34101

BT-4 / M-19
ANALOG ELECTRONICS
Paper–ECE-208 N

Time allowed : 3 hours]　　　　[Maximum marks : 75

Note :　*Attempt any five questions selecting at least one from each unit.*

Unit–I

1. (a) Why does gain of an amplifier falls off at low and high frequencies ?　　7

   (b) Explain voltage divider biasing for BJT.　　8

2. (a) What is operating point of an amplifier ? What factors are to be considered for selecting the Q point for an amplifier ?　　10

   (b) Compare JFET and MOSFET.　　5

Unit–II

3. (a) Compare class A power amplifier with class B and class C power amplifiers.　　7

   (b) Explain the working of two stage RC-coupled amplifier. 8

4. What is feedback ? Explain the two types of feedback. An amplifier with negative feedback has a voltage gain of 100. It is found that without feedback an input signal of 50mV is required to produce a given output, whereas with feedback, the input signal must be 0.6V for same output. Calculate the value of A and β.　　15

Unit–IV

7. Discuss dual input and balanced output differential amplifier configuration of Op-Amp. Calculate its input resistance, output resistance and CMRR.　　15

8. (a) Explain the working of Schmitt trigger.　　7

   (b) Define CMRR, slew rate, common mode gain, differential mode gain.　　8

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