

University of Mumbai
Online Examination 2020

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

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: ETC601 and Course Name: Digital Communication

Time: 1 hour

Max. Marks: 50

=====

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

Q1.	Which technique is used to increase the average information per bit
Option A:	Shannon-Fano algorithm
Option B:	ASK
Option C:	FSK
Option D:	PSK
Q2.	What is the Entropy, When the two messages are equally likely.
Option A:	1 bits/msg
Option B:	0.72 bits/msg
Option C:	2 bits/msg
Option D:	0.97 bits/msg
Q3.	Converting a word to stream of bits, this method is called
Option A:	Bit coding
Option B:	Cipher coding
Option C:	Binary coding
Option D:	Source coding
Q4.	Which line code format is used in synchronization between transmitter and Receiver.
Option A:	Split Phase Manchester
Option B:	AMI
Option C:	NRZ
Option D:	RZ
Q5.	Which line code format is derived by the grouping of message bits with four amplitude levels
Option A:	RZ
Option B:	NRZ
Option C:	Polar Quaternary format
Option D:	AMI

University of Mumbai
Online Examination 2020

Q6.	Unipolar, bipolar, and polar encoding schemes are types of
Option A:	Line encoding.
Option B:	block encoding.
Option C:	NRZ encoding.
Option D:	Manchester encoding.
Q7.	The impulse response of a matched filter is a time reversal and delayed version of the -----
Option A:	output signal
Option B:	received signal
Option C:	noisy signal
Option D:	input signal
Q8.	In integrate and dump receiver, at the beginning of each bit interval, the voltage across capacitor is -----
Option A:	maximum
Option B:	minimum
Option C:	zero
Option D:	variable
Q9.	BPSK system modulates at the rate of
Option A:	1 bit/ symbol
Option B:	2 bit/ symbol
Option C:	3 bit/ symbol
Option D:	4 bit/ symbol
Q10.	Bit rate is the number of bits sent in
Option A:	1 sec
Option B:	5 sec
Option C:	10 sec
Option D:	100 sec
Q11.	In QAM which characteristics of carrier are varied?
Option A:	Frequency and amplitude
Option B:	phase and frequency
Option C:	amplitude and phase
Option D:	only amplitude
Q12.	If the baud rate is 400 for QPSK signal, then the bit rate is
Option A:	100bps
Option B:	400bps
Option C:	800bps
Option D:	1600bps

University of Mumbai
Online Examination 2020

Q13.	The constellation diagram of BPSK signal has
Option A:	3 dots
Option B:	2 dots
Option C:	1 dots
Option D:	0 dots
Q14.	How many carrier frequencies are used in QPSK?
Option A:	2
Option B:	1
Option C:	0
Option D:	3
Q15.	The received code contains an error if the syndrome vector is
Option A:	Zero
Option B:	Non zero
Option C:	Infinity
Option D:	all ones
Q16.	The cyclic codes are designed using
Option A:	Shift registers with feedback
Option B:	Shift registers without feedback
Option C:	Flipflops
Option D:	counters
Q17.	Which parameter is used in soft decision algorithm?
Option A:	Only Euclidean distance
Option B:	Only Euclidean distance squared
Option C:	Both Euclidean distance & distance squared
Option D:	Constraint length
Q18.	In Convolution Decoding Soft decision results in
Option A:	Decrease in complexity
Option B:	Decrease in storage
Option C:	Increase in complexity & Decrease in storage
Option D:	Increase in complexity & as well as in storage
Q19.	In Viterbi's algorithm, which metric is adopted for decision making?
Option A:	Hamming distance
Option B:	Galois Field
Option C:	Hamming bound
Option D:	Parity-check
Q20.	While representing the convolutional code by (n,k,m), what does 'm' signify or represent in it?
Option A:	Coded bits

University of Mumbai
Online Examination 2020

Option B:	Message bits
Option C:	Memory order
Option D:	redundant bits
Q21.	Which among the below stated logical circuits are present in encoder and decoder used for the implementation of cyclic codes?
Option A:	Shift Registers and Modulo-2 Adders
Option B:	Counters and Multiplexers
Option C:	Shift Registers and Counters
Option D:	Modulo-2 Adders and Multiplexers
Q22.	In decoding of cyclic code, which among the following is also regarded as 'Syndrome Polynomial'?
Option A:	Generator Polynomial
Option B:	Received code word Polynomial
Option C:	Quotient Polynomial
Option D:	Remainder Polynomial
Q23.	DS/BPSK includes
Option A:	De-spreading
Option B:	Demodulation
Option C:	De-spreading & Demodulation
Option D:	Modulation
Q24.	In CDMA, the users share the bandwidth
Option A:	Synchronously
Option B:	Asynchronously
Option C:	Synchronously & Asynchronously
Option D:	Coherent
Q25.	Frequency hopping system can provide reliable mitigation only if
Option A:	Hopping rate is greater than the symbol rate
Option B:	Hopping bandwidth is large
Option C:	Hopping rate is greater than the symbol rate & its bandwidth is large
Option D:	Hopping bandwidth is small