

# Gujarat Technological University

## Diploma Engineering C to D Bridge Course Examination

**Subject Code: C320702**
**Date: 14-06-2017**
**Subject Name: ADVANCED COMPUTER PROGRAMMING**
**Time: 10:30 AM TO 12:00 PM**
**Total Marks: 70**
**Instructions:**

1. Attempt all questions.
2. Make suitable assumption wherever necessary.
3. Each question is of 1 mark.
4. Use of SIMPLE CALCULATOR is permissible. (Scientific/Higher Version not allowed)
5. English version is authentic.

| No. | Question Text and Option. પ્રશ્ન અને વિકલ્પો.  |  |    |  |
|-----|--|--|----|--|
| 1.  | The smallest element of array is called  |  |    |  |
|     | A.   | Lower Bound  | B. | Upper bound  |
|     | C.   | Range  | D. | None of the Above  |
| 2.  | What is the maximum number of dimension an array have in C ?   |  |    |  |
|     | A.   | 2  | B. | 8  |
|     | C.   | 20   | D. | Theoretically no limit   |
| 3.  | Array is preferred to be used to hold?   |  |    |  |
|     | A.   | Constants  | B. | Data of same type  |
|     | C.   | Data of different type   | D. | None of these  |
| 4.  | Array is a ..... data structure  |  |    |  |
|     | A.   | Linear   | B. | Non Linear   |
|     | C.   | Complex  | D. | None of these  |
| 5.  | The index value of any array starts from?  |  |    |  |
|     | A.   | 1  | B. | 0  |
|     | C.   | -1   | D. | None of these  |
| 6.  | What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array? |  |    |  |
|     | A.   | The element will be set to 0                                   | B. | The compiler would report an error.                            |
|     | C.   | The program may crash if some important data gets overwritten. | D. | The array size would appropriately grow                        |
| 7.  | What does the following declaration mean?<br>int (*ptr)[10];   |  |    |  |
|     | A.   | ptr is array of pointers to 10 integers                        | B. | ptr is a pointer to an array of 10 integers                    |
|     | C.   | ptr is an array of 10 integers                                 | D. | ptr is a pointer to array                                      |
| 8.  | In C, if you pass an array as an argument to a function, what actually gets passed?                                  |  |    |  |
|     | A.   | Value of elements in array                                     | B. | First element of the array                                     |
|     | C.   | Base address of the array                                      | D. | Address of the last element of array                           |
| 9.  | What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array? |  |    |  |
|     | A.   | The compiler would report an error.                            | B. | The program may crash if some important data gets overwritten. |
|     | C.   | The array size would appropriately grow                        | D. | The element will be set to 0.                                  |
| 10. | What does the following declaration mean? int (*ptr)[10];  |  |    |  |

