VPM's B. N. Bandodkar College of Science, Thane.
Junior College
F. Y. J. C. First Terminal Examination, November 2018
Subject - Computer Science; Paper I (Computer Software)

Time: 2 Hours **Max. Marks: 50**

Note: 1) All questions are compulsory.

Q. 1 A **Select the correct alternatives and rewrite the following** 4

a) Radix of the decimal number system is _____.
i. 10 ii. 2 iii. 8 iv. 16

b) Long data type has integer _____bits length
i. 8 ii. 64 iii. 32 iv. 16

c) Octal number is having _____ symbols.
i. 8 ii. 16 iii. 10 iv. 2

d) Backslash character /n is used for _____.
i. New Line ii. Horizontal tab iii. New page iv. New font

B **Answer any TWO of the following** 6

a) Explain comments in C++.
b) Find 2's complement of $(101101)_2$ and $(101111)_2$.
c) Convert $(101101)_2$, $(110011)_2$ in to decimal number.

Q. 2 A **Answer any TWO of the following** 6

a) Explain size of operator, Scope resolution operator and comma operator in C++.
b) Explain Do __While statement with example
c) Perform 10-5 and 5-10 using 1's complement method.

B **Answer any ONE of the following** 4

a) Prove that i) $(4*7)_{10} = (100*111)_2$ ii) $(8/2)_{10} = (1000/10)_2$.
b) Explain function overloading with example.

Q. 3 A **Answer any TWO of the following** 6

a) Convert the following octal number into hexadecimal number
i) $(426)_8$ ii) $(62.43)_8$ iii) $(745)_8$
b) State and explain four types of number system
c) Explain Else_if ladder with an example

P.T.O.

B **Answer any ONE of the following** **4**

a) What is constant? Explain different types of constant.

b) Explain switch statement with example.

Q. 4 **A** **Answer any TWO of the following** **6**

a) Convert $(38)_{10}$ and $(12.625)_{10}$ into binary equivalent.

b) Explain use of continue statement in C++.

c) Convert the following hexadecimal number into decimal number

i) $(2C5)_{16}$ ii) $(1D2.C)_{16}$

B **Answer any ONE of the following** **4**

a) Convert the following binary number into hexadecimal number.

i) $(10011101)_2$ ii) $(11011101.0011)_2$

b) Convert the following octal number into binary number

i) $(375)_8$ ii) $(207.02)_8$

Q. 5 **Answer any two of the following** **10**

a) Write a C++ program to find minimum of 3 numbers (using nested if).

b) Write a C++ program to find addition of first ten numbers using for loop.

c) i) Perform binary addition of decimal equivalent $(11 + 5)_{10}$ and binary subtraction of decimal equivalent $(14 - 7)_{10}$.

ii) Find 1's complement of $(11011)_2$ and $(101111)_2$

OR

Q. 5 **Answer any two of the following** **10**

a) Write a program in C++ to display area of circle using function

b) List and explain the different types of data types in C++.

c) Explain arithmetic operator and increment & decrement operator in C++.

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