

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

Program: BE Computer Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: CSC701 and Course Name: Digital Signal & Image Processing

Time: 1 hour

Max. Marks: 50

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

Q1.	If the output of the system of the system at any 'n' depends only the present or the past values of the inputs then the system is said to be:
Option A:	Linear
Option B:	Non-Linear
Option C:	Causal
Option D:	Non-causal
Q2.	Which of the following should be done in order to convert a continuous-time signal to a discrete-time signal?
Option A:	Sampling
Option B:	Differentiating
Option C:	Integrating
Option D:	Quantization
Q3.	Which block of the discrete time systems requires memory in order to store the previous input?
Option A:	Adder
Option B:	Signal Multiplier
Option C:	Unit Delay
Option D:	Unit Advance
Q4.	The interface between an analog signal and a digital processor is
Option A:	D/A converter
Option B:	A/D converter
Option C:	Modulator
Option D:	Demodulator
Q5.	If 'F' is the frequency of the analog signal, then what is the minimum sampling rate required to avoid aliasing?
Option A:	F
Option B:	2F
Option C:	3F

Option D:	4F
Q6.	The circular convolution of two sequences in time domain is equivalent to
Option A:	Multiplication of DFTs of two sequences
Option B:	Summation of DFTs of two sequences
Option C:	Difference of DFTs of two sequences
Option D:	Square of multiplication of DFTs of two sequences
Q7.	2D Fourier transform and its inverse are infinitely
Option A:	Aperiodic
Option B:	Periodic
Option C:	Linear
Option D:	Non linear
Q8.	If the DFT $\{x(n)\} = X(k) = \{4, -2j, 0, 2j\}$, using properties of DFT, DFT of $x(-n)$ is
Option A:	$(4, 2j, 0, -2j)$
Option B:	$(2j, 0, -2j, 4)$
Option C:	$(4, 0, 2j, -2j)$
Option D:	$(0, 2j, 4, -2j)$
Q9.	To reduce the effect of aliasing high frequencies are
Option A:	Attenuated
Option B:	Accentuated
Option C:	Reduced
Option D:	Removed
Q10.	DFT of the sequence $x(n) = \{1, -2, 3, 2\}$
Option A:	$\{4, -2+j4, 4, -2+j4\}$
Option B:	$\{4, -2+j4, 4, -2-j4\}$
Option C:	$\{-4, -2-j4, 4, 2-j4\}$
Option D:	$\{4, -2-j4, -4, -2-j4\}$
Q11.	Giving one period of the periodic convolution is called
Option A:	Periodic convolution
Option B:	Aperiodic convolution
Option C:	Correlation
Option D:	Circular convolution
Q12.	DTFT is the representation of
Option A:	Periodic Discrete time signals
Option B:	Aperiodic Discrete time signals
Option C:	Aperiodic continuous signals
Option D:	Periodic continuous signals
Q13.	4- point DFT requires a total of

Option A:	12 multiplications and 10 additions
Option B:	10 multiplications and 8 additions
Option C:	16 multiplications and 12 additions
Option D:	14 multiplications and 12 additions
Q14.	A good representation of the derivative of a step function $u(t)$ is...
Option A:	Another step function
Option B:	A complex exponential
Option C:	A ramp mt , where m is the slope.
Option D:	A delta function $\delta(t)$
Q15.	Refresh rate is measured in
Option A:	mbps
Option B:	hertz
Option C:	kilo hertz
Option D:	mega hertz
Q16.	JPEG format is useful when _____
Option A:	There are so many colors in the picture
Option B:	There are not so many colors in the picture
Option C:	To show more brightness
Option D:	To show haziness
Q17.	Term which refers to the sharpness or clarity of an image, is-----
Option A:	Pitch
Option B:	Pixel
Option C:	Resolution
Option D:	Signal
Q18.	The procedure done on a digital image to alter the values of its individual pixels is
Option A:	Neighborhood Operations
Option B:	Image Registration
Option C:	Geometric Spatial Transformation
Option D:	Single Pixel Operation
Q19.	The technique of Enhancement that has a specified Histogram processed image as result, is called?
Option A:	Histogram Linearization
Option B:	Histogram Equalization
Option C:	Histogram Matching
Option D:	Histogram Linear Processing
Q20.	Using gray-level transformation, the basic function linearity deals with which of the following transformation?
Option A:	Log and inverse-log transformations

