

B. N. Bandodkar College of Science, Thane.

Junior College

F.Y.J.C. 1st Term Examination, October 2014

Subject – Computer Science; Paper I (Computer Software)

Time: 3 Hours

Max. Marks: 50

Note: 1) All questions are compulsory.

- Q.1 A** **Select the correct alternatives and rewrite the following** 4
- a. The decimal equivalent of a hexadecimal number 2A is _____
a) 42 b) 62 c) 82 d) 17
- b. A diamond box is used to indicate _____ in flow charts.
a) Input b) Output c) decision d) None of these.
- c. _____ pictorial representation of a logic of a program.
a) Flow chart b) chart c) pseudocode d) picture code.
- d. _____ operator is used to give remainder after integer division.
a) % b) / c) :: d) All of these.
- B** **Answer any two of the following** 6
- a. What is last step in program Development? Explain it's need along with the types.
b. Write advantages of binary code.
c. Explain Assignment operator with example.
- Q.2 A** **Answer any two of the following** 6
- a. Convert the following octal numbers into binary
i) 736 ii) 116.54
- b. What are various symbols used while drawing flowchart? Explain any two symbols.
c. Explain significance of comments in C++.
- B** **Answer any one of the following** 4
- a. Convert the following octal numbers into Hexadecimal
a) 537 b) 53.21
- b. Draw a flow chart to exchange values of two variables.
- Q.3 A** **Answer any two of the following** 6
- a. Explain 2's complement method with suitable example.
b. Explain Bitwise operator with example.
c. Explain Unconditional control structure (Goto) in C++.
- B** **Answer any one of the following** 4
- a. Explain Advantages of flowchart.
b. Write an algorithm to find factorial of given number.
- Q.4 A** **Answer any two of the following** 6
- a. Solve: $(1101 \times 111)_2$
b. Draw a flowchart to find average of first 10 numbers.
c. Write a short note on Arithmetic operators in C++.
- B** **Answer any one of the following** 4
- a. Do the Conversion: i) $(11001.101)_2 = (?)_{10}$ ii) $(110101.110001)_2 = (?)_{16}$
b. Explain if-else statement in C++ with appropriate example.
- Q.5** **Answer any two of the following** 10
- a. Explain steps to perform 1's complement method of subtraction.
b. What is Pseudo code? Also write the Limitations of pseudo code.
c. Write a program in C++ to find Area of circle.

OR

- Q.5** **Answer any two of the following** 10
- a. Perform $15 \div 5$ and $24 \div 6$ by using binary numbers.
b. Write a short note on Structured programming.
c. Write a program in C++ to display:

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