KJ-1378

B.Sc. (Part - III)

Term End Examination, 2020

INFORMATION TECHNOLOGY

Paper - I

Amplifiers and Oscillators

Time : Three Hours]   [*Maximum Marks* : 50

Note : Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

1. (*a*) Explain power amplifier and its types.

(*b*) Explain the advantages and distortions of pushpull power amplifier.

(*c*) Distinguish between power dissipation curve and harmonic dissipation curve.

(2)

Unit-II

2. (*a*) Explain feedback amplifier and its types.

   (*b*) Derive the input and output impedence in voltage series feedback.

   (*c*) Explain oscillator and Barkhausen criteria.

Unit-III

3. (*a*) Differentiate between Differential amplifier and Operational amplifier.

   (*b*) Write short notes on the following :

   (*i*) Current driff

   (*ii*) Input bias current

   (*c*) Explain how an Op-Amp can be used as differentiator.

Unit-IV

4. (*a*) Draw the pin diagram of 8085 microprocessor.

   (*b*) Explain different I/O and machine controlled instructions.

   (*c*) Explain different addressing modes with example.

Unit-V

5. (*a*) Explain machine language and assembly languages in detail.

(3)

(*b*) Explain the data transfer operations and its instruction set with example.

(*c*) Write an Assembly language program of 8085 to add 100 integer numbers.

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