Thapar Institute of Engineering & Technology, Patiala

Department of Electronics and Communication Engineering

Course Code: UEC-301; **Course Name:** Analog Electronic Circuits

B.E. (ENC) (III-Sem),

"Tutorial Sheet No. - 10

Q1.

(A) Calculate the input and output power for the circuit of Fig. 1. The input signal results in a base current of 5 mA rms.

(B) Calculate the input power dissipated by the circuit of Fig. 1 if *R B* is changed to 1.5 k ohm.

(C) What maximum output power can be delivered by the circuit of Fig. 1 if *R B* is changed to 1.5 k ohm?

(D) If the circuit of Fig. 1 is biased at its center voltage and center collector operating point, what is the input power for a maximum output power of 1.5 W?

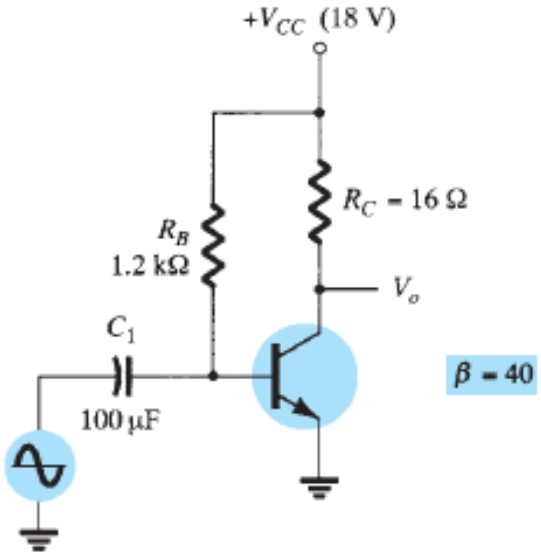

Fig. 1

Q2. Calculate the input power, output power, and efficiency of the amplifier circuit in Fig. 2 for an input voltage that results in a base current of 10 mA peak.

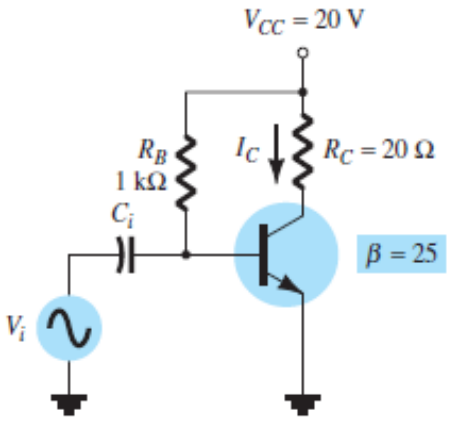

Fig. 2