Option B:	Negative and identity transformations
Option C:	nth and nth root transformations
Option D:	Power-law transformations
Q21.	In terms of image enhancement, what does mean and variance refers to?
Option A:	Average contrast and average gray level respectively
Option B:	Average gray level and average contrast respectively
Option C:	Average gray level in both
Option D:	Average contrast in both
Q22.	Histogram equalization is used to
Option A:	Enhance the contrast of an image
Option B:	Remove the noises present in an image
Option C:	Find the contours present in an image
Option D:	Find the equality present in various regions.
Q23.	Example of Region Growing Methods is
Option A:	Level Set Methods
Option B:	Graph Partitioning Methods
Option C:	Watershed Transformation
Option D:	Neural Networks Segmentation
Q24.	Zero crossing operator use the following
Option A:	First derivative
Option B:	Second derivative
Option C:	Sobel operator
Option D:	Gaussian operator
Q25.	Which segmentation technique is based on clustering approaches?
Option A:	K-means algorithm
Option B:	Threshold based algorithm
Option C:	Histogram based algorithm
Option D:	Edge detection based algorithm

Program: BE ELECTRONICS AND TELECOMMUNICATION Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECC701 and Course Name: MICROWAVE 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.	A 50 ohm lossless transmission line has a pure reactance of (j 100) ohms as its load. The VSWR in the line is
Option A:	1/2
Option B:	4
Option C:	2
Option D:	Infinity
Q2.	A transmission line is distortion less if
Option A:	$RL = 1/GC$
Option B:	$RL = GC$
Option C:	$LG = RC$
Option D:	$RG = LC$
Q3.	The capacitance per unit length and the characteristic impedance of a lossless transmission line are C and Z_0 respectively. The velocity of a travelling wave on the transmission line is
Option A:	$Z_0 C$
Option B:	$1/Z_0 C$
Option C:	Z_0/C
Option D:	C/Z_0
Q4.	In a twin – wire transmission line in air, the adjacent voltage maximum are at 12.5cm and 27.5cm. The operating frequency is
Option A:	300 MHz
Option B:	1GHz
Option C:	2 GHz
Option D:	6.28GHz
Q5.	Frequency range of X Band?
Option A:	2-4 GHz
Option B:	8-12GHz
Option C:	5-7GHz

Option D:	6-8GHz
Q6.	Give the frequency range for Hybrid Integrated circuits
Option A:	1 to 20 GHz
Option B:	30- 40 GHz
Option C:	50 – 60 GHz
Option D:	100 – 150 GHz
Q7.	Progress in _____ and other related semiconductors material processing led to the feasibility of monolithic microwave integrated circuits.
Option A:	Germanium
Option B:	GaAs
Option C:	GaAlAs
Option D:	Silicon
Q8.	Method of Deposition of Dielectric material SiO ₂
Option A:	Evaporation
Option B:	Vapor phase
Option C:	Anodization
Option D:	Deposition
Q9.	The cut-off wavelength of the dominant mode in the rectangular waveguide is
Option A:	2a
Option B:	$1/\sqrt{2a}$
Option C:	$\sqrt{2a}$
Option D:	1/2a
Q10.	The scattering matrix of a gyrator is:
Option A:	Symmetric
Option B:	Skew symmetric
Option C:	Identity matrix
Option D:	Null matrix
Q11.	In hollow waveguides, _____ wave cannot propagate
Option A:	TEM
Option B:	TE
Option C:	TM
Option D:	Hybrid
Q12.	In a hollow rectangular waveguide, the phase velocity
Option A:	Decreases with increase in frequency
Option B:	Increases with increase in frequency
Option C:	Is independent of frequency
Option D:	Vary with frequency depending on the frequency range

