

MARKING SCHEME OF PAPER COMPUTER SCIENCE CLASS 10

Section A

MCQs Answer key (Marks 11*1=11)

MCQs No.	Answer key
1	C
2	B
3	A
4	D
5	A
6	C
7	B
8	C
9	D
10	D
11	B

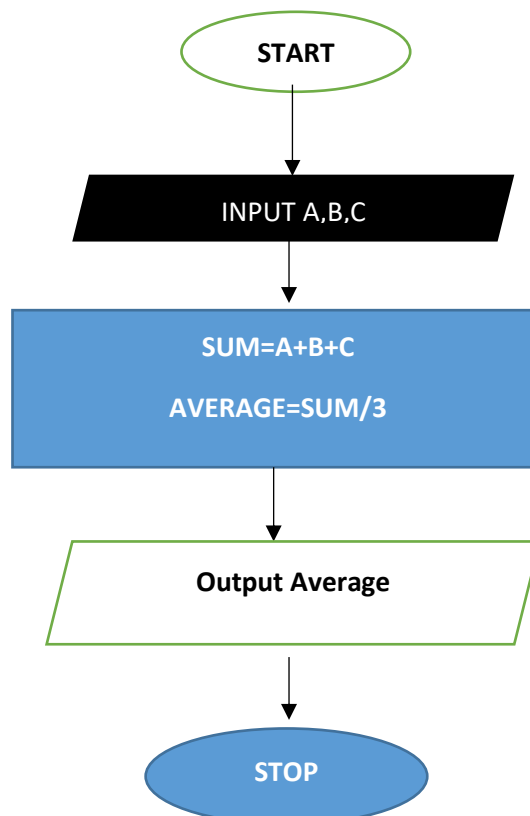
Section-B

Attempt any seven of following.

Marks=28

Q1: Draw a flow chart diagram of finding average of 3 numbers. (4)

Flow Chart Diagram: (4)



Q.No./Part No.	Topic detail	Marks detail
Q1	Flow Chart Diagram	1*4 = 4 marks
OR	Input +output+ process+ Start/end	4*1 = 4 marks
Total		4 Marks

Q2: Explain the following two low level language. (4)

(a) **Machine Language:** (2)

A type of language in which instructions are written in binary form is called machine language. It is only a basic language which computer can understand directly. It is denoted in the form of bits or digits like 0 or 1.

(b) **Assembly Language:** (2)

A type of low level language which is one step higher than machine language. In assembly language symbols are used instead of code these symbols are called mnemonics

Q.No./Part No.	Topic detail	Marks detail
Q2	Low Level Languages	1*4 = 4 marks
OR	Machine Language	1*2 = 2 marks
	Assembly Language	1*2 = 2 Marks
Total		4 Marks

Q3: Describe OOP Language with examples (4)

Answer: OOP Language: (2)

Object is a component of program that has a set of modules and data structures. Object Oriented Programming (OOP) is a program which is developed by using set of objects. Once an object is designed for any program it can be used in any other program.

Examples: (2)

Some popular and commonly used object oriented Programming (OOP) Languages are:

- C++
- Java
- Python

Q.No./Part No.	Topic detail	Marks detail
Q3	OOP with Examples	1*4 = 4 marks
OR	Describe OOP	1*2 = 2 marks
	Examples	2*1 = 2 marks
Total		4 Marks

Q4: Write a program to calculate sum and product of 10 and 20

Answer: Code in C: (4)

```
#include<stdio.h>
```

Using namespace std;

```
Int main () {
```

```
Int a;
```

```
Int b;
```

```
a=10;
```

```
b=20;
```

```
int sum=0;
```

```
int product=0;
```

```
Sum=a+b;
```

```
Product=a*b;
```

```
printf("Sum of number is ", sum "Product of number is ", product);
```

```
return 0 ;
```

```
}
```

Q.No./Part No.	Topic detail	Marks detail
Q4	Program sum and product	1*4 = 4 marks
OR	Half Program till variable declare	1*2 = 2 marks
	Output to return statement	1*2 = 2 Marks
Total		4 Marks

Q5: Solving Arithmetic Operator when A=24 and B=5 find value of A%B.

Answer: (4)

A=24

B=5

Division of 24 by 5 gives remainder = 4

A%B= 4

Q.No./Part No.	Topic detail	Marks detail
Q5	Solution	1*4 = 4 marks
OR	Solve A%B dividing and get remainder	1*4 = 4 marks
Total		4 Marks

Q6: Explain Switch Statement.

Switch: (2)

Switch statement in C tests the value of variable and compares it with multiple cases. Once the case match is found a block of statement associated with that particular case is executed.

