

NOTE:- “These are sample MCQs to indicate pattern, may or may not appear in examination”.

University of Mumbai
Examination 2020 under cluster 2 (FRCRCE)

Program: BE Computer Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: CPC602 and Course Name: Software Engineering

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 not part of the design pyramid for WebE design?
Option A:	Architecture Design
Option B:	Business Case Design
Option C:	Content Design
Option D:	Navigation Design
Q2.	Philosophies that foster a continuous process improvement culture, and this culture ultimately leads to the development of increasingly more mature approaches to software engineering is.
Option A:	Product quality management
Option B:	Total quality management
Option C:	Process quality management
Option D:	More quality management
Q3.	Following diagrams of UML represent Interaction modeling.
Option A:	Sequence, collaboration
Option B:	Class, object
Option C:	Activity , state chart
Option D:	Component, deployment
Q4.	_____ represents an Information system graphically.

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Option A:	Activity Diagram
Option B:	Gantt Chart
Option C:	Data Flow Diagram
Option D:	Simple Flowchart
Q5.	Gantt Chart is name for:
Option A:	Activity chart
Option B:	Critical path chart
Option C:	Timeline Chart
Option D:	Network chart
Q6.	Which one of the following can be said of a sequence diagram?
Option A:	It is used to model the behavior of a single object when many use cases are executed
Option B:	It is used to model the behavior of several objects when a single use case is executed
Option C:	It is used to model the behavior of a single object when a single use case is executed
Option D:	It is used to model the behavior of several objects when many use cases are executed
Q7.	Which of the following option is not considered by the user Interface design?
Option A:	the design of interfaces between software components
Option B:	the design of interfaces between the software and human producers and consumers of information
Option C:	the design of the interface between two computers
Option D:	the design of the components and connectors
Q8.	Which of the following does not fall under project scheduling
Option A:	Effort validation

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Option B:	Market assessment
Option C:	Compartmentalization
Option D:	Task allocation
Q9.	Software Configuration management is a discipline for systematically controlling
Option A:	Changes due to requirement changes
Option B:	Changes due to defects (bugs) being found and then fixed
Option C:	The changes due to evolution of work products as the project proceeds
Option D:	All of the Above
Q10.	Which is not a Web Application Category
Option A:	Transactional
Option B:	Workflow-based
Option C:	Collaborative
Option D:	Continuous
Q11.	In which of the following testing strategies, a smallest testable unit is encapsulated class or object?
Option A:	Unit testing
Option B:	Smoke testing
Option C:	Integration testing
Option D:	Black Box testing
Q12.	A specification or product that has been formally reviewed and agreed upon, is called as
Option A:	Software Configuration Item
Option B:	Baseline
Option C:	Product Design
Option D:	Product Repository

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Q13.	Which web app attribute is defined by the statement: "A large number of users may access the WebApp at one time"
Option A:	Unpredictable load
Option B:	Performance
Option C:	Concurrency
Option D:	Network intensiveness
Q14.	Which of the following UML diagrams should you use when allocating use-case behavior to classes?
Option A:	sequence and communication diagrams
Option B:	use-case and activity diagrams
Option C:	sequence and activity diagrams
Option D:	class and composite structure diagrams
Q15.	COCOMO-II model is an example of :
Option A:	Risk Management
Option B:	Estimation Models
Option C:	Requirement Analysis
Option D:	software testing
Q16.	Which of the following is not a design principle that allows the user to maintain control?
Option A:	Provide for flexible interaction
Option B:	Allow user interaction to be interrupt-able and undo-able
Option C:	Show technical internals from the casual user
Option D:	Design for direct interaction with objects that appear on the screen
Q17.	Which of the following is not a SQA plan for a project?

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Option A:	Evaluations to be performed
Option B:	Duration of technical work
Option C:	Audits and reviews to be performed
Option D:	Procedures for error reporting and tracking
Q18.	Testing wherein we subject the target of the test, to varying workloads to measure and evaluate the performance behaviors and ability of the target and of the test to continue to function properly under these different workloads
Option A:	Load Testing
Option B:	Operational Testing
Option C:	System Testing
Option D:	Integration Testing
Q19.	A model for software engineering is chosen based on the nature of the project and application, the methods and tools to be used, and the controls and deliverables that are required is called.
Option A:	Process Model.
Option B:	Software Model
Option C:	Hardware Model
Option D:	Program model.
Q20.	Which is not a characteristic of 'good test data'?
Option A:	Every statement should be executed.
Option B:	It should be comprehensive
Option C:	Expected output from the modules execution should be determined
Option D:	Users do not participate at this stage.
Q21.	Which of the following is correct sequence of steps to do risk analysis and management? 1. Recognizing what can go wrong is the first step is called risk identification.

