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1013 (M3OOP)

[22 HKPD3SN-23F]

M.Sc IT 3rd Semester (New) Exam. 2022 (W)

COMPUTER SCIENCE

[PGScIT S3-02]

(Object Oriented Programming Through C++)

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks.

1. Answer any *four* questions from the following : $2 \times 4 = 8$

(*a*) In C++, how is the concept of encapsulation implemented ?

(*b*) Write the general rules needed to be followed during declaration of identifiers in C++.

(*c*) Specify the use of void data type in C++.

(*d*) Write the differences between precedence and associativity with example.

(*e*) Give two benefits of using object oriented programming.

2. Answer any *two* questions from the following : $4 \times 2 = 8$

(*a*) Define the term polymorphism. Explain the different types of polymorphism.

(*b*) Explain the use of seekg(), seekp(), tellg() and tellp() functions.

(*c*) Write the difference between structure and union in C++.

(Turn Over)

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3. Answer any *three* from the following questions : $6 \times 3 = 18$

(*a*) Explain the different types of storage classes available in C++ with example.

(*b*) Write a C++ program to check whether a number is prime or not.

(*c*) Write different rules to perform operator overloading in C++.

(*d*) Explain the concept of parameterized constructor in C++ with an example.

4. Answer any *two* questions from the following : $8 \times 2 = 16$

(*a*) Explain the different types of inheritances available in C++.

(*b*) Define the term class and object in OOP. Explain the use of friend function with the help of a suitable example.

(*c*) How are function templates declared ? Explain using an example.

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