MODEL PAPAER
BOARD DIPLOMA EXAMINATIONS
C-23, EC-105, ELECTRONIC COMPONENTS AND POWER SUPPLIES
FIRST YEAR
YEAR END EXAMINATION

TIME:3 HOURS MAX MARKS:80

Part-A **10×3=30**

Instructions: (1) Answer all questions.
(2) Each question carries three marks
(3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. Define the term capacitance. (CO1)
2. Compare the features of carbon and wire wound potentiometers. (CO1)
3. Sketch the I.S.I symbols of any three switches. (CO1)
4. Distinguish between Drift and Diffusion currents. (CO2)
5. Compare Avalanche &Zener breakdown. (CO2)
6. Relate alpha, beta and gamma Factors. (CO3)
7. Interpret the advantages of JFET over BJT. (CO3)
8. Write any three applications of photo diode. (CO4)
9. List any three materials used for the construction of LED. (CO4)
10. List any three specifications of loud speakers. (CO5)

Part-B **5**×10=50

Instructions: **(1) Answer any 5 questions.**
(2) Each question carries 10 marks
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the use of Ferrites in the construction of high frequency inductors. (CO1)
12. Explain the working of general-purpose electromagnetic relay and mention its applications. (CO1)
13. Explain the formation of P type and N-type semiconductors. (CO2)
14. Explain the working of PN junction Diode with forward & reverse biasing. (CO2)
15. Explain the working of NPN and PNP transistors. (CO3)
16. Explain the construction and principle of operation of n channel JFET. (CO3)
17. Explain the construction, operation and characteristics of photo diode. (CO4)
18. Explain the working of dynamic microphone with its polar characteristics. (CO5)

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