General Instructions:

- Marking scheme is the final document for all references with regard to evaluation and cannot be altered under any circumstance.
- The answers given in the marking scheme are SUGGESTIVE. Examiners are expected to award marks for all alternative correct Solutions/Answers conveying the similar meaning.
- All programming questions have to be answered with respect to Java Language only.
- In Java, ignore case sensitivity for identifiers (Variables / Functions).
- In SQL related questions:
  A. Both ways of text/character entries should be acceptable. For example: “AMAR” and ‘amar’ both are acceptable.
  C. Semicolon should be ignored for terminating the SQL statements.
  D. Ignore case sensitivity for commands.
  E. Ignore headers in output questions.

<table>
<thead>
<tr>
<th></th>
<th>(a) How do Computer networks reduce hardware costs of an organization? Explain with the help of example.</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ans</td>
<td>Computer network allows sharing of hardware resources thereby reducing hardware costs of an organization. For example, a printer can be shared among the users in a network so that there’s no need to have individual printers for each and every computer in the network.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>(1 mark for reason)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>(1 mark for example)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>NOTE</strong>: Full 2 marks to be allotted if reason explained with the help of any correct example.</td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>Compare BUS topology with STAR topology. Give example.</td>
<td>2</td>
</tr>
<tr>
<td>Ans</td>
<td><strong>BUS topology</strong></td>
<td><strong>STAR topology</strong></td>
</tr>
<tr>
<td></td>
<td>In Bus topology all the nodes are joined to one cable (the bus).</td>
<td>In Star topology each node has its own cable that connects to a switch or hub.</td>
</tr>
<tr>
<td></td>
<td>If the main cable (backbone) fails, the entire network is affected.</td>
<td>If the central hub/switch fails, the entire network fails.</td>
</tr>
<tr>
<td></td>
<td>Fault diagnosis is difficult.</td>
<td>Fault diagnosis is easy</td>
</tr>
<tr>
<td></td>
<td>Less cable length required.</td>
<td>More cable length is required</td>
</tr>
<tr>
<td></td>
<td>Performance is low as when more nodes are connected, data collisions can occur.</td>
<td>Performance is high as no data collisions can occur.</td>
</tr>
</tbody>
</table>
### CBSE AISSCE 2017 Marking Scheme for Informatics Practices

(Sub Code: 065 Paper Code 90/1 Delhi)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1" alt="Bus Topology of network" /></td>
<td><img src="image2" alt="Star Topology of network" /></td>
</tr>
</tbody>
</table>

*(1 mark each for ANY 2 correct points of comparison)*

**NOTE:**
- Full 2 marks to be allotted even if example not given.
- 1 ½ marks to be allotted if only diagrams of both topologies are drawn.

| (c) | (i) Why is a switch called an intelligent hub?  
(ii) When is a repeater used in a computer network? | 2 |
|-----|-------------------------------------------------|---|
| Ans | (i) A switch is called an intelligent hub as it forwards the data packets only to the intended nodes.  
(ii) A repeater is used when the signals get weakened or distorted by transmission over long distances. |   |

*(1 mark each for each correct answer)*

| (d) | Expand following terms:  
(i) OSS  
(ii) HTTP | 2 |
|-----|-------------------------------------------------|---|
| Ans | (i) Open Source Software  
(ii) HyperText Transfer Protocol |   |

*(1 mark each for each expansion)*

<table>
<thead>
<tr>
<th>(e)</th>
<th>Explain the terms Firewall and Cyber Law.</th>
<th>2</th>
</tr>
</thead>
</table>
| Ans | Firewall: A Firewall is a hardware/software that permits only authorised data to enter/leave the network.  
Cyber Law: Cyber Law is the law that deals with offences related to data/information stored on computers or networked devices/solutions. |   |

*(1 mark each for explanation of each term)*

| 2 | (a) Write the value that will be assigned to variable C after executing the following statement:  
C = 25−5*4/2−10+4; | 1 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ans</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

*(1 mark for correct answer)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| (b) | Consider the statement:  
first_name = "Ayana";  
(i) What is the datatype of first_name ?  
(ii) Is 325 the same as “321” ? Give reason. | 1 |
| Ans | (i) String data type  
(ii) No, 325 is a Number/Integer while “321” is a String. |   |

*(½ mark for part (i))  
(½ mark for stating ‘No’ OR correct reason OR Both)*
(c) Radhika changed the “Text” property of a Checkbox named jCheckBox1 to “Reading”. What change (if any) will be reflected in its name property?  

**Ans**: No change will be reflected in its name property.  

*(1 mark for correct answer)*

(d) Ariya has typed the following comments. Write the comments using another way.  

```java  
//This is a comment spreading  
//over two lines  
```

**Ans**: /*This is a comment spreading  
over two lines or more*/  

*(1 mark to be given if attempted correctly)*

(e) Given below is HTML code. Rewrite the correct code underlining all the corrections done.  

```html  
<ol type = "A" start="D">  
  <li>Bake in oven for an hour  
  <li>Remove from oven  
  <li>Serve  
</ol>  
```

**Ans**:  

```html  
<ol type = "A" start="4">  
  <li>Bake in oven for an hour  
  <li>Remove from oven  
  <li>Serve  
</ol>  
```

*(1 Mark for each correction) OR (NOTE: 1 Mark for identifying the errors, without suggesting corrections)*

(f) Explain the meaning of the following statement with the help of example.  

