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.	Which of the following is the drawback of microstrips over Stripline circuit?
Option A:	Do not let themselves to be printed circuits
Option B:	Are more likely to radiate
Option C:	Are bulkier
Option D:	Are more expensive & complex to manufacture

Q2.	Electromagnetic spectrum having frequency ranging from 1 GHz to 100 GHz is in the region of _____
Option A:	Microwave
Option B:	UV (Ultra Violet)
Option C:	IR (Infra-Red)
Option D:	Cosmic Rays
Q3.	_____ is the best medium for handling the large microwave power
Option A:	Coaxial line
Option B:	Rectangular wave guide
Option C:	Strip line
Option D:	Microstrip Line
Q4.	Minimum numbers of conductors required for the propagation of TEM wave are:
Option A:	1 conductor
Option B:	2 conductors
Option C:	3 conductors
Option D:	bunch of conductors
Q5.	Which of the following operation is supported in Reflex Klystron?
Option A:	Give same frequency but different transit time
Option B:	Oscillation are generated by external signal application
Option C:	Cyclotron motion of electrons
Option D:	Result from excessive transit time across resonator gap
Q6.	In multi cavity klystron additional cavities are inserted between buncher & catcher cavities to achieve -
Option A:	Higher Gain
Option B:	Higher Efficiency
Option C:	Higher Frequency
Option D:	Higher Bandwidth
Q7.	_____ noise is produced in a microwave tube due to random nature of emission & electron flow
Option A:	Partition noise
Option B:	Shot noise
Option C:	Johnson noise
Option D:	Shannon noise
Q8.	Which of the following is the biggest advantage of the TRAPATT diode over IMPATT DIODE?
Option A:	Low Noise
Option B:	High efficiency
Option C:	Ability to operate at high frequencies

Option D:	Lesser sensitivity to harmonics
Q9.	For which of the following reason, the Varactor diode is not useful at microwave frequencies -
Option A:	For electronic tuning
Option B:	For frequency multiplication
Option C:	As a rectifying diode
Option D:	As a parametric amplifier
Q10.	Travelling wave parametric amplifiers are used to _____
Option A:	Provide a greater gain
Option B:	Reduce the number of Varactor diodes required
Option C:	Avoid the need for cooling
Option D:	Provide a greater bandwidth
Q11.	Slotted line can be replaced by which modern device?
Option A:	Digital CRO
Option B:	generators
Option C:	network analyzers
Option D:	computers
Q12.	_____ is an important module in the scalar or vector network analyzer.
Option A:	Reflectometer
Option B:	Radiometer
Option C:	Frequency meter
Option D:	Attenuator
Q13.	Progress in _____ and other related semiconductors material processing led to the feasibility of monolithic microwave integrated circuits.
Option A:	GaAs
Option B:	Silicon
Option C:	Germanium
Option D:	GaAlAs
Q14.	Which is the main disadvantage of microwave over low frequency from the followings?
Option A:	Highly directive
Option B:	Moves at the speed of light
Option C:	Greater S/N ratio
Option D:	Reflections and scattering
Q15.	Why TEM waves are not supported by a hollow rectangular waveguide?
Option A:	Of the existence of only one conductor
Option B:	Of the losses caused
Option C:	It is dependent on the type of the material used

Option D:	Of the existence of dielectric with multi conductors
Q16.	Which of the following is the major advantage of travelling wave tube over Klystron?
Option A:	Higher gain
Option B:	Higher frequency
Option C:	Higher Output
Option D:	Higher bandwidth
Q17.	On which of the following principle does Klystron operates?
Option A:	Amplitude Modulation
Option B:	Frequency Modulation
Option C:	Pulse Modulation
Option D:	Velocity Modulation
Q18.	In case of varactor diode which parameter can be varied as a function of reverse voltage of the diode?
Option A:	Junction resistance
Option B:	Junction capacitance
Option C:	Junction impedance
Option D:	Junction bias voltage
Q19.	The mode of operation in which the Gunn diode is not stable is:
Option A:	Gunn oscillation mode
Option B:	limited space charge accumulation mode
Option C:	stable amplification mode
Option D:	bias circuit oscillation mode
Q20.	Which one of the following microwave devices is used in the VSWR measurement?
Option A:	Coupling loop
Option B:	Diode detector
Option C:	Thermocouple
Option D:	Bolometer
Q21.	If the load impedance of $Z_L=20+j15$. Design of 2 single-stub shunt tuning networks to match this load to a 50Ω line is to be done. The normalized admittance when calculated is found to be -
Option A:	1.6-j1.2
Option B:	0.3+j0.4
Option C:	0.4+j0.3
Option D:	0.3-j0.4
Q22.	The typical stub spacing between two stubs in case of double stub matching can be-
Option A:	Can be varied as per requirement
Option B:	Is always kept fixed and nonzero

<mark>Option C:</mark>	<mark>Kept zero</mark>
<mark>Option D:</mark>	<mark>Can be kept as any integer multiple of /3 only</mark>
Q23.	A rectangular air-filled waveguide has a cross section of 4 ━━ × 10 ━━ The minimum frequency which cans propagation in the waveguide is-
Option A:	2.0 GHz
Option B:	1.5 GHz
Option C:	2.5 GHz
Option D:	3.0 GHz
Q24.	Consider an air – filled rectangular waveguide with dimensions a = 2.286 cm and b = 1.016 cm. The increasing order of the cut – off frequency for different modes is-
Option A:	TE01 < TE10 < TE11 < TE20
Option B:	TE20 < TE11 < TE10 < TE01
Option C:	TE10 < TE20 < TE01 < TE11
Option D:	TE10 < TE11 < TE20 < TE01
Q25.	How many layers of semiconductors in IMPATT diode?
Option A:	two
Option B:	three
Option C:	four
Option D:	Single bulk

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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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	A
Q3.	B
Q4	B
Q5	A
Q6	A
Q7	B

Q8.	B
Q9.	C
Q10.	D
Q11.	C
Q12.	A
Q13.	A
Q14.	D
Q15.	A
Q16.	D
Q17.	D
Q18.	B
Q19.	A
Q20.	B
Q21.	A
Q22.	B
Q23.	B
Q24.	C
Q25.	C

Program: BE Electronics & telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECC702 and Course Name: Mobile Communication System

Time: 1-hour 11.30 -12.30   Max. Marks: 50

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

Q1.	Why neighboring stations are assigned different group of channels in cellular system?
Option A:	To minimize interference
Option B:	To minimize area
Option C:	To maximize throughput
Option D:	To maximize capacity of each cell
Q2.	Which design process selects and allocates channel groups of the cellular base stations within a system?
Option A:	Footprint
Option B:	frequency reuse
Option C:	Cluster
Option D:	Handoff
Q3.	What is a cluster in cellular system?
Option A:	A group of cell
Option B:	A group of subscribers
Option C:	A small geographical area
Option D:	A large group of mobile systems
Q4.	Why the shape of cell is not circle in cellular system?
Option A:	Omni directionality
Option B:	Small area
Option C:	Overlapping regions or gaps are left
Option D:	Complex design
Q5.	What is the operating frequency of GSM?
Option A:	800/900MHz and 1800/1900MHz
Option B:	880/990MHz and 1880/1990MHz
Option C:	800/900GHz and 1800/1900GHz
Option D:	800/900KHz and 1800/1900KHz
Q6.	MSC handles many ?
Option A:	BSC
Option B:	Internet Service Provider
Option C:	Service provider

Option D:	Data
Q7.	Which is the parameter predicted by Free space propagation model?
Option A:	Received signal strength
Option B:	Transmitted power
Option C:	Gain of transmitter
Option D:	Gain of receiver
Q8.	What does path loss exponent indicate?
Option A:	Rate at which path loss decreases with distance
Option B:	Rate at which path loss increases with distance
Option C:	Rate at which path loss decreases with power density
Option D:	Rate at which path loss increases with power density
Q9.	Which one is not a TDMA standard of second-generation networks?
Option A:	GSM
Option B:	IS-136
Option C:	AMPS
Option D:	PDC
Q10.	How many voice channels are supported when TDMA and FDMA multiple techniques are used in each 200 KHz channel in GSM?
Option A:	Eight
Option B:	Three
Option C:	Sixty four
Option D:	Twelve
Q11.	Free space path loss model considers following parameter for path loss calculation
Option A:	Frequency, length and constant value
Option B:	Frequency, Distance and constant value
Option C:	Frequency, antenna gain and constant value
Option D:	Frequency, height of antenna and constant value
Q12.	Which of the following memory device stores information such as subscriber's identification number in GSM?
Option A:	Register
Option B:	Flip flop
Option C:	SIM
Option D:	Node B
Q13.	Which of the following subsystem provides radio transmission between mobile station and MSC?
Option A:	BSS
Option B:	NSS
Option C:	OSS
Option D:	BSC

Q14.	Which module or block supports the operation and maintenance of GSM?
Option A:	BSS
Option B:	NSS
Option C:	OSS
Option D:	MSC
Q15.	Which of the following leads to evolution of 3G networks in CDMA systems?
Option A:	IS-95
Option B:	IS-95B
Option C:	Cdma One
Option D:	Cdma 2000
Q16.	How much spectral efficiency is provided by W-CDMA as compared to GSM?
Option A:	Two times
Option B:	Three times
Option C:	No increase
Option D:	Six times
Q17.	UMTS use which multiple access technique?
Option A:	CDMA
Option B:	TDMA
Option C:	FDMA
Option D:	SDMA
Q18.	What is the chip rate of W-CDMA?
Option A:	1.2288 Mcps
Option B:	3.84 Mcps
Option C:	270.833 Mscps
Option D:	100 Mcps
Q19.	What is the fundamental time unit of LTE transmission?
Option A:	Radio frame
Option B:	Subframes
Option C:	Slots
Option D:	Symbols
Q20.	What is the function of Packet Data Convergence Protocol (PDCP)?
Option A:	Related to data integrity (like enciphering) and IP header compression
Option B:	Handles the scheduling of the PDUs
Option C:	Handles all the processes of actually transmitting data over the air
Option D:	Radio resource allocation
Q21.	What type of handover is supported by LTE?
Option A:	Hard handover only
Option B:	Soft handover only
Option C:	Hard and soft handover
Option D:	Hard, soft and softest handover

Q22.	Which organization is responsible for developing LTE standards?
Option A:	UMTS
Option B:	3GPP
Option C:	3GPP2
Option D:	ISO
Q23.	What location management feature is supported by 4G?
Option A:	Concatenated Location Registration
Option B:	Concurrent Location Register
Option C:	Concatenated Management
Option D:	Collated Location Registration
Q24.	Which property of OFDMA system allows adjacent subcarriers to be used without interference?
Option A:	Orthogonality
Option B:	Duality
Option C:	Octa gonality
Option D:	Originality
Q25.	What is the average uploading speed of 4G LTE network?
Option A:	1-3 Gbps
Option B:	2-5 Gbps
Option C:	1-3 Mbps
Option D:	2-5 Mbps

Program: BE Electronics & telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECC702 and Course Name: Mobile Communication Systems

Time: 1-hour   11.30 to 12.30   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	B
Q3.	A
Q4	C
Q5	A
Q6	A
Q7	A
Q8.	B
Q9.	C
Q10.	A
Q11.	B
Q12.	C
Q13.	A
Q14.	C
Q15.	D
Q16.	D

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

Program: BE –Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: BE Semester VII

Course Code: ECC703 and Course Name: Optical Communication

Time: 1 hour   Max. Marks: 50

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

Q1.	Which fiber is used for short distance and long distance communication respectively
Option A:	Multimode and Single mode fiber
Option B:	Single mode and Multimode fiber
Option C:	Plastic fiber and Acrylic fiber
Option D:	Acrylic fiber and plastic fiber
Q2.	Which among the following Electromagnetic Spectrum is used for optical fiber communication
Option A:	Radio Waves
Option B:	UHF & Microwave
Option C:	X-Ray & Gamma Rays
Option D:	Far-Infrared & Infrared
Q3.	What are the three optical windows in fiber optics communication?
Option A:	750nm, 1350nm, 1600 nm
Option B:	850nm, 1300nm, 1550nm
Option C:	800, 1100, 1600
Option D:	850nm, 1300nm, 1450nm
Q4.	A silica fiber has core refractive index of 1.4 & cladding index of refraction is 1.35 Determine 1. Critical angle 2. Numerical Aperture?
Option A:	78.5, 0.298
Option B:	76.64, 0.3708.
Option C:	78.5, 0.2984
Option D:	76.64 ,0.3708
Q5.	Select the correct option with respect to characteristic of optical fiber.
Option A:	Optical fiber has very high tensile strength.
Option B:	Fiber optics communication has very small repeater spacing
Option C:	The losses in fiber optics communication is very high
Option D:	There are frequent problems of short circuit n earth loop in fiber optics