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	<p>2.Once information is established, risks are ranked, by probability and impact.</p> <p>3.A plan is developed to manage those risks with high probability and high impact</p> <p>4.Each risk is analyzed to determine the likelihood that it will occur and the damage that it will do if it does occur.</p>
Option A:	1 ,2 ,3 and 4
Option B:	1 ,3 ,2 and 4
Option C:	1 ,3 ,4 and 2
Option D:	1 ,4 , 2 and 3
Q22.	Project risk factor is considered in which model?
Option A:	Waterfall model
Option B:	Prototyping model
Option C:	Spiral model
Option D:	None of the above
Q23.	Activity Network consists of :
Option A:	CPM and PERT
Option B:	CPM and DRE
Option C:	DRE and FP
Option D:	CPM and FP
Q24.	Which one of the following define the characteristic of a good user interface?
Option A:	Error recovery, feedback and consistency
Option B:	Keyboard data entry

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Option C:	Menu Options
Option D:	Font size
Q25.	Which of the following is not regression test case?
Option A:	A representative sample of tests that will exercise all software functions
Option B:	Additional tests that focus on software functions that are likely to be affected by the change
Option C:	Tests that focus on the software components that have been changed
Option D:	Low-level components are combined into clusters that perform a specific software sub-function.

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Examination 2020 under cluster 2 (FRCRCE)

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: MEC602 and Course Name: Machine Design I

Time: 1 hour

Max. Marks: 50

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

Q1.	Ergonomics is related to human
Option A:	Comfort
Option B:	Qualification
Option C:	Finance
Option D:	Property
Q2.	While designing a forging, the profile is selected such that the fibrous lines are _____ to the tensile forces and perpendicular to shear forces.
Option A:	Parallel
Option B:	not parallel
Option C:	Intersecting
Option D:	non-continuous
Q3.	Which design consideration deals with the appearance of the product?
Option A:	Ergonomics
Option B:	Aesthetics
Option C:	System design
Option D:	Creative design
Q4.	Ergonomics principle suggests that
Option A:	monitoring displays should be placed outside peripheral limitations
Option B:	glow-in-the-dark dials made of reflective substances are good for viewing in the nights
Option C:	visual systems should be preferred over auditory systems in noisy locations
Option D:	parallax error is not a major concern
Q5.	The normal stress is _____ to the area under considerations, while the shear stress acts _____ the area.
Option A:	perpendicular , over
Option B:	over, perpendicular
Option C:	parallel, over
Option D:	over, parallel

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Q6.	The stress concentration factor is the ratio of ____.
Option A:	maximum stress to the endurance limit
Option B:	nominal stress to the endurance limit
Option C:	maximum stress to the nominal stress
Option D:	nominal stress to the maximum stress
Q7.	Failure of a material is called fatigue when it fails ____.
Option A:	at the elastic limit
Option B:	below the elastic limit
Option C:	at the yield point
Option D:	below the yield point
Q8.	The resistance to fatigue of a material is measured by _____.
Option A:	Elastic limit
Option B:	Young's modulus
Option C:	Ultimate tensile strength
Option D:	Endurance limit
Q9.	The fatigue life of a part can be improved by _____.
Option A:	Electroplating
Option B:	shot peening
Option C:	Polishing
Option D:	Coating
Q10.	Which of the following is the case of maximum wear?
Option A:	Conventional power screw
Option B:	Recirculation power screw
Option C:	Equal in both the cases
Option D:	Wear does not take place in both the cases
Q11.	Find the torque required to raise the load of 15kN and mean diameter of triple threaded screw being 46mm. Also given pitch=8mm and coefficient of friction is 0.15.
Option A:	11831.06 N-mm
Option B:	11813.06 N-mm
Option C:	12811.06 N-mm
Option D:	13111.56 N-mm
Q12.	The bracket welded to the vertical plate by means of two fillet welds. Calculate size of the welds if P=40kN, leg=4mm and e=400mm. Maximum permissible value of shear stress in the weld is 70N/mm ² .
Option A:	1.4mm
Option B:	1.7mm
Option C:	2.1mm
Option D:	3mm
Q13.	Depending upon the holding arrangement, power screws operate in _____

