Shree H.N.Shukla group of colleges

PHYSICS

S.Y.B.Sc. (Sem. III) (CBCS)

Unit Test examination

PAPER- 301

UNIT - 4; 5 : TRANSISTOR BIASING & SINGLE STAGE AMPLIFIER

DATE : **TOTAL MARKS : 30**

Instructions: All questions are compulsory.
The right side figure indicates total marks of the question.
Draw the figure wherever necessary.
Write answers of all the questions in main answer sheets.

SECTION-A

Q.1: One marks questions: **[5 MARKS]**

1 Transistor biasing represents ..... conditions.

2 Operating point represents ..... .

3 Transistor biasing is generally provided by a .....

4 The transistor should have _____ input impedence .

5 The purpose of d.c. condition in a transistor is to _____.

SECTION – B

Q.2 (A): Short Questions: Write all three : [2 Marks each] **[6 MARKS]**

1 Explain single stage ampifier.

2 Define : fequency response

3 What is thermal runway?

Q.2 (B) : Short questions: Write all three: [3 Marks each] **[9 MARKS]**

1 Explain 180° phase reversal with the help of graphical representation.

2 Explain classification of amplifiers.

3 Mention step to design for transistor biasing

Q.2 (C): Write Detail Note on [Any two]: [5 Marks each] **[10 MARKS]**

1 Draw the circuit of a single stage amplifier and explain the functions of its various elements .

2 Explain practical circuit of transistor amplifier with their various circuit element.

3 Explain voltage divider biasing method .

4 Explain base resistor method with their advantages & disadvantages.