Q6.	Which of the following statements best explain the concept of material absorption?
Option A:	A loss mechanism related to the material composition and fabrication of fiber
Option B:	A transmission loss for optical fibers
Option C:	Results in attenuation of transmitted light
Option D:	Causes of transfer of optical power
Q7.	Which is the unit of measurement of attenuation in optical fibers?
Option A:	Km
Option B:	Amperes
Option C:	Coulomb's
Option D:	dB/Km
Q8.	What is dispersion in optical fiber communication?
Option A:	Compression of light pulses
Option B:	Broadening of transmitted light pulses along the channel
Option C:	overlapping of light pulses on compression
Option D:	Absorption of light pulses
Q9.	Rayleigh scattering and Mie scattering are the types of
Option A:	Splicing losses
Option B:	Non-linear scattering losses
Option C:	Fiber bends losses
Option D:	Splicing losses Linear scattering losses
Q10.	For changing the refractive index, different oxides are added as dopants, which among the following is not a dopant?
Option A:	GeO_2
Option B:	$P2O_5$
Option C:	$B2O_3$
Option D:	$H2O$
Q11.	A 4 km optical link consists of multimode step index fiber with core refractive index of 1.3 and a relative refractive index difference of 1%. Find the delay difference between the slowest and fastest modes at the fiber output.
Option A:	0.173 µsec
Option B:	0.152 µsec
Option C:	0.96 µsec
Option D:	0.121 µsec
Q12.	Name the device which converts electrical energy into optical energy
Option A:	Optical source
Option B:	Optical coupler
Option C:	Optical isolator
Option D:	Circulator

Q13.	Quantum well lasers are also known as
Option A:	BH lasers
Option B:	DH lasers
Option C:	Chemical lasers
Option D:	Gain-guided lasers
Q14.	The small section of fiber which is coupled to the optical source is known as
Option A:	Flylead
Option B:	Connector
Option C:	Booster
Option D:	Switch
Q15.	In Fabry-perot laser, the lower threshold is obtained by
Option A:	Increasing the refractive index
Option B:	Decreasing the refractive index
Option C:	Reducing the slope efficiency
Option D:	Increasing the slope efficiency
Q16.	The fraction of incident photons generated by photodiode of electrons generated collected at detector is known as
Option A:	Quantum efficiency
Option B:	Absorption coefficient
Option C:	Responsivity
Option D:	Anger recombination
Q17.	Which of the following is used as an optical receiver in fiber optics communications
Option A:	APD
Option B:	Tunnel diode
Option C:	Laser diode
Option D:	LED
Q18.	The resistance of the PIN diode with positive bias voltage
Option A:	Increases
Option B:	Decreases
Option C:	Remains constant
Option D:	Insufficient data
Q19.	It is a device that distributes light from a main fiber into one or more branch fibers.
Option A:	Optical fiber coupler
Option B:	Optical fiber splice
Option C:	Optical fiber connector
Option D:	Optical isolator
Q20.	Which among the following supports the soot formation process?

Option A:	KVPO
Option B:	MCVD
Option C:	PCVD
Option D:	ZCVD
Q21.	A permanent joint formed between two different optical fibers in the field is known as a.
Option A:	Fiber splice
Option B:	Fiber connector
Option C:	Fiber attenuator
Option D:	Fiber dispersion
Q22.	A passive device which allows the flow of optical signal power in only one direction preventing reflections in the backward direction is known as:
Option A:	Isolator
Option B:	Connector
Option C:	Circulator
Option D:	Coupler
Q23.	An optical amplifier which shows high gains of between 30 and 40 dB with low noise with optical pump powers in the range 50 to 100 mW is:
Option A:	Semiconductor Optical Amplifier
Option B:	Rare earth doped fiber amplifier
Option C:	Raman amplifier
Option D:	Brillouin amplifier
Q24.	The term power budgeting in optical fiber communication refers to
Option A:	the cost of cables, connectors, equipment, and installation
Option B:	the loss of power due to defective components
Option C:	the total power available minus the attenuation losses
Option D:	the comparative costs of fiber and copper installations
Q25.	In the link design of fiber optic there is a situation where transfer of power takes place from one fiber to another and later on from the fiber to detector. What level of coupling is required in this case?
Option A:	Maximum level
Option B:	Stable level
Option C:	Minimum level
Option D:	Unpredictable

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: BE Semester VII

Course Code: ECC703 and Course Name: Optical Communication

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	D
Q3.	B
Q4	B
Q5	A
Q6	A
Q7	D
Q8.	B
Q9.	D
Q10.	D
Q11.	A
Q12.	A
Q13.	B
Q14.	A
Q15.	C
Q16.	A
Q17.	A

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

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7031 and Course Name: Neural Networks and Fuzzy Logic

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 two input single neuron has weight values [w1=1.3, w2 = 2.7] and bias value of 1.6. The corresponding inputs are [x1 = 3.1, x2 = 2.4]. What is the output if the identity function is used as the transfer function of the neuron?
Option A:	10.51
Option B:	12.11
Option C:	1
Option D:	13.09
Q2.	_____ in artificial neurons are inspired by Synapse in biological neurons.
Option A:	Weights
Option B:	Threshold
Option C:	Activation Function
Option D:	Inputs
Q3.	If fuzzy set A = {1.0/x1 + 0.20/x2 + 0.75/x3}, It Complement will be _____.
Option A:	{ 0.0/x1 + 0.8/x2 + 0.25/x3}
Option B:	{ -1.0/x1 + -0.2/x2 + -0.75/x3}
Option C:	{ x1/1.0 + x2/0.2 + x3/0.75}
Option D:	{ 0.75/x3 + 0.2/x2 + 1.0/x1}
Q4.	The activation function of McCulloch Pitts neuron is _____.
Option A:	Gaussian
Option B:	Bipolar in nature
Option C:	Tansigmoidal
Option D:	Binary in nature
Q5.	If fuzzy set A = { 0.8/x1 + 0.4/x2 + 0.1/x3 }, its Lambda Cut-set for Lambda = 0.6 will be _____.
Option A:	{ 0.8/x1 + 1/x2 + 1/x3 }
Option B:	{ 0/x1 + 1/x2 + 1/x3 }
Option C:	{ 0.8/x1 + 0/x2 + 0/x3 }
Option D:	{ 1/x1 + 0/x2 + 0/x3 }
Q6.	The threshold can be used as _____ function of neurons.
Option A:	Error

Option B:	Learning
Option C:	Momentum
Option D:	Activation
Q7.	Perceptron is used as a classifier for _____.
Option A:	Non-linearly separable data
Option B:	Linearly separable data
Option C:	Non-separable random data
Option D:	Complex non-separable data
Q8.	XOR problem cannot be solved by using a single neuron because _____.
Option A:	XOR problem is not linearly separable
Option B:	XOR is logical function
Option C:	XOR uses NAND gates
Option D:	XOR has many biases
Q9.	What are hidden layers?
Option A:	Layers of units that have no direct connection to the input or the output.
Option B:	Layers of units that have no direct connections to any other units.
Option C:	Layers of units that do not contribute towards the output.
Option D:	Layers of units that do not participate in learning.
Q10.	The value of learning rate ranges from _____.
Option A:	0 to 1
Option B:	1 to 2
Option C:	10 to 100
Option D:	0 to 5
Q11.	Kohonen self-organizing feature network uses _____.
Option A:	Supervised learning
Option B:	Unsupervised learning
Option C:	Reinforcement learning
Option D:	Momentum with supervised learning
Q12.	Neighborhood in the self-organizing feature map is _____.
Option A:	A group of neurons next to the winning unit.
Option B:	A group of neurons which are not updated during training.
Option C:	A group of input patterns which are directly fed to output.
Option D:	A group of neurons which are not dead and never updated
Q13.	K-means algorithm is used for _____.
Option A:	Clustering
Option B:	Memorizing
Option C:	Perceptron
Option D:	Aggregation

Q14.	RBF Neural Network uses _____ .
Option A:	Gaussian activation function in hidden layer
Option B:	Sigmoidal activation function in hidden layer
Option C:	Tansigmoidal activation function in hidden layer
Option D:	Hardlimiter activation function in hidden layer
Q15.	_____networks are also called local basis networks.
Option A:	Perceptron
Option B:	Multilayer Perceptron
Option C:	Radial Basis Function
Option D:	Hopfield
Q16.	Face recognition using neural networks with image data for training tagged with codes of the corresponding persons is an example of _____ .
Option A:	Supervised learning
Option B:	Unsupervised learning
Option C:	Memorization
Option D:	Reinforcement learning
Q17.	Core, support and boundary are the basic features of _____ .
Option A:	Fuzzy rule implementation process
Option B:	Fuzzy membership function
Option C:	Fuzzy associative matrix
Option D:	Kawasaki fuzzy inference system
Q18.	_____lets us define more realistically the true functions that define real world scenarios.
Option A:	TRUE or FALSE logic
Option B:	Boolean logic
Option C:	Fuzzy logic
Option D:	Binary logic
Q19.	Fuzzifying inputs is resolving all fuzzy statements in the antecedent to a degree of membership between zero and _____ .
Option A:	One
Option B:	Two
Option C:	Three
Option D:	Four
Q20.	_____ is the process by which the fuzzy sets that represent the outputs of each rule are combined into a single fuzzy set.
Option A:	Concatenation
Option B:	Fuzzification
Option C:	Fuzzy cross over
Option D:	Aggregation

Q21.	Categorizing flowers into groups without given names or tags using neural networks is _____.
Option A:	supervised learning
Option B:	reinforcement learning
Option C:	Memorization
Option D:	unsupervised learning
Q22.	Graph that can be used to represent a fuzzy set is _____.
Option A:	Elliptical
Option B:	Circular
Option C:	Conical
Option D:	Triangular
Q23.	Name the correct Fuzzy Inference Systems _____.
Option A:	Type-T1KP
Option B:	Kawasaki
Option C:	Mamdani
Option D:	Hopfield
Q24.	Following sequence of steps are taken in designing a fuzzy logic machine.
Option A:	Rule evaluation, Defuzzification, Fuzzification
Option B:	Fuzzification, Union, Defuzzification
Option C:	Fuzzification, OR operation, Defuzzification
Option D:	Fuzzification, Rule Evaluation, Defuzzification
Q25.	Character recognition with input character images and corresponding codes for desired outputs given for training a neural network is an example of _____.
Option A:	Supervised learning
Option B:	Unsupervised learning
Option C:	Memorization
Option D:	Reinforcement learning

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7031 and Course Name: Neural Networks and Fuzzy Logic

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	A
Q3.	A
Q4	D
Q5	D
Q6	D
Q7	B
Q8.	A
Q9.	A
Q10.	A
Q11.	B
Q12.	A
Q13.	A
Q14.	A
Q15.	C
Q16.	A

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

Program: BE EXTC Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7032and Course Name: BIG DATA ANALYTICS

Time: 1 hour   Max. Marks: 50

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QP1

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

Q1.	Tool used to migrate data from a SQL database into HDFS is
Option A:	HBase
Option B:	MapReduce
Option C:	Hive
Option D:	Sqoop
Q2.	Big Data comprises of _____type of data.
Option A:	Structured & Unstructured
Option B:	Complex
Option C:	Structured, Semi Structured & Unstructured
Option D:	Large
Q3.	The feature of Big data that refers to the quality of the stored data is _____
Option A:	Variety
Option B:	Veracity
Option C:	Volume
Option D:	Variability
Q4.	_____ is the node that holds the user data in the form of Data Blocks.
Option A:	Data Node
Option B:	NameNode
Option C:	Data block
Option D:	Replication
Q5.	What is the default data replication factor supported by HDFS?
Option A:	One
Option B:	Two
Option C:	Three
Option D:	Four
Q6.	Which node needs to run all the time in Hadoop cluster?
Option A:	Name Node
Option B:	Worker Node
Option C:	Data Node

Option D:	Secondary Name Node
Q7.	_____ stores are suitable for storing information about shopping cart data of customers w.r.t. online shopping.
Option A:	Key-value
Option B:	Wide-column
Option C:	Document
Option D:	Graph
Q8.	_____property is supported by NoSQL databases.
Option A:	CURE
Option B:	ACID
Option C:	BASE
Option D:	CASE
Q9.	NoSQL systems use ____ scaling
Option A:	Horizontal
Option B:	Vertical
Option C:	Traditional
Option D:	Parallel
Q10.	Most NoSQL databases support automatic _____ meaning that you get high availability and disaster
Option A:	Processing
Option B:	Scalability
Option C:	Replication
Option D:	Consistency
Q11.	Which of the following is true about MapReduce?.
Option A:	It provides the resource management
Option B:	An open source data warehouse system for querying and analyzing large datasets stored in hadoop files
Option C:	Data processing layer of hadoop
Option D:	Data storing layer of hadoop
Q12.	All of the following accurately describe Hadoop, **EXCEPT**:
Option A:	Open source
Option B:	Real time
Option C:	Java based
Option D:	Distributed computing approach
Q13.	The output of a mapper function is
Option A:	Key only
Option B:	Key Value pair
Option C:	Values of data row
Option D:	Shuffled output

Q14.	_____ takes the byte-oriented view of input and presents record-oriented view to the Mapper.
Option A:	Record Reader
Option B:	Input Split
Option C:	Reducer
Option D:	Shuffle and Sort
Q15.	What is the edit distance between the strings A=" monkey" and B="money".
Option A:	2
Option B:	1
Option C:	3
Option D:	4
Q16.	Showing a different website to search engines than what is shown to actual users is called as
Option A:	Cloaking
Option B:	Doorway page use
Option C:	Fudging
Option D:	Spamming
Q17.	All subsets of a frequent itemset must be frequent. This is the definition of
Option A:	Market Basket Analysis
Option B:	Jaccard Similarity
Option C:	Apriori algorithm
Option D:	Nearest Neighbour Technique
Q18.	When do you consider an association rule interesting?
Option A:	If it only satisfies min_support
Option B:	If it only satisfies min_confidence
Option C:	If it satisfies both min_support and min_confidence
Option D:	There are other measures to check so
Q19.	Which are pages reachable from the in-component and able to reach the out-component, but unable to reach the SCC or be reached from the SCC.
Option A:	Tubes
Option B:	In-component
Option C:	Tendrils
Option D:	Isolated components
Q20.	Which of the following is problem of collaborative filtering type of recommendation system?
Option A:	Cannot cope with changes in users interest
Option B:	First rater
Option C:	Cold Start
Option D:	Finding appropriate features.
Q21.	Number of pairs of nodes (X,Y) such that AB lies on the shortest path between X and Y, is called as:

Option A:	Betweenness of an Edge
Option B:	Collaborative filtering
Option C:	Mining Social graphs
Option D:	Cluster based grouping
Q22.	Which of the following is an example of Social Media Mining Application?
Option A:	Customer Relationship Management
Option B:	Fraud detection
Option C:	Community Analysis
Option D:	Supply Chain Management
Q23.	World Wide Web is an example of _____-type of graph.
Option A:	Information Linkage Graph
Option B:	Collaboration Graph
Option C:	Who-talks to Whom Graph
Option D:	Heterogeneous Social Graph
Q24.	Which of the following is the Data Stream Management Application?
Option A:	Recommendation System
Option B:	Sensor Network Analysis
Option C:	Transaction Analysis
Option D:	Feedback Analysis
Q25.	_____ decreases the amount of network traffic required during shuffle and sort phase.
Option A:	Mapper
Option B:	Reducer
Option C:	Combiner
Option D:	Driver

Program: BE EXTC Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7032 and Course Name: BIG DATA ANALYTICS

Time: 1 hour   Max. Marks: 50

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AK1

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	C
Q3.	B
Q4	A
Q5	C
Q6	A
Q7	A
Q8.	C
Q9.	A
Q10.	B
Q11.	C
Q12.	B
Q13.	B
Q14.	A
Q15.	B
Q16.	A
Q17.	C

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

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year, Semester VII

Course Code: ECCDLO7033   Course Name: Internet Communication Engineering

Time: 1 hour   Max. Marks: 50

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

Q1.	_____Protocol assigns IP address to client connected in internet
Option A:	DHCP
Option B:	IP
Option C:	RPC
Option D:	HTML
Q2.	Mail services are available to network users through which layer?
Option A:	Application layer
Option B:	Data Link layer
Option C:	Network layer
Option D:	Transport layer
Q3.	The ……………. is used to provide integrity check, authentication and encryption to IP datagram.
Option A:	SSL
Option B:	ESP
Option C:	TSL
Option D:	PSL
Q4.	Identify the OSI layer associated with bits?
Option A:	Physical
Option B:	Network
Option C:	Binary
Option D:	Data link
Q5.	Which of following statement is NOT true about User Datagram Protocol in transport layer?
Option A:	its header is light weighted as compare to TCP
Option B:	It does three way handshakes before sending datagrams
Option C:	It provides datagrams, suitable for modeling other protocols such as in IP tunneling or Remote Procedure Call and the Network File System
Option D:	The lack of retransmission delays makes it suitable for real-time applications
Q6.	_____ is not a field in TCP header?
Option A:	Sequence number

Option B:	Fragment offset
Option C:	Checksum
Option D:	Window size
Q7.	UDP protocol has a fixed-size header of _____bytes.
Option A:	8 bytes
Option B:	16 bytes
Option C:	32 bytes
Option D:	64 bytes
Q8.	The TCP segment header ranges between _____
Option A:	16 and 32 bytes
Option B:	16 and 32 bits
Option C:	20 and 60 bytes
Option D:	20 and 60 bits
Q9.	_____ class of IP address provides a maximum of only 254 host addresses per network ID?
Option A:	Class A
Option B:	Class B
Option C:	Class C
Option D:	Class D
Q10.	_____is private IP address
Option A:	12.0.0.1
Option B:	168.172.19.39
Option C:	132.15.14.36
Option D:	192.168.1.1
Q11.	If IP address is 10.2.3.0/24 what is its mask?
Option A:	255.0.0.0
Option B:	255.255.255.0
Option C:	255.255.0.0
Option D:	255.255.255.255
Q12.	The IP address 208.34.54.12 belong to which class ?
Option A:	Class C
Option B:	Class E
Option C:	Class B
Option D:	Class A
Q13.	IPSec provides security at the _____ layer?
Option A:	Transport layer
Option B:	Network layer
Option C:	Application layer
Option D:	Session layer

Q14.	In tunnel mode, IPSec protects the _____
Option A:	IP header
Option B:	Entire IP packet
Option C:	IP payload
Option D:	IP trailer
Q15.	_____ and _____ Protocols are defined by IPSec
Option A:	AH; SSL
Option B:	AH; TTL
Option C:	AH; ESP
Option D:	ESP; SSL
Q16.	For email application privacy, integrity, and authentication is provided by_____ protocol.
Option A:	IPSec
Option B:	SSL
Option C:	PGP
Option D:	AH
Q17.	A video consists of a sequence of _____
Option A:	Frames
Option B:	Signals
Option C:	Packets
Option D:	Slots
Q18.	If frames are displayed on screen fast enough, we get an impression of _____
Option A:	Signals
Option B:	Motions
Option C:	Packets
Option D:	Bits
Q19.	H.323 uses , G.71 or G.723.1 for_____
Option A:	Compression
Option B:	Communication
Option C:	Controlling
Option D:	Conferencing
Q20.	In Audio and Video Compression, each frame is divided into small grids, called picture elements or _____
Option A:	Frame
Option B:	Packets
Option C:	Pixels
Option D:	Mega Pixels

Q21.	Real-time traffic needs support of _____
Option A:	Unicasting
Option B:	Multicasting
Option C:	Layered Control
Option D:	Protocol Control
Q22.	_____ is the disadvantage of real addressing mode?
Option A:	there is a lot of cost involved
Option B:	time consumption overhead
Option C:	No protection between processes
Option D:	restricted access to memory locations by processes
Q23.	A mechanism to control amount and rate of traffic sent to network is called-------
Option A:	Traffic Congestion
Option B:	Flow Traffic
Option C:	Control Traffic Shaping
Option D:	Traffic control
Q24.	_____ is a standard to allow telephones on the public telephone network to talk to computers connected to the Internet
Option A:	SIP
Option B:	H.323
Option C:	Q.991
Option D:	multicast
Q25.	Interrupt latency refers to the period of time _____
Option A:	from the occurrence of an event to the arrival of an interrupt
Option B:	from the occurrence of an event to the servicing of an interrupt
Option C:	from arrival of an interrupt to the start of the interrupt service routine
Option D:	from arrival of an interrupt to the end of the interrupt service routine

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year, Semester VII

Course Code: ECCDLO7033   Course Name: Internet Communication Engineering

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	A
Q3.	B
Q4	A
Q5	B
Q6	B
Q7	A
Q8.	C
Q9.	C
Q10.	D
Q11.	B
Q12.	A
Q13.	B
Q14.	B
Q15.	C
Q16.	C
Q17.	A
Q18.	B

Q19.	A
Q20.	C
Q21.	B
Q22.	C
Q23.	A
Q24.	B
Q25.	C

Program: BE, Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016.

Examination: Final Year Semester VII

Course Code:ECCDLO7034 Course Name: CMOS Mixed signal VLSI.

Time: 1hour   Max. Marks: 50

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All the Questions are compulsory and carry equal marks .

Q1.	for MOSFET to work in Triode region is.
Option A:	$V_{DS}=V_{GS}$
Option B:	$V_{DS}<V_{GS}$
Option C:	$V_{DS}<V_{GS} -V_{TN}$
Option D:	$V_{DS}\geq V_{GS} +V_{TN}$
Q2.	Band Gap Reference source provides
Option A:	Constant current
Option B:	Temperature independent reference voltage
Option C:	Supply independent constant current
Option D:	Voltage gain.
Q3.	The o/p resistance of current mirror circuit is given as
Option A:	$r_o=1/ I_O$
Option B:	$r_{o=} 1/ I_O \lambda$
Option C:	$r_{o=} 1/ \lambda$
Option D:	$r_o =1/ \lambda^2$
Q4.	Practical current mirror circuit requires minimum _____Transistor.
Option A:	1
Option B:	2
Option C:	3
Option D:	4
Q5.	In two stage op-amp purpose of compensation circuit is to
Option A:	High voltage gain
Option B:	To lower output resistance
Option C:	To achieve stable close loop response
Option D:	To increase output voltage swing.

Q6.	CS Amplifier with passive load R_L Voltage gain is given as
Option A:	$g_m R_L$
Option B:	$- g_m R_L$
Option C:	$gm^2 RL$
Option D:	$- g_m{}^2 R_L$
Q7.	For a MOSFET if g_m=1mili mho and r_o=10KΩ,then its intrinsic voltage gain is
Option A:	1
Option B:	10
Option C:	50
Option D:	100
Q8.	The main purpose of differential amplifier is
Option A:	To amplify both actual and nose signal
Option B:	To amplify actual signal and reject noise signal
Option C:	To provide large gain only to noise signal
Option D:	To provide large o/p power.
Q9.	The Second stage in the design of two stage op-amp is
Option A:	Differential amplifier
Option B:	Inverter
Option C:	Buffer
Option D:	High gain stage.
Q10.	In case of differential mode signal the two signals are having
Option A:	Equal amplitude and same phase
Option B:	Non equal amplitude and same phase
Option C:	Equal amplitude but out of phase
Option D:	Zero
Q11.	For Dual i/p Balance o/p Differential amplifier differential mode voltage gain is given as
Option A:	$-g_m Z_L$
Option B:	$-g_m Z_L/2$
Option C:	$-g_m{}^2 Z_L$
Option D:	$g_m Z_L{}^2$
Q12.	In order to achieve sustained oscillation the poles of amplifier should lie on
Option A:	LHS of S plane
Option B:	RHS of S plane
Option C:	On imaginary axis
Option D:	At the origin.

Q13.	In Ring oscillator circuit we should have_____ numbers of gain stages
Option A:	1
Option B:	2
Option C:	3
Option D:	0
Q14.	For a 3 bit DAC if Binary Data is 100,V_{REF}=5V and N=3 then $V_{STAIRCASE}$
Option A:	5
Option B:	2.5
Option C:	1.5
Option D:	4
Q15.	In charge scaling DAC we use, weighted
Option A:	Resistors
Option B:	Capacitors
Option C:	Inductors
Option D:	Diodes.
Q16.	In op-amp ICMR is
Option A:	Input common mode range
Option B:	Input control mode range
Option C:	Input differential range
Option D:	Input common mode impedance.
Q17.	For a NMOS Diode connected load CS amplifier,$(W/L)_{DRIVER}$=1000 and $(W/L)_{LOAD}$=10,then gain of the amplifier is
Option A:	10
Option B:	20
Option C:	50
Option D:	100
Q18.	In a current mirror circuit if I_{REF}=2milliampere $(W/L)_{OUTPUT}$ Transistor is twice to that of Reference transistor then I_{OUT} is
Option A:	1milliampere
Option B:	2milliampere
Option C:	4milliampere
Option D:	6milliampere.
Q19.	As a standard approach the phase margin while designing two stage operational amplifier should be atleast
Option A:	60^0
Option B:	45^0
Option C:	90^0
Option D:	180^0

Q20.	. In NMOS CS Amplifier load is diode connected PMOS transistor with (W/L) of NMOS transistor is 4 times (W/L) of diode connected PMOS transistor and mobility of electrons is 4 times of mobility of holes then magnitude of gain is
Option A:	4
Option B:	8
Option C:	16
Option D:	20
Q21.	Assume that cascode amplifier provides high gain as compared to common source amplifier because .
Option A:	It's output resistance is low
Option B:	It's output resistance is high
Option C:	It's output resistance is zero
Option D:	It's output resistance is very low.
Q22.	In differential amplifier Slew rate.
Option A:	Depends load capacitance and tail current
Option B:	Depends on only load capacitance and independent of tail current
Option C:	Independent of load capacitance and depends only on tail current
Option D:	Independent of load capacitance as well as tail current
Q23.	Switched capacitor circuit applied in FPAA to emulate
Option A:	RESISTROS
Option B:	INDUCTORS
Option C:	MEMORY
Option D:	BUSES
Q24.	What is the resolution of 8 bit ADC
Option A:	124
Option B:	256
Option C:	64
Option D:	8
Q25.	PSSR can be defined as the product of the ratio of change in supply voltage to change in output voltage of op-amp caused by the change in power supply & _____ of op-amp.
Option A:	Open-loop gain
Option B:	Closed-loop gain
Option C:	Close-loop with unity feedback
Option D:	Close-loop with positive feedback.

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final year Semester VII

Course Code:ECCDLO7034 Course Name: CMOS Mixed Signal VLSI

Time: 1hour   Max. Marks: 50

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Question	Correct Option
Q1.	C
Q2.	B
Q3.	B
Q4	C
Q5	C
Q6	B
Q7	B
Q8.	B
Q9.	D
Q10.	C
Q11.	A
Q12.	C
Q13.	C
Q14.	B
Q15.	B
Q16.	A

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

Program: BE EXTC Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7035 and Course Name: Embedded System

Time: 1 hour   Max. Marks: 50

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

Q1.	How much is per unit cost if NRE cost is Rupees 500000, Unit cost = 5000/- rupees. How much is cost for manufacturing 100 units?
Option A:	Unit Cost : 500000, 100 Unit Cost : 5000000
Option B:	Unit Cost : 10000, 100 Unit Cost : 1000000
Option C:	Unit Cost : 50000, 100 Unit Cost : 100000
Option D:	Unit Cost : 100000, 100 Unit Cost : 50000
Q2.	How much is Loss due to Delayed Market Entry Lifetime 2W=52 weeks, delay D=10 weeks?
Option A:	22%
Option B:	40%
Option C:	50%
Option D:	30%
Q3.	Which of the following describes the preliminary phase of Design in EDLC?
Option A:	Interconnection between Module
Option B:	Various Functional Blocks
Option C:	Firmware
Option D:	Black-Box
Q4.	Which of the following application do not represent an embedded system?
Option A:	Remote control
Option B:	Motor control system
Option C:	Computer
Option D:	Electronic display
Q5.	Which design metric of embedded system defines embedded system as soft real time or hard real time?
Option A:	Power
Option B:	Real time
Option C:	Deadline
Option D:	Reliability
Q6.	Select appropriate feature of CISC processor.
Option A:	There are limited numbers of instructions available.

