M.Sc. DEGREE EXAMINATION,NOVEMBER 2018
I Year I Semester
Core Major -IV
INTEGRATED ELECTRONICS AND MICROPROCESSOR

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What are the characteristics of FET?
2. Define IC.
3. What is a binary counter?
4. Define shift register.
5. Explain CMRR.
6. Draw the analog integrator circuit using operational amplifier.
7. What is a flag in a microprocessor?
8. Define timing diagram.
9. Define peripheral Interfacing.
10. What is a matrix keypad?
11. Define the function of the DAC.
12. State the meaning of data transfer instruction "PUSH"

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. List out the advantages of IC technology.
14. Sketch the steps involved in designing the synchronous counter.
15. What are the ideal characteristics of operational amplifier?
16. Explain the addressing modes in 8085 microprocessor.
17. Draw the interfacing diagram of the stepper motor with a 8085 microprocessor.
18. Draw the circuit diagram of monostable multivibrator using 555 timer.
19. Explain n-bit binary weighted resistor DAC.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. With neat diagram explain how the relaxation oscillator using UJT transistor works.
21. Describe how analog to digital conversion is done using successive approximation method.
22. Differentiate low pass and high pass filters circuits.
23. What is meant by assembly language? Write the advantages of assembly language.
24. Explain the mode of operation of 8255.

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