|     |   |  |    |  |
|-----|---|--|----|--|
|     | A.  | ptr is a pointer to an array of 10 integers    | B. | ptr is array of pointers to 10 integers          |
|     | C.  | ptr is an array of 10 integers                 | D. | ptr is an pointer to array                       |
| 11. | What is the meaning of <code>int arr[20];</code> ;  |  |    |  |
|     | A.  | Integer array of size 20                       | B. | Array of size 20                                 |
|     | C.  | Array of size 20 that can have integer address | D. | None of these                                    |
| 12. | Which of the following correct declares an array?   |  |    |  |
|     | A.  | <code>int array[10];</code>                    | B. | <code>int array;</code>                          |
|     | C.  | <code>array array [10];</code>                 | D. | <code>array {10};</code>                         |
| 13. | What is the index number of the last element of an array with 9 element?  |  |    |  |
|     | A.  | 9  | B. | 8  |
|     | C.  | 0  | D. | Programmer-defined                               |
| 14. | If array is passed as an argument to a function, what actually gets passed?   |  |    |  |
|     | A.  | value of element in array                      | B. | first element of the array                       |
|     | C.  | Base address of the array                      | D. | Address of the last element of array             |
| 15. | If you don't initialize a static array, what would be the elements set to?  |  |    |  |
|     | A.  | 0  | B. | an undetermined value                            |
|     | C.  | a floating point number                        | D. | the character constant <code>'\0'</code>         |
| 16. | What is NULL pointer?   |  |    |  |
|     | A.  | Denote pointer to 0                            | B. | Denote integer pointer to 0                      |
|     | C.  | Denote NULL pointer is the integer 0           | D. | None   |
| 17. | What is wild pointer?   |  |    |  |
|     | A.  | Pointer which is wild in nature                | B. | Pointer which has no value.                      |
|     | C.  | Pointer which is not initialized               | D. | None   |
| 18. | Why can't I perform arithmetic on void * pointer?   |  |    |  |
|     | A.  | Compiler does not know the size of object      | B. | Compiler does not allow Void *                   |
|     | C.  | Compiler don't have value to initialized       | D. | None   |
| 19. | What is <code>(void*)0</code> ?   |  |    |  |
|     | A.  | Representation of NULL pointer                 | B. | Representation of void pointer                   |
|     | C.  | Error  | D. | None of above                                    |
| 20. | Can you combine the following two statements into one?<br><br><code>char *p;</code><br><code>p = (char*) malloc(100);</code>                                  |  |    |  |
|     | A.  | <code>char p = *malloc(100);</code>            | B. | <code>char *p = (char*)malloc(100);</code>       |
|     | C.  | <code>char *p = (char) malloc(100);</code>     | D. | <code>char*p = (char*)(malloc)(100);</code>      |
| 21. | In which header file is the NULL macro defined?   |  |    |  |
|     | A.  | <code>stdio.h</code>                           | B. | <code>stddef.h</code>                            |
|     | C.  | <code>stdio.h</code> and <code>stddef.h</code> | D. | <code>math.h</code>                              |
| 22. | If a variable is a pointer to a structure, then which of the following operator is used to access data members of the structure through the pointer variable? |  |    |  |
|     | A.  | <code>.</code> (dot operator)                  | B. | <code>&amp;</code>                               |
|     | C.  | <code>*</code>                                 | D. | <code>-&gt;</code>                               |
| 23. | A pointer is....  |  |    |  |
|     | A.  | A keyword used to create variables             | B. | A variable that stores address of an instruction |

|     |  |  |    |  |
|-----|--|--|----|--|
|     | C.   | A variable that stores address of other variable               | D. | All of the above   |
| 24. | The operator used to get value at address stored in a pointer variable is              |  |    |  |
|     | A.   | *  | B. | &  |
|     | C.   | &&   | D. |  |
| 25. | What will happen to this code ?<br>int a,b, *p, *q;<br>p=&a; q=&b;<br>p=q;             |  |    |  |
|     | A.   | b is assigned to a   | B. | p now points to b  |
|     | C.   | a assigned to b  | D. | q now points to a  |
| 26. | Explain the statement : int (*fp)(char*)   |  |    |  |
|     | A.   | pointer to a pointer   | B. | pointer to an array of chars                                     |
|     | C.   | pointer to function taking a char* arguments and return an int | D. | function taking a char* argument and returning a pointer to int. |
| 27. | What is size of generic pointer in c?  |  |    |  |
|     | A.   | 0  | B. | 1  |
|     | C.   | 2  | D. | NULL   |
| 28. | What is the similarity between a structure, union and enumeration?                     |  |    |  |
|     | A.   | All of them let you define new values                          | B. | All of them let you define new data types                        |
|     | C.   | All of them let you define new pointers                        | D. | All of them let you define new structures                        |
| 29. | Correct syntax to pass a Function Pointer as an argument                               |  |    |  |
|     | A.   | void pass(int (*fptr)(int, float, char)){ }                    | B. | void pass(*fptr(int, float, char)){ }                            |
|     | C.   | void pass(int (*fptr)){ }                                      | D. | void pass(*fptr){ }  |
| 30. | Use of functions   |  |    |  |
|     | A.   | helps to avoid repeating a set of statements many times        | B. | Enhances the logical clarity of the program                      |
|     | C.   | help to avoid repeated coding across programs                  | D. | All of above   |
| 31. | If the two strings are identical the strcmp() function returns.                        |  |    |  |
|     | A.   | -1   | B. | 1  |
|     | C.   | 0  | D. | Yes  |
| 32. | The library function used to find the last occurrence of a character in a string is    |  |    |  |
|     | A.   | Strnstr()  | B. | Strstr()   |
|     | C.   | Laststr()  | D. | Strchr()   |
| 33. | Any C program  |  |    |  |
|     | A.   | Must contain at least one function.                            | B. | Need not contain any function.                                   |
|     | C.   | None of the above.   | D. | Needs input data.  |
| 34. | When a function is recursively called all the automatic variables are stored in a..... |  |    |  |
|     | A.   | Linked list  | B. | Queue  |
|     | C.   | Array  | D. | Stack  |
| 35. | Which of the following function calculates the square of 'X' in C?                     |  |    |  |
|     | A.   | Pow(2.X)   | B. | Pow(X,2)   |
|     | C.   | Sqr(X)   | D. | Power(2,X)   |
| 36. | Functions have.....  |  |    |  |
|     | A.   | Local scope  | B. | Block scope  |
|     | C.   | File scope   | D. | No scope at all  |
| 37. | The function scanf() returns.....  |  |    |  |
|     | A.   | 0  | B. | ASCII value of the input read.                                   |

