GOA BOARD OF SECONDARY AND HIGHER SECONDARY EDUCATION

MODEL QUESTION PAPER OF MID TERM EXAMINATION

MAXIMUM MARKS: 20 DURATION: 60 MINUTES

SUBJECT : COMPUTER SCIENCE STD:XI

Instructions:-

1. All questions are compulsory.
2. State your assumptions clearly.

Section-A consists of 04 questions of 01 mark each.
Section-B consists of 03 questions of 02 marks each
Section-C consists of 02 questions of 03 marks each
Section-D consists of 01 questions of 04 marks each

SECTION-A

1 Choose the correct alternative from those given below. 1

The command used to list all the word files whose filename starts with 'E' is _____

- Dir E*.*
- Dir E*.txt
- Dir E*.docx
- Dir e?.*

2 Choose the correct alternative from those given below. 1

The 2's complement of 10010_2 is _____.

- 01101_2
- 01110_2
- 01111_2
- 11010_2

3 Define computer. 1

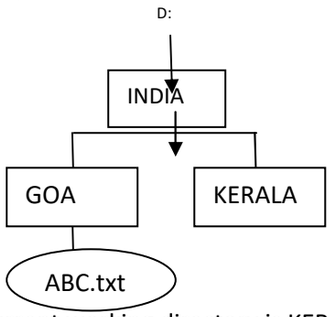
4 Write the place value of the third digit of 3A7B16 from the least significant digit. 1

SECTION-B

5 Write a short note on control unit. 2

6 What are the different types of errors encountered in programming. 2

7 Consider the following directory structure. 2



Assuming that the current working directory is KERALA, write single command to perform the following:

i) Copy ABC.txt to KERALA

ii) Create a file named XYZ.txt in GOA

SECTION-C

8 Perform the following conversions. 3

i) 1011011.01_2 to Decimal

ii) 173.46_8 to Hexa-Decimal

iii) 193.3125_{10} to Octal

9 Perform the following binary arithmetic operations. 3

i) 110.11_2 X 11.1_2

ii) 101101_2 / 1001_2

iii) Using 1's complement

11010_2 - 1001_2

SECTION-D

10 Draw a flowchart which accepts three integer numbers and determine the largest number for display. 4

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MODEL QUESTION PAPER OF FIRST TERMINAL EXAMINATION

MAXIMUM MARKS: 55 **DURATION: 150 MINUTES**

SUBJECT : COMPUTER SCIENCE **STD:XI**

Instructions:-

1. All questions are compulsory, however there is an internal choice for question number 26,27 and 28.
2. Question number from 1 to 5 should be attempted only once.
3. Programs should be written in C only.
4. State your assumptions clearly.

Section-A consists of 10 questions of 01 mark each.
Section-B consists of 11questions of 02 marks each
Section-C consists of 05 question of 03 marks each
Section-D consists of 02 questions of 04 marks each

SECTION-A

1	Choose the correct alternative from those given below. The 1's complement of 1011011_2 is _____. • 0100100_2 • 1000100_2 • 1100100_2 • 0100011_2	1
2	Choose the correct alternative from those given below. Compound statement is a group of statement s enclosed in _____ • [ ] • ( ) • { } • " "	1
3	Choose the correct alternative from those given below. What will be the value of p(of type int) after evaluation of P=5/2 *4+2/4-3 • 7 • 5 • 6 • 10	1
4	Choose the correct alternative from those given below. The character group used for accepting single long decimal integer is _____. • %de • %ed • %e • %d	1

5	Choose the correct alternative from those given below.
	Consider the following program segment.
	int i=6720,j=4;
	while((i%j)==0)
	{
	i/=j;
	j++;
	}
	On termination j will have the value _____.
	• 4
	• 8
	• 9
	• 6720
		1

6	Differentiate between while and do-while loop	1
7	Write the face value of the second digit of $7ABAC_{16}$ from the least significant digit.	1
8	Define the term Identifier.	1

9 State the difference between " =" and "==" operator. 1

10 What is precision used in character group. 1

SECTION-B

11 Write a short note on Testing. 2

12 Define the following terms. 2
- i) Algorithm
- ii) Flowchart

13 State any two characteristics of programs. 2

14 Define the following terms. 2
- i) Variable
- ii) Keyword

15 How do you differentiate between hexadecimal integer constant and Octal integer constant. 2

16 List all the qualifiers used in C programming. 2

17 Name the rules followed during evaluation of C expression. 2

18 State the difference between 'o ' and 'd' conversion character. 2

19 State the difference between '- ' and '+' flags. 2

20 What are the conversion character used for character and floating point variable 2

21 Write a complete C program to generate the following pattern. 2

1
2 2
3 3 3
4 4 4 4

SECTION-C

22 Perform the following conversions. 3
- i) $1AC.34_{16}$ to Binary
- ii) 10110110.10110_2 to Octal
- iii) 732.24_8 to Hexa Decimal

23 Write a complete procedural C program to swap two integer variables without using a temporary variable. 3

24 Determine the output of the following code. 3

```
main()
{
int i=4,j=-1,k=0,y,z,x;
Y=i+5 && j+1 ||k+2;
Z=i+5||j+1 &&k+2;
X=i+5&&j+1 &&k+2;
printf("\n y=%d z=%d x=%d",y,z,x);
}
```

25 Write a complete C program to find the summation of the following series. 3

7+77+777+……upto n terms.

