1. a) 1 GB = ______ MB
   b) Write examples of System Software.
   c) Differentiate between source code and object program.
   d) Write major functions of operating System.
   e) Define Application Software with example.
   f) What is a Database Management System?
   g) Define DVD
   h) Which of the following is not a component of Open Office
      i) Calc  ii) Impress  iii) word  iv) Both i. and ii.
   i) What are the various tools of IDE?

2. a) What will be the output of the following Command?
   FirstTerm .concat("Exam");
   b) Explain the following terms:
      Inspector Window , Form
   c) Amit has developed a GUI application in which the user enters the height of a person
      (which may have a fractional part) in a text field Htf. It has to be stored in a variable
      Ht for further calculations. Write the statement to do this.
   d) Differentiate between
      i) getText( ) and setText( )
      ii) parseInt( ) and toString( )
   e) What is a button group? What is the purpose of it?
   f) Rewrite the following after removing the errors (underline corrections)
      string name = NameTf .setText( );

3. a) Define showMessageDialog( ) with example.
   b) Write a statement to make
      i) jTextArea1 as un-editable
      ii) Rdbtn1 as default choice
   c) Write a java code that takes the price of a pencil from JTextField1 and quantity of pencils
      from JTextField2 and calculates total amount as Price * quantity to be displayed in
      JTextField3.
   d) What is a variable? What are the rules for naming variables in Java?
   e) Define Design tab and Data Types

4. a) Write the code for i) Command button One Dozen, Two Dozen to calculate amount to be paid
    ii) Command button STOP to close the application
b) List characteristics of Java. (1)
c) Name most suitable component used
   i) To display uneditable text (2)
      ii) To select one item from a given list

   d) Explain the use of different operators in Java with the help of an example. (2)

e) What is the purpose of the following?
   i) string1.concat(string2) (2)
       ii) Integer.parseInt("10")

5.
a) What is the relationship between a database and a table? (1)
b) Which keyword is used to eliminate redundant data? (1)
c) Write a SQL command to create the table "Product" whose structure is given below (2)

<table>
<thead>
<tr>
<th>FieldName</th>
<th>DataType</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product_Id</td>
<td>Integer</td>
<td>4</td>
</tr>
<tr>
<td>Product_Name</td>
<td>Varchar</td>
<td>20</td>
</tr>
<tr>
<td>Production_date</td>
<td>Date</td>
<td>2</td>
</tr>
<tr>
<td>Product_Price</td>
<td>Integer</td>
<td>2</td>
</tr>
</tbody>
</table>

d) Which statement is used to extract data from a table? (1)
e) Differentiate between Primary key and Candidate key with example (2)

f) How do you select all the rows from a table "Student" where the value of the column (2)
   "FName" starts with "G" as second character.

g) Write the purpose of the statement (1)
   Select ItemCode, IName As "Item Title" from Item;

6.
a) Define the following terms with example (2)
   i) Clause
      ii) Statement
b) What does the modulus operator do? Define with example. (1)
c) What is NULL? What happens when you perform arithmetic calculations on NULL values? (2)
d) List two categories into which MySQL statements can be categorized. Give examples of (2)
   2 statements in each category.
e) Name the command for the following with example (2)
   i) Viewing the attributes with their data types
      ii) Condition based on a list
f) What are the types of wild cards?

7. Consider the following table "GYM" and answer for the tasks that follow:

<table>
<thead>
<tr>
<th>PrCode</th>
<th>PrName</th>
<th>UnitPrice</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>P101</td>
<td>Cross Trainer</td>
<td>25000</td>
<td>Avon Fitness</td>
</tr>
<tr>
<td>P102</td>
<td>TreadMill</td>
<td>32000</td>
<td>AG Fitline</td>
</tr>
<tr>
<td>P103</td>
<td>Massage Chair</td>
<td>20000</td>
<td>Fit Express</td>
</tr>
<tr>
<td>P104</td>
<td>Vibration Trainer</td>
<td>22000</td>
<td>Avon Fitness</td>
</tr>
<tr>
<td>P105</td>
<td>Bike</td>
<td>13000</td>
<td>Fit Express</td>
</tr>
</tbody>
</table>

a) Suggest a primary key of the table with reason
b) Mention the degree and Cardinality of the table
c) Write the commands in SQL queries for the following

i) Display the names of all the products with unit price in the range 20000 to 30000.

ii) Remove all the rows with price less than 15000

iii) Display all the rows sorted in ascending order of product name and descending order of unit price

iv) Add a new row for products with the details P106, Vibro Exerciser, 23000, manufacturer: Avon Fitness.

v) Display details of all products with manufacturer name starting with "A"

8. i) In INSERT INTO statement while giving data values, how should text values be supplied?
   ii) If software is released under open source, it means ________
   iii) An attribute also known as a ________