
Option B:	compressive & shear stresses
Option C:	Tensile & shear stresses
Option D:	Tensile, compressive & shear stress
Q17.	The ability of the material to resist stress without failure is called
Option A:	strength
Option B:	hardness
Option C:	stiffness
Option D:	toughness
Q18.	The trial operation of finishing the concrete surface is called
Option A:	screening
Option B:	floating
Option C:	troweling
Option D:	compacting
Q19.	Which method involve in source of penetrating electromagnetic radiation
Option A:	Nuclear method
Option B:	Radioactive method
Option C:	Core test
Option D:	Pullout test

Q20.	Which method involve in source of detect near surface temperature
Option A:	Core test
Option B:	Infrared thermograph
Option C:	Nuclear method
Option D:	Wave distance
Q21.	If the concrete remains frozen through its lifetime, then not much of a problem occurs. The deterioration occurs
Option A:	only if there are successive cycles of freezing and thawing
Option B:	due to ingress of CO_2
Option C:	only if there are successive cycles of freezing
Option D:	due to ingress of H_2S
Q22.	Carbonation in the concrete typically occurs in a range of relative humidity
Option A:	20-50%
Option B:	0 - 20%
Option C:	40-80%
Option D:	80-100%
Q23.	What is the primary strength-giving compound of hydrated cement
Option A:	Ettringite
Option B:	Monosulphate
Option C:	Calcium hydrooxide
Option D:	Calcium silicate hydrate
Q24.	Sulphate attack to concrete can be controlled by using
Option A:	Portland slag cement
Option B:	Supersulphated cement
Option C:	Rapid setting cement
Option D:	Expensive cement
Q25.	When Fibre Reinforced Concrete used in bridges it helps to avoid
Option A:	catastrophic failures
Option B:	flexural failures
Option C:	tension failures
Option D:	compression failures

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Question	**Correct Option** **(Enter either 'A' or 'B' or 'C' or 'D')**
Q1.	B
Q2.	A
Q3.	D
Q4	A
Q5	B
Q6	B
Q7	C
Q8.	A
Q9.	A
Q10.	B
Q11.	C
Q12.	C
Q13.	D
Q14.	C
Q15.	A
Q16.	D

Q17.	A
Q18.	C
Q19.	A
Q20.	B
Q21.	A
Q22.	C
Q23.	D
Q24.	B
Q25.	A