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# **Question Paper Code: 95Q18**

M.E. DEGREE EXAMINATION, JAN 2020

## Elective

# **Communication Systems**

## 15PCM518 - DATA COMPRESSION

#### (Regulation 2019)

Duration: One hour

Maximum: 30 Marks

### PART A - $(6 \times 1 = 6 \text{ Marks})$

# (Answer any six of the following questions)

1.	Data compression means to_the file size.					
	(a) Increase	(b) Decrease	(c) Can't say	(d) None of the above	Answer	
2.	Suppose storing requires 65,536 version requires	storing an image made up of a square array of 256×256 pixels CO1- 65,536 bytes. The image is compressed and the compressed requires 16,384 bytes. Then the compression ratio is				
	(a) 1:4	(b) 4:1	(c) 1:2	( <b>d</b> ) 2:1		
3.	. A Huffman code: $A = 1$ , $B = 000$ , $C = 001$ , $D = 01$ , $P(A) = 0.4$ , $P(B) = 0.1$ , $P(C) = 0.2$ , $P(D) = 0.3$ The average number of bits per letter is					
	(a) 0 bit		(b) 1 bi	it		
	(c) 0 bit		( <b>d</b> ) 9 bi	it		
4.	Application of LZW CO2-					
	(a) GIF	(b) Zip	(c) PNO	G (d) All of th	e above	
5.	Which of the following are lossy methods?					
	a) JPEG	(b) MPEG	(c) MP3	3 (d) All of the al	bove	

6.	Compression Technique used in Audio is				
	(a) Differential Encoding (b) Transformation Encoding				
	(c) Entropy Coding (d) Differential & Transformation Encoding				
7.	Without losing quality, JPEG-2000 can achieve compression ratios of				
	(a) 2:1	(b) 200:1			
	(c) 2000:1	(d) 20:1			
8.	The best visual compression qua	lity is achieved using		CO4- R	
	(a) Fourier transform	(b) Wavelets			
	(c) DCT	(d) Dolby			
9.	The MPEG-II was designed for rate of	r high quality/DVD with a data	l	CO5- R	
	(a) 3 to 6 Mbps (b) 4 to 6 Mbp	ps (c) 5 to 6 Mbps	(d) 6Mbps		
10.	Packet radio refers to			CO5- R	
	(a) . Multiple users on single cha	nnel			
	(b) Single user on multiple channels as per demand				
	(c) Multiple users on multiple channels at different time slots				
	(d) Multiple users with coding techniques				
	PAR	T – B (3 x 8= 24 Marks)			
	(Answer any	three of the following questions	)		
11.	What are components of multimin detail.	nedia? Explain the components	CO1- U	(8)	
12.	Explain in detail about text comp	pression techniques	CO2- U	(8)	
13.	Express the perception parameters that are use	ters and associated vocal tract ed for speech compression.	CO3- U	(8)	
14.	Explain the application of compression.	sub band coding to image	CO4- U	(8)	
15.	Explain in detail about packet vi	deo.	CO5- U	(8)	