BRAINWARE UNIVERSITY

Term End Examination 2018 - 19

Programme – Diploma in Computer Science & Engineering / Diploma in Electronics & Communication Engineering / Diploma in Electrical Engineering

Course Name - Computer Fundamentals

Course Code - DCSE010201

(Semester – 1)

Time allotted: 3 Hours **Full Marks: 70**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question) 10 x 1 = 10

1. *Choose the correct alternative from the following*

(i) Which of the following is a booting file

a. MSDOS.COM b. IOSYS.COM

c. COMMAND.COM d. COMMAND.SYS

(ii) Arithmetic Logic Unit(ALU) is a part of

a. Output Device b. Memory

c. CPU d. Input Device

(iii) What is the output of this C code?

```
#include <stdio.h>
void main()
{
   double k = 0;
   for (k = 0.0; k < 3.0; k++)
      printf("Hello");
}
```

a. Run time error b. Hello is printed twice

c. Hello is printed thrice d. Hello is printed infinitely

(iv) void main()
{
int a=4, b= 5;
printf("%d",(a>b)?a:b);
}
What will be the output-

a. 4 b. 5
c. 4 5 d. None of these

(v) #include is called

a. Preprocessor directive b. Inclusion directive
c. File inclusion directive d. None of the mentioned

(vi) DOS is an example of _____ Operating System.

a. Multitasking b. GUI
c. Multi-Processing d. Single User

(vii) The base of hexadecimal number is

a. 2 b. 8
c. 10 d. 16

(viii) Which of the following is true about return type of functions in C?

a. Functions can return any type. b. Functions can return any type except array and functions.
c. Functions can return any type except array, functions and unions. d. Functions can return any type except array, functions, function pointers and unions.

(ix) In which generation of computers transistor was used?

a. First generation b. Second generation
c. Third generation d. Fourth generation

(x) Full form of BIOS is

a. Binary Input Output System. b. Basic Input Output System.
c. Binary Implementation of System. d. None of these.

Group – B

(Short Answer Type Questions) 3 x 5 = 15

2. What is header file in C? What do you mean by explicit and implicit type conversion in C? Explain with example.

2+3

3. Write down the difference between Graphical User Interface (GUI) and Command Line Interface (CLI). 5
4. What is recursion? Explain with example. 3+2
5. Define a ternary operator with suitable Example. 5
6. Distinguish between a structure variable and a union variable in respect of memory allocation? Illustrate. 3+2

Group – C

(Long Answer Type Questions) 3 x 15 = 45

Answer any *three* from the following

7. (a) Write a program to fine the GCD of two non-negative integer values. 5
   (b) Write a program to swap the values between two variables using pointers. 5
   (c) Explain five "C" operators. Give suitable examples for each. 5
8. (a) Write a comparative study between for, while and do-while loop. 5
   (b) Distinguish between sequential access files and random access files. 5
   (c) Write a complete C program to print the following pattern for n number of rows, where n is supplied externally.

```
*
* *
* * *
* * * *
* * * * *
* * * * * *
```

   5
9. (a) What is formal argument and actual argument? Explain with examples. 5
   (b) Write a program to check whether a given year is leap year or Not. 5
   (c) Write down the difference between primary memory and secondary memory? What is virtual memory? 3+2
10. (a) Convert the following:
   $i.\ (3FA)_{16} = (?)_8$
   $ii.\ (742)_8 = (?)_2$
   $iii.\ (10110.0101)_2 = (?)_{10}$
   $iv.\ (98.675)_{10} = (?)_2$ 8
   (b) What is cache memory? Why do we require cache memory in modern computer? 2+1
   (c) Explain the classification of computer with examples. 4
11. (a) Write a program that will check a given number is Palindrome or not. 8
   (b) What do understand by 'entry control loop' and 'exit control loop'? 4
   (c) What is Storage class? 3
