QUIZIZZ

CODEX-Quiz

60 Questions

1. **Which of the following special symbols are allowed in a function name?**

☐ a) * (asterisk)

☐ b) | (pipepne)

☐ c) -(hyphen)

☐ d) _(underscore)

2. **Where are the local variables stored?**

☐ a) Disk

☐ b) Stack

☐ c) Heap

☐ d) Code

3. **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

4. **What does the following declaration mean?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 an pointer to array

5. **Which of the given statement is not true?**

☐ a) The time complexity of binary search is O(log n).

☐ b) A linear search sometimes requires a sorted list.

☐ c) A binary search can operate only on a sorted list.

☐ d) The time complexity of linear search is O(n).

? **Help**

6. **Which of the following statements should be used to obtain a remainder after dividing 3.14 by 2.1?**

☐ a) rem = 3.14 % 2.1;   ☐ b) rem = modf(3.14, 2.1);

☐ c) rem = fmod(3.14, 2.1);   ☐ d) Remainder cannot be obtain in floating point division.

7. **What is the second part of a node in a linked list that contains the address of the next node called?**

☐ a) Data   ☐ b) Pointer

☐ c) Elelment   ☐ d) Link

8. **Consider an array of int. Calculate the difference between the address of the 1st and 5th element, assuming int occupies 4 bytes of memory.**

☐ a) 16   ☐ b) 4

☐ c) 12   ☐ d) 8

9. **Recursion uses more memory space than iteration. Which of the following is/are the valid reason for the same?**A. It uses the stack instead of a queueB. Every recursion call has to be storedChoose the correct answer from the options given below.

☐ a) Only A   ☐ b) Both A and B

☐ c) Neither A nor B   ☐ d) Only B

10. **Which of the following is NOT a type of linked list?**

☐ a) Double ended linked list   ☐ b) Double linked list

☐ c) Simple linked list   ☐ d) Circular linked list

11. With the given information provided find out the address of Arr[17] in a 1-D array Arr[30].- lower bound = 1- starting base address = 1100- size of each element is 2.

☐ a) 1132　　　　　　　　　　　　☐ b) 1070

☐ c) 1128　　　　　　　　　　　　☐ d) 1068

12. **A binary tree is tree data structure in which each node has at most two children . Now lets suppose that on traversing a tree we found debfgca is post order and pre order traversal of that binary tree is abdecfg. Then what will the in-order traversal of the tree:**

☐ a) d eb fa c g　　　　　　　　　☐ b) d be af cg

☐ c) e db fg ca　　　　　　　　　☐ d) e db gf c a

13. **What will be the output of the following pseudocode?**
Integer a, b, cSet b = 2, a = 2c = a ^ bPrint c

☐ a) 1　　　　　　　　　　　　　☐ b) 4

☐ c) 0　　　　　　　　　　　　　☐ d) 2

14. **What will be the output of the following C code?**
#include<stdio.h>void m(){printf("hello");}void main(){int k=m();printf("%d",k);}

☐ a) hello　　　　　　　　　　　☐ b) hello0

☐ c) hello5　　　　　　　　　　　☐ d) Error

15. **What would be the size of the following union declaration?**#include<stdio.h?union uTemp{4 double a; int b[10]; Char c;}u;

☐ a) 40　　　　　　　　　　　　☐ b) 8

☐ c) 49　　　　　　　　　　　　☐ d) 4

16. **What will be the output of the following C code?**

    #include<stdio.h>void main(){int a=5,b=-7,c=0,d;d=++a &&
    ++b||++c && ++a && ++b ;printf("\n %d %d %d
    %d",a,b,c,d);}(a)7-511(b)6-501(c)6-601(d)7-601

    ☐ a) 7-511   ☐ b) 6-501

    ☐ c) 6-601   ☐ d) 7-601

17. **What will be the output of the following C code?**

    #include<stdio.h>int main(){ float i;i =
    1;printf("\n%d\n",i);return 0; }

    ☐ a) 1   ☐ b) 1.000000

    ☐ c) Garbage Value   ☐ d) Error

18. **What will be the output of the following code?**

    #include<stdio.h>void main(){ int z=5,y=1,x=2,a;a=x &&
    y=y++ || z+1 || z++ && y;printf("%d",a);}