Q13.	The power meter is constructed from a balanced bridge circuit in which ----- of the arms is the bolometer
Option A:	One
Option B:	Two
Option C:	Three
Option D:	Four
Q14.	----- Schottky Barrier Diode is used as a square law detector whose output is proportional to the input power
Option A:	Zero biased
Option B:	Positive biased
Option C:	Negative biased
Option D:	Both positive and negative bias
Q15.	In slotted line measurement of Q which of the following component is not used
Option A:	Reflex Klystron
Option B:	Isolator
Option C:	Slotted line
Option D:	voltmeter
Q16.	Why the TWT is sometimes preferred to the multicavity klystron amplifier?
Option A:	More efficient
Option B:	has a greater bandwidth
Option C:	has a higher number of modes
Option D:	produces a higher output power
Q17.	How the frequency of oscillation in a backward wave oscillator changed?
Option A:	varying the voltage which controls beam velocity
Option B:	varying the beam current
Option C:	both by varying the beam current and by light varying the voltage which controls beam velocity
Option D:	changing the rate of thermionic emission
Q18.	If the instantaneous RF potentials on the two sides of Magnetron cavity are of opposite polarity, then in which mode will it operate
Option A:	(2π) mode
Option B:	$(\pi/4)$ mode
Option C:	(π) mode
Option D:	$(\pi/2)$ mode
Q19.	The diagram to show distance time history of electrons in klystron amplifier is called
Option A:	apple gate diagram
Option B:	asynchronous diagram
Option C:	bunching diagram
Option D:	velocity modulation diagram

Q20.	The transit time in the repeller space of a Reflex Klystron must be $n+3/4$ cycles to ensure that
Option A:	Returning electrons give energy to the gap oscillations
Option B:	Electrons are accelerated by the gap voltage on their return
Option C:	It is equal to the period of cavity oscillations
Option D:	The repeller is not damaged by the striking electrons
Q21.	In case of Up-converter Parametric Amplifier, gain of amplifier is _____
Option A:	$(f_s+f_p)/f_s$
Option B:	$(f_s-f_p)/f_s$
Option C:	f_p/f_s
Option D:	f_s/f_p
Q22.	Advantage of HBT over BJT is that it has
Option A:	High current gain
Option B:	High voltage gain
Option C:	High frequency of operation
Option D:	Sophisticated construction
Q23.	A certain GaAs MESFET has parameters, channel height $a = 0.1$ micrometre, Electron concentration $N_d = 8 \times 10^{17} \text{ cm}^{-3}$, relative dielectric constant = 13.10 Then pinch-off voltage is
Option A:	6.0 V
Option B:	3.2 V
Option C:	4.8 V
Option D:	7.5 V
Q24.	Parametric amplifier is a _____
Option A:	Low noise amplifier
Option B:	High gain amplifier
Option C:	Low gain amplifier
Option D:	High noise amplifier
Q25.	GaAs is used in the fabrication of GUNN diode because
Option A:	GaAs is cost effective
Option B:	It is less temperature sensitive
Option C:	It has low conduction band
Option D:	Less forbidden energy gap

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: MEC701

Course Name: Machine Design-II

Time: 1 hour

Max. Marks: 50

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

Q1.	The circular pitch of a gear is given by (Where d=diameter of pitch circle, t=number of teeth)
Option A:	$\pi d/t$
Option B:	$\pi d/2t$
Option C:	$2\pi d/t$
Option D:	$\pi d/3t$
Q2.	Which of the following pressure angle (in degrees) is commonly used for gears?
Option A:	15
Option B:	20
Option C:	25
Option D:	30
Q3.	Imaginary friction cylinders which by pure rolling together transmit the same motion as pair of gears is known as
Option A:	Pitch cylinder
Option B:	Pitch diameter
Option C:	Pitch circle
Option D:	Pitch point
Q4.	Two different pitch circles generally meet at
Option A:	Pitch cylinders
Option B:	Pitch diameter
Option C:	Pitch circle
Option D:	Pitch point
Q5.	Number of teeth divided by length of pitch circle diameter is known as
Option A:	Circular pitch
Option B:	Diametral pitch
Option C:	Module
Option D:	Gear ratio
Q6.	Module of a spur gear is defined as
Option A:	Dedendum minus addendum
Option B:	Ratio of number of teeth to the pitch circle diameter
Option C:	Ratio of pitch circle diameter to the number of teeth
Option D:	Inverse of number of teeth
Q7.	When face width of gear is too large
Option A:	Gear will have poor capacity to absorb shock loads

