SE Electrical III CBGS
Enc.

QP Code : 14538

(3Hours)

[Total Marks :80

N. B. : (1) Questions Q.1 is compulsory.
    (2) Attempt any 3 questions from remaining questions.
    (3) Assumed suitable data when necessary.

1. (a) What is Schottky diode?   5
   (b) What is Thermal runway?   5
   (c) What is Thermal Stabilization?   5
   (d) Explain need of biasing in BJT   5

2. (a) Draw and explain N-channel FET with the help of suitable diagram and   10
     equations
   (b) Derive the expression for voltage gain, current gain, input impedance and   10
     output impedance of CE amplifier.

3. (a) Explain RC phase shift oscillator with the help of suitable diagram and   10
     equations.
   (b) Explain UJT relaxation oscillator with the help of suitable diagram and   10
     equations.

4. (a) Draw and explain double ended and balanced output differential amplifier   10
     with the help of suitable equations.
   (b) Explain the effects of coupling on performance of BJT.   10

5. (a) What is feedback amplifier? Name different types and explain any one of them.   10
   (b) Draw and explain N-channel Enhancement MOSFET with the help of suitable   10
     diagram and equation

6. (a) Write a short note on any TWO.   20
     (i) Full wave bridge rectifier.
     (ii) LED
     (iii) Darlington pair.

GN-Con.:6446-14.