    ☐ a) 5   ☐ b) 3

    ☐ c) 1   ☐ d) Error

19. **What will be the output of the following C code?**

    #include<stdio.h>int main(){float x = 0.0;long int y =
    10;printf("%d", sizeof(x) == sizeof(x+y));return 0;}

    ☐ a) 0   ☐ b) Garbage Value

    ☐ c) Error : Incompatible data types,float and   ☐ d) 1
       long int

20. **What will be the output of the following C code?**
    #include<stdio.h>int main(){ char a,b,c;c='f'; a='S';
    b='x';int sum=c+a+b;printf("%d",sum);}

    ☐ a) 324   ☐ b) 337

    ☐ c) 315   ☐ d) 305

21. **Find the output ?a=b=c=m=0,limit=10;**while (c < limit){ for
    (int n = 1; n < m; ++n) {a = m * m - n * n; b = 2 * m * n; c = m
    * m + n * n;if(c>limit) break;printf("%d %d %d ", a, b, c);
    }m++; }

☐ a) 1 5 7   ☐ b) 2 5 7 79 10

☐ c) 1 2 3 4 5 6 7 8 9   ☐ d) 3 4 5 8 6 10

22. **How many times the below loop will be executed?**
    #include<stdio.h>int main(){ int x, y;for(x=5;x>=1;x--);
    {for(y=1;y<x;y++)printf("%d",y); }}

☐ a) 15   ☐ b) 11

☐ c) 10   ☐ d) 13

23. **What will be the output of the program?**int main(){int
    a[5] = {5,1,10,20,25}, i, j, m;i = ++a[1]; j = a[1]++; m =
    a[j++];printf("%d, %d, %d", i, j, m);return 0;}

☐ a) 2,1,15   ☐ b) 3,2,15

☐ c) 3,2,15   ☐ d) 2,3,10

24. **What will be the output of the program?**
    public class Main{public static void main(String[] args)
    {String names[] = new String[5];for(int x=0; x<args.length();
    x++)names[x] = args[x];System.out.println(names[2]); }}

☐ a) Names   ☐ b) Null

☐ c) Compilation error   ☐ d) An exception throws at runtime

25. **What will be the output of the C code?**
    #include<stdio.h>int main(){ printf("Hello World ! %d
    \n",x);return 0;}

☐ a) Hello World! Followed by a junk value   ☐ b) Hello World! x

☐ c) Hello World!   ☐ d) Compile time error

26. **What will be the output of the following C code?**

    #include<stdio.h>void main(){ int k=8;int m=7;int z=k<m?

    k==m+1?k=k*2:m=m*k*(m+k):m++;printf("%d",z); }

    ☐ a) 7   ☐ b) 8

    ☐ c) Depends on the compiler   ☐ d) Error

27. **If the result of any logical statement or expression is always true or if the result is always 1,it is known as?**

    ☐ a) Fallacy   ☐ b) Tautology

    ☐ c) Both A &B   ☐ d) None of these

28. **Select the equivalent pointer expression for referring the following array element- x[a][b][c][d][m]?**

    ☐ a) *(*(*(*(*x+a)+b)+c)+d)+m)   ☐ b) *(*(*(*(*(x+a)+b+c+d+m)

    ☐ c) ****((*(x+a)+b)+c+d+m)   ☐ d) *(*(*(*(*(x+a)+b)+c)+d)+m)

29. **What is stderr?**

    ☐ a) Standard error   ☐ b) Standard error types

    ☐ c) Standard error streams   ☐ d) Standard error definitions

30. **In which stage the following code – " #include<stdio.h> " gets replaced by the contents of the file stdio.h ?**

    ☐ a) During processing   ☐ b) During linking

    ☐ c) During execution   ☐ d) During preprocessing

31. **What will the Swap macro in the following program be expanded to on preprocessing? Will the code compile?**
    #include<stdio.h>#define Swap(a,b,c)(c t; t=a,a=b,b=t)int main(){int x=10,y=20;Swap(x,y,int);printf("%d %d\n",x,y);return 0;}