Option B:	There will be a possibility of concentration of load at one end of gear tooth
Option C:	There will be problem in lubricating the gear
Option D:	There will be no problem to the gear
Q8.	Which of the bearings given below SHOULD NOT be subjected to a thrust load?
Option A:	Deep groove ball bearing
Option B:	Angular contact ball bearing
Option C:	Cylindrical (straight) roller bearing
Option D:	Single row tapered roller bearing
Q9.	The rated life of bearing varies
Option A:	Directly as load
Option B:	Inversely as square of load
Option C:	Inversely as cube of load
Option D:	Inversely as fourth power of load
Q10.	In standard taper roller bearings the angle of taper of outer raceway is
Option A:	5°
Option B:	8°
Option C:	15°
Option D:	25°
Q11.	Attitude is the ratio of
Option A:	ho and dimetral clearance
Option B:	eccentricity and ho
Option C:	eccentricity and dimetral clearance
Option D:	eccentricity and radial clearance
Q12.	High operating temperature
Option A:	Allows increase in load
Option B:	Affects the minimum film thickness
Option C:	Reduces the load carrying capacity
Option D:	Affects the maximum film thickness
Q13.	Hydrodynamic journal theory is based on the equation of
Option A:	Petroff
Option B:	Reynold
Option C:	Jhonso
Option D:	Newton
Q14.	Undercutting will occurs,
Option A:	Whenever the radius of curvature of the cam profile is greater than the radius of the roller
Option B:	Whenever the radius of curvature of the cam profile is less than the radius of the roller
Option C:	Whenever the radius of curvature of the cam profile is less than the radius of the base circle
Option D:	Whenever the radius of curvature of the cam profile is greater than the radius of the base circle
Q15.	The cam follower extensively used in air-craft engines is
Option A:	Knife edge follower
Option B:	Flat faced follower

Option C:	Spherical faced follower
Option D:	Roller follower
Q16.	Offset is provided to a cam follower mechanism to
Option A:	Minimise the side thrust
Option B:	Accelerate
Option C:	Avoid jerk
Option D:	Avoid vibration
Q17.	The difference the maximum and minimum speeds during a cycle is called
Option A:	Fluctuation of speed
Option B:	Maximum fluctuation of speed
Option C:	Coefficient of fluctuation of speed
Option D:	Maximum Coefficient of friction
Q18.	In vehicles, flywheel is placed in between
Option A:	Engine and clutch
Option B:	Clutch and Propeller shaft
Option C:	Propeller shaft and Differential
Option D:	Before engine
Q19.	Maximum fluctuation of energy =
Option A:	Max. KE – Min. KE
Option B:	Max. KE + Min. KE
Option C:	$(\text{Max. KE} - \text{Min. KE})/2$
Option D:	$(\text{Max. KE} + \text{Min. KE})/2$
Q20.	The minimum number of teeth on the driving sprocket is
Option A:	7
Option B:	17
Option C:	27
Option D:	37
Q21.	The speed reduction of a single stage chain drive should not be more than
Option A:	05:01
Option B:	7:1
Option C:	10:01
Option D:	15:01
Q22.	Multiplate clutch is used in two wheeler because
Option A:	It transmits less torque
Option B:	Size is small for required torque capacity compared to single plate clutch
Option C:	It can dissipate heat effectively
Option D:	Frequent disengagement is required.
Q23.	In cone clutch
Option A:	Outer cone is keyed to driving shaft and inner cone is free to slide on a driven shaft
Option B:	Inner cone is keyed to driven shaft and outer cone is free to slide on a driving shaft
Option C:	Outer cone is free to slide on a driving shaft and inner cone is keyed to driven shaft
Option D:	Outer cone is keyed to driven shaft and inner cone is free to slide on a driving shaft

Q24.	The clutch friction disc always rotates with the
Option A:	Engine crankshaft
Option B:	Flywheel
Option C:	Pressure plate
Option D:	Transmission input shaf
Q25.	The material used for lining of friction surfaces of a clutch should have _____ coefficient of friction.
Option A:	Low
Option B:	High
Option C:	Medium
Option D:	Negligible

Program: BE Information Technology

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ITC701 and Course Name: Enterprise Network Design

