

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (Electronics & Information Technology) (Sem.-2)

ANALOG CIRCUITS

Subject Code : BVET-204-20

M.Code : 79549

Date of Examination : 12-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

- a) Draw the VI characteristics of a Diode.
- b) Explain the need of analog circuits.
- c) Discuss the significance of an amplifier.
- d) What are the limitations of a BJT? Explain.
- e) What do you mean by Transconductance? Explain.
- f) Write down the need of feedback.
- g) Write down the basic requirements for the oscillation to occur.
- h) What do you mean by stability? Discuss.
- i) What do you mean by gain margin? Explain.
- j) Differentiate between voltage and power amplifier.

SECTION-B

2. Draw and explain the common emitter transistor configuration. Discuss its input and output characteristics.
3. Discuss the effect of feedback on gain, input and output impedances of an amplifier.
4. Explain the principle of operation and working of a RC phase shift oscillator.
5. Draw the circuit diagram and explain the working of cascade amplifier.
6. Draw and explain the circuit diagrams of A and AB Power amplifiers.

SECTION-C

7. Draw the circuit diagram and explain in detail about Wien bridge and Colpitt oscillators. Also compare the above two oscillators.
8. What is the need of biasing? Explain the different biasing schemes of BJT in detail by mentioning their advantages and disadvantages.
9. Discuss :
 - a) Multistage Amplifier
 - b) Voltage Shunt Feedback Amplifier

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.