

***** EXAMINATION *****

**CUMULATIVE SEISMIC DAMAGE OF
REINFORCED CONCRETE BRIDGE PIERS**

1. **The roadway, pedestrian walkway or the surface of a**
 - a) bridge is the bridge embankment
 - b) bridge is the bridge deck
 - c) bridge is the bridge column
 - d) bridge is the bridge beam

2. **The gradual loss in intensity of any kind of flux through a**
 - a) medium is attenuation
 - b) medium is correlation
 - c) medium is conduction
 - d) medium is diffusion

3. **The mechanical property that describes the deformation of a**
 - a) matter plastically without fracture is elasticity
 - b) matter plastically without fracture is plasticity
 - c) matter plastically without fracture is ductility
 - d) matter plastically without fracture is deformity

4. **The property of a body which remains at rest or continues**
 - a) moving in a straight line is a scalar
 - b) moving in a straight line is density
 - c) moving in a straight line is momentum
 - d) moving in a straight line is inertia

5. **The phenomenon in which the surfaces between mechanical**
 - a) members of loaded joint embed is embedment
 - b) members of loaded joint embed is embodiment
 - c) members of loaded joint embed is embankment
 - d) members of loaded joint embed is implement

6. **The mechanical device for moving or controlling a mechanism**
 - a) or system is a gripper
 - b) or system is an actuator
 - c) or system is an effector
 - d) or system is a switch

7. **The instrument for measuring angles of slope and elevation**
 - a) of an object with respect to gravity is an extensometer
 - b) of an object with respect to gravity is a micrometer
 - c) of an object with respect to gravity is an inclinometer
 - d) of an object with respect to gravity is a spherometer
8. **The transducer used to detect and measure linear position and**
 - a) velocity using a flexible cable is an electrostatic voltmeter
 - b) velocity using a flexible cable is a cam plastometer
 - c) velocity using a flexible cable is a mirror galvanometer
 - d) velocity using a flexible cable is a string potentiometer
9. **A computer with a microprocessor as its central processing**
 - a) unit is a personal computer
 - b) unit is a mainframe computer
 - c) unit is a supercomputer
 - d) unit is a microcomputer
10. **A system with a memory is**
 - a) hysteresis
 - b) homeorhesis
 - c) homeostasis
 - d) sociocybernetics
11. **The quantity used by earthquake seismologist to measure the**
 - a) size of an earthquake is a seismic handler
 - b) size of an earthquake is a seismic moment
 - c) size of an earthquake is a seismic source
 - d) size of an earthquake is a seismic mass
12. **A symmetric positive-semidefinite matrix that generalizes**
 - a) the stiffness of Hooke's law is a distance matrix
 - b) the stiffness of Hooke's law is a flexibility matrix
 - c) the stiffness of Hooke's law is a stiffness matrix
 - d) the stiffness of Hooke's law is a community matrix
13. **The type of energy damping device allowing plastic rotation**
 - a) of an otherwise rigid column is a plastic bar
 - b) of an otherwise rigid column is a plastic column
 - c) of an otherwise rigid column is a plastic tube
 - d) of an otherwise rigid column is a plastic hinge
14. **The process of surface failure in which spall sheds is**
 - a) spalling
 - b) yielding
 - c) buckling
 - d) loading

15. **A failure mode characterized by a sudden failure of a**
- a) structural member is spalling
 - b) structural member is yielding
 - c) structural member is buckling
 - d) structural member is loading
16. **The magnitude of change in the oscillating variable, with each**
- a) oscillation, within an oscillating system is acceleration
 - b) oscillation, within an oscillating system is amplitude
 - c) oscillation, within an oscillating system is permeation
 - d) oscillation, within an oscillating system is luminance
17. **The earthquake that occurs after a previous earthquake is**
- a) a harmonic tremor
 - b) a microtremor
 - c) a seismic inversion
 - d) an aftershock
18. **The formation of a structure or partial fracture in a solid**
- a) material is cracking
 - b) material is oscillating
 - c) material is yielding
 - d) material is buckling
19. **A curve which emanates from a central point is**
- a) a spiral
 - b) a parallel curve
 - c) a epispiral
 - d) a epicyloid
20. **The result of a sudden release of energy in the earth's**
- a) crust that creates seismic wave is earth flow
 - b) crust that creates seismic wave is a geohazard
 - c) crust that creates seismic wave is an earthquake
 - d) crust that creates seismic wave is a tsunami

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