

B.Sc Sem.-3 (NEP) Examination

DSC-C-231

Electronics

Time : 2-00 Hours]

December-2024

[Max. Marks : 50

Instructions: (1) Symbols used here have their usual meanings.
(2) Figures to the right indicate marks.

- Q-1 (a) Write short-note on CSIR. (10)
OR
(b) Explain the scientific experiments of Jagdish Chandra Bose. (10)
- Q-2 (a) Explain Common-Base amplifier. Discuss various gains of this amplifier. (10)
OR
(b) Write a short-note on: Transformer coupled class A amplifier. (10)
- Q-3 (a) Explain operation of JFET in detail. (10)
OR
(b) What is DE-MOSFET? Explain its construction and working. (10)
- Q-4 (a) Draw the block-diagram of a regulated power supply. Explain function of each block. (10)
OR
(b) Enlist different types of filters. Explain any one in detail. (10)
- Q-5 Answer in brief (Attempt any ten out of twelve) (10)
- (1) State full form of CSIR.
 - (2) Write the Birth date and birth place of Jagdish Chandra Bose.
 - (3) Mention contribution of JC Bose in plant physiology in one sentence.
 - (4) Classify transistor amplifiers on the bases of transistor configurations.
 - (5) What is cross-over distortion?
 - (6) Maximum theoretical power efficiency of class-B push-pull amplifier is ____%.
 - (7) Write any one advantage of the FET.
 - (8) Write any one disadvantage of the FET.
 - (9) Mention any one application of the FET.
 - (10) Efficiency of the half-wave rectifier is ____%.
 - (11) What is voltage regulation? Why it is required?
 - (12) Which type of diode is generally used in regulator circuits?
-