Program: BE Civil Engineering

Curriculum Scheme: Revised 2012

Examination: Fourth Year Semester VIII

Course Code: CE-E804

Course Name: Elective-II:Advance Repairs and Rehabilitation of Structures

Time: 1 hour Max. Marks: 50

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

Q1.	Upgrading the existing structure to meet the enhance structural requirements in terms of load carrying capacity of existing structural element is known as
Option A:	rehabilitation
Option B:	demolish
Option C:	retrofitting
Option D:	settlement
Q2.	_____ design details localized concentration of high stresses in structural member
Option A:	good
Option B:	poor
Option C:	complicated
Option D:	unnecessary
Q3.	India is divided into …. Seismic zones.
Option A:	5
Option B:	3
Option C:	6
Option D:	4
Q4.	The method of strengthening of column that can be used in countries with severe earthquake to improve the seismic capacity is _____
Option A:	Steel Torsioning
Option B:	Steel Profiles
Option C:	Section Enlargement
Option D:	Wrapping with CFRP
Q5.	The resistance towards crushing & buckling is improved by
Option A:	Decreasing the thickness of column
Option B:	Increasing the thickness of column

Option C:	Decreasing the support to column
Option D:	Increasing the support to column
Q6.	Which of the following factors is NOT important in when constructing Textile reinforced concrete (TRC)
Option A:	amount of fibers used
Option B:	interaction between the textile and the concrete
Option C:	arrangement of the textile reinforcement inside of the concrete
Option D:	mix design
Q7.	With section enlargement, slabs can be enlarged to increase their _____
Option A:	Ductility or deformation
Option B:	Malleability
Option C:	Load carrying capacity or Stiffness
Option D:	Torsion
Q8.	The alkaline environment protects the steel against future chances of____
Option A:	Rust
Option B:	Permeability
Option C:	Electrical Resistivity
Option D:	Corrosion
Q9.	Region with relatively high concentration of chloride salts act as _____.
Option A:	Anode
Option B:	Cathode
Option C:	Alkaline
Option D:	Non-Alkaline
Q10.	In process of chloride removal an external anode is temporary attached to the concrete surface and the reactions are driven by a ____ power supply.
Option A:	AC
Option B:	DC
Option C:	Low
Option D:	High
Q11.	Chloride acts as _____ carrier to become a catalyst to corrosion.
Option A:	Electron
Option B:	Proton
Option C:	Anodic
Option D:	Cathodic
Q12.	Chemically inactive pore fillers _____ the workability.
Option A:	Decrease
Option B:	increase
Option C:	Don’t affect
Option D:	Improve

Q13.	Concrete having 28 days compressive strength in the range of 100 to 150 MPa..
Option A:	HPC
Option B:	OPC
Option C:	HSC
Option D:	VHPC
Q14.	Longitudinal strength of fibre Reinforced composite is mainly influence by...
Option A:	Fibre orientation
Option B:	Fibre volume
Option C:	Fibre strength
Option D:	Fibre length
Q15.	Ultra High Performance Concrete is also known as
Option A:	Active powder concrete
Option B:	NPC
Option C:	High strength concrete
Option D:	Reactive powder concrete
Q16.	The strength of fibre Reinforced Concrete may vary due to...
Option A:	Cost
Option B:	Type of fibre
Option C:	Use of fibre
Option D:	Rebar
Q17.	Fibre Reinforced Concrete improve...
Option A:	Workability
Option B:	Thermal conductivity
Option C:	Shrinkage
Option D:	Bleeding
Q18.	The shock absorber in earthquake resistant building is called
Option A:	Mass dampers
Option B:	Cross Braces
Option C:	Flexible Pipes
Option D:	Base Isolation
Q19.	In viscous dampers, energy gets absorbed by……..fluid which passes between the piston cylinder arrangement.
Option A:	Aluminium based
Option B:	Iron based
Option C:	Silicon based
Option D:	Copper based
Q20.	which material is used as adhesive in structural repairs and retrofitting
Option A:	Mortar

Option B:	Epoxy
Option C:	FRP
Option D:	Composite Material
Q21.	To restore original integrity of structure the voids and cracks are filled with _____
Option A:	Cement paste
Option B:	Mortar
Option C:	concrete
Option D:	Grout and epoxy injection
Q22.	Strains are required to be removed from a portion of ashlar masonry. The effective method is
Option A:	To use caustic soda solution
Option B:	To use oxy-acetylene flame
Option C:	Sand blasting
Option D:	To give matching color wash on the surface
Q23.	Method to slow down or prevent corrosion of reinforcing steel in concrete is……..
Option A:	Electrochemical method
Option B:	Membrane
Option C:	Scratching of cover
Option D:	Addition of admixture
Q24.	The premier organization for the archeological research and protection of cultural heritage of the nation
Option A:	ASI
Option B:	GSI
Option C:	ASH
Option D:	AHI
Q25.	Historic structure deteriorated by entry of water in brick or stone wall can be treated by
Option A:	Scraping deteriorated part
Option B:	Re-Pointing
Option C:	NDT
Option D:	Membrane

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

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