

Autumn Break 2017
Exam Oriented Assignment
Class-XI, Computer Science

Give the Characteristics of 2 nd Generation Computers	1
How digital, Analog and Hybrid computers are different from each other?	2
What is an Operating System? What are its major functions?	3
Distinguish between Main memory and Cache memory.	1
Convert the following: I. $(2C9)_{16} = (?)_8$ II. $(1010100.011)_2 = (?)_{10}$	2
How impact printer is different from non impact printer?	1
What is the role of comments in C++ program? Name its two types.	2
What do you understand by datatypes in C++? What are various datatypes in C++, also give their respective memory sizes.	3
Define following OOPs concept: I. Encapsulation II. Polymorphism III. Inheritance	3
Differentiate between low level programming language and high level programming language.	2
What is the purpose of header file in a C++ program?	1
How a keyword different from an identifier?	1
What are type conversions in C++? What are its types?	2
What is a reference variable in C++ ?	1
Write a C++ program to read two numbers and print their quotient and remainder.	2
What is the output of following code fragment? <pre>int ch = 20; cout << ch++ <<endl << ++ch;</pre>	1
Construct Logical expressions to represent the following conditions: 1) Weight is greater than or equal to 115 but less than 125 2) X is even 3) Donation is in the range 4000-5000 or guest is 1 4) Ch is an uppercase letter.	2
Identify the errors and correct the code (underline corrections) <pre>#includes "iostream.h" void main()</pre>	2

<pre> { int area, length , bredth length = = 10; breadth = 5; area = length * breadth ; cout >> area; } </pre>	
Write a C++ program to find out whether a year (Entered in 4 digit number) is leap year or not.	2
What do you understand by function prototype? Give an example in support of your answer.	2
Write a program in C++ to calculate factorial of an integer?	3
Explain global variable with an example.	2
Write a C++ program that takes int argument and displays square of it if it is even and cube if it is odd. The function does not return any value. For example. If 2 => then 4, if 3 => then 9	4
Write a C++ program to read first character /alphabet of name of day of the week (i.e. m= Monday, t= Tuesday or Thursday, w = Wednesday, f = Friday , s = Sunday or Saturday) from user and display corresponding day name	3
Write a C++ program to find sum of sequence: $1_2 + 3_2 + 5_2 + \dots + n_2$	3

(a) What is conditional operator?

(b) What is meant by token? Name the token available in C++?

(c) What is the rvalue and lvalue?

(b) What is the programming paradigm?

(c) Identify the errors in the following code segments:

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1) int main( )
    {   cout<<"Enter two numbers";
        cin>>num>>auto;
        float area=length * breadth;
    }

2) #include<isostream.h>
    void main( )
    {   int a, b;
        cin<<>>;
        c = (a > b) a : b ;
    }

```

(d) What are an operators? What is their function? Give examples of some unary and binary operators?

- (a) What is the function of type conversion? Explain with examples.
- (b) Explain the role of compiler in a programming language. What types of errors it generally reports? Give examples for each.
- (c) Write a C++ Program that accept radius of circle and prints its area.
- (a) Write a C++ program that accepts a character between a to j and print next 4 characters.
- (b) What do you understand by the following?
- a) array b) structure c) class d) function
- (c) Explain different types of literals in C++ by giving appropriate examples.
- (d) What is C++ data type? Explain each type with example.
- (e) Write the basic concepts of OOP?
- (a) Give the major innovations in the second generation computers?
- (b) What is meant by the term throughput and what is its significance?
- (c) What is the function of memory? What are its measuring units?
- (a) What is the difference between CISC and RISC computers?
- (b) Convert the followings.
- | | |
|--------------------------|-----------------------|
| 1) Decimal to Binary | 356.987 |
| 2) Binary to Hexadecimal | 10011011101.100101011 |
| 3) Hexadecimal to octal | 7FD6.ABCD |
| 4) Octal to Decimal | 3527.34 |
- (d) What are the functions performed by the operating systems?
- (a) What types of services provided by an Operating System? Explain.
- (b) What are memory devices? Discuss RAM and ROM in details.
- (c) What are the difference between Hardware, Software and Firmware?
- (a) Write sort notes on.
- | | | |
|------------------|-------------|-----------------|
| 1) Blue Ray Disk | 2) Ports | 3) Cache Memory |
| 4) File systems | 5) Compiler | |
- (b) How are data represented in memory? Explain.
- (c) Explain briefly the major inventions of each generation of computers?
- (d) What is a Job scheduling? Explain all types of job scheduling.
- (a) Explain the term DRAM with example?
- (b) What is Cache memory and its use? 2
- (c) Difference between Data Inheritance and Polymorphism with help of diagram? 4

- (d) Define the terms Objects and classes in OOPs? 2
- (a) What are programming paradigms and define modular Programming paradigm? 2
- (b) Explain how Conditional operator is work in C++? 2
- (c) What is Token? Explain different types of tokens are allowed in C++? 4
- (d) What is the precedence of operator? 2
- (a) Difference between Compile time error and Runtime error (with example)?
- (b) Write a program that reads temperature in Celsius & displays it in Fahrenheit with Output? 4
- (c) What is Data type? Explain fundamental data types provided by C++? 3
- (a) Find the no of bytes required in the following arrays 2
- (1) char Name [25];
- (2) float sales[3][2];
- (b) Write a program using a function to accept a radius of circle and print area with output? 4
- (c) Explain escape sequence in C++? 2
- (d) Explain Arrays and their types? 2
- Q 1. Briefly explain the significance of IPO Cycle.
(2)
- Q2 What are the difference between Hardware, Software & Firmware? (3)
- Q3 what do you understand by application software and system software? (2)
- Q4 explain briefly working of operating system. (3)
- Q5 convert following .
- a)(37.31)₁₀ = ?₂ (1)
- b) (A13B)₁₆ = ?₁₀ (1)
- c)(1010110110111)₂ = ?₁₆ (1)
- Q6 a) Find out 1's complement form of -13 (2)
- b) Express -4 in 2's Complement form (3)
- c) Write steps to make a folder as a hidden folder. (2)
- Q7 a) Explain working of CPU. (2)
- b) How many types of computer are there explain. (3)
- c) What do you understand by generation of computer? (2)
- d) define role of Compiler, Interpreter & Assembler. (3)
- Q 8 Convert following
- a)(256)₁₀ = ?₂ (1)
- b)(111000101010000111)₂ = ?₈ (1)
- c) How many types of operating system are there explain each one . (4)
- d) What do you understand by Job scheduling of operating system .
How many types of Scheduling are there explain? (4)