Program: BE Information Technology Engineering

Curriculum Scheme: Revised 2012

Examination: Second Year Semester III

Course Code: SEITC306   **Course Name: Principles of Analog and Digital Communications**

Time: 1 hour   Max. Marks: 50

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

Q1.	In an AM wave useful power is carrier by ………….
Option A:	Carrier
Option B:	Sidebands
Option C:	Both sidebands and carrier
Option D:	Modulating signal
Q2.	In amplitude modulation, bandwidth is ……………. the audio signal frequency
Option A:	Thrice
Option B:	Four times
Option C:	Twice
Option D:	Same as
Q3.	Overmodulation (amplitude) occurs when signal amplitude is …………. carrier amplitude
Option A:	Equal to
Option B:	Greater than
Option C:	Less than
Option D:	None of the above
Q4.	In radio transmission, the medium of transmission is …………….
Option A:	Space
Option B:	An antenna
Option C:	Cable
Option D:	Ground
Q5.	Man made noise are …………. variations.
Option A:	Amplitude
Option B:	Frequency
Option C:	Phase
Option D:	Both phase and frequecy
Q6.	Superhertodyne principle refers to
Option A:	Using a large number of amplifier stages

Option B:	Using a push-pull circuit
Option C:	Obtaining lower fixed intermediate frequency
Option D:	Using many filters
Q7.	The IF is 455 kHz. If the radio receiver is tuned to 855 kHz, the local oscillator frequency is ………….
Option A:	455 KHz
Option B:	1310 KHz
Option C:	1500 KHz
Option D:	1520 KHz
Q8.	In a TRF radio receiver, the RF and detection stages are tuned to …………
Option A:	Radio frequency
Option B:	Audio frequency
Option C:	IF
Option D:	None of the above
Q9.	In an FM system, when the AF is 500 Hz and the AF voltage is 2.4 V, the deviation is 4.8 kHz. If the AF voltage is now increased to 7.2 V, the new deviation will be
Option A:	4.8 KHz
Option B:	9.6 KHz
Option C:	14.4 KHz
Option D:	28.8 KHz
Q10.	Shot noise is generated in:
Option A:	transistors and diodes
Option B:	resistors
Option C:	copper wire
Option D:	transmitter
Q11.	Noise Figure is a measure of:
Option A:	how much noise is in a communications system
Option B:	how much noise is in the channel
Option C:	how much noise an amplifier adds to a signal
Option D:	signal-to-noise ratio in dB
Q12.	In communication receivers the fidelity is provided by
Option A:	audio stage
Option B:	detector range
Option C:	mixer stage
Option D:	RF stage
Q13.	The image frequency of a superheterodyne receiver is
Option A:	created within the receiver itself
Option B:	not rejected by IF tuned circuits
Option C:	independent of the frequency of tuning

Option D:	due to insufficient adjacent channel rejection
Q14.	Which of the following is the process of 'aliasing'?
Option A:	Peaks overlapping
Option B:	Phase overlapping
Option C:	Amplitude overlapping
Option D:	Spectral overlapping
Q15.	Which of the following is not a form of pulse modulation?
Option A:	Pulse amplitude modulation
Option B:	Pulse width modulation
Option C:	Pulse position modulation
Option D:	Pulse frequency modulation
Q16.	The signals which are obtained by encoding each quantized signal into a digital word is called as
Option A:	PAM signal
Option B:	PCM signal
Option C:	FM signal
Option D:	Sampling and quantization
Q17.	Quantization noise can be reduced by _____ the number of levels.
Option A:	Decreasing
Option B:	Increasing
Option C:	Doubling
Option D:	Squaring
Q18.	Delta modulation uses _____ bits per sample.
Option A:	One
Option B:	Two
Option C:	Four
Option D:	Eight
Q19.	Adaptive DPCM is used to
Option A:	Increase bandwidth
Option B:	Decrease bandwidth
Option C:	Increase SNR
Option D:	Decrease SNR
Q20.	In polar RZ format for coding, symbol '0' is represented by
Option A:	Zero voltage
Option B:	Negative voltage
Option C:	Pulse is transmitted for half the duration
Option D:	Negative voltage and Pulse is transmitted for half the duration
Q21.	Electromagnetic waves are represented in which of the following format?

Option A:	Longitudinal waves
Option B:	Transverse waves
Option C:	Sinusoidal waves
Option D:	Surface waves
Q22.	FSK reception is
Option A:	Phase Coherent
Option B:	Phase non coherent
Option C:	Phase Coherent & non coherent
Option D:	Frequency Coherent & non coherent
Q23.	In PCM the samples are dependent on _____
Option A:	Time
Option B:	Frequency
Option C:	Quantization level
Option D:	Interval between quantization level
Q24.	Which one of the following is an indirect way of generating FM?
Option A:	Varactor diode modulator
Option B:	Reactance FET modulator
Option C:	Reactance bipolar transistor modulator
Option D:	Armstrong modulator
Q25.	The use of SSB
Option A:	halves the bandwidth required for transmission
Option B:	does not affect the bandwidth for transmission
Option C:	decreases the bandwidth required for transmission by 25%
Option D:	decreases the bandwidth required for transmission by 66.6%