

**University of Mumbai**  
**Online Examination 2020**

Curriculum Scheme: Revised 2012

Examination: Final Year Semester VII

Course Code: ETE701 and Course Name: Data Compression and Encryption

Time: 1 hour

Max. Marks: 50

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

Q1.	The type of encoding where no character code is the prefix of another character code is called?
Option A:	optimal encoding
Option B:	prefix encoding
Option C:	frequency encoding
Option D:	tri encoding
Q2.	A compressed audio file can be downloaded as
Option A:	image
Option B:	video
Option C:	frame
Option D:	text file
Q3.	Transformations that removes inter pixel redundancy are referred as
Option A:	Noise
Option B:	Mapping
Option C:	Filters
Option D:	Relations
Q4.	The smallest element of an image is called
Option A:	pixel
Option B:	dot
Option C:	coordinate
Option D:	digits
Q5.	Multimedia files stored on a remote server are delivered to a client across the network using a technique known as _____
Option A:	download
Option B:	streaming
Option C:	flowing
Option D:	leaking

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Q6.	_____ of information means, only authorized users are capable of accessing the information.
Option A:	Confidentiality
Option B:	Integrity
Option C:	Non-repudiation
Option D:	Availability
Q7.	Find $37 \text{ mod } 5$
Option A:	2
Option B:	3
Option C:	4
Option D:	5
Q8.	The readable message or data that is fed into the algorithm as input is called as
Option A:	Cipher text
Option B:	Plain text
Option C:	output text
Option D:	Input text
Q9.	What are the different ways to classify an Intrusion detection
Option A:	system Zone based
Option B:	Host & Network based
Option C:	Network & Zone based
Option D:	Level based
Q10.	The technique that may be used to increase average information per bit is
Option A:	Shannon-Fano algorithm
Option B:	ASK
Option C:	FSK
Option D:	Digital modulation techniques
Q11.	MP3 is an extension of a _____ file
Option A:	Video file
Option B:	Graphics image
Option C:	Audio File
Option D:	Text File
Q12.	Transforming the difference between adjacent pixels is called
Option A:	mapping
Option B:	image compression
Option C:	image watermarking

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Option D:	image equalization
Q13.	In Video Compression, frame that depends on past frames and future frames is called
Option A:	B-Frame
Option B:	C-Frame
Option C:	I-Frame
Option D:	P-Frame
Q14.	Why these 4 elements (confidentiality, integrity, authenticity & availability) are considered fundamental?
Option A:	They help understanding hacking better
Option B:	They are key elements to a security breach
Option C:	They help understands security and its components better
Option D:	They help to understand the cyber-crime better
Q15.	Use Caesar's Cipher to find cipher text for ENCRYPTION
Option A:	GPETARVKPQ
Option B:	HQFUBSWLRQ
Option C:	IRGVCTXMRS
Option D:	JSHWDUYNST
Q16.	If $p=3$ and $q=5$ and choose $d=7$ . Find plaintext if ciphertext is 12 using RSA algorithm
Option A:	3
Option B:	4
Option C:	5
Option D:	6
Q17.	If M is a variable-length message, K is a secret key shared only by sender and receiver and C is MAC function them MAC code is given by.....
Option A:	$MAC=M(C,K)$
Option B:	$MAC=K(C,M)$
Option C:	$MAC=C(K,M)$
Option D:	$MAC=K(M)$
Q18.	_____ is the kind of firewall is connected between the device and the network connecting to internet.
Option A:	Hardware Firewall
Option B:	software Firewall
Option C:	Stateful Inspection Firewall
Option D:	Microsoft Firewall

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Q19.	In which coding technique dictionary is predefined?
Option A:	Huffman coding
Option B:	Shannon fano coding
Option C:	Adptive huffman
Option D:	LZW
Q20.	What is the full form of MPEG?
Option A:	Motion Pictures Engineering Group
Option B:	Motion Pictures Electronics Group
Option C:	Motion Picture Events Group
Option D:	Motion Picture Experts Group
Q21.	Find $3^{-1} \pmod{7}$
Option A:	2
Option B:	3
Option C:	4
Option D:	5
Q22.	Which one of the following is not a cryptographic algorithm- JUPITER, Blowfish, RC6, Rijndael and Serpent?
Option A:	JUPITER
Option B:	Blowfish
Option C:	Rijndael
Option D:	Serpent
Q23.	A function of the message and a secret key that produces a fixed-length value that serves as the authenticator is called as.....
Option A:	Digital signatures
Option B:	Message Integrity
Option C:	Hash Function
Option D:	Message Authentication code
Q24.	What is the value of opad in the HMAC structure
Option A:	11011100
Option B:	01111100
Option C:	01011100
Option D:	01011101
Q25.	.....is software that is intentionally included or inserted in a system for a harmful purpose.
Option A:	Malicious software

These are sample MCQs to indicate pattern, may or may not appear in examination

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Option B:	virus
Option C:	worm
Option D:	denial of service (DoS)