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	different arrangements.
Option A:	2
Option B:	3
Option C:	4
Option D:	5
Q14.	Stress variation in an initially curved beam is
Option A:	Linear
Option B:	Parabolic
Option C:	Hyperbolic
Option D:	Random
Q15.	Stress in the outermost fiber of a curved beam is
Option A:	P/A
Option B:	M/Z
Option C:	$P/A - M/Z$
Option D:	$P/A + M/Z$
Q16.	When the ratio of the inner diameter of the cylinder to the wall thickness is _____ the cylinder is called a thick cylinder.
Option A:	Greater than 150
Option B:	Less than 150
Option C:	Greater than 15
Option D:	Less than 15
Q17.	In thick cylinders, the tangential stress is
Option A:	Highest magnitude at the outer surface of the cylinder and gradually decreases towards the inner surface.
Option B:	Highest magnitude at the inner surface of the cylinder and gradually decreases towards the outer surface.
Option C:	Highest magnitude at the outer surface of the cylinder and zero at the inner surface.
Option D:	Highest magnitude at the inner surface of the cylinder and zero at the outer surface
Q18.	The springs in brakes and clutches are used _____.
Option A:	To apply forces
Option B:	To measure forces
Option C:	To absorb shocks
Option D:	To absorb strain energy
Q19.	The laminated springs are given initial curvature
Option A:	To have uniform strength
Option B:	To make it more economical
Option C:	So that plates may become further curved, when subjected to design load
Option D:	So that plates may become flat, when subjected to design load

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Q20.	Which one of the following statements is not a design consideration used for design of a concentric spring?
Option A:	The springs, generally, are made of the same material.
Option B:	They have the same free length
Option C:	They have same solid length
Option D:	The springs are made of the different materials.
Q21.	A railway wagon moving at a velocity of 1.5 m/s is brought to rest by a bumper consisting of helical springs. If the mass of the wagon is 1500 kg, how much strain energy the bumper will store when the mass comes to rest?
Option A:	1687.5 J
Option B:	168.75 J
Option C:	16.875 J
Option D:	1.6875 J
Q22.	Sleeve or muff coupling is designed as _____
Option A:	Dun Cylinder
Option B:	Hollow shaft
Option C:	Solid Shaft
Option D:	Thick Cylinder
Q23.	In a flange coupling the flanges are coupled together by means of _____
Option A:	Nuts and Bolts
Option B:	Studs
Option C:	Headless taper bolts
Option D:	Screws
Q24.	Which of the following statement is correct?
Option A:	Rigid couplings can accommodate misalignments
Option B:	Rigid couplings can absorb shocks and vibrations
Option C:	Rigid couplings are simple in construction as compared to flexible couplings
Option D:	Rigid couplings are costlier than flexible couplings
Q25.	Distribution of forces along the length of key fitted in shaft _____
Option A:	Varies linearly
Option B:	Is uniform through out
Option C:	Varies exponentially, being more near the torque-input end
Option D:	Varies exponentially, being more less the torque-input end

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Examination 2020 under cluster 2 (FRCRCE)

