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VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD M.C.A. I Year I-Semester (Supplementary) Examinations, June-2016

Computer Programming and Problem Solving

Max. Marks: 70

Time: 3 hours

Note: Answer ALL questions in Part-A and any FIVE from Part-B

Part-A $(10 \times 2=20 \text{ Marks})$

- 1. What is operator precedence? Arrange the following operators in the order of their precedence. *, +, (), ||, ^, ++, /, &&.
- 2. What is type conversion? Illustrate implicit and explicit type conversions in C.
- 3. What is an array? Differentiate between arrays and structures.
- 4. List various memory allocation functions in 'C'.
- 5. Illustrate enumerated data types.
- 6. What is a file? List the different file mode operations.
- 7. What is destructor in C++? And give an example.
- 8. Write about this pointer with example.
- 9. What are the advantages of Dynamic binding?
- 10. Define pure virtual function.

Part-B (Marks: 5 X 10=50) (All bits carry equal marks)

- 11. a) Explain various iterative statements in C with examples.
 - b) Write a C program to find the factorial of given number.
- 12. a) Develop a function in C to sort the numbers in ascending order using Selection sort technique.
 - b) What is function? Explain parameter passing mechanism in C language with examples.
- 13. a) Write C program to count the number of lines, words, and characters in a text file.
 - b) Describe any four preprocessor directives with examples.
- 14. a) What is function overloading? How to implement function overloading in C++?.
 - b) What is constructor? Explain various types of constructor with examples.
- 15. a) What is inheritance? Explain about various types of inheritance in C++ with suitable code.
 - b) What is exception handling? How to implement exception handling in C++ .
- 16. a) What is operator overloading? Illustrate by writing a C++ program to overload the '* Operator.
 - b) Write a C function for insertion sort.
- 17. a) List C++ predefined streams and explain with suitable examples.
 - b) Write a C program for multiplication of two matrices.