Time: 1 hour

Max. Marks: 50

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

Q1.	The following phase of PPDIIO methodology might lead to network redesign if too many network problems or errors arise.
Option A:	Optimize
Option B:	Prepare
Option C:	Plan
Option D:	Implement
Q2.	Which TOOL is an integral part of Cisco IOS software that collects and measures data as it enters specific routers or switch interfaces.
Option A:	NBAR
Option B:	Cacti
Option C:	NetFlow
Option D:	WireShark
Q3.	Network Intrusion Detection System, Host-Based Intrusion Protection Systems, Multilayer switch with Intrusion Detection System are the requirements to be considered to build which of the following modules?
Option A:	Internet Connectivity module
Option B:	E-commerce Module
Option C:	Remote access and VPN module
Option D:	Enterprise Branch module
Q4.	Redundant routes are designed for which of the following purposes?
Option A:	to minimize the routing overhead
Option B:	to minimize router maintenance work
Option C:	to minimize the effect of link failures
Option D:	to implement more number of protocols for data transmission
Q5.	Consolidation, Virtualization, Automation are the phases in design process of _____.
Option A:	Server Farm
Option B:	Enterprise Edge
Option C:	Enterprise Data Center

Option D:	Campus Core
Q6.	Virtual Circuit Identifier in Frame Relay is called _____.
Option A:	DLCI
Option B:	SVC
Option C:	PVC
Option D:	CIR
Q7.	Which networking device is typically used to concentrate the dial-in and dial-out traffic of multiple users to and from a network
Option A:	Core router
Option B:	Access server
Option C:	Frame Relay switch
Option D:	ATM switch
Q8.	Why is summarization so important to an efficient routed system?
Option A:	It adds detail to the route tables of routers.
Option B:	Summarization sends all subnets as classful networks, eliminating the overhead of transmitting the mask in routing updates.
Option C:	Summarization reduces the size of route tables, prevents route table instability due to flapping routes, and reduces the size of routing updates.
Option D:	Summarization enforces router authentication, preventing spurious updates from excessively loading the router.
Q9.	What IPv6 prefix is used by devices on the same network to communicate?
Option A:	FE80::/10
Option B:	FF00::/8
Option C:	EF08::/01
Option D:	00FF:/80
Q10.	What are the three layers of SDN architecture?
Option A:	Application layer, Transport layer, Network layer
Option B:	Network layer, Physical layer, Transport layer
Option C:	Application layer, Control layer, Infrastructure layer
Option D:	Infrastructure layer, Network layer, Data link layer
Q11.	Pick the phrase that best describes OpenFlow.
Option A:	OpenFlow is a protocol used for the communication between the OpenFlow switch and the physical switch.
Option B:	OpenFlow is a protocol used for the communication between the SDN controller and the network devices in the physical layer.
Option C:	OpenFlow is a protocol used for the communication between network devices from different vendors.
Option D:	OpenFlow is a protocol used for the communication between the application layer and the SDN controller.

Q12.	Auditing or Assessing the Existing Network mean _____.
Option A:	keeping list of all software which requires to connect with external servers
Option B:	finding the configuration of networking devices
Option C:	finding the total cost of the company's network infrastructure
Option D:	finding expenses made towards the salaries of staff related to network infrastructure
Q13.	During the following phase the final decision is made about the appropriateness of the design, based on network analysis and any problems that arise.
Option A:	Optimize
Option B:	Plan
Option C:	Prepare
Option D:	Implement
Q14.	Following type of network topology is used while designing redundancy links between two networking devices
Option A:	Star
Option B:	Mesh
Option C:	Ring
Option D:	Bus
Q15.	What are the two types of ATM switches?
Option A:	PVC and SVC
Option B:	VPI and VCI
Option C:	VP and VPC
Option D:	PVC and SUV
Q16.	An ATM cell consists of _____ bytes.
Option A:	48
Option B:	256
Option C:	53
Option D:	A variable number of
Q17.	A network administrator needs to configure a router with a distance-vector protocol that allows classless routing. Which of the following satisfies those requirements?
Option A:	IS-IS
Option B:	EIGRP
Option C:	RIPv1
Option D:	OSPF
Q18.	The following command is used on Cisco router to identify the cause of congestion and determine the class of service for each user and application.
Option A:	show ip cache flow