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester :VI

Course Code: ETC602 and Course Name: Discrete Time Signal Processing

Time: 1hour

Max. Marks: 50

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

Q1.	During spectral analysis of random signal the important parameters is
Option A:	power spectral density function
Option B:	impulse function
Option C:	delta function
Option D:	sinc function
Q2.	A system is said to be unstable if
Option A:	None of the poles of its transfer function is shifted to the right half of s-plane
Option B:	At least one zero of its transfer function is shifted to the right half of s-plane
Option C:	At least one pole of its transfer function is shifted to the right half of s-plane
Option D:	At least one pole of its transfer function is shifted to the left half of s-plane
Q3.	Which of the following is true in case of Overlap add method?
Option A:	M zeros are appended at last of each data block
Option B:	M zeros are appended at first of each data block
Option C:	M-1 zeros are appended at last of each data block
Option D:	M-1 zeros are appended at first of each data block
Q4.	If $X(e^{j\omega})$ and $Y(e^{j\omega})$ are input and output spectrum of a decimator then
Option A:	$Y(e^{j\omega}) = (1/M) X(e^{j\omega/M})$
Option B:	$Y(e^{j\omega}) = M X(e^{j\omega/M})$
Option C:	$Y(e^{j\omega}) = (1/M) X(e^{j\omega M})$
Option D:	$Y(e^{j\omega}) = M X(e^{j\omega M})$
Q5.	According to Time shifting property of z-transform, if $X(z)$ is the z-transform of $x(n)$ then what is the z-transform of $x(n-k)$?
Option A:	$z^k X(z)$
Option B:	$z^{-k} X(z)$
Option C:	$X(z-k)$
Option D:	$X(z+k)$
Q6.	IIR digital filters are of the following nature

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Option A:	Recursive
Option B:	Non- Recursive
Option C:	Reversible
Option D:	Non Reversible
Q7.	If we split the N point data sequence into two N/2 point data sequences $f_1(n)$ and $f_2(n)$ corresponding to the even numbered and odd numbered samples of $x(n)$, then such an FFT algorithm is known as
Option A:	decimation-in-frequency algorithm
Option B:	decimation-in-time algorithm
Option C:	decimation-in-samples algorithm
Option D:	Discrete time fourier transform
Q8.	To change the sampling rate for better efficiency in two or multiple stages, the decimation and interpolation factors must be _____unity.
Option A:	Less than
Option B:	Equal to
Option C:	Greater than
Option D:	Less than or equal to
Q9.	A discrete-time all-pass system has two of its poles at $0.25\angle 0$ and $2\angle 30$. It has two more poles at $0.5\angle 30$ and $4\angle 0$
Option A:	It is stable only when the impulse response is two-sided.
Option B:	It has constant phase response over all frequencies.
Option C:	It has constant phase response over the entire z-plane.
Option D:	$0.5\angle 30$ and $4\angle 0$
Q10.	The magnitude response of the following filter decreases monotonically as frequency increases
Option A:	Butterworth Filter
Option B:	Chebyshev type – 1
Option C:	Chebyshev type – 2
Option D:	FIR Filter
Q11.	One of the basic requirements in digital music synthesis is
Option A:	suppressing audio signal
Option B:	suppressing spectral energy
Option C:	suppressing noise without blocking the speech signal
Option D:	suppressing speech signal
Q12.	Which of the following is the disadvantage of sampling rate conversion by converting the signal into analog signal?
Option A:	Signal distortion
Option B:	Quantization effects
Option C:	New sampling rate can be arbitrarily selected

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Option D:	Signal distortion & Quantization effects
Q13.	Partial fraction method involves
Option A:	Allotting coefficients
Option B:	Dividing the numerator by denominator to get fractions
Option C:	Dividing single fraction into parts
Option D:	Multiplying denominator
Q14.	_____ is a special case of notch filter in which the nulls occur periodically across the frequency band.
Option A:	A comb filter
Option B:	A All pass filter
Option C:	A Notch filter
Option D:	A Lowpass filter
Q15.	In FIR filter, the noise power _____ with respect to 'N'
Option A:	Decreases
Option B:	Increases
Option C:	Stabilizes
Option D:	is equal
Q16.	Difference in number of complex multipliers required for 16 point DFT and 16 point Radix2 FFT is:
Option A:	30
Option B:	64
Option C:	224
Option D:	256
Q17.	In which window spectrum , the width of the main lobe is three times that of rectangular window.
Option A:	Blackman
Option B:	Hanning
Option C:	Hamming
Option D:	Bartlett
Q18.	If $x(n)$ is eigen function as a input to an LTI system and $h(n)$ is the response of the system, then what is the output $y(n)$ of the system.
Option A:	$H(-w)x(n)$
Option B:	$-H(w)x(n)$
Option C:	$H(w)x(n)$
Option D:	$-H(-w)x(n)$
Q19.	For a decimator , if $x(n)$ and $y(n)$ are the input and output respectively, with sampling rate conversion factor M, then
Option A:	$y(n) = x(n - M)$

