Program: BE INFORMATION TECHNOLOGY Engineering
Curriculum Scheme: Revised 2016
Examination: Second Year Semester III
Course Code: ITC305 and Course Name: Principle of Communications
Time: 1 hour Max. Marks: 50

Sr no	Questions	Option A	Option B	Option C	Option D
1	Q1.Which statement is FALSE about Quantization?	Analog signals are rounded off to approximately equal value	There is no information loss in quantization process	There is information loss in quantization process	More the number of quantization levels better is quantized output
2	Q2. In QPSK, modulation is symbol based, where one symbol contains	2 bits	1 bit	4 bits	3 bits
3	Q3. In unipolar signaling presence of pulse is denoted by	1	0	-1	-5
4	Q4. _____ is an unwanted signal which interferes with the original message signal and corrupts the parameters of the message signal	Carrier wave	Noise	Sine Wave	cosine wave
5	Q5. DSBFC spectrum consist of	Only lower sidebands	Only upper sidebands	Only carrier frequency	Both lower and upper sidebands
6	Q6. SNR is calculated as	ratio of signal power to noise power	sum of signal power and noise power	difference of signal power and noise power	average of sum of signal power
7	Q7. For a message of 3MHz, choose the minimum antenna height required	100 m	25 m	50 m	200 m
8	Q8. Figure of merit is	ratio of output SNR to input SNR	ratio of input SNR to output SNR	sum of all merits	average of merits
9	Q9. In Electronic communication system, choose which is not a channel	Atmosphere	Coaxial cable	Speaker	Waveguide
10	Q10. The highest frequency amongst microwaves, infrared, visible light, ultraviolet is	microwaves	infrared	ultraviolet	visible light
11	Q11. The Fourier transform of a delta function is	0	0.5	1	∞
12	Q12. Filter used to block high frequency signal is	Blocking filter	Low pass filter	Interrupt filter	Sampling filter
13	Q13. In FDM, if there are 4 frequency bands are of 130 KHz bandwidth separated by 10KHz guard bands, then the minimum capacity of the communication channel should be	520 KHz	550 KHz	530 KHz	560 KHz
14	Q14. When fs < 2fm the sampled frequency spectrum is satisfying the condition for	Over sampling	Under Sampling	Perfect Sampling	No Sampling
15	Q15. Calculate the Nyquist rate and Nyquist interval for sampling when a continuous time signal has an average power of 0.145 watt, a peak voltage of 2 volt and highest frequency is 140 Hz	300 Hz,3.33 ms	280 Hz,3.57 ms	140 Hz,7.14ms	280 Hz, 7.14ms
16	Q16. The Fourier Transform of a constant 1 is	2/jw	1	∞	2π δ(ω)
17	Q17. The unit of Noise figure is	Unitless	dB	K	Bits/sec
18	Q18. In M-ary equation M represents	bits	bytes	Conditions or combination for given binary variable	Amplitude
19	Q19. Friss formula is used to	calculate the total noise factor for cascaded stages	calculate the Power gain	calculate noise figure	calculate SNR
20	Q20 8. NRZ Codes has ___ for High voltage level and _____ for Low voltage level.	1 , 0	High ,low	+5 ,-5	1 , -1
21	21 _____is the reverse process of encoding which is to extract the information from the converted format.	Sampling	Encoding	Decoding	Quantizing
22	Q22. The type of modulation, where the sampling rate is much higher and in which the step size after quantization is of a smaller value such a modulation is termed as	Frequency modulation	Amplitude Modulation	Delta Modulation	Pulse Modulation
23	Q23. _____ signal is generated using Armstrong method.	Indirect FM	Direct FM	SSB-SC	DSB-SC
24	Q24 Which of the following block is not used in Analog communication system?	Channel	Input transducer	Quantizer	Output transducer
25	Q25. The device or a tube, if bent or if terminated to radiate energy, is called a	waveguide	Optic Wave	Fiber Wave	Radiating Wave