☐ a) It compiles   ☐ b) Compiles with a warning

☐ c) It will not compile   ☐ d) Compiles and print nothing

32. **What is the similarity between a structure, union and enumeration?**(MCQ question)

☐ a) All of them let you define new values   ☐ b) All of them let you define new structures

☐ c) All of them let you define new functions   ☐ d) All of them let you define new data types

33. **Specify the two library functions to dynamically allocate memory?**

☐ a) malloc() and memalloc()   ☐ b) alloc() and memalloc()

☐ c) malloc() and calloc()   ☐ d) memalloc() and faralloc()

34. **What function is used to free the memory allocated by calloc()?**

☐ a) dealloc();   ☐ b) malloc(variable_name,0);

☐ c) free();   ☐ d) memalloc(variable_name,0);

35. **In which header file is the NULL macro defined?**(MCQ Question)

☐ a) stddef.h   ☐ b) stdlib.h

☐ c) ctype.h   ☐ d) time.h

36. **What is (void*)0?**

☐ a) It will generate an error   ☐ b) Representation of Null pointer

☐ c) Representation of Void pointer   ☐ d) None of the above

37. **Which of the following statements correctly declare a function that receives a pointer to pointer to a pointer to a float and returns a pointer to a pointer to a pointer to a pointer to a float?**

☐ a) float ****fun(float****);   ☐ b) float *fun(float**);

☐ c) float fun(float***);   ☐ d) float ****fun(float***);

38. **Point out the error in the program**#include<stdio.h>int main(){ int a[]={10,20,30,40,50}; int j; for(j=0;j<5;j++) {printf("%d\n",a); a=a+1;}return 0;}

☐ a) Error: Declaration Syntax   ☐ b) Error: Expression Syntax

☐ c) Error: Lvalue required   ☐ d) Error: Rvalue required

39. **_____ is a sequential linear data structure.**(Note : It is a MCQ so more than one answer can be correct.)

☐ a) Array   ☐ b) Linked list

☐ c) Tree   ☐ d) All of the above

40. Which of the following are the implementation of arrays?

☐ a) Linked list

☐ b) Trees   ☐ c) Stack

☐ d) Graphs

41. **What will the output?**void fun1(struct node* head){
    if(head == NULL) return;fun1(head->next);printf("%d ",
    head->data);}

☐ a) Prints all nodes of linked lists

☐ b) Prints alternate nodes in reverse order

☐ c) Prints alternate nodes of Linked List

☐ d) Prints all nodes of linked list in reverse order

42. **Which of the following sorting algorithms can be used to sort a random linked list with minimum time complexity?**

☐ a) Insertion Sort

☐ b) Quick Sort

☐ c) Merge Sort

☐ d) Heap Sort

43. **What is the output of following function for start pointing to first node of following linked list?**1->2->3->4->5->6voidfun(structnode* start) { if(start == NULL) return; printf("%d ", start->data); if(start->next != NULL)fun(start->next->next);printf("%d ", start->data); }

☐ a) 1 4 6 6 4 1

☐ b) 1 3 5 5 3 1

☐ c) 1 2 3 5

☐ d) 1 3 5 1 3 1

44. **In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is**

☐ a) log 2 n

☐ b) n

☐ c) log 2 n – 1

☐ d) n/2

45. **Suppose each set is represented as a linked list with elements in arbitrary order. Which of the operations among union, intersection, membership, cardinality will be the slowest?**

☐ a) union only

☐ b) intersection, membership

☐ c) membership, cardinality

☐ d) union, intersection

46. **What are the time complexities of finding 8th element from beginning and 8th element from end in a singly linked list?**

Let n be the number of nodes in linked list, you may assume that n > 8.

☐ a) O(1) and O(n)

☐ b) O(1) and O(1)

☐ c) O(n) and O(1)

☐ d) O(n) and O(n)

47. **Is it possible to create a doubly linked list using only one pointer with every node.**

☐ a) Not Possible

☐ b) Yes, possible by storing XOR of addresses of previous and next nodes.