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Option B:	$y(n) = x(n / M)$
Option C:	$y(n) = x(n + M)$
Option D:	$y(n) = x(nM)$
Q20.	The direct evaluation of DFT require
Option A:	N^2 multiplications and N^2 additions
Option B:	N^2 multiplications and $N(N - 1)$ additions
Option C:	$N(N - 1)$ multiplications and N^2 additions.
Option D:	$N(N - 1)$ multiplications and $N(N - 1)$ additions
Q21.	The methods used to prevent overflow are;
Option A:	Saturation arithmetic and scaling
Option B:	Modular arithmetic and scaling
Option C:	Saturation arithmetic and shifting
Option D:	Modular arithmetic and shifting
Q22.	If $h(n)$ is absolutely summable, i.e., BIBO stable, then the equation for the frequency response $H(\omega)$ is given as?
Option A:	$H_I(\omega) - j H_R(\omega)$
Option B:	$H_R(\omega) - j H_I(\omega)$
Option C:	$H_R(\omega) + j H_I(\omega)$
Option D:	$H_I(\omega) + j H_R(\omega)$
Q23.	What is the dead band of a single pole filter which is represented by 4 bits and having a pole at $1/2$?
Option A:	$-1/2, 1/2$
Option B:	$1/4, -1/4$
Option C:	$-1/8, 1/8$
Option D:	$-1/16, 1/16$
Q24.	For a linear phase FIR Filter with the length as M , the phase delay is given by
Option A:	$M-1$
Option B:	$2M$
Option C:	$(M-1) / 2$
Option D:	$(M+1) / 2$
Q25.	Find DFT of $x(n)=[1 \ 2 \ 3 \ 4]$
Option A:	$[10 \ -2-2j \ -2 \ -2+2j]$
Option B:	$[10 \ -2+2j \ -2 \ -2-2j]$
Option C:	$[10 \ -2-2j \ -2 \ -2-2j]$
Option D:	$[10 \ -2+2j \ -2 \ -2+2j]$

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Examination 2020 under cluster 2 (FRCRCE)

Program: BE Information of Technology

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: TEITC602 and Course Name: Distributed Systems

Time: 1 hour

Max. Marks: 50

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

Q1.	What are design issues in distributed system structure?
Option A:	Scalability
Option B:	Fault-tolerance
Option C:	Flexibility
Option D:	Scalability, Fault-tolerance and Flexibility
Q2.	A gateway for the server-side object is
Option A:	skeleton
Option B:	stub
Option C:	remote
Option D:	server
Q3.	Resources and clients transparency that allows movement within a system is called as
Option A:	Mobility transparency
Option B:	Concurrency transparency
Option C:	Performance transparency
Option D:	Replication transparency
Q4.	The local operating system on the server machine passes the incoming packets to the _____
Option A:	Server stub
Option B:	Client stub
Option C:	Client process
Option D:	Client operating system
Q5.	A remote procedure call is _____
Option A:	inter-process communication
Option B:	a single process
Option C:	a single thread
Option D:	a single stream
Q6.	Message passing system allows processes to _____

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Option A:	communicate with one another without resorting to shared data
Option B:	communicate with one another by resorting to shared data
Option C:	share data
Option D:	name the recipient or sender of the message
Q7.	Messages sent by a process _____
Option A:	have to be of a fixed size
Option B:	have to be a variable size
Option C:	can be fixed or variable size
Option D:	Have to be size of 100 bytes
Q8.	The link between two processes P and Q to send and receive messages is called _____
Option A:	communication link
Option B:	message-passing link
Option C:	synchronization link
Option D:	joining link
Q9.	The kernel is _____ of user threads.
Option A:	a part of
Option B:	the creator of
Option C:	unaware of
Option D:	aware of
Q10.	A thread shares its resources (like data section, code section, open files, signals) with _____
Option A:	other process similar to the one that the thread belongs to
Option B:	other threads that belong to similar processes
Option C:	other threads that belong to the same process
Option D:	other threads that belong to the different process
Q11.	If the wait for graph contains a cycle _____
Option A:	then a deadlock does not exist
Option B:	then a deadlock exists
Option C:	then the system is in a safe state
Option D:	either deadlock exists or system is in a safe state
Q12.	If the resources are always preempted from the same process _____ can occur.
Option A:	Deadlock
Option B:	system crash
Option C:	Aging
Option D:	Starvation
Q13.	A deadlock can be broken by _____

