

BRAINWARE UNIVERSITY

Term End Examination 2018 – 19

Programme -Bachelor of Science (Honours) in Computer Science

Course Name - Principle of Programming Language

Course Code - BCSC 201 / BCS 201

(Semester - 2)

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 Questions)

 $10 \times 1 = 10$

- 1. Choose the correct alternative from the following
- (i) Which will be the output?

void main ()

int i=1; printf("%d %d%d", i,++i,i++);

a. 133

b. 322

c. 311

d. 331

(ii) Which one is the right output?

char a[50] = "computer"; printf("%d", strlen(a));

a. 9

b. 10

c. 4

}

d. 11

(iii) Which one is the right output?

main() { int i = 65; printf("sizeof(i)=%d",sizeof(i));

a. sizeof(i)=1

b. sizeof(i)=2

c. sizeof(i)=4

d. sizeof(i)=8

```
Which will be the output?
(iv)
              void main ()
                   int i=1;
                   ++i;
                  printf("%d",i,++);
               }
              3
                                                   b. 2
           a.
                                                   d. 4
           c. 1
 (v)
       Which of the following is a composite data type?
           a. String
                                                   b. Structure
           c. Character
                                                   d. Integer
       Which statement is true every C function?
 (vi)
           a. by default return an integer
                                                   b. by default return more than one integer
              value
                                                       value
                                                   d. None of these
           c. by default return an floating
              constant
       Which statement is true for every C function?
           a. by default return an integer
                                                   b. by default return more than one integer
              value
                                                       value
           c. by default return an floating
                                                   d. None of these
              constant
       When you pass an array as an argument to a function, what actually gets passed?
(viii)
           a. address of the array
                                                   b. value of the elements of the array
           c. address of the first element of
                                                   d. number of elements of the array
              the array
       What is/are the example of preprocessor directive(s)?
(ix)
           a. #define
                                                   b. #if
           c. #include
                                                   d. All of above
       Which of the following is correct for a header file?
 (x)
                                                   b. a file that contains definitions & macros
           a. a file that contains standard
              library functions
           c. a file that contains user
                                                   d. a file that is present in current working
```

directory.

defined functions

Group - B

		(Short Answer Type Questions)	$3 \times 5 = 15$
Ans	swer a	ny three from the following	
2.		at is dynamic memory allocation ?What are the advantages of using ed lists over arrays ?	[2+3]
3.	Describe the different loop control structures in 'C' with syntax, example and explanation.		[5]
4.	Briefly describe the different loop control structures in 'C' with syntax, example and explanation.		[5]
5.	. What are the advantages of using functions in 'C' programming? What is the difference between users defined functions & library functions?		[2+3]
6.		ine the term Dynamic Memory Allocation(DMA). What are the antages of using DMA over arrays?	[2+3]
		Group – C	
		(Long Answer Type Questions)	3 x 15 = 45
Ans	wer ar	ny three from the following	
7.	(a)	Explain the difference between 'call by reference' and 'call by value'.	[5]
	(b)	What is the difference between global & local variable?	[8]
	(c)	Write a recursive function for GCD calculation.	[2]
8.	(a)	What is pointer? Explain with example that how the pointer is used for function calling using 'call by reference'.	[2+3]
	(b)	Define and differentiate between global & local variable with example?	[8]
	(c)	Write a recursive function for factorial of a number.	[2]
9.	(a)	Is printf is a function? If yes, what does it return?	[3]
	(b)	What are the advantages of switch case?	[2]
	(c)	Write a 'C' program to calculate factorial of a number.	[10]
10.	(a)	What is union?	[2]
	(b)	How does a union differ from a structure?	[5]
	(c)	How a union member accessed?	[3]

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(d) Write a 'C' program that implements a structure person that would contain person name, data_of_joining & salary.
11. (a) What do you mean by different storage classes in 'C'?
(b) Explain different storage classes and each with examples.
(c) Write a 'C' function to implement the matrix multiplication using 2-D array.