|     |  |  |    |  |
|-----|--|--|----|--|
|     | C.   | The number of successful read input values.              | D. | The actual values read for each argument.                          |
| 38. | The Recursive function are executed in a   |  |    |  |
|     | A.   | Parallel order   | B. | First in First out   |
|     | C.   | Last in Last out   | D. | Random order   |
| 39. | What is Fuction?   |  |    |  |
|     | A.   | Function is block of code that performs a specific task. | B. | Function is a block of statements that perform some specific task. |
|     | C.   | It has a name and it is reusable.                        | D. | All of above.  |
| 40. | The keyword used to transfer control from a function back to the calling function is   |  |    |  |
|     | A.   | Return   | B. | Goto   |
|     | C.   | Go back  | D. | Switch   |
| 41. | What will be the output of the following program code?<br><pre>main(){      int i= abc(10)              Printf(“%d”,--i); }              int abc(int i)              {      return(i++) }</pre>  |  |    |  |
|     | A.   | 10   | B. | 11   |
|     | C.   | 9  | D. | None of these  |
|     |  |  |    |  |
| 42. | What will be the output of the following program code?<br><pre>main() {      static int var= 5;         printf(“%d”, var--);         if (var)         main(); }</pre>  |  |    |  |
|     | A.   | 55555  | B. | 54321  |
|     | C.   | Infinite loop  | D. | None of these  |
|     |  |  |    |  |
| 43. | Pick the correct statements<br>I, The body of a function should have only one return statement.<br>II, The body of a function may have many return statements.<br>III, A function can return only one value to the calling environment.<br>IV, If return statement is omitted then the functions does its job but returns no value to the calling environments |  |    |  |
|     | A.   | I & II   | B. | II & III   |
|     | C.   | I & III  | D. | II & IV  |
|     |  |  |    |  |
| 44. | The Default parameter passing mechanism is   |  |    |  |
|     | A.   | call by value  | B. | call by reference  |
|     | C.   | call by value result                                     | D. | none of these  |
| 45. | A preprocessor command   |  |    |  |
|     | A.   | Need not start on a new line                             | B. | Need not start on the first column                                 |
|     | C.   | Has # as the first character                             | D. | Comes before the first executable statement.                       |
| 46. | C preprocessor   |  |    |  |
|     | A.   | Takes care of conditional compilation.                   | B. | Takes cares of macros  |
|     | C.   | Takes care of include files.                             | D. | All of the above.  |
| 47. | Which of the following are correct preprocessor directives in c?<br>1. #ifdef<br>2. #if<br>3. #elif<br>4. #undef   |  |    |  |
|     | A.   | 1,2  | B. | 4  |
|     | C.   | 1,2,4  | D. | 1,2,3,4  |
|     |  |  |    |  |
| 48. | Choose the correct statement.  |  |    |  |

