Program: BE Electronics & Telecommunication Engineering

Curriculum Scheme: Revised 2016

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.	Binary Huffman coding is a
Option A:	Prefix condition code
Option B:	Suffix condition code
Option C:	Prefix & Suffix condition code
Option D:	None of the mentioned
Q2.	Which of the following compression technique uses a triple to send to the receiver side?
Option A:	LZ77 Dictionary Coding
Option B:	LZ78 Dictionary Coding
Option C:	LZW Dictionary Coding
Option D:	Arithmetic Coding
Q3.	Compression is inevitable for
Option A:	Storing data
Option B:	Transmitting data
Option C:	Both
Option D:	It is not required
Q4.	When the base of the logarithm is 2, then the unit of measure of information is
Option A:	Bits
Option B:	Bytes
Option C:	Nats
Option D:	None of the mentioned
Q5.	Which is more efficient method?
Option A:	Encoding each symbol of a block
Option B:	Encoding block of symbols
Option C:	Encoding each symbol of a block & Encoding block of symbols
Option D:	None of the mentioned
Q6.	Which of the following actually helps in achieving compression?

Option A:	DCT
Option B:	Quantization
Option C:	Truncation
Option D:	Reduction
Q7.	Which DCT coefficients contain the most important image information?
Option A:	coefficients to top left part of the matrix
Option B:	coefficients to the bottom left part of the matrix
Option C:	coefficients to top right part of the matrix
Option D:	coefficients to the top right part of the matrix
Q8.	A FHD video (1920*1080) requires approximately how many bytes of storage for one second length?
Option A:	6220800
Option B:	49766400
Option C:	6075
Option D:	None of these
Q9.	A Full HD image (1920*1080) requires approximately how many kilobits of storage?
Option A:	24300
Option B:	6075
Option C:	48600
Option D:	None of these
Q10.	The huge noise generated by a jet at 0 ms masks the sound at 10 ms completely while the sound at 20 ms is not masked. Which type of masking should be used in this case?
Option A:	Temporary masking
Option B:	Auditory masking
Option C:	Temporal Masking
Option D:	Masking is not needed
Q11.	-656 is used as an input to the mu law encoder. What is the quantization code generated after encoding?
Option A:	0101
Option B:	101
Option C:	100
Option D:	0100
Q12.	Which of the following is not used in MPEG audio encoding?
Option A:	Frequency domain mapping
Option B:	Frequency sample reconstruction
Option C:	Bit/noise allocation
Option D:	Psychoacoustic model

Q13.	The refresh rate used in movies in frames per second is
Option A:	15
Option B:	16
Option C:	48
Option D:	24
Q14.	The _____ attack is related to authentication.
Option A:	interception
Option B:	fabrication
Option C:	modification
Option D:	interruption
Q15.	The DES Algorithm Cipher System consists of _____ rounds (iterations) each with a round key
Option A:	12
Option B:	18
Option C:	9
Option D:	16
Q16.	Which of the following is not a key size in AES
Option A:	128
Option B:	256
Option C:	192
Option D:	64
Q17.	$\phi(21)=$
Option A:	10
Option B:	12
Option C:	14
Option D:	8
Q18.	What is the maximum length of the message (in bits) that can be taken by SHA-512?
Option A:	2^{128}
Option B:	2^{256}
Option C:	2^{64}
Option D:	2^{192}
Q19.	Which one of the following is not a higher layer SSL protocol?
Option A:	Alert Protocol
Option B:	Handshake Protocol
Option C:	Alarm Protocol
Option D:	Change Cipher Spec Protocol
Q20.	The full form of SSL is
Option A:	Serial Session Layer

Option B:	Secure Socket Layer
Option C:	Session Secure Layer
Option D:	Series Socket Layer
Q21.	7^3 mod 19 =
Option A:	18
Option B:	1
Option C:	14
Option D:	12
Q22.	The principle of _____ ensures that only the sender and the intended recipients have access to the contents of a message.
Option A:	confidentiality
Option B:	authentication
Option C:	integrity
Option D:	access control
Q23.	Which of the following transforms is usually used in image compression?
Option A:	Fourier Transform
Option B:	Discrete Cosine Transform
Option C:	Laplace Transform
Option D:	Discrete Compression Transform
Q24.	Which of the following algorithms is the best approach for solving Huffman codes?
Option A:	exhaustive search
Option B:	greedy algorithm
Option C:	brute force algorithm
Option D:	divide and conquer algorithm
Q25.	After the encryption stage in SSL, the maximum length of each fragment is
Option A:	$2^{14}+1028$
Option B:	$2^{14}+2048$
Option C:	$2^{16}+1028$
Option D:	$2^{16}+2048$