

U.G. 5th Semester Examination - 2021

COMPUTER SCIENCE

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : COM.SC-H-DSE-P-501

[PRACTICAL]

(Microprocessor)

Full Marks : 75

Time : 4 Hours

The figures in the right-hand margin indicate marks.

Marks Allotment :

Experiment: 60, Viva: 10, Lab Notebook: 5

*Answer any **two** questions from the following on lottery basis.*

30×2 = 60

1. Write an assembly language program for adding two 8 bit numbers and display the result.
2. Write an assembly language program for subtracting two 16 bit numbers and display the result.
3. Write an assembly language program to search an element among a list of 10 numbers.
4. Write an assembly language program to find the largest number among a list of 10 numbers stored in memory.
5. Write an assembly language program to count the number of 1's in a 16 bit number.

6. Write an assembly language program for multiplying two 8 bit numbers stored in contiguous memory locations and store the result in next memory locations.
7. Write an assembly language program for divide two 8 bit numbers stored in contiguous memory locations and store the result in next memory locations.
8. Write an assembly language program to sort a list of 10 numbers in descending order.
9. Write an assembly language program to calculate the sum of N 8-bit numbers stored in contiguous memory locations, where the first location will have the value of N. Store the result to the next locations of last data being used by your program.
10. Write an assembly language program to display Fibonacci Series.
11. Write an assembly language program to convert an 8 bit binary data to BCD.
12. Write an assembly language program to calculate the sum of even numbers from the list of 10 numbers.
13. Write an assembly language program to check whether an 8-bit number is palindrome or not.
14. Write an assembly language program to reverse the content of 10 consecutive memory locations.
15. Write an assembly language program to move a block of bits from source location to destination location

[Turn Over]

starting where size of the block is 05 bytes without using STAX instruction.

16. Write an assembly language program to find the cube root of a given number using look-up table.
17. Write an assembly language program to identify the position of 1's in an 8 bit number.
18. Write an assembly program to divide a 16 bit number by an 8 bit number.
19. Write an assembly language program to multiply a 16-bit number by an 8-bit number.
20. Write an assembly language program to check whether a number N3 is divisible by only N1, or only N2 or both. N1, N2 and N3 will be stored in consecutive memory locations.
21. Write an assembly language program to identify whether the 1st number is greater or lesser or equal to the second number without using CMP instruction.
22. Write an assembly language program to demonstrate the use of CALL instruction.
23. Write a program to check whether the 4th bit of a number is zero or one. Store FF if 1 otherwise store 00 in a memory location.
24. Write an assembly program to multiply two 8 bit numbers.

25. Write an assembly language program to add two BCD numbers.
 26. Write an assembly language program to add higher 4 bits to the lower 4 bits of an 8 bit number.
 27. Write an assembly language program to add two Hexadecimal numbers.
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