

Roll No.

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F-3797

B.Sc. (Part - III) Examination, 2022

(Old/New Course)

INFORMATION TECHNOLOGY

PAPER FIRST

(Amplifiers and Oscillators)

Time : Three Hours]

[Maximum Marks:50

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

Unit - 1

1. (A) Draw and explain single ended class A power amplifier and its efficiency.
- (B) Draw and explain Push-Pull power amplifier with suitable diagram.

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- (C) Draw and explain transformer coupled power amplifier circuit and explain its operation.

Unit-2

2. (A) Distinguish between positive and negative feedback.
- (B) Draw and explain colpitts oscillators.
- (C) What is Astable multivibrator circuit? Explain it with suitable schematic diagram.

Unit-3

3. (A) What is differential amplifier?
- (B) Draw and explain op-amp as an inverting amplifier.
- (C) Write short notes on-
 - (i) Common mode Rejection Ratio & Slew Rate.
 - (ii) UJT

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Unit-4

4. (A) Write down the various features of 8085 up. Explain some important signals in brief.
- (B) What do you mean by addressing mode? Discuss any four addressing mode with suitable examples.
- (C) Write down any four data transfer instruction with proper mnemonics.

Unit-5

5. (A) What do you understand by program looping?
- (B) Write an assembly language program to transfer block of data from one memory block to another memory block.
- (C) What is subroutine? Write an assembly language program in which subroutine is used.