

**University of Mumbai**  
**Examination 2020 under cluster 4**

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course Code: ECCDLO5014 and Course Name: Data Compression and Encryption

Time: 1 hour

Max. Marks: 50

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

Q1.	One of the most popular ways of representing dependence in the data is through the use of _____.
Option A:	physical models
Option B:	probability models
Option C:	composite source models
Option D:	Markov models
Q2.	What is compression
Option A:	to compress something by pressing it very hardly
Option B:	to compress something by pressing it very hardly
Option C:	to reduce size of data to save space
Option D:	to convert one file to another
Q3.	amongst the following which one is the loslesss type of data
Option A:	audio
Option B:	video
Option C:	text
Option D:	speech
Q4.	Efficiency of any compression algorithm is calculated as
Option A:	$H/L*100$
Option B:	$L/H*100$
Option C:	$(H+L)*100$
Option D:	$(H-L)*100$
Q5.	LZ78 has _____ compression but very _____ decompression than LZ77.
Option A:	fast, slow
Option B:	slow, fast
Option C:	complex, simple
Option D:	simple, complex
Q6.	Compression ratio is _____ in Lossy.
Option A:	1
Option B:	high
Option C:	low
Option D:	10

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Q7.	Digital video is sequence of
Option A:	pixels
Option B:	matrix
Option C:	frames
Option D:	coordinates
Q8.	Wavelet transformation uses
Option A:	only DC components to match the original signal
Option B:	a combination of DCT and Fourier Analysis to match the original signal
Option C:	only harmonics to match the original signal
Option D:	"curve fitting" to choose a basic waveform closely matching the original signal
Q9.	The DCT process divide a picture into
Option A:	vertical lines
Option B:	round blocks
Option C:	horizontal lines
Option D:	square blocks
Q10.	A video consists of a sequence of
Option A:	frames
Option B:	signals
Option C:	packets
Option D:	slots
Q11.	Before audio or video signals can be sent on Internet, they need to be
Option A:	channelised
Option B:	managed
Option C:	digitised
Option D:	organised
Q12.	The characteristics of compressor in $\mu$ -law companding are
Option A:	Continuous in nature
Option B:	Logarithmic in nature
Option C:	Linear in nature
Option D:	Discrete in nature
Q13.	Which of the following is not a compressed format?
Option A:	MP3
Option B:	Bitmap
Option C:	JPEG
Option D:	MPEG
Q14.	A(n) _____ algorithm transforms ciphertext to plaintext.
Option A:	encryption
Option B:	decryption
Option C:	symmetric
Option D:	asymmetric

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Q15.	ECB and CBC are _____ ciphers.
Option A:	Block
Option B:	Stream
Option C:	Field
Option D:	Bit
Q16.	The DES algorithm has a key length of
Option A:	128 bits
Option B:	64bits
Option C:	127 bits
Option D:	63bits
Q17.	Hash Message is signed by sender using
Option A:	his public key
Option B:	his private key
Option C:	reciever public key
Option D:	reciver private key
Q18.	SHA-1 produces a hash value of
Option A:	256 bits
Option B:	160 bits
Option C:	128 bits
Option D:	180 bits
Q19.	Message authentication code is also known as
Option A:	key code
Option B:	hash code
Option C:	keyed hash function
Option D:	message key hash function
Q20.	$a^{\phi(n)} \equiv 1 \pmod n$ . is names as which function
Option A:	eulers
Option B:	fermats
Option C:	primes
Option D:	hash
Q21.	The bank _____ the customer's message after getting the email request for e money.
Option A:	integrate
Option B:	access
Option C:	authenticates
Option D:	non-repudiate
Q22.	Which one is not the application of IPSec?
Option A:	Secure Remote access
Option B:	Hacking
Option C:	Secure branch office connectivity
Option D:	Secure E-Commerce

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Q23.	Governments hired some highly skilled hackers. These types of hackers are termed as
Option A:	Cyber Intelligence Agents
Option B:	Special Hackers
Option C:	Government Hackers
Option D:	Nation / State sponsored hackers
Q24.	A _____ creates copies during replication that are functionally equivalent but have distinctly different bit patterns.
Option A:	Boot Sector Virus
Option B:	Polymorphic Virus
Option C:	Parasitic Virus
Option D:	Macro Virus
Q25.	AES uses a _____ bit block size and a key size of _____ bits.
Option A:	128; 128 or 256
Option B:	64; 128 or 192
Option C:	256; 128, 192, or 256
Option D:	128; 128, 192, or 256

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