☐ c) Yes, possible by storing XOR of current node and next node

☐ d) Yes, possible by storing XOR of current node and previous node

48. **You are given pointers to first and last nodes of a singly linked list, which of the following operations are dependent on the length of the linked list?**

☐ a) Delete the first element

☐ b) Insert a new element as a first element

☐ c) Delete the last element of the list

☐ d) Add a new element at the end of the list

49. **Let P be a singly linked list. Let Q be the pointer to an intermediate node x in the list. What is the worst-case time complexity of the best known algorithm to delete the node x from the list?**

☐ a) O(n)

☐ b) O(log2 n)

☐ c) O(logn)

☐ d) O(1)

50. **A program P reads in 500 integers in the range [0..100] exepresenting the scores of 500 students. It then prints the frequency of each score above 50. What would be the best way for P to store the frequencies?**

☐ a) An array of 500 numbers

☐ b) An array of 50 numbers

☐ c) An array of 100 numbers

☐ d) A dynamically allocated array of 550 number

51. **The minimum number of comparisons required to determine if an integer appears more than n/2 times in a sorted array of n integers is-**

☐ a) Θ(n)

☐ b) Θ(logn)

☐ c) Θ(log*n)

☐ d) Θ(1)

52. **Consider a two dimensional array A[20][10]. Assume 4 words per memory cell, the base address of array A is 100, elements are stored in row-major order and first element is A[0][0]. What is the address of A[11][5] ?**

☐ a) 565

☐ b) 460

☐ c) 570

☐ d) 560

53. **Which data structure is used for balancing of symbols?**

☐ a) Tree

☐ b) Queue

☐ c) Stack

☐ d) Graph

54. **Which data structure is most efficient to find the top 10 largest items out of 1 million items stored in file?**

☐ a) Sorted array   ☐ b) Max heap

☐ c) Min heap   ☐ d) BST

55. **Which data structure is best suited for converting recursive implementation to iterative implementation of an algorithm?**

☐ a) Queue   ☐ b) Stack

☐ c) Tree   ☐ d) Graph

56. **Which of the following data structures is not suited for efficient implementation of priority queue?**

☐ a) Array   ☐ b) Linked List

☐ c) Heap   ☐ d) Stack

57. **The C language is -**

☐ a) A context free language

☐ b) A regular language   ☐ c) A context sensitive language

☐ d) Parsable fully only by a Turing machine

58. **Inline functions are useful when-**

☐ a) Function is large with many nested loops   ☐ b) Function has many static variables

☐ c) Function is small and we want to avoid function call overhead.   ☐ d) None of the above

59. **How can we make a C++ class such that objects of it can only be created using new operator?**If user tries to create an object directly, the program produces compiler error.

☐ a) Not possible

☐ b) By making destructor private

☐ c) By making constructor private

☐ d) By making both constructor and destructor private

60. **Anika is developing a word file processing in which she wants to provide undo feature, the software will maintain all the sequential changes and at any point of time pressing control z will undo the latest change, which data structure should Anika use for this?**

☐ a) Stack

☐ b) Queue

☐ c) Linked list

☐ d) Array

Answer Key

1.	d	16.	c	31.	c	46.	a
2.	b	17.	c	32.	d	47.	b
3.	c	18.	d	33.	c	48.	c
4.	b	19.	d	34.	c	49.	d
5.	b	20.	d	35.	a,b,d	50.	b
6.	c	21.	d	36.	b	51.	b
7.	d	22.	c	37.	d	52.	d
8.	a	23.	d	38.	b	53.	c
9.	a	24.	c	39.	a,b	54.	c
10.	a	25.	d	40.	c	55.	b
11.	a	26.	d	41.	d	56.	a,b,d
12.	b	27.	b	42.	c	57.	c
13.	c	28.	d	43.	b	58.	c
14.	d	29.	c	44.	b	59.	b
15.	a	30.	d	45.	d	60.	a