

Paper Code : 21301

F-401

B.C.A. (First Semester) Examination, 2021-22

(New Course)

Paper - BCA-101

Computer Fundamental and Programming

Time : Three Hours] [Maximum Marks : 70

Note : Attempt any five questions. All question carry equal marks.

1. (a) Draw a block diagram of Computer and explain the function of each of the blocks? 8
- (b) Explain the generation of Computer with their features? 6

(1)

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2. (a) What are the peripheral devices? Explain with example? 7
- (b) Differentiate between primary and secondary memory on basis of their characteristics? 7
3. (a) Convert the following : 6
 - (i) $(17.35)_{10}$ to binary form
 - (ii) $(375)_8$ to hexadecimal number
 - (iii) $(AB2)_{16}$ to octal number
- (b) What do you mean by fixed and floating point representation? Also differentiate ASCII & EBCDIC code? 8
4. (a) Differentiate among Machine Language, Assembly Language and High level Language. 7
- (b) Define System Software with example. 7

21301-F-401

(2)

5. (a) Define Algorithm & Draw a flow chart to find greater between Two numbers? 7
(b) What is structured programming? Discuss about the debugging and testing of programmes? 7

6. (a) Discuss various "C" operators with example. 7
(b) Differentiate "while" and "Do-while" loop with example. 7

7. (a) What do you mean by Sorting? Describe Bubble sort? <https://www.mjpruonline.com> 7

- (b) What are two - dimensional arrays? Write a program in "C" language to add two matrices of 3×3 . 7

8. Write short notes on any **four** of the following:

- (a) Central Processing Unit 3.5 each
(b) "C" Preprocessor
(c) Linear Array

- (d) Program Correctness
(e) "For" loop
(f) Data types in "C"
(g) Insertion Sorting