**Global Group of Institutions  
Demo Question Paper – Set – IV**

**Subject - Programming for Problem Solving**

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| **Group – A** | | **30 x 1 = 30** | |
| **Sl. No.** | **Questions Lists** | | **Correct Option** |
| 1. | Which one of the following is known as the ―language of computer?  (a) Programming language (b) High-level language  (c) Machine language (d) Assembly language | | **C** |
| 2. | \_\_\_\_\_\_\_\_\_ translates high level language into machine language  (a) Compiler (b) Translator (c) Processor (d) Loader | | **A** |
| 3. | Which of the following is not a valid variable declaration?  (a) int 2class; (b) int class2; (c) int class\_2; (d) int ELSE; | | **A** |
| 4. | The size of “long double”‖ data type in 16-bit machine is \_\_\_\_\_  (a) 8 bytes (b) 10 bytes (c) 2 bytes (d) 4bytes | | **B** |
| 5. | The range of “char” data type is \_\_\_\_  (a) -128 to 127 (b) 0 to 255 (c) -32768 to 32767 (d) None | | **A** |
| 6. | The size of ―char‖ data type is \_\_\_\_  (a) 1 byte (b) 2 bytes (c) 4 bytes (d) 10 bytes | | **A** |
| 7. | The \_\_\_\_\_ statement is used to skip the remaining part of the statements in a loop and continue with next iteration.  (a) break (b) goto (c) continue (d) exit | | **C** |
| 8. | \_\_\_\_\_\_\_should be avoided as part of structured programming approach  (a) break (b) goto (c) continue (d) exit | | **B** |
| 9. | The minimum number of times ―for‖ loop executes  (a) 2 (b) can‘t be predicted (c) 0 (d) 1 | | **C** |
| 10. | Which one among the following is the correct syntax of for loop?  (a) for(i=0 ; i<n ; i++) ; (b) for(i<n ; i=0 ; i++);  (c) for(i=0 ; i<n : i++); (d) None | | **A** |
| 11. | ‘for’ loop in C program, if the condition is missing -  (a) assumed to be present and taken to be false  (b) assumed to be present and taken to be true  (c) syntax error  (d) execution will be terminated abruptly | | **B** |
| 12. | If c is initialized to 1, how many times following loop is executed -  while((c>0) && (c<60))  {  c++;  }  (a) 60 (b) 59 (c) 61 (d)1 | | **B** |
| 13. | The library function exit () causes an exit from –  (a) loop (b) block (c)function (d) None | | **D** |
| 14. | Which among the following is not checked in switch case -  (a) character (b) integer (c) float (d) None | | **C** |

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| 15. | What is the output of this C code?  int main()  {  while ()  printf("In while loop ");  printf("After loop\n");  }  (a) In while loop after loop (b) After loop  (c) Compile time error (d) Infinite loop | **C** |
| 16. | What is the output of the following program-?  main ()  {  int i;  for(i=1;i<5;i++)  {  if(i==3)  break;  printf(“%d”,i);  }  }  (a) 12345 (b)124 (c)1245 (d)12 | **D** |
| 17. | What are the entry controlled loops among the following-?  i. while ii. Do-while iii. For  (a) only i (b) only ii,iii (c) only iii (d) only i, iii | **D** |
| 18. | for(;;) can be terminated by  (a) break (b) exit(0) (c) return (d) All the above | **D** |
| 19. | Which of the following special symbol allowed in a variable name?  A. \* (asterisk)  B. | (pipeline)  C. - (hyphen)  D. \_ (underscore) | **D** |
| 20. | Is there any difference between following declarations?  1: extern int fun(); 2: int fun();  A. Both are identical  B. No difference, except extern int fun(); is probably in another file  C. int fun(); is overrided with extern int fun();  D. None of these | **B** |
| 21. | How would you round off a value from 1.66 to 2.0?  A. ceil(1.66) B. floor(1.66)  C. roundup(1.66) D. roundto(1.66) | **A** |
| 22. | By default, a real number is treated as a -  A. float B. double  C. long double D. far double | **B** |
| 23. | Is the following statement a declaration or definition?  extern int i;  A. Declaration B. Definition C. Function D. Error | **A** |

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| 24. | Identify which of the following are declarations  1: extern int x;  2: float square ( float x ) { ... }  3: double pow(double, double);  A. 1 B. 2 C. 1 and 3 D. 3 | **C** |
| 25. | In the following program where is the variable a getting defined and where it is getting declared?  #include<stdio.h>  int main()  {  extern int a;  printf("%d\n", a);  return 0;  }  int a=20;  A. extern int a is declaration, int a = 20 is the definition  B. int a = 20 is declaration, extern int a is the definition  C. int a = 20 is definition, a is not defined  D. a is declared, a is not defined | **A** |
| 26. | When we mention the prototype of a function?  A. Defining B. Declaring C. Prototyping D. Calling | **B** |
| 27. | Which of the following is the correct order of evaluation for the below expression?  z = x + y \* z / 4 % 2 – 1  A. \* / % + - = B. = \* / % + -  C. / \* % - + = D. \* % / - + = | **A** |
| 28. | Which of the following correctly shows the hierarchy of arithmetic operations in C?  A. / + \* - B. \* - / + C. + - / \* D. / \* + - | **D** |
| 29. | Which of the following is the correct usage of conditional operators used in C?  A. a>b ? c=30 : c=40; B. a>b ? c=30;  C. max = a>b ? a>c?a:c:b>c?b:c D. return (a>b)?(a:b) | **C** |
| 30. | Which of the following is the correct order if calling functions in the below code?  **a = f1(23, 14) \* f2(12/4) + f3();**  A. f1, f2, f3 B. f3, f2, f1  C. Order may vary from compiler to compiler D. None of above | **C** |