Option B:	Most of the instructions are executed in fixed number of cycles.
Option C:	Most of the instructions are executed in variable number of cycles.
Option D:	There are limited numbers of addressing modes available.
Q7.	Select the appropriate feature of RISC processor.
Option A:	There are limited numbers of instructions available.
Option B:	There are large number of instructions are available.
Option C:	Most of the instructions are executed in variable number of cycles.
Option D:	There are many addressing modes available.
Q8.	Which one of the following is not feature of General purpose processor
Option A:	Program Memory
Option B:	Data Memory
Option C:	Custom ALU
Option D:	Large Register file
Q9.	What rate can define the timing in the UART?
Option A:	bit rate
Option B:	baud rate
Option C:	speed rate
Option D:	voltage rate
Q10.	What is the function of the 0x06 command?
Option A:	to clear the LCD
Option B:	to blink the cursor
Option C:	to shift the cursor to the right
Option D:	for selecting the matrix
Q11.	Which pin of SPI protocol is used to transmit data from master to the slave device?
Option A:	SCLK
Option B:	MOSI
Option C:	MISO
Option D:	SS
Q12.	What is a standard size of slave address in I2C protocol?
Option A:	8 bits
Option B:	4 bits
Option C:	10 bits
Option D:	7 bits
Q13.	Which of the following serial protocol supports error detection with CRC directly?
Option A:	I2C
Option B:	SPI
Option C:	UART

Option D:	CAN
Q14.	Interrupts which occur in sync with the currently executing task are known as
Option A:	Asynchronous interrupts
Option B:	Synchronous interrupts
Option C:	External interrupts
Option D:	internal interrupts
Q15.	In Preemptive Round Robin Scheduling, Three processes with process IDs P1, P2, P3 with estimated completion time 6, 4, 2 milliseconds respectively, enters the ready queue together in the order P1, P2, P3. Calculate Average Turn Around Time (Assuming there is no I/O waiting for the processes) in RR algorithm with Time slice= 2ms.
Option A:	5.33ms
Option B:	8.33ms
Option C:	9.33ms
Option D:	6ms
Q16.	Which of the following is false about hard real-time systems?
Option A:	Strictly adhere to the timing constraints for a task
Option B:	Missing any deadline may produce catastrophic results
Option C:	Most of the hard real-time systems are automatic and may not contain a human in the loop
Option D:	Does not guarantee meeting deadlines, but offer the best effort to meet the deadline are referred
Q17.	Which of the following is false about Process in the operating system context?
Option A:	A 'Process' is a program, or part of it, in execution
Option B:	It can be an instance of a program in execution
Option C:	A process requires various system resources like CPU for executing the process, memory for storing the code corresponding to the process and associated variables, I/O devices for information exchange, etc.
Option D:	A process is concurrent in execution
Q18.	Which of the following techniques is used by operating system for inter process communication?
Option A:	Semaphore
Option B:	Mutex
Option C:	Scheduling
Option D:	Shared memory
Q19.	Select the correct statement
Option A:	Message passing technique is relatively faster compared to shared memory based IPC.
Option B:	Shared memory based IPC is relatively faster compared to message passing.
Option C:	Message passing and shared memory cannot be compared.

Option D:	Message passing or shared memory techniques provide the same performance.
Q20.	Which is most commonly used scheduling policy in RTOS?
Option A:	Round Robin
Option B:	Priority based pre-emptive
Option C:	Priority based non pre-emptive
Option D:	Shortest job first
Q21.	When deadlock occurs then all processes are in which state?
Option A:	Blocked
Option B:	Ready
Option C:	Running
Option D:	End
Q22.	What is the meaning of string stability in Adaptive cruise control
Option A:	Maintaining Inter-car distance constant
Option B:	Maintaining constant speed
Option C:	Giving driver advice about traffic
Option D:	According to traffic changing speed of car
Q23.	In the Automatic chocolate vending machine the reprogramming of codes or relocation of code is not needed when
Option A:	The price of chocolate changes
Option B:	Advertisement is changed
Option C:	Machine is relocated
Option D:	Machine feature changes
Q24.	Which type of processor technology is used in the design of digital camera?
Option A:	Micro-controller
Option B:	Micro-controller and Application specific processor
Option C:	Microprocessor
Option D:	There is no need of micro-controller or microprocessor
Q25.	Select correct statement
Option A:	In Rate Monotonic scheduling (RM), shorter is a period of the task higher is a priority.
Option B:	In Rate Monotonic scheduling (RM), larger is a period of the task higher is a priority.
Option C:	Rate Monotonic scheduling is non-preemptive scheduler.
Option D:	Rate Monotonic scheduler works with task deadline as a priority.

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	C
Q3.	D
Q4	C
Q5	C
Q6	C
Q7	A
Q8.	C
Q9.	B
Q10.	C
Q11.	B
Q12.	D
Q13.	D
Q14.	B
Q15.	C
Q16.	D
Q17.	D

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

Program: BE _____ Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ILO 7017 and Course Name: Disaster Management and

Mitigation Measures

Time: 1 hour   Max. Marks: 50

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

Q1.	_____ can be explained as, tragic set of events which consequently cause damage to property and life?
Option A:	Hazards
Option B:	Vulnerability
Option C:	Disaster
Option D:	Risk
Q2.	Which natural disaster is a sudden and violent shaking of the ground, sometimes causing great destruction, as a result of movements within the earth's crust or volcanic action?
Option A:	Earthquake
Option B:	Tsunami
Option C:	Thunderstorm
Option D:	Flooding
Q3.	Which of the following is not a component of disaster management cycle?
Option A:	Preparedness
Option B:	Response
Option C:	Construction
Option D:	Recovery
Q4.	What is EMS?
Option A:	Emergency medical services
Option B:	Effective mitigation system
Option C:	Emergency management system
Option D:	Effective management system
Q5.	N.D.R.F Stands for
Option A:	National Disaster Response Fund
Option B:	Natural Disaster Relief Fund
Option C:	National Dedicated Relief Fund
Option D:	National Dynamic Response Fund
Q6.	Risk can be dealt with following ways except:

Option A:	Risk acceptance
Option B:	Risk avoidance
Option C:	Risk reporting
Option D:	Risk reduction
Q7.	Which of the following is not a man-made hazard?
Option A:	Leakage of Toxic waste
Option B:	War
Option C:	Drought
Option D:	Environmental Pollution
Q8.	Which of the following are not the causes of manmade disaster?
Option A:	Technological
Option B:	Transportation
Option C:	Landslides
Option D:	Production errors
Q9.	Who heads the crisis management Committee
Option A:	Prime Minister
Option B:	President
Option C:	Cabinet Secretory
Option D:	Ministry Of Environment
Q10.	EMS technology helps in aread which are prone to effective disaster management except:
Option A:	Trials of evacuation and general disaster plans
Option B:	Training volunteers
Option C:	Construction of shelter
Option D:	Prevention of next emergency
Q11.	What is called for the manuals that identify the role of each officer in State for managing the natural disasters?
Option A:	State Relief Manuals
Option B:	State Environmental Protection Manuals
Option C:	State Disaster Manuals
Option D:	State Protection Manuals
Q12.	The risk mapping and control does not depend on:
Option A:	The efforts taken by an organization
Option B:	Money
Option C:	Vulnerability analysis
Option D:	The action plans
Q13.	Tsunami's can occur only during
Option A:	Evening
Option B:	Afternoon
Option C:	Any time of the day or night
Option D:	Morning

Q14.	Under which ministry Disaster Management Authority comes
Option A:	Ministry Of Environment
Option B:	Ministry of Foreign Affaires
Option C:	Ministry of Pollution
Option D:	Ministry of Home Affairs
Q15.	Which of the following components is not the part of EMS?
Option A:	Communication
Option B:	Recovery
Option C:	Budget
Option D:	Materials requirement
Q16.	Which the first step adopted for the assessment of the requests made by the state government to CENTRAL Government.
Option A:	Central Govt directly sends funds to State Govt
Option B:	The central team is deputed to make the on the spot assessment
Option C:	Finance Ministry Guides Cental Govt to relese funds
Option D:	Union Home Secretary visits State Govt affected by Disaster
Q17.	What is CBDM?
Option A:	Customers biased disaster management
Option B:	Cluster based disaster management
Option C:	Community based disaster management
Option D:	Consumer based disaster management
Q18.	The Richter scale expresses an earthquakes
Option A:	Magnitude
Option B:	Location
Option C:	Duration
Option D:	Depth
Q19.	Who is not first responder
Option A:	Police
Option B:	SDRF
Option C:	Fire and Medical Services
Option D:	NDRF
Q20.	Which of the following component of EMS does not add a value to disaster management?
Option A:	Emergency medical services
Option B:	Hazardous Materials Management
Option C:	Prevention of disaster
Option D:	Response and Recovery
Q21.	Prompt and effective response minimizes loss of life and property.
Option A:	Prompt and effective response
Option B:	Resource Allocation

