

(3 Hours)

[Total Marks :100

- N.B. :** (1) Questions No.1 is compulsory.
 (2) Attempt any **four** questions out of remaining **six** questions.
 (3) Assume suitable **data** if **necessary**.

1. (a) Explain the Block diagram of an OP-AMP 20
 (b) Differentiate between BJT and FET
 (c) Realize the following relation using practical OP-amp.

$$V_o = 5V_1 - 5V_2 + 3V_3$$

 (d) Explain series Voltage Regulator.
2. (a) Explain the Graphical Determination of the h-parameters using the characteristic 10
 curves of common emitter amplifier.
 (b) Determine the following : - 10
 (i) I_{BQ} (ii) I_{CQ} (iii) V_{CEQ} (iv) V_{CQ}
 (v) V_{BEQ} (vi) V_{BQ}
- for the circuit show below :