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| **Group – B** | | **20 x 2 = 40** | |
| **Sl. No.** | **Questions Lists** | | **Correct Option** |
| 1. | Which of the following are unary operators in C?  1. ! 2. Sizeof 3. ~ 4. &&  A. 1, 2 B. 1, 3 C. 2, 4 D. 1, 2, 3 | | **D** |
| 2. | In which order do the following gets evaluated  1. Relational  2. Arithmetic  3. Logical  4. Assignment  A. 2134 B. 1234 C. 4321 D. 3214 | | **A** |
| 3. | Which header file should be included to use functions like malloc() and calloc()?  A. memory.h B. stdlib.h C. string.h D. dos.h | | **B** |
| 4. | What function should be used to free the memory allocated by calloc() ?  A. dealloc(); B. malloc(variable\_name, 0)  C. free(); D. memalloc(variable\_name, 0) | | **C** |
| 5. | How will you free the memory allocated by the following program?  **#include<stdio.h>**  **#include<stdlib.h>**  **#define MAXROW 3**  **#define MAXCOL 4**  **int main()**  **{**  **int \*\*p, i, j;**  **p = (int \*\*) malloc(MAXROW \* sizeof(int\*));**  **return 0;**  **}**  A. memfree(int p); B. dealloc(p); C. malloc(p, 0); D. free(p); | | **D** |
| 6. | Specify the 2 library functions to dynamically allocate memory?  A. malloc() and memalloc() B. alloc() and memalloc()  C. malloc() and calloc() D. memalloc() and faralloc() | | **C** |
| 7. | In the following code, the P2 is Integer Pointer or Integer?  **typedef int \*ptr;**  **ptr p1, p2;**  A. Integer B. Integer pointer  C. Error in declaration D. None of above | | **B** |
| 8. | In the following code what is 'P'?  **typedef char \*charp;**  **const charp P;**  A. P is a constant B. P is a character constant  C. P is character type D. None of above | | **A** |

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| 9. | What is x in the following program?  **#include<stdio.h>**  **int main()**  **{**  **typedef char (\*(\*arrfptr[3])())[10];**  **arrfptr x;**  **return 0;**  **}**  A. x is a pointer  B. x is an array of three pointer  C. x is an array of three function pointers  D. Error in x declaration | **C** |
| 10. | What will be the output of the program?  **#include<stdio.h>**  **int main()**  **{**  **int y=128;**  **const int x=y;**  **printf("%d\n", x);**  **return 0;**  **}**  A. 128 B. Garbage value C. Error D. 0 | **A** |
| 11. | What will be the output of the program?  **#include<stdio.h>**  **#include<stdlib.h>**  **union employee**  **{**  **char name[15];**  **int age;**  **float salary;**  **};**  **const union employee e1;**  **int main()**  **{**  **strcpy(e1.name, "K");**  **printf("%s %d %f", e1.name, e1.age, e1.salary);**  **return 0;**  **}**  A. Error: RValue required  B. Error: cannot convert from 'const int \*' to 'int \*const'  C. Error: LValue required in strcpy  D. No error | **D** |

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| 12. | What will be the output of the program?  **#include<stdio.h>**  **int fun(int \*\*ptr);**  **int main()**  **{**  **int i=10;**  **const int \*ptr = &i;**  **fun(&ptr);**  **return 0;**  **}**  **int fun(int \*\*ptr)**  **{**  **int j = 223;**  **int \*temp = &j;**  **printf("Before changing ptr = %5x\n", \*ptr);**  **const \*ptr = temp;**  **printf("After changing ptr = %5x\n", \*ptr);**  **return 0;**  **}**  A. Address of I and Address of j  B. 10 and 223  C. Error: cannot convert parameter 1 from 'const int \*\*' to 'int \*\*'  D. Garbage value | **C** |
| 13. | What will be the output of the program?  **#include<stdio.h>**  **int main()**  **{**  **const int x=5;**  **const int \*ptrx;**  **ptrx = &x;**  **\*ptrx = 10;**  **printf("%d\n", x);**  **return 0;**  **}**  A. 5 B. 10 C. Error D. Garbage value | **C** |
| 14. | How many times "IndiaBIX" is get printed?  **#include<stdio.h>**  **int main()**  **{**  **int x;**  **for(x=-1; x<=10; x++)**  **{**  **if(x < 5)**  **continue;**  **else**  **break;**  **printf("IndiaBIX");**  **}**  **return 0;**  **}**  A. Infinite times B. 11 times C. 0 times D. 10 times | **C** |
| 15. | In mathematics and computer programming, which is the correct order of mathematical operators?  A. Addition, Subtraction, Multiplication, Division  B. Division, Multiplication, Addition, Subtraction  C. Multiplication, Addition, Division, Subtraction  D. Addition, Division, Modulus, Subtraction | **B** |
| 16. | Which of the following is not logical operator?   1. & B. && C. || D. ! | **A** |
| 17. | Which of the following cannot be checked in a switch-case statement?  A. Character B. Integer C. Float D. enum | **C** |
| 18. | What do the following declaration signify?  **int \*ptr[30];**  A. ptr is a pointer to an array of 30 integer pointers.  B. ptr is a array of 30 pointers to integers.  C. ptr is a array of 30 integer pointers.  D. ptr is a array 30 pointers. | **B** |
| 19. | What do the following declaration signify?  **int (\*pf)();**  A. pf is a pointer to function.  B. pf is a function pointer.  C. pf is a pointer to a function which return int  D. pf is a function of pointer variable. | **C** |
| 20. | What do the following declaration signify?  **void \*cmp();**  A. cmp is a pointer to an void type.  B. cmp is a void type pointer variable.  C. cmp is a function that return a void pointer.  D. cmp function returns nothing. | **C** |

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