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UG/5th Sem/ELEC(H)/Pr/19

2019

B.Sc. (Honours)

5th Semester Examination

**ELECTRONICS**

Paper - C12-P

Microprocessor and Microcontroller Lab

(Practical)

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

Answer any *one* question selecting by lucky draw.

1. Write an assembly language program to transfer a block (10 nos.) of data stored at XX50H to new memory locations starting from XX70H. Repeat the operation with two sets of data.
2. Write an assembly language program to subtract two multibyte hex numbers. Repeat the operation with three sets of data.

[ Turn Over ]

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3. Write an assembly language program to multiply two 8-bit numbers ; product 16-bit. Repeat the result with three sets of data.
4. Write an assembly language program to divide a 16-bit number by an 8-bit number. Repeat the process with three sets of data.
5. Write an assembly language program to generate terms of Fibonacci series.
6. Write an assembly language program to find the minimum among 10 hex numbers. Repeat the operation with another set of data.
7. Write an assembly language program using 8085 microprocessor to find the largest number in a series of data. The length is given in memory location X and the series starts from X + 1. Store the result in Y.
8. Write an assembly language program to calculate the square root of a given number. Store the result in the consecutive memory locations if the number is a perfect square ; otherwise store an error message FEH in the memory location.

( 3 )

9. Write an assembly language program to find GCD for following sets of data :

Data

Set I : 02 H, 10 H

Set II : 05 H, 06 H

Set III : 04 H, 16 H

10. A set of three readings is stored in memory starting at XX 50 H. Write an assembly language program to sort the readings in decending order.
11. Write an assembly language program for LED blinking with a delay of 1 second.
12. Write a PIC Microcontroller program to display of 4-digit decimal number using ten multiplexed 7-segment display interface.

*[ Turn Over ]*

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**Distribution of Marks**

Assembly language program and Execution	:	15 marks
Laboratory Note Book	:	02 marks
Viva-voce	:	03 marks
Total	:	20 marks

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