Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EIE) (2011 & Onwards) (Sem.–4)

ANALOG ELECTRONICS/APPLIED ELECTRONICS

Subject Code : EC-202

M.Code : 57510

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1) Write briefly :

A) Explain Miller effect.

B) Can Zener diode act as voltage regulator?

C) Define transistors. Explain the early effects in transistor.

D) Explain gain margin.

E) Describe multi stage amplifier.

F) Define PIV of diode in a rectifier circuits.

G) Explain why two transistors are used in Wein bridge oscillator?

H) What is Hartley oscillator?

I) Explain the T model of a bipolar transistor.

J) What is negative bandwidth in an amplifier?

SECTION-B

Q2 Explain RC phase shift oscillator and its output frequency of oscillation.

Q3 How cross over distortion be minimized. Explain?

Q4 Explain the components of current in an NPN transistor.

Q5 Elaborate class B push- pull amplifier and sketch its circuits.

Q6 Describe the effect of negative feedback on the bandwidth and distortion in an amplifier.

SECTION-C

Q7 Describe tuned amplifier. Its merits and applications.

Q8 Explain sustained oscillation in LC oscillator.

Q9 Write a short note on :

A) Hybrid pi CE transistor model

B) Oscillator

C) Amplifier

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.