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Option A:	abort one or more processes to break the circular wait
Option B:	abort all the process in the system
Option C:	preempt all resources from all processes
Option D:	abort all resources
Q14.	Which model has less strict consistency constraints?
Option A:	Sequential consistency
Option B:	Linearizability
Option C:	Eventual consistency
Option D:	Entry Consistency
Q15.	Which of the following option is correct for sequential consistency
Option A:	Sequential consistency is the strongest and yet practical consistency model
Option B:	Sequential consistency allows for high availability during periods of network dis connectivity.
Option C:	Sequential consistency allows a client thread to read a stale value of some variable.
Option D:	Sequential consistency is only applicable to distributed shared memory systems and not applicable to distributed storage systems.
Q16.	A distributed Shared Memory system that supports the weak consistency model uses a special variable called a ----- which is used to synchronize memory.
Option A:	Access variable
Option B:	Synchronization variable
Option C:	Shared variable
Option D:	Memory variable
Q17.	Processing sequence is exactly in same order in -----.
Option A:	Sequential Consistency
Option B:	Strict Consistency
Option C:	Entry Consistency
Option D:	Release Consistency
Q18.	A ----- guarantees that if an update is performed on a copy of Server S, all preceding updates will be performed first. The resulting server will then indeed become the most recent version and will include all updates that have led to previous versions of the server.
Option A:	Read Your Writes Consistency
Option B:	Writes Follow Reads Consistency
Option C:	Monotonic Reads Consistency
Option D:	Monotonic Writes Consistency
Q19.	Which of the following is not the type of EJB
Option A:	Stateful Beans
Option B:	Stateless Beans

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Option C:	Enterprise Beans
Option D:	Entity Beans
Q20.	In .NET architecture, FCL stands for
Option A:	Function class library
Option B:	Framework class library
Option C:	Formatted class library
Option D:	Function class language
Q21.	_____ is a subset of Framework class library
Option A:	Remote class library
Option B:	Base class library
Option C:	Object class library
Option D:	Common language runtime
Q22.	Which of the following interface is not supported by CORBA
Option A:	SII
Option B:	DII
Option C:	DSI
Option D:	OSI
Q23.	IDL forward is used for
Option A:	Forwarding IDL to called instances
Option B:	Declare an interface name before its complete definition
Option C:	Forwarding IDL to the Server class
Option D:	Forwarding IDL to Bean class
Q24.	What is SOA stands for?
Option A:	Software Oriented Architecture
Option B:	Service Oriented Architecture
Option C:	Service Originated Architecture
Option D:	Service Organizational Architecture
Q25.	What describes the role of the Enterprise Service Bus (ESB)?
Option A:	An adapter that exposes back end functionality of legacy systems.
Option B:	A routing and mediation component that loosely couples service interfaces
Option C:	A routing and mediation component that loosely couples service implementations
Option D:	A component where transformation and aggregation are used to implement service interfaces

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Examination 2020 under cluster 2 (FRCRCE)

Program: BE Instrumentation Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: ISC602 and Course Name: Power Electronics and Drives

Time: 1hour

Max. Marks: 50

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

Q1.	A silicon controlled rectifier (SCR) is a
Option A:	Unijunction device
Option B:	Device with three junction
Option C:	Device with four junction
Option D:	Device with two junction
Q2.	Which semiconductor power device out of the following, is not a current triggering device?
Option A:	Thyristor
Option B:	Triac
Option C:	G.T.O
Option D:	MOSFET
Q3.	Leakage current flows through the thyristor in
Option A:	forward blocking mode
Option B:	Reverse blocking mode
Option C:	both forward and reverse blocking mode
Option D:	forward conduction mode
Q4.	A forward voltage can be applied to an SCR after its
Option A:	Anode current is reduced to zero
Option B:	Gate recovery time
Option C:	Reverse recovery time
Option D:	Anode voltage reduces to zero
Q5.	Which triggering method is most reliable method to turn SCR ON
Option A:	Forward voltage triggering
Option B:	Gate triggering
Option C:	dv/dt triggering
Option D:	Thermal triggering

