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School of Engineering**B.TECH Electronics and Communication Engineering
Mid Term Examination - Nov 2023****Duration : 90 Minutes
Max Marks : 50****Sem III - G2UC301C - Electronic Devices and Circuits**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Write the differences between Zener breakdown and Avalanche breakdown. K2 (2)
- 2) Define diffusion capacitance and transition capacitance K1 (3)
- 3) Explain the operation of forward biased and reverse biased PN junction Diode. K2 (4)
- 4) Explain the working of NPN and PNP transistor. K2 (6)
- 5) List applications of BJT in terms of latest technology with examples. K3 (6)
- 6) Define cutoff and active region of a transistor. K3 (9)
- 7) Differentiate small signal model with large signal model with examples. K4 (8)
- 8) What are the features of JFET? K4 (12)

OR

Derive the expression for A_i , A_v , R_i and R_o for CB amplifier using h-parameter model K4 (12)