Math-3.5

Sl.No. :

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III Semester M.Sc. Examination, May/June - 2023
(Non-CBCS, SLM Scheme)
MATHEMATICS
Computer Programming

Time : 3 Hours **Max. Marks : 80**

Instructions : ***1) Answer any five full questions.***
2) All questions carry equal marks.

Q1) a) Mention the basic functional units of a computer.

b) Write the differences between RAM and ROM.

c) What is machine language and assembly language? Explain briefly.

[4+6+6]

Q2) a) Write an algorithm and flow chart to compute the circumference of a circle.

b) Explain the following.

i) World Wide Web

ii) Uniform Resource Locatop

iii) Hyper Text Markup Language

iv) Hyper Text Transfer protocol

[8+8]

Q3) a) Mention the applications of C language.

b) Explain the following.

i) Data Type

ii) Keywords

iii) Identifier

c) Explain the four types of integer constants in C.

[6+6+4]

Q4) a) Describe briefly an increment and decrement.

b) Explain the concept of character input and output.

c) Explain the following along with example.

i) If-Statement

ii) If-ELSE Statement

iii) NESTED-IF Statement.

[4+6+6]

Q5) a) Write a program to arrange N number in the ascending order using bubble sort method.

b) Define searching and explain types of searching.

c) What are static variables? Illustrate with an example.

[6+6+4]

Q6) a) Define local and global variables with examples.

b) Explain the pointer declaration along with examples.

c) Describe the following:

i) Dynamic memory allocation.

ii) Allocating multiple blocks of memory.

[6+4+6]

Q7) a) Write an algorithm and C-program for the sum and product of two matrices.

b) Write an algorithm and C program for Newton-Raphson method.

[8+8]

Q8) a) Write an algorithm and C program for Simpson's 1/3 rule.

b) Write an algorithm and C program for Runge-Kutta 2^{nd} order.

[8+8]

