



PHYSICS

Electronics-I

Note : Answer any **five** questions. All questions carry equal marks.

- 271_BSP_(2)**

(Turn Over)

(2)

3. Write the expression for energy signal. Discuss Parseval's theorem for energy signals and find energy spectral density.
 4. Write the expression for average power. Derive Parseval's power theorem and explain power density spectrum.
 5. Explain single sideband modulation (SSB). What is SSB-SC with single-tone modulating signal? Explain it for general modulating signal.
 6. What is pulse amplitude modulation? Explain natural sampling and flat-top sampling.
 7. Discuss PCM system. Explain bandwidth and noise in PCM system.
 8. Discuss frequency shift keying (FSK) and phase shift keying (PSK) in data transmission.
 9. Explain baseband signal receiver and hence discuss probability of error.
 10. Explain optimum filter and matched filter.
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