BRAINWARE UNIVERSITY

Term End Examination 2022
Programme – BCA-2019/BCA-2020/BCA-2021
Course Name – Problem Solving using C
Course Code - BCAC101
(Semester I)

Full Marks : 60   **Time : 2:30 Hours**

[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)   1 x 15=15

1.   *Choose the correct alternative from the following :*

(i)   Decide the output of the program? #include<stdio.h> int main() { int i=3; i = i++; printf("%d\n", i); return 0; }

a) 3   b) 4
c) 5   d) 6

(ii) Decide the output of the program? #include<stdio.h> int main() { int a=100, b=200, c; c = (a == 100 || b > 200); printf("c=%d\n", c); return 0; }

a) c=100   b) c=200
c) c=1   d) c=300

(iii) Discover a relation between the pointer and the data

a) Pointer stores the address of any variable   b) Pointer stores the data of any variable
c) pointer stores the address returned by any function d) None of these

(iv) Tell the names who have developed the C programming language

a) Bjarne Stroustrup(N)   b) James Gosling(N)
c) Dennis Ritchie(Y)   d) Ray Boyce(N)

(v)   State the name having a few letters, numbers and special character _(underscore) is called

a) keywords(N)   b) reserved keywords(N)
c) reserved keywords(N)   d) identifiers(Y)

(vi) Select the right way to declare a character pointer

a) char *p,   b) character *p;
c) *p char;   d) None of these

(vii) Select out the error, if any in the program. #include<stdio.h> int main() { int i = 1; switch(i) { printf("This is c program."); case 1: printf("Case1"); break; case 2: printf("Case2"); break; } return 0; }

a) Error: No default specified   b) Error: Invalid printf statement after switch

statement

c) No Error and prints "Case1"   d) None of these

(viii) Select out the error, if any in the program. #include<stdio.h> int main() { int a = 10, b; a >=5 ? b=100: b=200; printf(\"%d\\n\", b); return 0; }

a) 100   b) 200
c) Error: L value required for b   d) Garbage value

(ix) Select the correct way in C for 2DArray declaration

a) [][]   b) {}[]
c) ()[]   d) None of these

(x)   Name the person who developed the C programming language?

a) Bjarne Stroustrup   b) James Gosling
c) Dennis Ritchie   d) Ray Boyce

(xi) Select the correct statement

a) The pointer has the direction property   b) The pointer has the indirection property
c) Pointer maintains both the property   d) None of these

(xii) Select the correct option

a) Structure in C language contains function   b) Structure in C language contains no function
c) structure contains only number   d) None of these

(xiii) Which of the following function is more appropriate for explain in a multi-word string?

a) printf();   b) scanf();
c) gets();   d) puts();

(xiv) How will you apply process to free the allocated memory ?

a) remove(var-name);   b) free(var-name);
c) delete(var-name);   d) dalloc(var-name);

(xv) Iteration is the process where a set of instructions or statements is employed to be executed

a) Once   b) repeatedly
c) Thrice   d) None

Group-B
(Short Answer Type Questions)   3 x 5=15

2. What is pointer of pointer   (3)
3. Explain the lvalue and rvalue   (3)
4. Explain the dangling pointer   (3)
5. Dishtinguish between the actual and formal parameters   (3)
6. Dishtinguish between between getch() and getche()   (3)

OR

Explain toupper() with an example   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. Tell Which structure is used to link the program and the operating system?   (5)
8. State File operations in C Language   (5)
9. Write a program on call by reference   (5)
10. Compare between reference and Pointer?   (5)
11. Compare between new() and malloc()?   (5)
12. null pointer different from a void pointer criticize it   (5)

OR

Decide the output of the following #include #include long factorial (int n) { if (n==0) return 1;   (5)

```c
else return (n * factorial(n-1)); //recursion } void main() { int number; long fact; printf("Enter a number: "); scanf("%d", &number); fact = factorial(number); printf("The factorial of %d is %ld!\n", number, fact); getch(); }
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