

1.	Can we say whether a signal is periodic or non-periodic by just looking at its frequency domain plot? Describe it with appropriate diagrams.	1.5
2.	Mr. Tony has a broadband channel with the highest frequency of 7.5 MHz and the lowest frequency of 4 MHz. The SNR for this channel is 31. What are the appropriate bit rate and signal level? Now explain what will happen to bit rate if the following situations occur: i. The highest frequency is shifted to 10 MHz ii. Signal level is doubled iii. The SNR is changed to 15	1 1 1 1
3.	What does the amplitude of a signal measure? What does the frequency of a signal measure? What does the phase of a signal measure?	1.5
4.	A periodic composite signal with a bandwidth of 2000 Hz is composed of two sine waves. The first one has a frequency of 100 Hz with the maximum amplitude of 20 V; the second one has the maximum amplitude of 5 V. Draw the bandwidth.	1.5
5.	What does the Shannon capacity have to do with communications?	1.5

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