

Program: BE

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: ECCDLO 5014

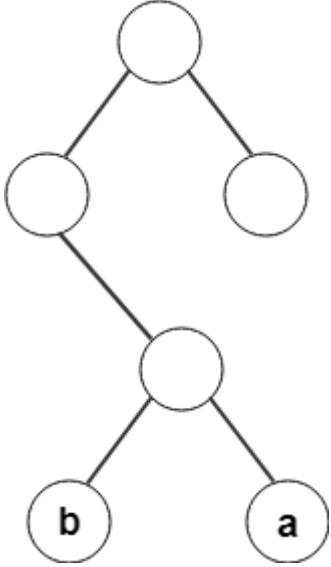
Course Name: Data Compression & Encryption

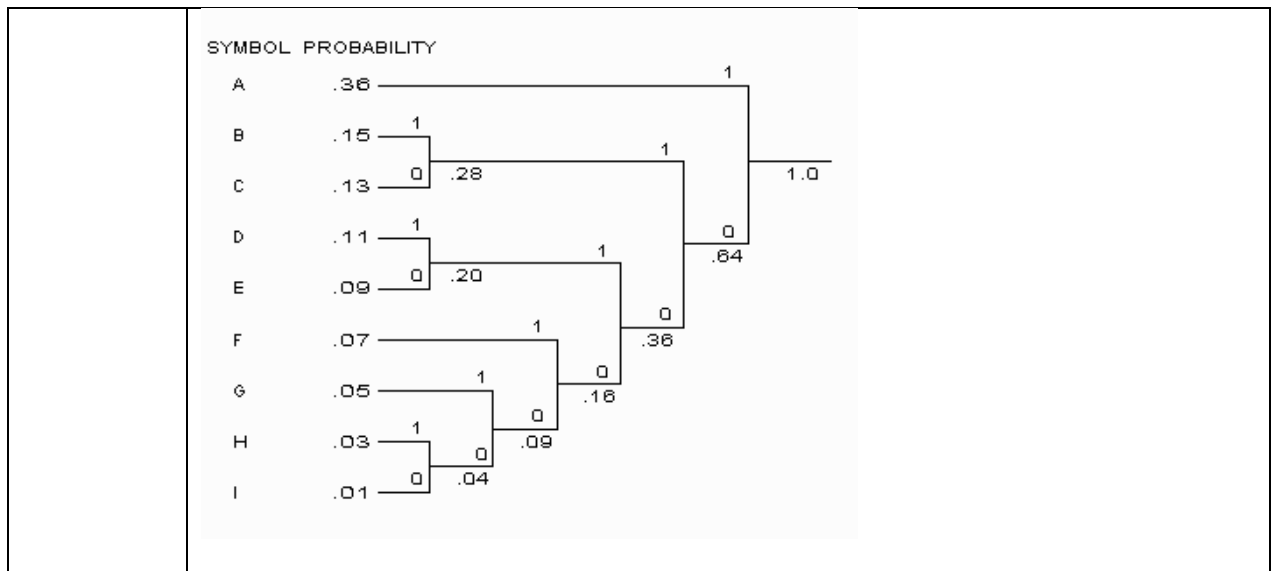
Time: 1 hour

Max. Marks: 50

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

Q1.	From the following given tree, what is the code word for the character 'a'?
	
Option A:	011
Option B:	010
Option C:	100
Option D:	101
Q2.	Using Huffman Code , calculate the avg. word length



Option A: 2.68

Option B: 1.36

Option C: 2.77

Option D: 1.78

Q3. Complete the dictionary for given stream, Using LZ78 algorithm.

ABBCBCABABCAABCAAB

OUTPUT	DICTIONARY
(0,A)	A
(0,B)	B
(2,C)	BC
(3,A)	BCA
(2,A)	BA
(4,A)	BCAA

Option A: (4,A)-BCAA

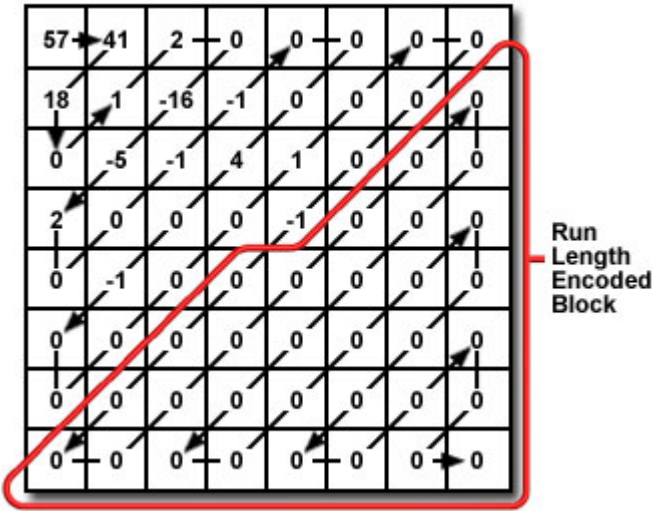

Option B: (5,B)- CAAB

Option C: (6,B)-BCAAB

Option D: (7,A)- BCAB

Q4. By shanon fano algorithm calculate the code for the data bits and given probability.