Option B:	show ip nbar protocol-discovery
Option C:	show processes memory
Option D:	show processes cpu
Q19.	The operate phase of PPDIIO Network Lifecycle is used to _____.
Option A:	identify and resolve issues before real problems arise and before the organization is affected
Option B:	build the network and any additional components according to the design specifications
Option C:	detect and correct faults that occur in daily operations
Option D:	identify the network requirements, which are based on the goals for the network
Q20.	SNMP uses the following mechanism to send and retrieve management information, such as MIB variables.
Option A:	UDP
Option B:	TCP
Option C:	FTP
Option D:	HTTP
Q21.	Which of the following is a feature of SAN storage model?
Option A:	It accesses data on block level and produces space to host in form of disk
Option B:	It accesses data on file level and produces space to host in form of shared network folder
Option C:	It uses de-centralized backup
Option D:	Most suitable for shared access
Q22.	_____ is a whole cycle of time slots, including many slots devoted to each sending devices in a synchronous TDM.
Option A:	filter
Option B:	carrier
Option C:	signal
Option D:	frame
Q23.	A large organization has decided to connect its branch offices to the appropriate regional offices. Each regional office has a minimum of two and a maximum of five branch offices with which it will connect. Each branch office uses low-end routers that will directly connect to their regional office router via a Frame Relay permanent virtual circuit link, effectively creating a hub-and-spoke topology (star network). No physical connections exist between the branch office routers. OSPF is run in the rest of the network, but the routing protocol that runs between the regional office and the branch offices needs to be decided. Select the best option for use between the regional and branch offices:
Option A:	Deploy EIGRP in both directions.
Option B:	Deploy IS-IS in both directions.

Option C:	Deploy OSPF in both directions.
Option D:	Use static routes in both directions.
Q24.	What type of data traffic is supported by RTP?
Option A:	SMTP
Option B:	POP3
Option C:	UDP
Option D:	IP addresses
Q25.	Which statement best describes software-defined networking (SDN)?
Option A:	SDN allows administrators to share software, policies, templates, and applications between multiple virtual machines that are running on the same network.
Option B:	SDN allows software to leverage the network infrastructure, enabling a centralized and policy- based approach to network provisioning and traffic forwarding.
Option C:	SDN lets IT developers manage physical infrastructure devices directly without pre-defined templates or intermediary devices.
Option D:	SDN is another name for OpenFlow, a protocol that lets switches handle traffic with OpenFlow tables rather than MAC forwarding tables and routing tables.

Program: BE Instrumentation Engineering

Curriculum Scheme: Revised 2016

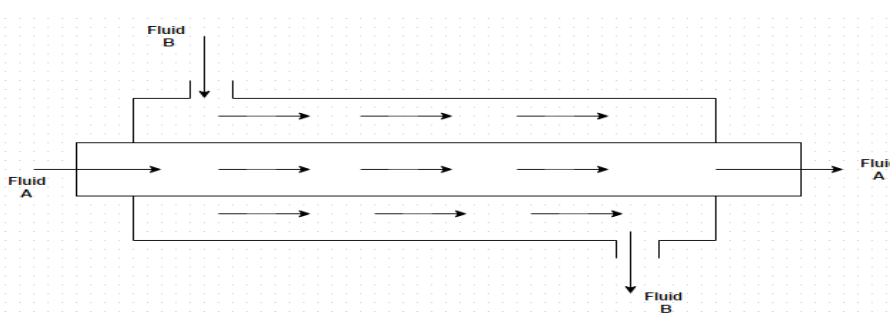
Examination: Final Year Semester VII

Course Code: ISC701 Course Name: INDUSTRIAL PROCESS CONTROL.

Time: 1hour

Max. Marks: 50

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

Q1.	Baffles in the shell side of a shell and tube heat exchanger
Option A:	Increase the cross-section of the shell side liquid
Option B:	Increase the shell side heat transfer co-efficient
Option C:	Decrease the shell side heat transfer co-efficient
Option D:	Force the liquid to flow parallel to the bank
Q2.	In which type of heat exchanger, the inlet temperature difference between the hot and cold fluid is maximum
Option A:	Co-current heat exchanger
Option B:	Counter current heat exchanger
Option C:	Finned heat exchanger
Option D:	Cross flow heat exchanger
Q3.	Which type of flow arrangement is this 
Option A:	Counter flow
Option B:	Parallel flow
Option C:	Regenerator
Option D:	Shell and tube
Q4.	An economiser in a boiler.....
Option A:	Increases steam pressure
Option B:	Increases steam flow
Option C:	Decreases steam pressure
Option D:	Decreases fuel consumption
Q5.	Which of the following is a fire tube boiler.....

