

6012
BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 2019
 * **DIPLOMA IN APPLIED ELECTRONICS AND INSTRUMENTATION**
ELECTRONIC COMPONENTS AND DEVICES
FIRST YEAR EXAMINATION

Time: 3 Hours

Total Marks: 80

PART - A (3m x 10 = 30m)

Note 1: Answer all questions and each question carries 3 marks

2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. Mention the need for tapering in potentiometers
2. Write any three losses in capacitors
3. Write the expression of inductance when they are connected in parallel opposing
4. List any three types of switches
5. List any three uses of woofers and tweeters
6. List the specifications of microphones
7. Define Intrinsic and extrinsic Semiconductors
8. Define cut off and saturation regions of a transistor
9. Define Form Factor and peak factor for sinusoidal AC quantities
10. State the need of PCB in electronic equipment

PART - B (10m x 5 = 50m)

Note 1: Answer any five questions and each carries 10 marks

2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. (a). Explain the effect of temperature on resistance
 (b). Define temperature co-efficient of resistance and derive the relation $R_t = R_o(1 + \alpha_o t)$
12. State the properties, range of values and applications of paper, and electrolytic capacitors
13. (a). Explain the constructional features of R.F choke with diagram.
 (b). List any three applications of A.F. chokes
14. Explain the construction & working of general-purpose electromagnetic relay with diagram

15. Explain the working of clipper circuit using diodes, with diagram
 16. Explain the working of PNP Transistor with diagram
 17. Explain about maintenance free battery and list its applications
 - 18A. Explain the constructional features and principle of operation of PMMC Loudspeaker
- B. Explain the Layout Scale in PCB Layout planning with diagram

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A.A.N.M & V.V.R.S.R POLYTECHNIC , GUDLAVALLERU , KRISHNA

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