26 Write a complete C program to find the roots of quadratic equation using different conditions. 3

OR

Write a complete C program to generate electricity bill if the rules of the department as follows.

Units Consumed	**Rate per Unit**
Less than or equal to 50	1 Rs.
More than 50 but less than or equal to 200	2 Rs.
More than 200	3 Rs.

SECTION-D

27 4

Write a complete menu driven program using switch statement to find area of circle and perimeter of circle.

OR

Write a complete menu driven program using switch statement to find

the volume of cube and total surface area of cube.
Volume of cube=$(side)^3$
Total surface area of= $6(side)^2$

28 4

Write a complete C program to generate n prime numbers.

OR

Write a complete C program to check if a number is special number.
Eg: 145 is a special number because 5!+4!+1!=145

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MODEL QUESTION PAPER OF FINAL EXAMINATION

MAXIMUM MARKS: 55 **DURATION: 150 MINUTES**

SUBJECT : COMPUTER SCIENCE **STD:XI**

Instructions:-

1. All questions are compulsory, however there is an internal choice for question number 26,27 and 28.
2. Question number from 1 to 5 should be attempted only once.
3. Programs should be written in C only.
4. State your assumptions clearly.

Section-A consists of 10 questions of 01 mark each.
Section-B consists of 11questions of 02 marks each
Section-C consists of 05 question of 03 marks each
Section-D consists of 02 questions of 04 marks each

	SECTION-A	
1	Choose the correct alternative from those given below.	1
	A C program contains the following declaration. int i; long x; float y; The data type of expression i+x+y is _____. • int • long • float • double	
2	Choose the correct alternative from those given below.	1
	Consider the statement k=strcmp(“abc”,”abc”); The value of k on execution of above statement is _____. • 97 • 100 • 0 • 1	
3	Choose the correct alternative from those given below.	1
	The correct way to declare and initialse a 2-D array with 3 columns is _____. • int a[][]={{10,20,30},{40,50,60}}; • int a[][]={10,20,30,40,50,60}; • int a[][3]={{10,20,30},{40,50,60}}; • int a[2][]={10,20,30,40,50,60};	
4	Choose the correct alternative from those given below.	1
	The total number of comparisons required to sort the array of 5 elements using Bubble sort technique is _____. • 5 • 9 • 8 • 10	
5	Choose the correct alternative from those given below.	1
	By default the return type of a function is _____. • float • void • integer • character	
6	State the difference between break and continue statement.	1
7	Define an array.	1
8	Determine the total number of elements from a[0][1] to a[3][0] in a double dimensional array of size 5 X 4	1
9	Define sorting.	1
10	State any two advantages of using functions.	1
	SECTION-B	

11	Declare and initialize a single dimensional array of type integer with elements 10,20,30,40 and 50.	2

12	Determine the output of the following code.
	main()
	{ int c[10]=1,2,3,4,5,6,7,8,9,0};
	int a,b=0;
	for(a=0;a<10;++a)
	if(c[a]%2==1)
	b+=c[a];
	printf("%d",b);
	}
		2

13	State the purpose of gets() and strlen() function.	2
14	State the purpose of 'o' and 'x' conversion character.	2
15	State the purpose of 0 and '–' flag.	2
16	List any four unary operators.	2
17	Write a complete C program to accept a double dimensional array of type integer and determine sum of elements of individual rows.	2
18	Write a complete C program to accept a double dimensional array of type integer and determine the total number of zero and non zero elements.	2

19	Determine the output of the following program segment code.
	main()
	{ char a [3][4]={"ABCD","EFGH","IJKL"};
	for(i=2,i>=0,i--)
	{
	for(j=3;j>=0,j--)
	printf("%c",a[i][j]);
	printf("\n");
	}
	}
		2

20	When is linear search algorithm more suitable as compared to binary search algorithm.	2
21	Write a short note on function called by reference.	2
	SECTION-C	
22	Write a complete C program to find the largest of three numbers.	3
23	Write a complete C program to accept an integer array and determine the total number of odd and even numbers.	3
24	Write a user defined function which accept two integer arguments a and b such that a, b>=0 and determine and returns the value of a^b.(Note: without using power function)	3
25	Perform insertion sort on the following list of numbers. 8,-1, 0 , -2 ,7 ,3 Show the contents of the array after each iteration.	3
26	Write a complete C program to accept a double dimensional integer array and display the lower triangular matrix. **OR** Write a complete C program to accept a double dimensional integer array (rows=columns) and determine if it is a symmetric matrix or not.	3
	SECTION-D	
27	Write a complete C program to merge two single dimensional sorted arrays of type integer. Assume that both input array and resultant array are sorted in ascending order. OR Write a complete C program to perform selection sort on a single dimensional array of integers in descending order.	4
28	Write a complete C program to determine ${}^nC_r$. (r<=n) Define a function named fact() which returns the factorial of the number. OR Write a complete C program to determine the summation of the following series. 1/1! -1/2! +1/3! -1/4! +……upto n terms . Define a function named fact() which returns the factorial of the number.	4