

Program: BE Civil Engineering  
Curriculum Scheme: Revised 2012  
Examination: Fourth Year Semester VII  
Course Code: CE-E705

Course Name: Elective-I: Reinforced Concrete Repairs and Maintenance

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 of the following is design error
Option A:	Improper Alignment of Formwork
Option B:	Inadequate Provision for Drainage
Option C:	Improper compaction of Concrete
Option D:	Settling of Concrete
Q2.	Carbonation of concrete can be problem where the concentration of ____ is high
Option A:	O <sub>3</sub>
Option B:	Cl <sub>2</sub>
Option C:	CO <sub>2</sub>
Option D:	CaO
Q3.	When the aggregate in cement concrete contain reactive forms of silica, the phenomenon of chemical reaction is referred as _____
Option A:	reactive aggregate
Option B:	reactive silica
Option C:	alkali silica reaction
Option D:	Alkalization
Q4.	Abrupt temperature changes can cause cracking and spalling due to
Option A:	thermal shock
Option B:	linear variation
Option C:	Deterioration
Option D:	excessive deformation
Q5.	Core testing is not used for
Option A:	Petrographic analysis
Option B:	Chemical Analysis
Option C:	Determination of chloride content
Option D:	Soundness of structure

Q6.	Standard procedure for Rebound hammer test is explain in
Option A:	IS 13311 Part II 1992
Option B:	Is 269-2015
Option C:	Is 8041- 1990
Option D:	is 1489-1991
Q7.	In Carbonation test, colour of concrete surface turn as pink then it indicates
Option A:	Not affected Surface
Option B:	carbonation affected concrete
Option C:	corrosion prone surface
Option D:	Initiation of corrosion
Q8.	Rapid Chloride Test Kit 4 is used for
Option A:	Carbonation test
Option B:	Chloride test
Option C:	Sulphate Test
Option D:	Cement Content
Q9.	Which test is performed to find concrete strength
Option A:	Pull off & pull Out test
Option B:	Chloride test
Option C:	Carbonation Test
Option D:	Sulphate Test
Q10.	Which of the following test is most suitable for concrete to find corrosion potential assessment
Option A:	Impact Echo test
Option B:	Rebound hammer test
Option C:	Radiography
Option D:	Half cell potential
Q11.	To avoid corrosion, the chemical characteristics of repair material should be such that it does not adversely affect..
Option A:	Thermal expansion
Option B:	Loading
Option C:	Curing requirement
Option D:	Alkalinity
Q12.	The Workability of the repair material should be...
Option A:	Good
Option B:	Bad
Option C:	Poor
Option D:	Moderate
Q13.	A process of filling the cracks, voids or honeycombs under pressure in structural

	member for repairing damaged portion is known as...
Option A:	Strengthening
Option B:	Jacketing
Option C:	Injection grouting
Option D:	Shotcreting
Q14.	The repair material should be...
Option A:	Non biodegradable
Option B:	Hazardous
Option C:	pollution encouraging
Option D:	Anti resistant to chemical attack
Q15.	Below grade waterproofing Materials provides resistance to
Option A:	Hydrostatic pressure
Option B:	Ultraviolet light
Option C:	Freeze and thaw
Option D:	Traffic wear
Q16.	It is not a waterproofing system
Option A:	Coating
Option B:	Membrane
Option C:	ICW
Option D:	Painting
Q17.	ICW technique is more effective for areas exposed to
Option A:	High hydrostatic pressure
Option B:	Temperature
Option C:	Heavy Load
Option D:	Pressure
Q18.	Material that provide thermal insulation in RCC building is
Option A:	Cement
Option B:	Cellulose
Option C:	Coating
Option D:	Membrane
Q19.	As per IS 1786, percentage Elongation in "Corrosion Resistant Steel Deformed Rebars" is?
Option A:	15
Option B:	16
Option C:	17
Option D:	18
Q20.	A natural process that occurs when the steel rebar within reinforced concrete structures rusts, or destruction of metal by chemical, electrochemical, and electrolytic reactions within its environment is known as .....

Option A:	Rebar Synthesis
Option B:	Rebar Coating
Option C:	Rebar Amalgam
Option D:	Rebar Corrosion
Q21.	What is Oxidation of steel?
Option A:	Rusting of steel when it is in contact with water & oxygen
Option B:	Infiltration of oxygen in the steel pores
Option C:	Process of manufacturing of Steel
Option D:	Method of corrosion protection of rebar
Q22.	A swelling reaction that occurs over time in concrete between the highly alkaline cement paste and the reactive non-crystalline silica found in aggregates, given sufficient moisture is known as?
Option A:	Hydration process
Option B:	Alkali-silica reaction
Option C:	Delamination
Option D:	Honeycombing
Q23.	Fixed time maintenance include
Option A:	Activities repeated at predetermined intervals
Option B:	work initiated after due inspection
Option C:	work done before failure takes place
Option D:	Damage caused by natural calamity
Q24.	What is correct order of stages of inspection and maintenance
Option A:	Inspection-Analysis- Action Possibilities
Option B:	Analysis- Inspection- Action Possibilities
Option C:	Inspection- Action Possibilities- Analysis
Option D:	Action Possibilities- Analysis- Inspection
Q25.	Abrasion Resistance test is carried out to find ____ of material
Option A:	Durability
Option B:	Performance
Option C:	Strength
Option D:	Estimation

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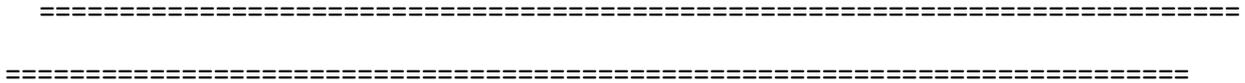
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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	C
Q3.	C
Q4	A
Q5	D
Q6	A
Q7	A
Q8.	B
Q9.	A
Q10.	D
Q11.	D
Q12.	A
Q13.	C
Q14.	A

Q15.	A
Q16.	D
Q17.	A
Q18.	B
Q19.	B
Q20.	D
Q21.	A
Q22.	B
Q23.	A
Q24.	A
Q25.	A