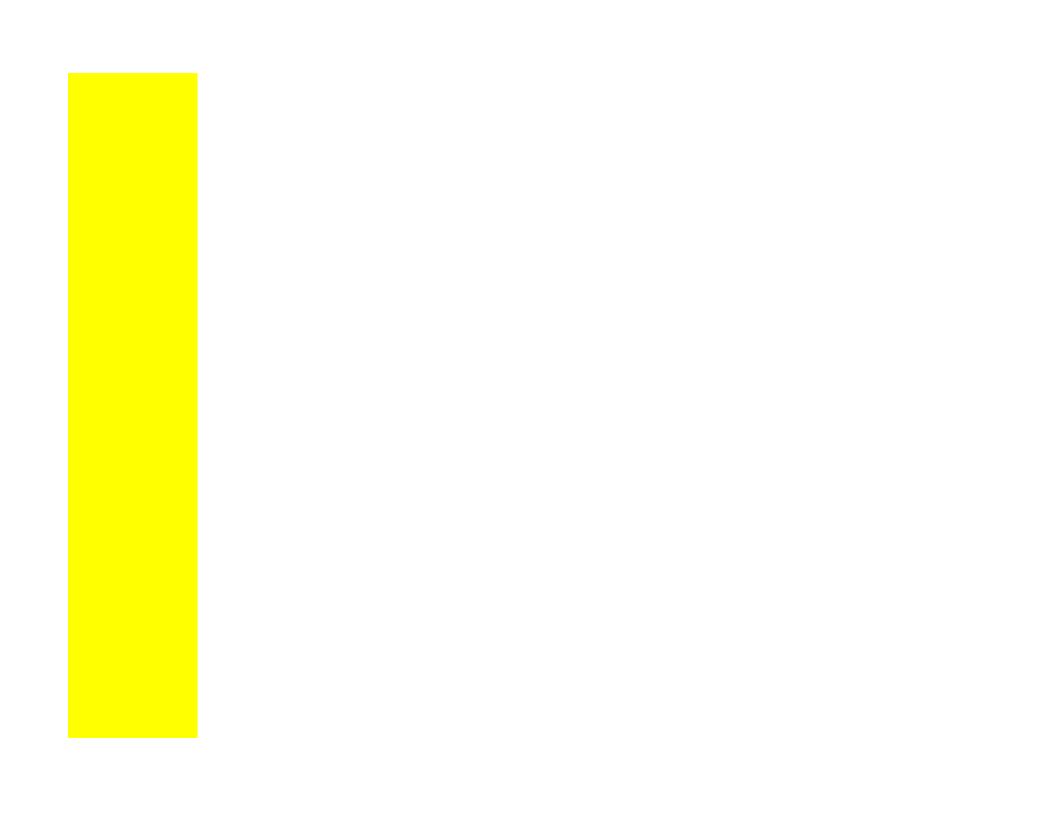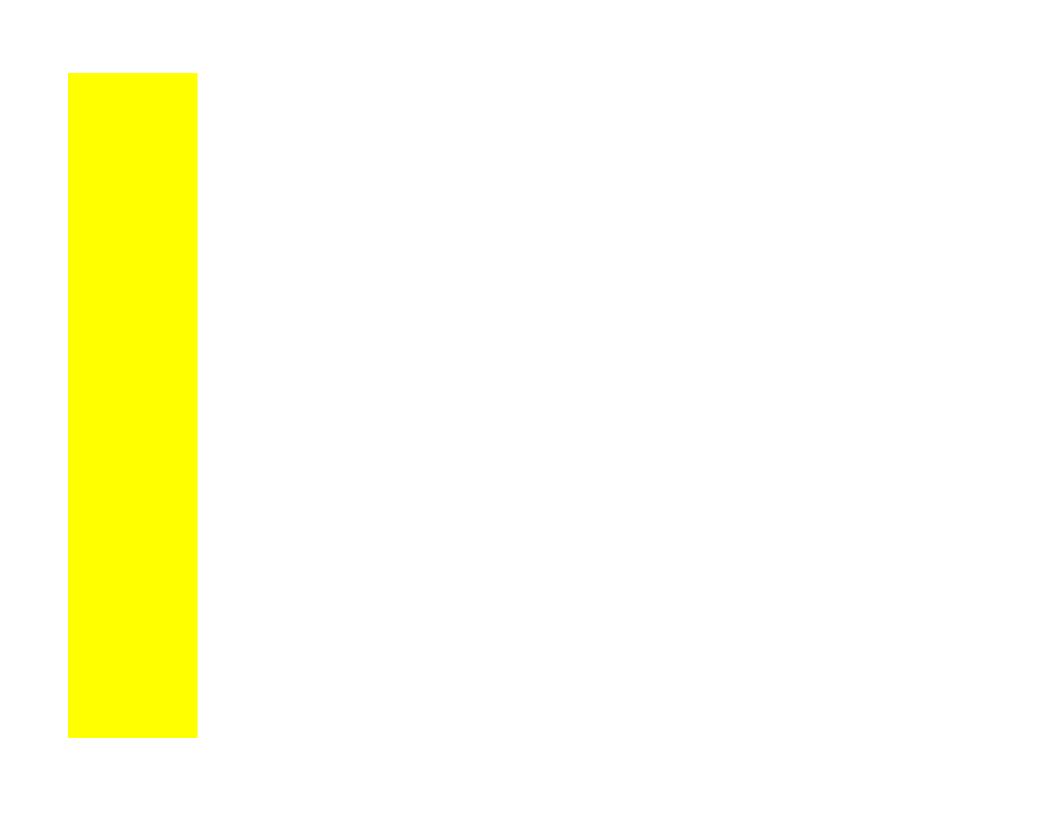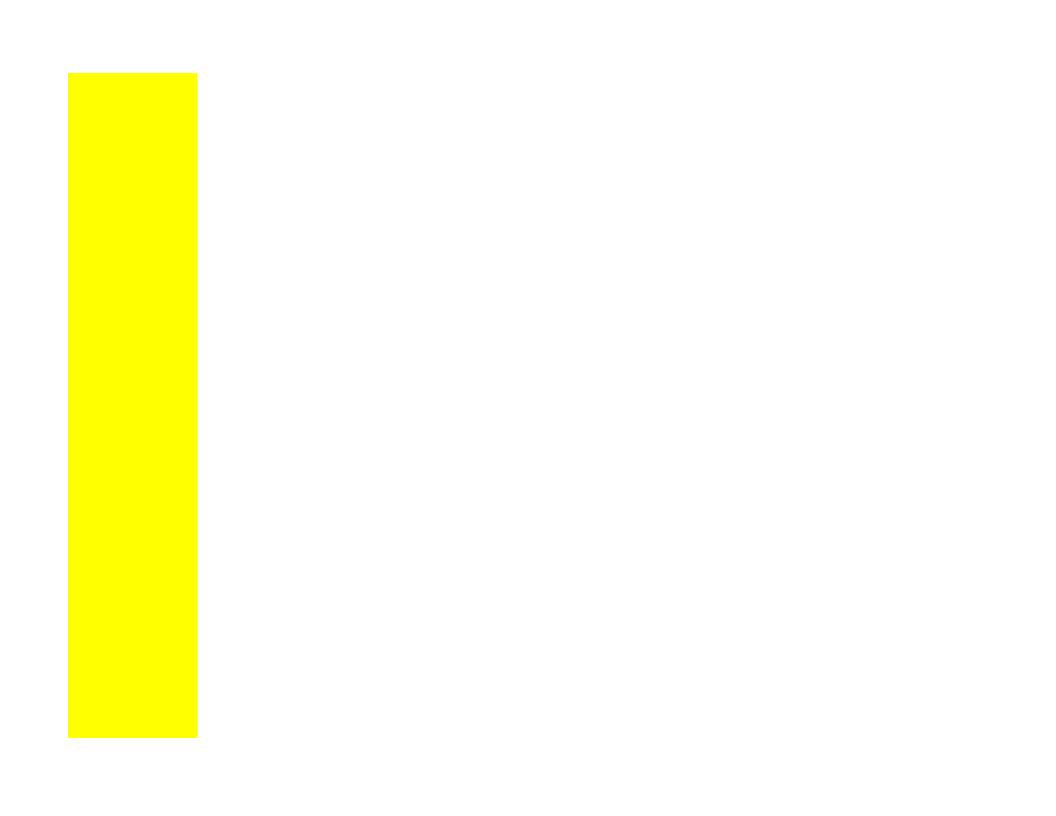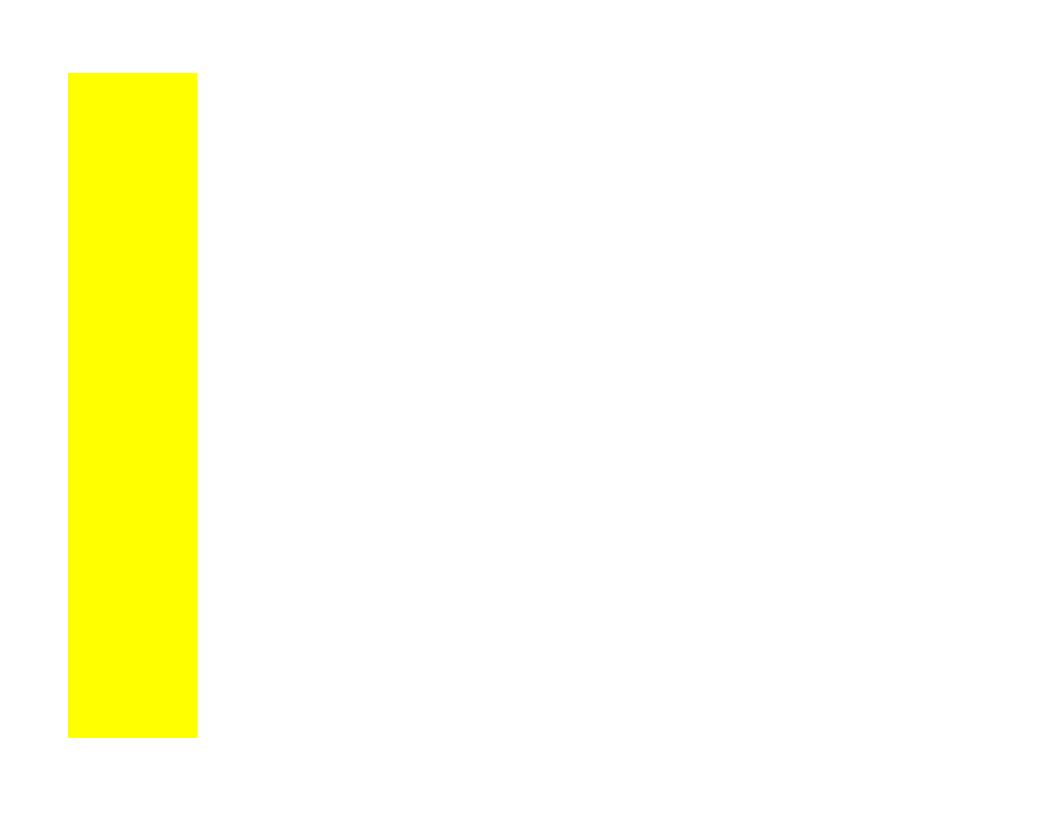|	
Option C:	Planning
Option D:	Financing
Q22.	Floods can be prevented by
Option A:	Afforestation
Option B:	Cutting the forest
Option C:	Tilling the land
Option D:	Removing the top soil
Q23.	Which amongst the following ensures accurate documentation of all aspects of disaster events for creating good historical records for future research and mitigation planning
Option A:	NDMA
Option B:	MoUD
Option C:	NDRF
Option D:	NIDM
Q24.	The point of the earth's surface directly above the point where an earthquake occurs is called
Option A:	Focus
Option B:	Epicenter
Option C:	Fracture
Option D:	Fault
Q25.	Which committee recommend financial assistance to various disaster acrros country
Option A:	National Executive Committee
Option B:	Finance Committee
Option C:	Central Committee
Option D:	Cabinet Committee

Program: BE _____ Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ILO 7017 and Course Name: Disaster Management and

Mitigation Measures

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	A
Q3.	C
Q4	C
Q5	A
Q6	C
Q7	C
Q8.	C
Q9.	C
Q10.	D
Q11.	A
Q12.	B
Q13.	C
Q14.	D
Q15.	C
Q16.	B

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

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 A and B are two events such that P(a) =0.3, P(b) = 0.6, and P(A/~B) is _____
Option A:	0.3
Option B:	0.5
Option C:	0.8
Option D:	0.2
Q2.	Previous probabilities in Bayes Theorem that are changed with help of new available information are classified as _____
Option A:	Independent Probabilities
Option B:	Posterior probabilities
Option C:	Interior probabilities
Option D:	Dependent probabilities
Q3.	Let X be a random variable with probability distribution function $f(x)=0.2$ for $|x|<1$ $=0.1$ for $1<|x|<4$ $=0$ otherwise The probability $P(0.5 < x <5)$ is _____
Option A:	0.3
Option B:	0.5
Option C:	0.4
Option D:	0.8

Q4.	If 'm' is the mean of a Poisson Distribution, the standard deviation is given by _____.
Option A:	m
Option B:	m^2
Option C:	m
Option D:	$\dfrac{m}{2}$
Q5.	What is the mean time to failure if time to failure of a gadget follows Weibull distribution with scale =1000 hours and shape = 0.5?
Option A:	2500 hours
Option B:	1500 hours
Option C:	3000 hours
Option D:	2000 hours
Q6.	The failure density function f(t) is defined as the derivative of the
Option A:	Failure probability
Option B:	Intensity
Option C:	Pass probability
Option D:	Density
Q7.	Mean time between failures can be defined as:
Option A:	$\dfrac{total\,number\,of\,failure}{total\,operation\,time}$
Option B:	$\dfrac{total\,operation\,time}{total\,number\,of\,failure}$

Option C:	$$\frac{total\,operation\,time}{total\,number\,of\,components}$$
Option D:	$$\frac{total\,number\,of\,components}{total\,operation\,time}$$
Q8.	A component with time to failure T has constant failure rate $$z(t) = \lambda = 2.5 \times 10^{-5}[hours]^{-1}$$ Determine the probability that the component survives a period of 2 months without failure.
Option A:	0.815
Option B:	0.965
Option C:	0.911
Option D:	0.864
Q9.	The system reliability of the parallel system
Option A:	Is greater than the reliability of any subsystem
Option B:	Is equal to the reliability of the best subsystem
Option C:	Decreases as more redundant subsystem are added to the system
Option D:	Increase if the subsystem with the lowest reliability is removed
Q10.	Consider a four component system of which the components are independent and identically distributed with Constant Failure Rate (CFR). If $R_2(100) = 0.95$, find the individual component Mean Time to Failure?
Option A:	0.128
Option B:	0.0128
Option C:	0.000128
Option D:	1

Q11.	What failure rate must each component of a series system have, so that the probability that the system operates beyond 1000 hours is 0.9917 (Assume that all three components are independent, operate simultaneously, and have identical constant failure rates.)
Option A:	0.00278 per hour
Option B:	2.78×10^{-6} per hour
Option C:	2.78×10^{-5} per hour
Option D:	0.0287 per hour
Q12.	The components each with a reliability of 0.9 are placed in series. What is the reliability of the system?
Option A:	0.729
Option B:	0.986
Option C:	0.458
Option D:	0.589
Q13.	If the probability of a car starting on a sub-zero morning is 0.5 and we have two such cars. What is the probability that at least one of the cars will start on a sub-zero morning?
Option A:	0.92
Option B:	0.75
Option C:	0.81
Option D:	0.60
Q14.	Calculate the system unavailability, if the failure rate of a system is 2 failures/year and the average repair time is 20 hours.
Option A:	14.97 hr/yr
Option B:	18.47 hr/yr
Option C:	39.81 hr/yr

Option D:	32.17 hr/yr
Q15.	Which of the following approach is not the redundancy approach?
Option A:	Unit redundancy
Option B:	Component redundancy
Option C:	Strong component should be identified and strengthened for reliability
Option D:	Mixed redundancy
Q16.	For the successful operation of the system, the reliability of the system will be much better due to _____
Option A:	Absence of redundant element and proper operation one element
Option B:	Presence of redundant element and improper operation one element
Option C:	Absence of redundant element and improper operation one element
Option D:	Presence of redundant element and proper operation one element
Q17.	In unit redundancy, for improving the reliability of the system, a similar system should be added to the existing system in _____
Option A:	Series
Option B:	Both series and parallel
Option C:	parallel
Option D:	No connection
Q18.	Redundant system consisting of two or more component connected in parallel and both components were operating simultaneously is called _____
Option A:	Standby redundancy
Option B:	Active redundancy
Option C:	Sitting redundancy
Option D:	Inactive redundancy

