Q1.	For decoding in convolution coding, in a code tree,
Option A	Diverge upward when a bit is 0 and diverge downward when the bit is 1
Option B	Diverge downward when a bit is 0 and diverge upward when the bit is 1
Option C	Diverge left when a bit is 0 and diverge right when the bit is 1
Option D	Diverge right when a bit is 0 and diverge left when the bit is 1
	Diverge upward when a bit is 0 and diverge downward when the bit is 1
Q2.	According to linearity property, the _____ of two code words in a cyclic code is also a valid code word.
Option A	sum
Option B	difference
Option C	product
Option D	division
Q3.	The distance between two code-words is equal to the _____ of the third code-word which is the sum of the first two code-words.
Option A	Size
Option B	Weight
Option C	Minimum distance
Option D	Hamming distance
Q4.	The number of k bit shift over which a single information bit influences the encoder output is given by
Option A	Code rate
Option B	Constraint length
Option C	Code length
Option D	Code weight
Q5.	When do the conditional density functions get converted into the marginally density functions?
Option A	Only if random variables exhibit statistical dependency
Option B	Only if random variables exhibit statistical independency
Option C	Only if random variables exhibit deviation from its mean value
Option D	If random variables do not exhibit deviation from its mean value
Q6.	The distribution function of random variable is
Option A	P(X less than or equal to x)
Option B	P(X greater than or equal to x)
Option C	P(X less than x)
Option D	P(X greater than x)
Q7.	Random process is a function of _____
Option A	Random event and time

Option B	Random event and frequency
Option C	Random event and real number
Option D	None of the mentioned
Q8.	The value of the probability density function of random variable is
Option A	Positive function
Option B	Negative function
Option C	Zero
Option D	One
Q9.	The relation between entropy and mutual information is
Option A	$I(X;Y) = H(X) - H(X/Y)$
Option B	$I(X;Y) = H(X/Y) - H(Y/X)$
Option C	$I(X;Y) = H(X) - H(Y)$
Option D	$I(X;Y) = H(Y) - H(X)$
Q10.	The unit of average mutual information is
Option A	Bits
Option B	Bytes
Option C	Bits per symbol
Option D	Bytes per symbol
Q11.	In differential encoding the _____ different between two wave forms is measured.
Option A	Magnitude
Option B	Frequency
Option C	Phase
Option D	Time period
Q12.	The FSK signal which has a gentle shift from one frequency level to another is called as
Option A	Differential PSK
Option B	Continuous PSK
Option C	Differential & Continuous PSK
Option D	Neither Differential nor Continuous PSK
Q13.	The detection method where carrier's phase is given importance is called as
Option A	Coherent detection
Option B	Non coherent detection
Option C	Coherent detection & Non coherent detection
Option D	Neither Coherent detection nor Non coherent detection
Q14.	The maximum synchronizing capability in coding techniques is present in
Option A	Manchester format
Option B	Polar NRZ

Option C	Polar RZ
Option D	Polar quaternary NRZ
Q15.	In Alternate Mark Inversion (AMI) is
Option A	0 is encoded as positive pulse and 1 is encoded as negative pulse
Option B	0 is encoded as no pulse and 1 is encoded as negative pulse
Option C	0 is encoded as negative pulse and 1 is encoded as positive pulse
Option D	0 is encoded as no pulse and 1 is encoded as positive or negative pulse
Q16.	The difficulty in achieving the Nyquist criterion for system design is
Option A	There are abrupt transitions obtained at edges of the bands
Option B	Bandwidth criterion is not easily achieved
Option C	Filters are not available
Option D	Maximum bandwidth
Q17.	The method in which the tail of one pulse smears into adjacent symbol interval is called as
Option A	Intersymbol interference
Option B	Interbit interference
Option C	Interchannel interference
Option D	Intrasymbol interference
Q18.	If each pulse of the sequence to be detected is in _____ shape, the pulse can be detected without ISI.
Option A	Sine
Option B	Cosine
Option C	Sinc
Option D	Rectangle
Q19.	For a M-ary signal or symbol the number of likelihood functions are
Option A	M
Option B	M+1
Option C	M-1
Option D	2M
Q20.	Which filter provides maximum signal to noise ratio?
Option A	Low pass filter
Option B	High Pass filter
Option C	Optimum filter
Option D	Matched filter
Q21.	Equalization method which is done by tracking a slowly time varying channel response is
Option A	Preset equalization
Option B	Adaptive equalization

Option C	Variable equalization
Option D	Tapped delay equalization
Q22.	Which parameter is called as Shannon limit?
Option A	P_B/N_0
Option B	E_B/N_0
Option C	E_B/N_0
Option D	N_0/E_B
Q23.	QAM is a combination of
Option A	ASK and FSK
Option B	ASK and PSK
Option C	PSK and FSK
Option D	ASK and MSK
Q24.	For AWGN, the noise variance is
Option A	N_0
Option B	$N_0/2$
Option C	$2N_0$
Option D	$N_0/4$
Q25.	Which waveform has the feature of error detection?
Option A	NRZ-L
Option B	RZ-AMI
Option C	Manchester coding
Option D	Duobinary