If the match case is NOT found then the default statement is executed and the control goes out of the switch block. It is used as a substitutes of If-else statement

Syntax: (2)

Switch (expression)

{

Case const 1:

Statements;

Break;

Case const 2:

Statements;

Breaks;

Default:

Statements;

}

Q.No./Part No.	Topic detail	Marks detail
Q6	Switch Statement and Syntax	1*4 = 4 marks
OR	Define Switch	1*2 = 2 marks
	Syntax of Switch	1*2 = 2 Marks
	Total	4 Marks

Q7: What is for loop and how it works.

For Loop: (2)

For loop in C executes one or more statements for a specified number of times. This is the most commonly used loop in C language. For Loop has initializer, condition, increment/decrement and body or closing;

Syntax: (2)

For(initializer ; condition ; increment/decrement)

{

Body of loop with statements

}

Q.No./Part No.	Topic detail	Marks detail
Q7	For loop Statement and Syntax	1*4 = 4 marks
OR	Define For loop	1*2 = 2 marks
	Syntax of For Loop	1*2 = 2 Marks
Total		4 Marks

Q8: Write four properties of Truth Table. (4)

Properties of Truth Table: (4)

1. Truth Table consist of rows and columns
2. It shows relationship between input to and output from a digital logic circuit
3. It shows output for all possible combination of inputs using 0 for low and 1 for high
4. All the combination of inputs are listed in columns on the left and output is shown in the right most column

Q.No./Part No.	Topic detail	Marks detail
Q8	Properties of Truth Table	1*4 = 4 marks
OR	Four Properties	1*4 = 4 marks
Total		4 Marks

Q9: What is Internet, write one difference between webpage, web server and web browser (4)

Internet: (1)

Internet is a vast network that connects a computer all over the world.

Difference: (3)

Webpage	Web Browser	Web Server
It is a document written in HTML that is viewed in an internet browser	It is a software that allows you to retrieve information on the website	A computer that is used to store information of multiple users on the internet

Q.No./Part No.	Topic detail	Marks detail
Q9	Internet and differences	1*4 = 4 marks
OR	Define Internet	1*1 = 1 marks
	Differences of Web type	1*3 = 3 Marks
Total		4 Marks

Section-C

Attempt Any Two of Following

Marks=16

Q1: What is Integrated Development Environment (IDE) in Programming, write detail of five modules in C programming environment. (8)

Answer: Integrated Development Environment (IDE): (0.5)

Integrated development environment is a tool to create, compile and run programs. IDE is a computer software that brings all the process and tools required for program development into one environment.

Five Modules in C Programming Environment: (7.5)

1. Editor:

Editor or text editor is program that enables users to create and edit C language source program having extension .c

2. Compiler:

A compiler is computer software that translates C language program (source program) into machine code that can be understood and executed by the computer

3. Linker:

A computer program that takes one or more object codes generated by a compiler and combines them into a single executable program is called linker

4. Loader:

It is a program that loads C language programs into memory and then executes them.

5. Debugger:

In computers, debugging is the process of locating and fixing bugs (errors) in computer program code.

Q.No./Part No.	Topic detail	Marks detail
Q1	IDE and Its Modules	1*8 = 8 marks
OR	Describe IDE	1*0.5 = 0.5 marks
	Five Modules with details	5*1.5 = 7.5 Marks
	Total	8 Marks

Q2: Write a Program in C to convert Fahrenheit to centigrade Temperature (8)

Code: (8)

```
#include<stdio.h>
Using namespace std;
int main(){
    float fahrenheit, Celsius;
    printf("Enter Fahrenheit Temperature");
    scanf("%f",&fahrenheit);
    celsius = (fahrenheit - 32)*5/9;
    printf("Celsius: %f ", celsius);
    Return 0;
```

}

Q.No./Part No.	Topic detail	Marks detail
Q6	Code in C Convert F to C	1*8 = 8 marks
OR	Code (2+2+2+2)	2*4 = 8 marks
(Note:- Library including step to int main() step has 2 numbers variable declare to input 2 number formula have 2 numbers and its output statement to return 0 and closing body has 2 number (2+2+2+2 = 8 Marks)		
Total		8 Marks

Q3: Write a program in C to find factorial of a number. (8)

Code: (8)

```
#include <stdio.h>
```

```
Using namespace std;
```

```
int main() {
```

```
    int n, i;
```

```
    int fact = 1;
```

```
    printf("Enter an integer: ");
```

```
    scanf("%d", &n);
```

```
    for (i = 1; i <= n; ++i) {
```

```
        fact *= i;
```

```
    }
```

```
    printf("Factorial of %d", fact);
```

```
}
```

```
return 0;
```

```
}
```

Q.No./Part No.	Topic detail	Marks detail
Q6	Code in Factorial of number	1*8 = 8 marks
OR	Code(2+2+2+2)	2*4 = 8 marks
(Note:- Library including step to int main() step 2 numbers variable declare to input 2 number for loop and its inner statements have 2 numbers and its output statement to return 0 and closing body has 2 number (2+2+2+2 = 8 Marks)		
Total		8 Marks