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Q6.	In a load commutated DC-DC chopper,the capacitor has a
Option A:	symmetric triangular voltage across its self
Option B:	symmetric rectangular voltage across its self
Option C:	symmetric trapezoidal voltage across its self
Option D:	symmetric sinusoidal voltage across its self
Q7.	A freewheeling diode is used in a controlled rectifier circuit in case of
Option A:	Resistive load
Option B:	Inductive load
Option C:	Capacitive load
Option D:	Impedance load
Q8.	In controlled rectifier, the nature of load current
Option A:	Does not depend on type of load and firing angle delay
Option B:	Depends both on the type of load and firing angle delay
Option C:	Depends only on the type of load
Option D:	Depends only on the firing angle delay
Q9.	During induction heating, the skin depth of penetration is proportional (f = frequency) to
Option A:	F
Option B:	f ²
Option C:	1/f
Option D:	1/√f
Q10.	For a single-phase, phase-controlled rectifier, with a freewheeling diode across the load
Option A:	The instantaneous output voltage V_o is always positive
Option B:	V_o may be positive or zero
Option C:	V_o may be zero or negative
Option D:	V_o may be zero
Q11.	voltage commutation circuit can be converted into a current commutation by interchanging the positions of
Option A:	Diode and capacitor
Option B:	capacitor and SCR
Option C:	Inductor and capacitor
Option D:	capacitor and load
Q12.	Power MOSFET _____ device

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Option A:	Voltage controlled unipolar
Option B:	Current controlled unipolar
Option C:	Voltage controlled bipolar
Option D:	Current controlled bipolar
Q13.	Temperature coefficient of IGBT is
Option A:	Negative
Option B:	Positive
Option C:	Flat
Option D:	Zero
Q14.	The main part of an inverter is the
Option A:	Oscillator circuit
Option B:	DC source
Option C:	Step up transformer
Option D:	Filter
Q15.	which of the following load normally need starting torque more than the rated torque?
Option A:	Conveyors
Option B:	Blowers
Option C:	Centrifugal pump
Option D:	Air compressor
Q16.	In a single- pulse modulation of PMW inverter third can be eliminated if pulse width is equal to
Option A:	30°
Option B:	60°
Option C:	120°
Option D:	180°
Q17.	RC snubber circuit is used to limit the rate of
Option A:	Rise of current in SCR
Option B:	Rise of voltage across SCR
Option C:	Conduction period
Option D:	It is of No use
Q18.	What is the duty cycle of chopper?
Option A:	T_{on}/T_{off}
Option B:	T_{on}/T
Option C:	T/T_{on}

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Option D:	$T_{off} \times T_{on}$
Q19.	The features of the chopper drives are
Option A:	Smooth control but slow response
Option B:	Smooth control but fast response
Option C:	Fast response with smooth control but less efficient
Option D:	Fast response with smooth control and highly efficient
Q20.	Which of the following system is preferred for chopper drives?
Option A:	Constant frequency system
Option B:	Variable frequency system
Option C:	Constant voltage system
Option D:	Variable voltage system
Q21.	_____ duty cycle consist of frequent on load and off-load period
Option A:	Continuous Duty with constant Load
Option B:	Continuous Duty With the variable load
Option C:	Short Time duty
Option D:	Intermittent duty
Q22.	Chopper is a _____ converter
Option A:	AC to AC converter
Option B:	AC to DC converter
Option C:	DC to DC converter
Option D:	DC to AC converter
Q23.	Induction heating is possible
Option A:	On ferrous material only
Option B:	On magnetic material only
Option C:	On dc supply only
Option D:	with AC supply only
Q24.	The DC shunt motor is running with a certain load. The effect of adding an external resistance in field circuit is to:
Option A:	Increase the Motor Speed
Option B:	Stop the Motor speed
Option C:	Reduce the motor Speed
Option D:	Reduce the armature speed
Q25.	Which statement is true for latching current

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Option A:	It is related to the turn off process of the device
Option B:	It is related to the conduction process of the device
Option C:	It is related to turn on process of the device
Option D:	It is related to non-conduction process of the device