SHIVAJI SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR
Std. – 11ᵗʰ (Computer Science)

Time: 3Hrs   **Max. Marks: 50**

Instructions: 1. All questions are compulsory.
                       2. Figures to right indicates full marks.
                       3. Use of any type of calculator is not allowed.
                       4. Draw neat diagrams wherever necessary.

Q.1 Select the correct alternatives and rewrite the following.   **[10]**

Paper-I

1) The base of octal number system is _____.i)   8 ii)   2 iii)   4 iv)   16
2) 7CF is_____ tag.
    i)   binaryii)
    octal   iii)
    decimal   iv)
    hexadecimal
3) The BCD equivalent of decimal number 88 is _____ . i) 0010 ii) 0001 iii)1000 1000 iv)
    1011000
4) Writing the program task in simple sequence and in simple English is known as_____. i)
    algorithm ii) flow chart iii) code iv) programming
5) _____ pictorial representation of a logic of a program.
    i)   algorith
    mii) flow chart
    iii) pseudocode
    iv) chart
6) In _____ loop,condition is tested after first iteration.
    i)   do
    whileii) for iii)
    while iv) if
7) _____type of variable stores either true or false value. i)   boolean ii) char iii) integer iv)
    float
8) WWW stands for_____.
    i)   world
    wide   webii)
    world wise web
    iii) world web
    wide iv) world
    web web 9) The
    medium   size
    network   is
    _____.
    i)   LAN
    ii) MAN
    iii) WAN
    iv) WWW

10) FTP stands for_____
   i) File Transfer Protocol
   ii) File Transfer Peer iii)
   File Transfer Program iv)
   File Transport Protocol

Q.2-(A) Answer **any two** of the following.   **[06]**
   a) What are different data types in C++?
   b) Define a network and explain brief.
   c) explain difference betwwen LAN and WAN?

   (B) Answer **any one** of the following.   **[04]**
   a) What is function?Explain advantage of using function in program.
   b) Write algorithm and draw flow chart to check whether given is even or odd..

Q.3-(A) Answer **any two** of the following.   **[06]**
   a) Explain hexadecimal and octal number system?
   b) Explain flow chart and its advantage?
   c) what is array ?Explain advantage of array?.

   (B) Answer **any one** of the following.   **[04]**
   a) Explain following number system?
      i) binary   ii) hexadecimal.
      iii) octal   iv) decimal.
   b) Explain prgram analysis process.

Q.4-(A) Answer **any two** of the following.   **[06]**
   a) Explain BCD number system with examples?
   b) Explain algorithm concept with suitable example.
   c)explain difference between do ..while and while loop.

   (B) Answer **any one** of the following.   **[04]**
   a) Explain 2's compliment subtraction with suitable example.
   b)Explain algorithm of binary search..

Q.5- Answer **any two** of the following.   **[10]**
   a) Write a program in C++ to check the entered number is Palindrome or not.
   b) Write a program in C++ to find factorial of a given number.

   c) Write a program in C++ to find the sum of first 10 natural numbers.

   d) Write a function in C++ to print Fibonacci series using function.
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