Azim

University of Engineering & Management, Kolkata

2nd Term Examination, November, 2022

Programme Name: B.Tech (CSE / CSE (AIML) / CSE (IOT, CYS, BCT))

Semester: 3rd

Course Name: Analog Electronic Circuits

Course Code: ESC301

Full Marks: 30 Date: 1st November, 2022 Time: 11.30 am to 12.30 pm

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GROUP – A (10 marks)

Answer any five of the following questions. Each question is of 2 marks 5 x 2 = 10

1. **i)** Explain the full form of Voltage gain in amplifier.

   ii) Teach the functions of L and R in Filters

   iii) *Write the Purpose of regulators in a circuits*

   iv) *Design Open loop Gain of Op Amp*

   v) *Evaluate feedback fraction in amplifier*

   vi) *Discover the definition of CMRR.*

GROUP – B (10 marks)

Answer any two the following questions. Each question is of 5 marks 2 x 5 = 10

2. Show the operation of Series and Shunt feedbacks in amplifier.

3. Design Hartley Oscillator in brief.

4. Explain open loop and close loop configuration of an op amp

5. If ADM = 25000 and CMRR = 100 dB. Then decide the value of ACM

GROUP - C (10 Marks)

Answer any one of the following questions. The question is of 10 marks 1 x 10 = 10

6. Explain the operation of RC phase shift Oscillator. What is a Tank Circuit?
7. Point out the Voltage Series Feedback and voltage shunt feedback circuit and explain its operation
8. Defend a method to add voltages together and amplify the same with the help of op-amp
9. The non-inverting amplifier circuit using OPAMP has R1 = 2 K and Rf = 5 K. Construct the voltage gain of the circuit if input voltage is 5V? Take Example of a standard Non-Inverting Amplifier as Circuit example.

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