Q19.	In order to maintain maintainability in the system, repair time must _____
Option A:	Be increased
Option B:	Be reduced
Option C:	Be kept constant
Option D:	Keeps on changing
Q20.	While discussing the concept of parts interchangeability, "if new part does not meet the required functional substitution then,
Option A:	It should be fractionally interchangeability
Option B:	It should not be physically interchangeability
Option C:	It should be physically interchangeability
Option D:	It should not be fractionally interchangeability
Q21.	The inherent availability can be calculated for repairable system as:
Option A:	$A_I = \dfrac{MTBF}{MTTF + MTTR}$
Option B:	$A_I = \dfrac{MTTF}{MTTF + MTTR}$
Option C:	$A_I = \dfrac{MTTF}{MTBI + MTTR}$
Option D:	$A_I = \dfrac{MTTF}{MTTF + MTTR}$
Q22.	Risk priority number is
Option A:	Product of severity (S), Occurrence (O) & Detection (D)
Option B:	Sum of severity (S), Occurrence (O) & Detection (D)

Option C:	Maximum of Severity (S), Occurrence (O) & Detection (D)
Option D:	Minimum of Severity (S), Occurrence (O) & Detection (D)
Q23.	Failure mode and effect analysis (FMEA) provide a checklist procedure. Which of the following question is NOT likely to feature on the checklist?
Option A:	What would be the cost of avoiding failure be?
Option B:	How likely is such a failure to be detected before it affects the customer?
Option C:	What is the likelihood that failure will occur?
Option D:	What would the consequences of the failure be?
Q24.	Which of the following is not the advantage of Event Tree Analysis are:
Option A:	Structured, rigorous and methodical approach
Option B:	Can be effectively performed on varying levels of design detail
Option C:	Permits probability assessment
Option D:	Partial successes/failure are distinguishable
Q25.	What is the probability of an impossible event?
Option A:	0
Option B:	1
Option C:	Not defined
Option D:	Insufficient data

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	B
Q3.	C
Q4	A
Q5	D
Q6	A
Q7	B
Q8.	B
Q9.	A
Q10.	C
Q11.	B
Q12.	A
Q13.	B
Q14.	C
Q15.	C
Q16.	D
Q17.	C
Q18.	B
Q19.	B
Q20.	B
Q21.	B
Q22.	A
Q23.	A
Q24.	D
Q25.	A

Q=QUESTION	question_description	question_explanation	question_type
A=ANSWER	answer_description	answer_explanation	answer_isright
Q	_____ analyzes customer data for designing and executing targeted marketing campaigns.		M
A	Analytical CRM		1
A	Operational CRM		0
A	Collaborative CRM		0
A	Transactional CRM		0
Q	Cybersquatting refers to the practice of_____		M
A	Using someone else's domain names for profiting from their goodwill		1
A	Buying competitors information for profiting		0
A	Using illegal means to crash competitor's website		0
A	Selling competitors information for profiting		0
Q	Social computing forces companies to deal with customers _____		M
A	Reactively		0
A	Proactively		1
A	Neutrally		0
A	Economically		0
Q	Electronic commerce systems generally includes all of the following except:		M
A	Internet websites for online sales		0
A	Extranet access of inventory databases		0
A	Direct links to credit reporting services		1
A	Intranets that allow sales reps to access customer records		0
Q	Cloud computing can be best explained by _____		M
A	LAN operations		0
A	Intranet		0
A	Web application		0
A	Hadoop		1
Q	Pervasive computing systems are _____		M
A	Context aware		1

A	Content aware		0
A	Network specific		0
A	Range specific		0
Q	____	M	
A	Cost of data centres is higher		1
A	Cost of data centres is less		0
A	Cost of cloud is higher		0
A	Cost of cloud is less		0
Q	Sourcing, Ownership, reliability are the _____provided by the cloud	M	
A	Community		0
A	Applications		0
A	Services		1
A	Features		0
Q	A manufacturing approach that integrates several computerized	M	
A	Sales force automation		0
A	Computer-integrated manufacturing		1
A	Product Lifecycle Management		0
A	Management of interdependent items		0
Q	Systems which typically provide information to managers in the functional areas include_____	M	
A	ERP systems		0
A	Business Intelligence System		0
A	Transaction Processing System		1
A	HR Information Systems		0
Q	An adhoc report which includes only information that falls outside certain threshold standards includes ____	M	
A	Comparative reports		0
A	Drill-down reports		0
A	Exception reports		1
A	Routine reports		0

Q	The three main business processes supported by ERP systems comprises of_____	M	
A	Transaction and planning processes		0
A	Procurement, fulfillment, production processes		1
A	Analysis, Administrative and Adhoc Processes		0
A	Production planning and Administrative processes		0
Q	A business strategy that enables manufacturers to share product-related data that support product design and development and supply chain operations is_____		
A	Planning Production and Operations		0
A	Quality Control		0
A	Product Lifecycle Management.		1
A	Control and Auditing		0
Q	The two different strategies that the production process can follow:		
A	Make-to-store and Make-to-sell		0
A	Make-to-process and Make-to-store		0
A	Best order, Least order		0
A	Make-to-stock and Make-to-order		1
Q	Which out of the subsquent is NOT an example of data?	M	
A	301062		0
A	Blue		0
A	32, Primrose Hill		1
A	Mumbai		0
Q	Definition of Sample in MIS is		
A	A tool used to collect statistical data		0
A	Statistics collected from an entire population		0
A	The factual information collected from a survey or other source is		0
A	A group chosen from a population		1
Q	Cost leadership strategy of the competitive advantage is to		
A	Produce products and/or services at the lowest cost in the industry.		1
A	Offer different products, services, or product features than your		0
A	Introduce new products and services, add new features to existing		0

A	Improve the manner in which a fi rm executes its internal business		0
Q	A _____provides easy access to timely information and direct access		
A	Interface		0
A	Dashboard		1
A	Whiteboard		0
A	Openboard		0
Q	Which one of these is an incorrect category into which all managerial	M	
A	Operational control		0
A	Management control		0
A	Inventory control		1
A	Strategic planning		0
Q	In the _____ normal form, a composite attribute is converted to		
A	First		1
A	Second		0
A	Third		0
A	Fourth		0
Q	The process of data to be presented to users in visual formats such as		
A	Image Processing		0
A	Data Visualization		1
A	Human Machine Interaction		0
A	Data Segmentation		0
Q	A person who breaks into a computer to cause damage or to steal		
A	Hacker		1
A	Cracker		0
A	Jammer		0
A	Spammer		0
Q	A program code that cannot work without being inserted into another	M	
A	Worm		0
A	Virus		1
A	Sniffer		0
A	Spoofing		0
Q	Tracking or monitoring people's activities with the aid of information		
A	Snooping		0

A	Electronic Surveillance	1
A	Investigation	0
A	Data collection	0
Q	An informal, personal journal that is frequently updated and is	
A	Weblog	1
A	Electronic bulletin boards	0
A	Newsgroups	0
A	Electronic discussions	0

question_difficulty	answer_position
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Note: Each question is for 2 marks.

		Multiple Choice Questions (MCQ)
		ALL questions are compulsory. There are 25 questions, each question carries 2 mark.
1.		Queuing models measure the effect of:
	a)	Random arrivals
	b)	Random service
	c)	Effect of uncertainty on the behaviour of the queuing system
	d)	Length of queue.
2.		If the number of arrivals during a given time period is independent of the number of arrivals that have already occurred prior to the beginning of time interval, then the new arrivals follow -----------distribution.
	a)	Erlang
	b)	Poisson
	c)	Exponential
	d)	Normal
3.		An M/M/8 system is a system with --
	a)	Generic M channel system, exponential arrivals, and Poisson service time.
	b)	Eight channel system, Poisson arrivals, and Exponential service time.
	c)	M channel system with Exponential arrivals and Poisson service times.
	d)	Eight channel system with Binomial arrival times and normally distributed service times
4.		As simulation is not analytical model, therefore result of simulation must be viewed as
	a)	Unrealistic
	b)	Exact
	c)	approximation
	d)	simplified
5.		Monto-Carlo simulation
	a)	Randomness is the key requirement
	b)	The model is of deterministic nature
	c)	The random numbers can be used to generate the value of input variables only, if the sampled distributed is uniform
	d)	None of these
6.		While assigning random numbers in Monte-Carlo simulation, it is
	a)	Not necessary to assign the exact range of random number interval as the probability

	b)	Necessary to develop a cumulative probability distribution
	c)	Necessary to assign the particular appropriate random numbers
	d)	Not necessary to develop a cumulative probability distribution
7.		Which of the following is a property of a dynamic programming problem?
	a)	Optimal substructure
	b)	Non-Overlapping sub problems
	c)	Local Optimal choice
	d)	The given problem can be reduced to the 3-SAT problem
8.		When a problem is solved using the top-down approach of dynamic programming, it usually ………….
	a)	Decreases both, the time complexity and the space complexity
	b)	Increases the time complexity and decreases the space complexity
	c)	Increases both, the time complexity and the space complexity
	d)	Increases the space complexity and decreases the time complexity
9.		Which of the following problems should be solved using dynamic programming?
	a)	Long Integer Multiplication
	b)	Reliability problems
	c)	Spanning Tree
	d)	Matrix Multiplication
10.		When Minimax and Maximin criteria matches, then
	a)	Fair game is exists
	b)	Unfair game is exists
	c)	Mixed strategy exists
	d)	Saddle point exists.
11.		The games with saddle points are:
	a)	Probabilistic in nature
	b)	Normative in nature
	c)	Stochastic in nature
	d)	Deterministic in nature
12.		The size of the Payoff matrix of a game can be reduced by using the principle of
	a)	Saddle point
	b)	Dominance
	c)	Game transpose
	d)	Game Inverse
13.		If orders are placed with size the EOQ, then the re-order costs component is
	a)	Equal to the holding cost component
	b)	Greater than the holding cost component
	c)	Less than the holding cost component
	d)	Either greater or less than the holding cost component
14.		Which cost can vary with order quantity
	a)	Unit cost only
	b)	Re-order cost
	c)	Holding cost only
	d)	All of these
15.		Annual demand for product costing Rs. 100 per piece is Rs. 900 Ordering cost per order is Rs. 100 and inventory holding cost is Rs.2 per unit per year. The economic lot size is
	a)	200

[Type here]

	b)	300
	c)	400
	d)	500
16.	Consider the following 7 jobs J1, J2, J3, J4, J5, J6 and J7. They are processed on machines A and B in the order AB. The processing times on machine A for the 7 jobs are [3, 12, 13, 4, 10, 11, 9] and the processing times on machine B for the 7 jobs are [8, 9, 8, 6, 13, 1, 3]. The optimum sequence of the jobs will have the first job going to machine A as -	
	a)	J1
	b)	J3
	c)	J7
	d)	J6
17.	Travelling Salesman Problem can be solved using: a-Simplex Method, b-Assignment Method, c-Dynamic Programming, d- Waiting line Method	
	a)	Only a
	b)	Only b
	c)	Only c
	d)	With b and d
18.	The Vogel approximation method is used for solving transportation problems as it gives -	
	a)	neither optimum nor feasible solution
	b)	both optimum and feasible solution
	c)	Optimum but infeasible solution
	d)	Feasible but non-optimum solution
19.	In the Dual Simplex Method, the Initial Table represents a solution -	
	a)	that is feasible but not Optimal
	b)	that is both feasible and optimal
	c)	that is optimal but not feasible
	d)	neither optimal nor feasible
20.	For a Maximization LPP, if a constraint has a surplus variable, the artificial variable added in the Dual Simplex Method will have -	
	a)	positive large co-efficient in the objective function
	b)	negative large co-efficient in the objective function
	c)	zero co-efficient in the objective function
	d)	artificial variables are not required in Dual Simplex Method
21.	If the primal LPP is Maximization, the dual of the dual for the primal LPP is	
	a)	Minimization
	b)	Maximization
	c)	Can be Minimization or Maximization
	d)	Infeasible
22.	The optimal solution in a linear programming model will	
	a)	always be a slack variable
	b)	always be a surplus variable
	c)	always occur at an extreme point
	d)	always be outside the feasible solution space
23.	A company produces two products: Product A and Product B. Each product must go through two processes. Each Product A produced requires 2 hours in Process 1 and 5 hours in Process 2. Each Product B produced requires 6 hours in Process 1 and 3 hours in Process 2. There are 80 hours of capacity available each week in each process. Each unit	

[Type here]

	of Product A produced generates $6.00 in profit for the company. Each unit of Product B produced generates $9.00 in profit for the company. If A = the number of units of Product A to produce each week and B = number of units of Product B to produce each week, then the capacity constraint for Process 2 would be
a)	5A + 3B ≥ 80
b)	6A + 3 B ≤ 80
c)	5A + 3B ≤ 80
d)	5A + 3B < 80
24.	A company produces two products: Product A and Product B. Each product must go through two processes. Each Product A produced requires 2 hours in Process 1 and 5 hours in Process 2. Each Product B produced requires 6 hours in Process 1 and 3 hours in Process 2. There are 80 hours of capacity available each week in each process. Each unit of Product A produced generates $6.00 in profit for the company. Each unit of Product B produced generates $9.00 in profit for the company. The optimal weekly profit for the company would be
a)	$125
b)	$150
c)	$156
d)	$162
25.	The following transportation table shows the cost of shipping one unit from each source to each destination in the upper right hand corner of each cell, as well as the supply capacities and demand requirements:

Destination

		Los Angeles	New York	Houston	Supply
	Memphis	⌐5	⌐4	⌐2	6,000
Source	Boise	⌐3	⌐6	⌐4	3,000
	Omaha	⌐6	⌐5	⌐3	8,000
	Demand	5,000	7,500	4,500	17,000

The optimal solution is:

Destination

		Los Angeles	New York	Houston
	Memphis	0	1500	4500
Source	Boise	3000	0	0
	Omaha	2000	6000	0

