

# MODEL QUESTION PAPER

## FIRST TERMINAL EXAMINATION

STD: XI

SUBJECT: COMPUTER SCIENCE

MAX MARKS: 55

DURATION: 2 ½ HRS

### Instructions:

1. All questions are compulsory.
2. Figure to the right indicate full marks.
3. Each main question should be answered on a fresh page.
4. Programs Should be written in C language.

- Q 1 ] Choose the correct alternative from those given below. 1  
The 1's complement of  $1011011_2$  is \_\_\_\_\_.
- $0100100_2$
  - $1000100_2$
  - $1100100_2$
  - $0100011_2$
- B] Write the face value of the second digit of  $7ABAC_{16}$  from the least significant digit. 1
- C] Write a short note on Testing. 2
- D] Define the following terms. 2
- i) Algorithm
  - ii) Flowchart
- E] State any two characteristics of programs. 2
- F] Perform the following conversions. 3
- i)  $1AC.34_{16}$  to Binary
  - ii)  $10110110.10110_2$  to Octal
  - iii)  $732.24_8$  to Hexa Decimal
- Q.2A] Choose the correct alternative from those given below. 1  
Compound statement is a group of statements enclosed in \_\_\_\_\_
- [ ]
  - ( )
  - { }
  - " "
- B] Define the term Identifier. 1
- C] Define the following terms. 2
- i) Variable
  - ii) Keyword
- D] How do you differentiate between hexadecimal integer constant and Octal integer constant. 2
- E] List all the qualifiers used in C programming. 2
- F] Write a complete procedural C program to swap two integer variables without using a temporary variable. 3
- Q 3 A] Choose the correct alternative from those given below. 1  
What will be the value of p( of type int) after evaluation of  $P=5/2 *4+2/4-3$
- 7

- 5
- 6
- 10

- B] State the difference between “=” and “==” operator. 1
- C] Name the rules followed during evaluation of C expression. 2
- D] State the difference between ‘o’ and ‘d’ conversion character. 2
- E] State the difference between ‘-’ and ‘+’ flags. 2
- F] Answer **ANY ONE** of the following 3

1. Write a complete C program to find the roots of quadratic equation using different conditions.
2. 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.

- Q 4 A] Choose the correct alternative from those given below. 1
- The character group used for accepting single long decimal integer is \_\_\_\_\_.
- %de
  - %ed
  - %e
  - %d

- B] What is precision used in character group. 1
- C] What are the conversion character used for character and floating point variable 2
- D] 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);
}
```

- E] Attempt **ANY ONE** of the following. 4
1. Write a complete menu driven program using switch statement to find area of circle and perimeter of circle.
  2. 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)<sup>3</sup>  
Total surface area of= 6(side)<sup>2</sup>

- Q 5 A] Choose the correct alternative from those given below. 1
- 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

B] Differentiate between a while and do while loop. 1

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

1  
2 2  
3 3 3  
4 4 4 4

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

7+77+777+.....upto n terms.

E] Attempt **ANY ONE** of the following. 4

1. Write a complete C program to generate n prime numbers.
2. Write a complete C program to check if a number is special number.  
Eg: 145 is a special number because  $5!+4!+1!=145$