

Total No. of Printed Pages: 02

SUBJECT CODE NO: - Y-2120
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem-II)
Examination March / April - 2023
Electronics Paper-IV Amplifiers

[Time: 1:30 Hours]**[Max. Marks: 50]**

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Illustrate your answer with suitable labelled diagram.

Q1 a) Draw a neat circuit diagram of RC coupled amplifier and explain its working, 20

OR

With neat diagram explain the trans conductance model for BJT

Q2 Derive an expression for stabilization of gain by negative feedback. 20

OR

Write short notes on (any four)

- 1) Frequency response
- 2) Direct coupled amplifier
- 3) Transistor load line analysis
- 4) Stability factor
- 5) h parameter
- 6) Base resistor bias method

Q3 1) Attempt the following selecting the correct answer from the given alternatives. 10

Transistor biasing is generally provided by a

- a) Biasing circuit b) diode c) bias battery d) capacity
- 2) For proper operation of transistor the collector base Junction should work in
 - a) Forward bias b) fR bias c) Reverse bias d) none of the above
- 3) R-C coupled amplifier voltage gain over a mid-frequency range is _____
 - a) Constant b) high c) decreases d) negative

- 4) If the absolute power gain of an amplifier is 100 then its decibel gain is _____
a) 40 dB b) 100dB c) 50dB d) 20dB
- 5) These are _____ h parameters of transistor
(a) five b) two c) four d) three
- 6) gain $A_v =$
a) I_2/I_1 b) v_i/v_o c) I_o/I_1 d) v_o/v_i
- 7) Open loop gain of an amplifier is given by _____
a) A b) AB c) B d) none of the above
- 8) The parameter h_{fe} is called _____
a) Voltage gain b) current gain c) admittance d) Input impedance
- 9) The unit of h_{ie} parameter is _____
a) Mho b) wit c) ohm d) Ampere
- 10) A transistor circuit contain more than one stage of amplification is known as ____
a) Mono stage b) two stage c) triple stage d) multi stage