

Total No. of printed pages = 6

**END SEMESTER EXAMINATION -- 2022**

Semester : 3rd (New)

Branch : Common

Subject Code : CO-301

**COMPUTER APPLICATION  
AND PROGRAMMING**

Full Marks - 70

Time - Three hours

The figures in the margin indicate full marks  
for the questions.

**Instructions :**

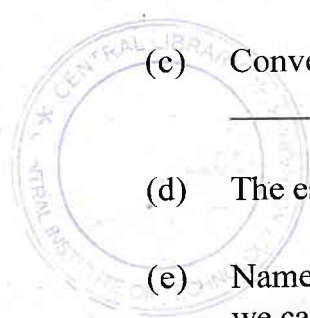
1. *All* questions of PART-A are compulsory.
2. Answer any *five* questions from PART-B.

**PART - A**

Marks - 25

1. Fill up the blanks : 1×10=10
  - (a) Types of RAM are SRAM and \_\_\_\_\_.
  - (b) Speed of \_\_\_\_\_ memory is almost similar to CPU.

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- (c) Conversion specification for **long int** is \_\_\_\_\_.
- (d) The escape sequence `\r` is used for \_\_\_\_\_.
- (e) Name of the software application by which we can search internet document is \_\_\_\_\_.
- (f) Name of the software application by which we can visualise a web page is \_\_\_\_\_.
- (g) Compiler translates a \_\_\_\_\_ program into machine language.
- (h) \_\_\_\_\_ number system has radix 8.
- (i) Using \_\_\_\_\_ command of MSDOS we can display content of a file.
- (j) The assignment operator is denoted by \_\_\_\_\_ symbol.

2. Write true or false : 1×10=10

- (a) C language is not case sensitive.
- (b) Computer can understand machine language as well as assembly language.

- (c) In Gray code two successive values differ in only one bit.
- (d) Gray code is also known as reflected binary code.
- (e) Pointer is a basic data types in C language.
- (f) RD command is used to rename a directory.
- (g) Vacuum tubes and valves were introduced during first generation of computer.
- (h) FTP stands for File Transfer Protocol.
- (i) MS-Office is an operating system.
- (j) EDIT is an external command of MS-DOS.

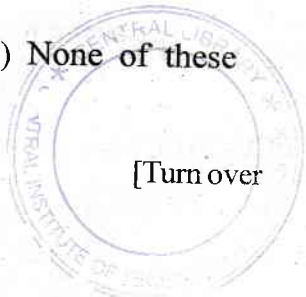
3. Choose the correct answers : 1×5=5

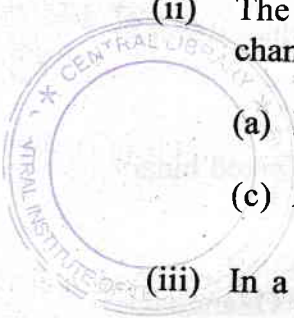
(i) Which of the following is a single user Operating System ?

- (a) UNIX
- (b) LINUX
- (c) WINDOWS
- (d) None of these

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(ii) The MSDOS command which is used to change the type of a file is

- (a) REN
- (b) CD
- (c) ATTRIB
- (d) TYPE

(iii) In a ring topology

- (a) Ring is formed by joining two ends of a linear topology
- (b) There exists a centralized server
- (c) Each node is connected with all the other nodes
- (d) None of the above

(iv) If  $a = 5$  then what will be the value of  $b$  if  $b = ++a$ ?

- (a) 6
- (b) 4
- (c) 5
- (d) None of these

(v) getch ( ) belongs to the header file

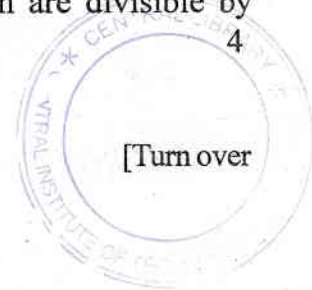
- (a) stdio.
- (b) conio.h
- (c) string.h
- (d) None of these.

**PART – B**

Marks – 45

4. (a) Draw the computer block diagram and describe the main components of it. 5
- (b) Describe the assembly and high level language. 4
5. (a) Convert the following numbers as directed :
- (i)  $1101110.1011_{(2)}$  to decimal
- (ii)  $231.45_{(10)}$  to binary
- (iii)  $347_{(8)}$  to binary.  $2 \times 3 = 6$
- (b) Find sum of  $11011111_{(2)}$  and  $101010111_{(2)}$  2
- (c) What is the 2's complement of  $11010110_{(2)}$ ? 1
6. (a) Write a C language program to read age of 40 students in an array. Find how many of them have voting right? 5
- (b) Write a C program to display all the numbers between 1 and 500 which are divisible by both 3 and 7. 4

13/CO-301/CA&P (N) (5)



7. (a) Define operating system and illustrate any two important functions of operating system.  $2+2=4$
- (b) Describe the different types of computer network based on coverage area. 3
- (c) What do you mean by internal and external commands of MS-DOS ? 2
8. (a) Define the network devices – NIC and Switch. 4
- (b) What is a protocol ? 1
- (c) Describe the following terms in brief :  $1 \times 4 = 4$
- (i) ISP, (ii) URL, (iii) WWW, (iv) HTTP.
9. Write short notes on any *three* :  $3 \times 3 = 9$
- (a) Bus topology.
- (b) Unix operating system.
- (c) Relational operators in C.
- (d) Negative number representation.

