



SLIATE

**SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL
EDUCATION**

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Information Technology

MODEL PAPER

HNDIT3012 Object-Oriented Programming

Instructions for Candidates:

Answer only five questions

No. of questions: 6

No. of pages: 3

Time: 3 hours

Question 01

- I. What is meant by Object? (02 marks)
- II. What is an object diagram? (02 marks)
- III. Compare the difference between class and object (04 marks)
- IV. Draw a suitable class diagram for operations in student registration process (12 marks)

(Total 20 marks)

Question 02

- I. What is meant by keyword? (02 marks)
- II. What is a function? (02 marks)
- III. Compare the difference between keyword and identifier. (04 marks)
- IV. Write a simple Java program according to the given guidelines (12 marks)
student class has private properties Student number, Student name, address, contact details. Student class has the public method “findGrade()” which takes necessary parameters

(Total 20 marks)

Question 03

- I. What is meant by inheritance? (02 marks)
- II. What is a superclass (02 marks)
- III. Compare the difference between super class and sub class (02 marks)
- IV. Write a simple Java program according to the given guidelines (12 marks)

Student is an abstract class having private properties Student number, Student name, address, contact details. It has an abstract method calMerits(). Prefect is a subclass of Student which implements parent class abstract methods

(Total 20 marks)

Question 04

- I. What is meant by swing in Java programming? (02 marks)
- II. What is a Frame object? (02 marks)
- III. Compare the difference between Frame and Window. (04 marks)
- IV. Explain the use of following code (12 marks)

```
try
{
//Protected code
}
catch(ExceptionName e1)
{
//Catch block
}
```

(Total 20 marks)

Question 05

- I. What is meant by byteArrayInput Stream in Java? (02 marks)
- II. What is InputStream? (02 marks)
- III. Mention the exceptions that should be handled in file accession in Java (04 marks)
- IV. Write the Java code to create a text file on the disc named Data.txt (12 marks)

(Total 20 marks)

Question 06

- I. What is meant by persistent data (02 marks)
- II. Mention two databases that support java (02 marks)
- III. What is meant by database driver (04 marks)
- IV. Write the Java code to connect with the database named “Employee”, which administrator username is DBADMIN and Password is Admin@123. (12 marks)

(Total 20 marks)