EDC - BE - SEM - III (CBSGS)
20th NOV 2014

(7)

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 equations 10
   (b) Derive the expression for voltage gain, current gain, input impedance and output impedance of CE amplifier. 10

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

4. (a) Draw and explain double ended and balanced output differential amplifier with the help of suitable equations. 10
   (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 diagram and equation 10

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