		a_i	$p(a_i)$
		a_1	0.36
		a_2	0.18
		a_3	0.18
		a_4	0.12
		a_5	0.09
		a_6	0.07
Option A:	00,01,10,110,1110,1111		
Option B:	01,11,010,101,110,1111		
Option C:	00,01,001,010,011,111		
Option D:	00,010,110,1101,1111		
Q5.	Lempel-Ziv algorithm is		
Option A:	Variable to fixed length algorithm		
Option B:	Fixed to variable length algorithm		
Option C:	Fixed to fixed length algorithm		
Option D:	Variable to variable length algorithm		
Q6.	The unit of average mutual information is		
Option A:	Bits		
Option B:	Bytes		
Option C:	Bits per symbol		
Option D:	Bytes per symbol		
Q7.	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		
Q8.	Which is DC coefficient in the following blocks		

	<p style="text-align: center;">Run Length Encoding of DCT Blocks</p> <div style="text-align: center;">  <p style="text-align: center;">Zigzag Scan Order Figure 1</p> </div>
Option A:	-16
Option B:	18
Option C:	0
Option D:	57
Q9.	<p>Comparing Jpeg and Jpeg2000 features, and select the correct answer.</p> <div style="text-align: center;">  </div>
Option A:	JPEG 2000 is Single architecture for lossless and lossy compression
Option B:	Jpeg is best as compared to JPEG 2000
Option C:	JPEG2000 use DST
Option D:	JPEG use DWT
Q10.	The most common compression technique that is used to select CD quality audio is based upon perceptual encoding technique is called
Option A:	Predictive
Option B:	Perceptual
Option C:	MPEG
Option D:	JPEG
Q11.	In Video Compression, an independent frame that is not related to any other frame is called

Option A:	B-Frame
Option B:	C-Frame.
Option C:	I-Frame.
Option D:	P-Frame.
Q12.	<p>What is predicted sequence of MPEG frames</p>
Option A:	IBPPBIPBBI
Option B:	IBBPBBPBBBI
Option C:	PBBIBBIBBP
Option D:	BPPIPPIPPB
Q13.	Which is not a false statement.
Option A:	Motion compensation is an algorithmic technique employed in the encoding of video data for video compression.
Option B:	Motion compensation is an algorithmic technique employed in the encoding and decoding of video data for video compression.
Option C:	Motion compensation is an algorithmic technique employed in the decoding of video data for video compression.
Option D:	None of these.
Q14.	The characteristics of compressor in μ -law companding are
Option A:	Continuous in nature
Option B:	Logarithmic in nature
Option C:	Linear in nature
Option D:	Discrete in nature
Q15.	In cryptography, the order of the letters in a message is rearranged by _____.
Option A:	transpositional ciphers
Option B:	substitution ciphers
Option C:	both transpositional ciphers and substitution ciphers
Option D:	quadratic ciphers

Q16.	What is data encryption standard (DES)?
Option A:	block cipher
Option B:	stream cipher
Option C:	bit cipher
Option D:	byte cipher
Q17.	Use Caesar's Cipher to decipher the following HGFUBSWHG WHAW
Option A:	ABANDONED LOCK
Option B:	ENCRYPTED TEXT
Option C:	ABANDONED TEXT
Option D:	ENCRYPTED LOCK
Q18.	Cryptographic hash function takes an arbitrary block of data and returns _____
Option A:	fixed size bit string
Option B:	variable size bit string
Option C:	both fixed size bit string and variable size bit string
Option D:	variable sized byte string
Q19.	Another name for Message authentication codes is
Option A:	cryptographic codebreak
Option B:	cryptographic codesum
Option C:	cryptographic checksum
Option D:	cryptographic checkbreak
Q20.	Which one of the following algorithms is not used in asymmetric-key cryptography?
Option A:	RSA algorithm
Option B:	Diffie-Hellman algorithm
Option C:	Electronic code book algorithm
Option D:	DSA algorithm
Q21.	Communication between end systems is encrypted using a key, often known as
Option A:	temporary key
Option B:	section key
Option C:	line key
Option D:	session key
Q22.	A concern of authentication that deals with user rights.
Option A:	General access
Option B:	Functional authentication
Option C:	Functional authorization
Option D:	Auto verification
Q23.	For each _____ the Kerberos Key Distribution Center (KDC) maintains a database of the realm's principal and the principal's associated "secret keys".

Option A:	key
Option B:	realm
Option C:	document
Option D:	none of the mentioned
Q24.	Which of the following is not a secured mail transferring methodology?
Option A:	POP3
Option B:	SSMTP
Option C:	Mail using PGP
Option D:	S/MIME
Q25.	S/MIME is abbreviated as _____
Option A:	Secure/Multimedia Internet Mailing Extensions
Option B:	Secure/Multipurpose Internet Mailing Extensions
Option C:	Secure/Multimedia Internet Mail Extensions
Option D:	Secure/Multipurpose Internet Mail Extensions