|     |   |  |    |  |
|-----|---|--|----|--|
|     | <p>I. The scope of a macro definition need not be the entire program.</p> <p>II. The scope of a macro definition extends from the point of definition to the end of the file.</p> <p>III. new line is a macro definition delimiter.</p> <p>IV. A macro definition may go beyond a line.</p> |  |    |  |
|     | A.  | I & II   | B. | II & III   |
|     | C.  | I, II & III  | D. | I,II,III & IV.   |
| 49. | In which stage the execution of code #include <stdio.h> gets by the contents of the file stdio.h  |  |    |  |
|     | A.  | During editing.  | B. | During linking.  |
|     | C.  | During execution.  | D. | During preprocessing.  |
| 50. | For accessing a structure elements using a pointer , you must use ?   |  |    |  |
|     | A.  | Pointer operator(&)  | B. | Dot operator(.)  |
|     | C.  | Pointer operator(*)  | D. | Arrow operator(->)   |
| 51. | Which of the following is a collection of different data types?   |  |    |  |
|     | A.  | String   | B. | Structure  |
|     | C.  | Char   | D. | All of these   |
| 52. | Which of the following statement is true.   |  |    |  |
|     | A.  | Remember to place a semicolon at the end of definition of structure and unions | B. | it is an error to compare two structure variable   |
|     | C.  | Both (A) & (B)   | D. | None of these.   |
| 53. | If initialization is a part of structure then storage class can be  |  |    |  |
|     | A.  | Automatic  | B. | Register   |
|     | C.  | Static   | D. | anything   |
| 54. | A structure can be member of another structure  |  |    |  |
|     | A.  | is called nesting of structure   | B. | is called structure within structure.  |
|     | C.  | Both (A) & (B)   | D. | None of these.   |
| 55. | The struct is the same as a class except that   |  |    |  |
|     | A.  | there are no member functions.   | B. | all members are public   |
|     | C.  | cannot be used in inheritance hierarchy  | D. | it does have a this pointer.   |
| 56. | Most appropriate sentence to describe union is  |  |    |  |
|     | A.  | Union are like structure.  | B. | union contain members of different data types which share the same storage area in memory. |
|     | C.  | Union are less frequently used in program.                                     | D. | Union are used for set operations.   |
| 57. | Which operator connects the structure name to its member name?  |  |    |  |
|     | A.  | -  | B. | <-   |
|     | C.  | .(dot operator)  | D. | Both (b)and (c).   |
| 58. | Union is  |  |    |  |
|     | A.  | not a group of variable.   | B. | a variable.  |
|     | C.  | Both (A) & (B)   | D. | None of these.   |
| 59. | feof() indicates  |  |    |  |
|     | A.  | error in file  | B. | end of file  |
|     | C.  | move to the beginning of file  | D. | move to desired position in file   |
| 60. | The file iostream includes  |  |    |  |
|     | A.  | The declaration of the basic standard input-output library.                    | B. | The streams of includes and outputs of program effect.                                     |
|     | C.  | Both of these  | D. | None of these.   |
| 61. | The contents of a file will be lost if it is opened in  |  |    |  |
|     | A.  | 'a' mode   | B. | 'w' mode   |
|     | C.  | 'w+' mode  | D. | 'a+' mode  |
| 62. | The fseek function  |  |    |  |

|     |   |   |    |   |
|-----|---|---|----|---|
|     | A.  | needs three arguments   | B. | makes the rewind function unnecessary                 |
|     | C.  | is meant for checking whether a given file exists or not                | D. | both (A) & (B)  |
| 63. | ftell is  |   |    |   |
|     | A.  | is a function.  | B. | gives the current file position indicator.            |
|     | C.  | can be used to find the size of a file.                                 | D. | All of the above.                                     |
| 64. | If a file is opened in w+ mode then   |   |    |   |
|     | A.  | after write operation reading is possible without closing and reopening | B. | reading is possible                                   |
|     | C.  | writing is possible   | D. | All of the above.                                     |
| 65. | If a file is opened in r+ mode then   |   |    |   |
|     | A.  | reading is possible   | B. | writing is possible                                   |
|     | C.  | both (A) & (B).   | D. | all the above   |
| 66. | The process of accessing data stored in a tape is similar to manipulating data on a |   |    |   |
|     | A.  | Queue   | B. | Stack   |
|     | C.  | List  | D. | None of these.  |
| 67. | In the statement fprintf(fpt,"%n",i), the variable fpt is a/an                      |   |    |   |
|     | A.  | Integer variable  | B. | Arbitrarily assigned value                            |
|     | C.  | Pointer to a file.  | D. | Special kind of variable called file.                 |
| 68. | The function sprint() works like printf() , but operates on                         |   |    |   |
|     | A.  | Data in a file  | B. | stdin   |
|     | C.  | stderr  | D. | string  |
| 69. | The function fopen ("filename","w") returns   |   |    |   |
|     | A.  | Nothing   | B. | A value 0 or 1 whether the file could be open or not. |
|     | C.  | A pointer to FILE filename in WRITE mode, if it is exists.              | D. | A pointer to new file after creating it.              |
| 70. | getch() function is used  |   |    |   |
|     | A.  | to read string from file  | B. | to read character from file                           |
|     | C.  | to read integer from file   | D. | to read from file.                                    |

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