The total amount shipped from Boise to Los Angeles is: |
a)	3
b)	6
c)	3,000
d)	5,000

--------------XX-----------------XX-----------------XX--------------

Enter a, b, c, or d in the correct option column

Question	Correct Option	Question	Correct Option
Q.1	c	Q.14	c
Q.2	b	Q.15	d
Q.3.	b	Q.16	a
Q.4	c	Q.17	d
Q5	a	Q.18	d
Q.6	b	Q.19	c
Q.7	a	Q.20	d
Q.8	d	Q.21	b
Q.9	B	Q.22	c
Q.10	d	Q.23	c
Q.11	d	Q.24	b
Q.12	b	Q.25	c
Q.13	d	----	----

[Type here]

Q=QUESTION	question_description	question_explanation	question_type
A=ANSWER	answer_description	answer_explanation	answer_isright
Q	Which of them is not a wireless attack?		M
A	Eavesdropping		0
A	MAC Spoofing		0
A	Wireless Hijacking		0
A	Phishing		1
Q	Who deploy Malwares to a system or network?		M
A	Criminal organizations, Black hat hackers, malware developers, cyber-terrorists		1
A	Criminal organizations, White hat hackers, malware developers, cyber-terrorists		0
A	Criminal organizations, Black hat hackers, software developers, cyber-terrorists		0
A	Criminal organizations, gray hat hackers, Malware developers, Penetration testers		0
Q	Compromising confidential information comes under_____		M
A	Threat		1
A	Bug		0
A	Vulnerability		0
A	Attack		0
Q	What is the best option for thwarting social-engineering attacks?		M
A	Technology		0
A	Training		1
A	Policies		0
A	Physical controls		0
Q	Botnets are managed by _____		M
A	Bot-holders		0
A	Bot-herders		1
A	Bot-trainers		0
A	Bot-creators		0
Q	_____ is a code injecting method used for attacking the database of a system / website.		M
A	HTML injection		0
A	SQL Injection		1
A	Malicious code injection		0
A	XML Injection		0
Q	Try not to keep _____ passwords, especially fingerprint for your smart-phone, because it can lead to physical hacking if you're not aware or asleep.		M
A	Biometric		1
A	PIN-based		0
A	Alphanumeric		0
A	Short		0
Q	By default, Bluetooth devices operate in which security mode?		M
A	Mode 1; "non-secure" mode		1
A	Mode 2; leaving security up to each application.		0
A	Mode 3; enforce link encryption for all traffic.		0
A	Mode 4; security settings default to a mobile policy server.		0
Q	Which of the following is NOT real security threat?		M
A	Virus		0
A	Worms		0
A	Spam		1
A	Trojans		0
Q	A small piece of code used as a payload in the exploitation of software vulnerability, is called as _____		M
A	Assembly code		0
A	Shell code		1
A	C and C++ code		0
A	Malicious code		0
Q	If you fall for a phishing scam, what should you do to limit the damage?		M
A	Change Username		0
A	Delete the phishing email.		0
A	Unplug the computer. This will get rid of any malware		0
A	Change any compromised passwords		1
Q	What kind of attempts is made by individuals to obtain confidential information from a person by falsifying their identity?		M
A	Phishing		1
A	Computer viruses		0
A	Spyware		0
A	Malware		0
Q	Phishers often develop _____ websites for tricking users & filling their		M
A	Legitimate		0
A	Illegitimate		1
A	Genuine		0
A	Official		0
Q	_____ is a generic term which refers to all the legal and regulator aspects of Internet and the World Wide Web		M
A	Cyber law		1
A	Cyber dyne		0
A	Cyber café		0
A	Electronic law		0
Q	Which factor determines when your IT system will be available for knowledge workers to access?		M
A	Reliability		0
A	Accessibility		0
A	Availability		1
A	Admissibility		0
Q	Accessing data without permission is known as..........		M
A	unlawful access		0
A	Illegal Access		0
A	Legal Access		0
A	Unauthourized Access		1
Q	_____ is the application of information and communication technology (ICT) for delivering government services		M
A	Governance		0
A	Governance and ethics		0
A	Electronic governance		1
A	Risk and governance		0
Q	The following cannot be exploited by assigning or by licensing the rights to others		M
A	Patents		0
A	Designs		0
A	Trademark		1
A	Ownership		0
Q	When IT Act 2000 came into effect?		M
A	17 October,2000		1
A	11 November,2000		0
A	17 October,2001		0
A	11 November,2001		0
Q	Which section of IT Act deals with Hacking of computer systems and its penalties?		M
A	Section 65		0
A	Section 66		1
A	Section 67		0
A	Section 69		0
Q	Which are the sections of IT Act applicable for Cyber pornography?		M
A	66, 66A, 66B		0
A	67, 67A, 67B		1
A	67, 67C, 67D		0
A	43, 43D, 69D		0
Q	Penalty for Breach of confidentiality and privacy is defined in section ----		M
A	71		0
A	72		1
A	73		0
A	74		0
Q	Sarbanes-Oxley Act (SOX) is used for		M
A	to stop hacking		0
A	protect equity shares		0
A	protect employee		0
A	To protect shareholders and the general public from accounting errors and fraudulent practices in enterprises		1
Q	HIPPA Act of 1996 stands for _____		M
A	Health Insurance Policy and Administration Act		0
A	Health Insurance Policy and Accountability Act		0
A	Health Insurance Portability and Administration Act		0
A	Health Insurance Portability and Accountability Act		1
Q	NERC Stands for_____		M
A	North African Electric Reliability Corporation		0
A	North American Electric Reliability Corporation		1
A	North American Electronic Reliability Corporation		0
A	North American Electric Regularatory Corporation		0

question_difficulty	answer_position
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Program: BE Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ILO7018 and Course Name: Energy Audit and Management

Time: 1 hour   Max. Marks: 50

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

Q1.	Choose the correct source of renewable energy.
Option A:	Natural gas
Option B:	Coal
Option C:	Tidal
Option D:	Nuclear
Q2.	Primary energy content of all fuels are generally expressed in terms of
Option A:	KW
Option B:	KVA
Option C:	KVAR
Option D:	Ton of oil equivalent (toe)
Q3.	Which of the following is a form of secondary energy?
Option A:	Steam
Option B:	Petrol
Option C:	Crude oil
Option D:	Coal
Q4.	The objective of Energy Management is to
Option A:	Minimize energy costs
Option B:	Minimize production
Option C:	Minimize duration of work
Option D:	Minimize manpower
Q5.	Energy Audit is the key to a systematic approach for decision-making in the area of
Option A:	Time management
Option B:	Water management.
Option C:	Pollution management
Option D:	energy management
Q6.	The verification, monitoring and analysis of use of energy and its report with recommendations is
Option A:	Energy monitoring

Option B:	Energy Conservation
Option C:	Energy Audit
Option D:	energy management
Q7.	Bench-mark in Energy Audit refers to:
Option A:	Trend of energy use
Option B:	Profit margin in energy business
Option C:	Reference point for managing energy in organization
Option D:	Energy Losses
Q8.	Energy Audit can be classified into the following types.
Option A:	Short Audit and Lengthy Audit
Option B:	Preliminary Audit and Secondary Audit
Option C:	Feasible Audit and non-feasible Audit
Option D:	Preliminary Audit, targeted energy audit and Detailed Audit
Q9.	For charging Maximum demand charges, maximum demand is measured in
Option A:	kWh
Option B:	kVA
Option C:	kVAr
Option D:	KV
Q10.	Power factor is ratio of
Option A:	Active power to apparent power
Option B:	Active power to reactive power
Option C:	Reactive power to apparent power
Option D:	Apparent power to active power
Q11.	Maximum demand controller is used to
Option A:	Switch off non-essential loads in a logical sequence
Option B:	Controls the power factor of the plant
Option C:	Switch off essential loads in a logical sequence
Option D:	Exceed the demand of the plant
Q12.	For which among the following consumers was penalty imposed for low power factor before 1st April, 2020
Option A:	Residential
Option B:	Industrial
Option C:	Agricultural
Option D:	BPL customers
Q13.	The basic functions of electronic ballast exclude one of the following:
Option A:	To ignite the lamp
Option B:	To reduce lumen output of the lamp
Option C:	To supply power to the lamp

Option D:	To stabilize the gas discharge
Q14.	Find the **odd** retrofit group for illumination from the following
Option A:	capacitor based control
Option B:	photo-sensors
Option C:	timer based control
Option D:	Occupancy sensors
Q15.	Motor loading calculation is based on
Option A:	Ideal load of motor
Option B:	actual operating load of motor
Option C:	90 % load of motor
Option D:	future load of the motor
Q16.	The motor input power Pi in pump can be measured by using
Option A:	Stroboscope
Option B:	Efficiency meter
Option C:	Portable power analyzer.
Option D:	Tachometer
Q17.	One Tons of refrigeration (TR) is equivalent to
Option A:	3420 Btu/h
Option B:	3024 kCal/h
Option C:	1200 thermal kW
Option D:	3024 kW/ton
Q18.	What does a LEED rating reflect?
Option A:	The cost of a building
Option B:	How green a building is
Option C:	The carbon footprint of a building's occupants
Option D:	The location of a building
Q19.	What is the name for the procedure used to clear buildings of contaminants before they are occupied?
Option A:	Flush-out
Option B:	Infiltration
Option C:	Ventilation
Option D:	Ex-filtration
Q20.	Which of the following trap has intermittent discharge for large load
Option A:	Inverted bucket
Option B:	Float
Option C:	Thermostatic
Option D:	Bimetallic

Q21.	Which is the best steam for an industrial process heating
Option A:	Dry saturated steam
Option B:	Wet steam
Option C:	Dry steam
Option D:	Superheated steam
Q22.	Which one is the most efficient equipment having Star rating
Option A:	2 star
Option B:	5 star
Option C:	4 star
Option D:	1 star
Q23.	Which one is NOT the reason of incomplete combustion
Option A:	Shortage of air
Option B:	Excess of fuel
Option C:	Poor distribution of fuel
Option D:	GCV of fuel
Q24.	The heat loss from the surface is expressed in
Option A:	Watt
Option B:	Watt/sq. meter-deg K
Option C:	Watt/sq. meter-deg C
Option D:	Joules
Q25.	Which is the purpose of insulation
Option A:	To facilitate free flow of heat
Option B:	Offers better process control by maintaining process temperature
Option C:	Reduce temperature of steam
Option D:	Refrigerated surface below due point

Program: BE Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ILO7018 and Course Name: Energy Audit and Management

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	D
Q3.	A
Q4	A
Q5	D
Q6	C
Q7	C
Q8.	D
Q9.	B
Q10.	A
Q11.	A
Q12.	B
Q13.	B
Q14.	A
Q15.	B
Q16.	C

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

QUESTION PAPER-1

	QUESTION	Answer
Q.No.1	The 73rd amendment Act pertains to which of the following	**B**
Option A	Statehood of Delhi	
Option B	Panchayti Raj Institutions	
Option C	Municipalities	
Option D	Land reforms	
Q.No.2	The Panchayati Raj is included in the	**B**
Option A	Union list	
Option B	State list	
Option C	Concurrent list	
Option D	Residuary list	
Q. No.3	Which of the following was the first committee on Panchayati raj in India	**A**
Option A	Balwant Rai Mehta	
Option B	Ashok Mehta	
Option C	L.M.Singhvi	
Option D	S. Mohinder Singh	
Q.No.4	Which of these is a factor that affects ethical and unethical behaviour	**A**
Option A	Ethical dilemma	
Option B	Diversity	
Option C	Teamwork	
Option D	Open communication	**C**
Q. No.5	When is National Panchayati Day celebrated	
Option A	23rd December	
Option B	1st June	
Option C	24th April	
Option D	15th September	
Q.No.6	Those individuals who raise ethical concerns to others inside or outside the organisation are called	**B**
Option A	Entrepreneur	
Option B	Whistle blower	
Option C	Social entrepreneur	
Option D	Social impact management	
Q.No.7	The term that refers to principles, values, beliefs that define right or wrong behaviour is	**C**
Option A	Customer satisfaction	
Option B	Innovation	
Option C	Ethics	
Option D	Empowerment	
Q.No8	Which of the following principles is the essential principle of utilitarian school of ethics	**B**
Option A	Greatest health principle	
Option B	Greatest Happiness principle	
Option C	Greatest wealth principle	
Option D	Greatest respect principle	
Q.No9	Which of the following is an appropriate general principle with regard to engineering ethics	**A**
Option A	The engineer shall regard his duty to the public welfare as paramount to all other obligations	
Option B	The engineer shall regard his duty to the objectives of the company as paramount to all other obligations	
Option C	The engineer shall regard his duty to the Profession of engineering as paramount to all other obligations	
Option D	The engineer shall regard his duty to his excellence as paramount to all other obligations	
Q.No10	Which of the following statements is the most correct description of the relationship between humans and technology	**C**
Option A	Technology impacts upon human action and human beings	
Option B	Human beings" act on, use,make" technology	
Option C	Technology provides apparatus for human action	
Option D	Technology hijacks human autonomy	
Q.No 11	Which of the following elements must always be in the mind of the engineer while performing his duties vis-a-visEthics (1)public safety, (2) economy, (3) health, (4) welfare	**D**
Option A	1,2,3	
Option B	1,2,3,4	
Option C	1,4	
Option D	1,3,4	
Q.No 12	73rd amendment gave practical shape to which article of the constitution	**C**
Option A	Article 14	
Option B	Article 32	
Option C	Article 40	
Option D	Article 51	
Q.No 13	Which one of the following is not correct ?	**C**
Option A	Growth is quantitative and value neutral	
Option B	Development means a qualitative change which is always value positive	
Option C	Positive growth and development refer to changes over a period of time	
Option D	Both growth and development refer to changes over a period of time.	
Q.No 14	The Human Development Index ranks the countries based on their performance in the key areas of (1) health, (2) sex-ratio, (3)education (4) access to resources	**C**
Option A	1,2,3	
Option B	2,3,4	
Option C	1,3,4	
Option D	1,2,4	
Q.No 15	The multi-dimensional poverty index is a measure developed by the	**D**
Option A	UNCTAD	
Option B	World Bank	
Option C	International Monetary Fund IMF	
Option D	Oxford poverty and human development initiative , OPHDI , and the UNDP	
Q.No 16	Which state has no Panchayat Raj Institution at all	**A**
Option A	Mizoram	
Option B	Manipur	
Option C	Arunachal Pradesh	
Option D	Tripura	
Q.No 17	Which state first reserved 50% setas for women	**D**
Option A	Andhra Pradesh	
Option B	Uttar Pradesh	
Option C	Madhya Pradesh	
Option D	Bihar	
Q.No 18	Which of the following system is established on the basis of direct election	**A**
Option A	Gram Panchayat	
Option B	Block Committee	
Option C	Zila Parishad	
Option D	District	
Q.No 19	The following is true about khap panchayat	**A**
Option A	based on caste system	
Option B	Consists of elected representatives	
Option C	Are constitutional bodies	
Option D	Follow rule of law of the land	
Q.No 20	In which five year plan the Panchayat Raj System was introduced in India for the first time	**B**
Option A	First	
Option B	Second	
Option C	Fifth	
Option D	Sixth	
Q.No 21	Which of the following years has been declared year of Gram Sabha	**B**
Option A	2008-09	
Option B	2009-10	
Option C	2011-12	
Option D	2012-13	
Q.No 22	Engagement of local people in development project refers to	**C**
Option A	Economic development	
Option B	Socila development	
Option C	Participatory development	
Option D	Sustainable development	
Q.No 23	Panchayati Raj system is based on the vision of	**B**
Option A	Pandit Jawaharlal Nehru	
Option B	Mahatma Gandhi	
Option C	Lal Bahadur Shastri	
Option D	Sardar Patel	
Q.No 24	Panchayats are constituted for	**B**
Option A	four years	
Option B	five years	
Option C	six years	
Option D	three years	
Q.No 25	The G.V.K.Rao committee was appointed by	**B**
Option A	Government of India	
Option B	Planning Commission	
Option C	Block development office	
Option D	Zilla Parishad	