Option A:	Cornish boiler
Option B:	Babcock and Wilcox boiler
Option C:	Locomotive boiler
Option D:	Cochran boiler
Q6.	Rate of evaporation increases as
Option A:	Exposed surface area of the liquid decreases
Option B:	Atmospheric pressure increases
Option C:	Movement of air above the surface of the liquid decreases
Option D:	Exposed surface area of the liquid increases
Q7.	Find the reflux ratio if the feed, residue and reflux rate is 100, 40 and 50 mole/hr.
Option A:	0.83
Option B:	1.25
Option C:	1
Option D:	1.5
Q8.	Find the Azeotropic mixture
Option A:	Air-water
Option B:	Acetic acid- water
Option C:	Acetic acid- alcohol
Option D:	Air-alcohol
Q9.	The use of solvent for increasing the relative volatility is for
Option A:	Extractive distillation
Option B:	Azeotropic distillation
Option C:	Reactive distillation
Option D:	Multi-component distillation
Q10.	Calculate the flux (kg/sq.m sec) if Mass of dry solid = 8 kg; Wet surface area = 4 sq.m; Change in moisture content with time is 0.4 /sec
Option A:	0.9
Option B:	0.8
Option C:	0.6
Option D:	0.4
Q11.	Which dryer used radiation for drying
Option A:	Microwave dryer
Option B:	Flash dryer
Option C:	Spray dryer
Option D:	Drum dryer
Q12.	Crystal phases can be inter-converted by varying _____
Option A:	Size
Option B:	Viscosity
Option C:	Temperature
Option D:	Pressure

Q13.	How is the variation of air velocity while passing through impeller followed by diffuser in centrifugal compressor?
Option A:	Air velocity goes no decreasing in impeller followed by diffuser
Option B:	Air velocity decreases in impeller and then increases in diffuser
Option C:	Air velocity goes no increasing in impeller followed by diffuser
Option D:	Air velocity increases in impeller and then decreases in diffuser
Q14.	A gas turbine works on which cycle?
Option A:	Rankine cycle.
Option B:	Carnot.
Option C:	Brayton.
Option D:	Dual cycle.
Q15.	Gas turbine plants are not used
Option A:	As base load plants
Option B:	As peak load plants
Option C:	As standby power plants
Option D:	In combination with the steam power plants
Q16.	Which of the following has maximum hydrogen/carbon ratio (by weight)
Option A:	Diesel
Option B:	Gasoline
Option C:	Fuel oil
Option D:	Naphtha
Q17.	Pressure & temperature maintained in catalytic cracking is about
Option A:	10 atm & 500°C
Option B:	50 atm & 750°C
Option C:	30 atm & 200°C
Option D:	2 atm & 500°C
Q18.	What is the raw material which is not needed for steel production?
Option A:	Water
Option B:	Ferro alloys
Option C:	Refractories
Option D:	Paint
Q19.	The product from blast furnace is called
Option A:	Cast Iron
Option B:	Wrought Iron
Option C:	Pig Iron
Option D:	Steel
Q20.	The aim of pasteurization milk is to _____
Option A:	Oxidation
Option B:	Improve color
Option C:	Kill disease producing organisms

Option D:	Improve flavor
Q21.	Soft fats in milk fat are _____
Option A:	Capric & Lauric
Option B:	Oleic & Butyric
Option C:	Oleic & Lauric
Option D:	Lauric & Stearic
Q22.	Check list for Job Safety Analysis (JSA) consists of
Option A:	Men, work area, Material, tools
Option B:	Work area, material, machine, tools
Option C:	Men, machine, work area, tools
Option D:	Men, machine, material, tools
Q23.	Which gas substance contain in IIB ATEX group.
Option A:	Acetylene
Option B:	Propane
Option C:	Ethylene
Option D:	Hydrogen
Q24.	What is the main purpose of hazard identification
Option A:	To characterize adverse effect of toxins
Option B:	To minimize the effect of a consequence
Option C:	For better risk management
Option D:	To reduce probability of occurrence
Q25.	Which is not considered part of the fire triangle
Option A:	Heat
Option B:	Oxygen
Option C:	Combustion
Option D:	Fuel