Enrollment No:-_____   Exam Seat No:-_____

C.U.SHAH UNIVERSITY
Summer-2015

Subject Code: 4TE03AEC1   Subject Name: Analog Electronic Circuit
Course Name: B.TECH(EEE/IC/EE)   Date :5/5/2015
Semester: 3   Marks: 70
                                                                          Time: 2:30 To 5:30

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Instructions:
1) Attempt all Questions of both sections in same answer book/Supplementary.
2) Use of Programmable calculator & any other electronic instrument prohibited.
3) Instructions written on main answer book are strictly to be obeyed.
4) Draw neat diagrams & figures (if necessary) at right places.
5) Assume suitable & perfect data if needed.

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SECTION-I
Q-1
(a) Why short circuit protection is required in ICs.   2
(b) Explain diode regulators.   3
(c) Write Full Form of 1. SMPS 2.BJT   2

Q-2
(A) Describe analysis of single stage fet amplifier with necessary equations.   7
(b) write a short note on tuned filter   7
<center>OR</center>
Q-2
(A) Draw and explain Hybrid frequency model for CE configurations with necessary equations.7
(B) Draw and explain darlington pair configuration.   7
Q-3
(A) Draw and explain class A amplifier with necessary equations.   7
(B) Draw and Explain class AB amplifier with necessary equations.   7
<center>OR</center>
Q-3
(A) Draw and explain class B amplifier with necessary equations.   7
(B) Draw and explain Push Pull amplifier with necessary equations.   7

5-5

SECTION-II

Q-4
(A) Explain negative feedback for OPAMP. 2
(B) Define terms : 1.Voltage Gain 2.Current Gain 2
(c) Draw pin diagaram of IC741 (OPAMP) 2
(d) Why heat sink is required in ICs? 1

Q-5
(A) Draw and explain non inverting amplifier with necessary equations. 7
(B) Draw and explain ideal charteristic of OPAMP. 7

OR

Q-5
(A) Draw and explain inverting amplifier with necessary equations. 7
(B) Explain any one balancing technqiue for frequency compensation. 7

Q-6
(a) Explain working of Weinbridge oscillator with suitable diagram. 7
(b) descirbe R.C. phase shift oscilllator with suitable diagram. 7

OR

Q6
(a) Explain working of Hartley oscillator with suitable diagram 7
(b) Describe colpitts oscillator with suitable diagram. 7

5-5