Program: BE Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year   Semester VII

Course Code: **ILO7014**   Course Name: **Design of Experiments**

Time: 1 hour   Max. Marks: 50

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

Q1.	_____ is a vital part of the scientific (or engineering) method
Option A:	Evaluation
Option B:	Experimentation
Option C:	Estimation
Option D:	Authentication
Q2.	The general approach to planning and conducting the experiment is called the _____.
Option A:	Strategy of experimentation
Option B:	Method of experimentation
Option C:	Preparation of experimentation
Option D:	Outline of experimentation
Q3.	The basic principles of experimental design are_____.
Option A:	Randomization, repetition, blocking
Option B:	Replication, blocking randomization
Option C:	Randomization, repetition, factorization
Option D:	Optimization, blocking, factorization
Q4.	Consider the mathematical model Y = f(x, z); $$y = \frac{\partial f}{\partial x}\, x + \frac{\partial f}{\partial z}\, z$$ now Determining the most influential variables on the response y is called
Option A:	Process control
Option B:	Robust design
Option C:	Process characterization
Option D:	Process optimization

Q5.	The strategy which fails to consider any possible interaction between the factors is called
Option A:	Multiple factors at a time (MFAT)
Option B:	one-factor-at-a-time (OFAT)
Option C:	Best guess
Option D:	Best fit
Q6.	Which of the following is a correct expression for a multiple linear regression model having three regressor variables?
Option A:	$y = x_1 + \beta_2 x_2 + \beta_3 x_3 + \epsilon$
Option B:	$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \epsilon$
Option C:	$y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3$
Option D:	$y = \beta_0 - \beta_1 x_1 + \beta_2 x_2 - \beta_3 x_3 + \epsilon$
Q7.	The _____ is typically used to estimate the regression coefficients in a multiple linear regression model.
Option A:	Method of least squares
Option B:	Method of Jacobians
Option C:	Runge-Kutta Method
Option D:	Method of Moments
Q8.	In multiple linear regression problems, certain _____ about the model parameters are helpful in measuring the usefulness of the model.
Option A:	tests of hypotheses
Option B:	tests of uniqueness
Option C:	tests of convergence
Option D:	tests of divergence
Q9.	How many dependent variables does a two-way ANOVA have?
Option A:	Four
Option B:	Two
Option C:	Three
Option D:	One
Q10.	The analysis of variance will have _____ parts
Option A:	One
Option B:	Three
Option C:	Two
Option D:	Four

Q11.	In Split spot design, Randomization is done in _____ stages
Option A:	1
Option B:	2
Option C:	3
Option D:	4
Q12.	In field experiments certain factors may require _____ plots than for others.
Option A:	Lesser
Option B:	Same
Option C:	Larger
Option D:	Small
Q13.	The key idea used for the successful implementation of fractional factorial design are _____.
Option A:	Sparsity of effects principle, randomization, repetition
Option B:	Sparsity of effects principle, projection property, sequential experimentation
Option C:	Sparsity of effects principle, projection property, randomization
Option D:	Sparsity of effects principle, projection property, randomization, repetition
Q14.	When we estimate A, B, and C with complementary one-half fraction, we are really estimating _____.
Option A:	(A X BC, B X AC, C X AB)
Option B:	(A + BC, B + AC, C + AB)
Option C:	(A – BC, B – AC, C – AB)
Option D:	(A – BC, B X AC, C + AB)
Q15.	ANOVA is a statistical method of comparing the _____ of several populations
Option A:	Variance
Option B:	Standard deviations
Option C:	Means
Option D:	Mean deviation
Q16.	In a factorial experiment _____.
Option A:	Testing one factor at a time
Option B:	Cannot estimate interactions
Option C:	all possible combination of factor levels are tested
Option D:	Levels are not tested
Q17.	Factorial designs allow us to study both _____ effects of the independent variables on the dependent(s).
Option A:	Main and interactive

Option B:	Rank order and correlational
Option C:	Symbiotic and dichotomous
Option D:	Dependent and independent
Q18.	What statistical procedure is used to assess the statistical significance of the main effects and the interaction(s) in a factorial design?
Option A:	Analysis of covariance
Option B:	Correlation
Option C:	T-test
Option D:	Analysis of variance
Q19.	Which of the following item is required to be considered in logistics of testing?
Option A:	a plan to acquire materials needed for various test combinations
Option B:	regression model
Option C:	Taguchi Orthogonal Array
Option D:	missing runs
Q20.	Which of the following is an example of a plan for identifying results of the experimental trials?
Option A:	conducting missing trials
Option B:	tagging parts with trial and repetition numbers
Option C:	confounding
Option D:	preparing data sheets
Q21.	Large differences in results from trial to trial can happen in case of _____.
Option A:	good data sets
Option B:	bad data sets
Option C:	sample data sets
Option D:	attribute data sets
Q22.	Consistent results within a trial can be achieved with _____.
Option A:	good data sets
Option B:	bad data sets
Option C:	sample data sets
Option D:	conducting missing trials
Q23.	Which of the following is known as a structured approach for determining the "best" combination of inputs to produce a product or service _____.
Option A:	Taguchi approach
Option B:	signal to noise ratio

Option C:	design of experiments
Option D:	linear regression
Q24.	The factors whose values are hard-to-control during normal process or use conditions are called as-
Option A:	control factors
Option B:	noise factors
Option C:	random factors
Option D:	robust factors
Q25.	Which of the following is not an example of common types of noise factors?
Option A:	environmental factors
Option B:	customer usage
Option C:	Degradation that occurs through usage and environmental exposure
Option D:	cake mixture ingredients

Program: BE Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year   Semester VII

Course Code: **ILO7014**   Course Name: **Design of Experiments**

Time: 1 hour   Max. Marks: 50

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

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

Time: 1hour   Max. Marks: 50

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

Q1.	The PLC describes the stages a new product goes through in the---
Option A:	Introduction phase
Option B:	Test Market
Option C:	Product Development
Option D:	Market Place
Q2.	In introduction stage of PLC sales grow slowly and
Option A:	Competition becomes tough
Option B:	Profit is Minimal
Option C:	More Investors needed
Option D:	Profit is Maximum
Q3.	Marketing Objective for the maturity stage of PLC is
Option A:	Maintain Brand Loyalty
Option B:	Stress Differentiation
Option C:	Harvest
Option D:	Deletion
Q4.	PLC stage where Competitors appears is
Option A:	Introduction phase
Option B:	Decline Phase

Option C:	Maturity
Option D	Growth
Q5.	The stage when the cost of gaining new Buyers increases
Option A:	Growth
Option B:	Introduction
Option C:	Maturity
Option D:	Pre-Investment
Q6.	Color and size of the product, brand and packaging are considered as,
Option A:	Chemical features of product
Option B:	Physical features of product
Option C:	Product designing
Option D:	Product manufacture
Q7.	Developing a unique superior product with high quality, new features, and high value in use is _____ in new product development strategy.
Option A:	New product development process
Option B:	Typical reasons for failure
Option C:	Success factors
Option D:	Product concept
Q8.	Reason of product failure associated with its feature is due to,
Option A:	Good quality of product
Option B:	Good quantity of product
Option C:	Poor quality of product
Option D:	Poor quantity of product

Q9.	Which of the following is the first step of product development process?
Option A:	Production ramp-up
Option B:	Prototyping
Option C:	Product design
Option D:	Identification of customer needs
Q10.	In which of the following stage of Product Development Process, a detailed specification for the product development and pricing is established?
Option A:	Launch
Option B:	Testing
Option C:	Feature specification
Option D:	Idea screening
Q11.	Product data management is the activity of _____
Option A:	Managing product data.
Option B:	Invention data recording.
Option C:	Managing computer for data.
Option D:	Manipulation of data.
Q12.	A _____ is a high-level data model that shows, from the user viewpoint, the main entities and the relationships between them. It may also define the entities, and show their attributes and structure
Option A:	Physical data model
Option B:	Conceptual data model
Option C:	Entity-relationship model
Option D:	Logical data model

Q13.	A_____ is a very detailed model that is specific to the technology (e.g., database). It shows how the data will be physically stored and accessed.
Option A:	Logical data model
Option B:	Conceptual data model
Option C:	Physical data model
Option D:	Entity relationship model
Q14.	Virtual product development is the Practice of _____ and developing the products in entire 2D/3D environment
Option A:	prototyping
Option B:	producing
Option C:	protecting
Option D:	purchasing
Q15.	____ is not the component of virtual product development
Option A:	Virtual product design
Option B:	Virtual product simulation
Option C:	Virtual product manufacturing
Option D:	shop floor manufacturing
Q16.	_____is not a part of digital manufacturing
Option A:	virtual plant design
Option B:	virtual process planning
Option C:	virtual assembly visualization
Option D:	realistic manufacturing
Q17.	Sustainability Science is the study of the concepts of sustainable development and--------- ___ .

Option A:	Environmental Science
Option B:	General Science
Option C:	Social science
Option D:	Geo science
Q18.	UN decade of education for Sustainable development
Option A:	2002-11
Option B:	2003-12
Option C:	2004-13
Option D:	2005-14
Q19.	Number of sustainable development goals (SDGs) by UN are
Option A:	15
Option B:	16
Option C:	17
Option D:	18
Q20.	LCA stands for
Option A:	life cycle assessment
Option B:	life cycle analogy
Option C:	Life cycle assurance
Option D:	Life cycle Array
Q21.	Product is the ultimate objective of variety reduction
Option A:	Simplification
Option B:	Standardization
Option C:	Specialization
Option D:	Socialization

Q22.	An attractive idea must be developed into a
Option A:	Product idea
Option B:	product concept
Option C:	Test market
Option D:	Product image
Q23.	There are _____ basic components of an EDM/PDM system
Option A:	NINE
Option B:	SEVEN
Option C:	SIX
Option D:	FIVE
Q24.	Select suitable potential reasons why to implement PDM
Option A:	Data missing in hard drives, systems not responding, less data is stored
Option B:	Life cycle is managed, less systems available, data is sufficient
Option C:	Data is not centralized, CAD versions are not supported, messed up with data in mapping
Option D:	Data is available but extended facility is not existing.
Q25.	Select suitable reasons, so that PDM can lead to major benefits
Option A:	Huge investments may attract more profits
Option B:	Eases data availability, no data is missing, data storage is done
Option C:	Generates revenues, quality of product improves
Option D:	Reduces product development times by 25%, reduces cost by 15%.

Time: 1 hour   Max. Marks: 50

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	B
Q3.	A
Q4	D
Q5	A
Q6	B
Q7	C
Q8.	C
Q9.	D
Q10.	C
Q11.	A
Q12.	B
Q13.	C
Q14.	A
Q15.	D
Q16.	D
Q17.	A
Q18.	D
Q19.	C
Q20.	A
Q21.	C
Q22.	B
Q23.	A
Q24.	C
Q25.	D