“Tags are not predefined in XML”

**Ans**: “Tags are not predefined in XML”. It means that there are no standard tags in XML and they are created by the user.  

Example:  
To store name, the tag `<name>` may be used as:  

```
<name> Amit </name>  
```

In the above example, `<name>` is not a standard tag. It has been created by the user.  

*(1 mark for correct explanation)  
(1 mark for example)  
NOTE: 1 mark to be allotted if only explanation is given without example.*

(g) Name two properties and two methods that are common in JTextField and JLabel.  

**Ans**: Properties: background, enabled, font, foreground, text  

Methods: `setBackground()`, `isEnabled()`, `setText()`, `getText()`
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (a)</td>
<td>What is the relationship between SQL and MySQL?</td>
</tr>
<tr>
<td>Ans</td>
<td>SQL stands for Structured Query Language. It's a standard language for accessing and manipulating databases. MySQL is a Relational Database Management System (RDBMS), like SQL Server, Oracle, Informix, Postgres, etc. MySQL is a RDBMS. OR Any other relevant difference.</td>
</tr>
<tr>
<td>(1 mark for correct relationship)</td>
<td>NOTE: ½ mark each for correctly explaining SQL and MySQL</td>
</tr>
<tr>
<td>(b)</td>
<td>Write SQL statement that gives the same output as the following SQL statement but uses ‘IN’ keyword. SELECT NAME FROM STUDENT WHERE STATE = 'VA';</td>
</tr>
<tr>
<td>Ans</td>
<td>SELECT NAME FROM STUDENT WHERE STATE IN ('VA');</td>
</tr>
<tr>
<td>(1 mark for correct answer)</td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>Which one of the following SQL queries will display all Employee records containing the word “Amit”, regardless of case (whether it was stored as AMIT, Amit, or amit etc.)?</td>
</tr>
<tr>
<td>(i)</td>
<td>SELECT * from Employees WHERE EmpName like UPPER('%AMIT%');</td>
</tr>
<tr>
<td>(ii)</td>
<td>SELECT * from Employees WHERE EmpName like '%AMIT%' or '%AMIT%' OR '%amit%';</td>
</tr>
<tr>
<td>(iii)</td>
<td>SELECT * from Employees WHERE UPPER(EmpName) like '%AMIT%';</td>
</tr>
<tr>
<td>Ans</td>
<td>(iii) SELECT * from Employees WHERE UPPER(EmpName) like '%AMIT%';</td>
</tr>
<tr>
<td>(1 mark for correct answer)</td>
<td></td>
</tr>
<tr>
<td>(d)</td>
<td>If there are 10 rows in ‘Emp’ table and 5 rows in ‘Department’ table, How many rows will be displayed by the following query? SELECT * FROM Emp, Department; Write the term used for the Join being used on the two tables mentioned above.</td>
</tr>
<tr>
<td>Ans</td>
<td>50 rows. Cartesian product or Cross join or Cartesian join</td>
</tr>
<tr>
<td>(½ mark each for each part)</td>
<td></td>
</tr>
<tr>
<td>(e)</td>
<td>Kunal has entered the following SQL command on Table ‘STUDENT’ that has TotalMarks as one of the columns.</td>
</tr>
<tr>
<td></td>
<td>SELECT COUNT(<em>) FROM STUDENT; The output displayed is 20. Then, Kunal enters the following command: SELECT COUNT(</em>) FROM STUDENT WHERE TotalMarks &lt; 100; The output displayed is 15.</td>
</tr>
</tbody>
</table>
Then, Kunal enters the following command:
```
SELECT COUNT(*) FROM STUDENT WHERE TotalMarks >= 100;
```
He predicts the output of the above query as 5. Do you agree with Kunal? Give reasons for your answer.

**Ans**
Yes, Total rows=20, rows with `TotalMarks<100` is 15, so remaining rows left are 20-15=5
OR
No, the output of the query may not always be 5 as there may be rows with `TotalMarks` as NULL which would have not been included in either of the two SELECT statements mentioned.

(2 marks for correct answer)

(f) In a hospital, Patients are allocated to wards. A database named ‘Hospital’ is created. One table in this database is: WARD with `WardId`, `WardName`, `NumOfBeds` as columns and `WardId` as the primary key.
Write another suitable table you could expect to see in ‘Hospital’ database, with 3 suitable columns identifying Primary key and Foreign key.

**Ans**
Example:
Table - Patient
Columns - PatientId, PatientName, WardId
Patient Id - PRIMARY KEY
WardId - FOREIGN KEY
OR
Any other suitable table mentioning its PRIMARY KEY and FOREIGN KEY.

(1 mark for writing any three suitable column names)
OR
(½ mark for writing any two suitable column names)
(½ mark for mentioning the PRIMARY KEY)
(½ mark for mentioning the FOREIGN KEY)
NOTE: Tabular representation also to be accepted

(g) Given below is the ‘Department’ table:

<table>
<thead>
<tr>
<th>DEPCODE</th>
<th>DEPNAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>ADMIN</td>
</tr>
<tr>
<td>102</td>
<td>RECEPTION</td>
</tr>
<tr>
<td>103</td>
<td>PERSONNEL</td>
</tr>
</tbody>
</table>

```
SET AUTOCOMMIT = 0;
UPDATE Department SET DEPNAME = 'OFFICE' WHERE DEPNAME = 'ADMIN';
INSERT INTO Department VALUES(104,'HRD');
UPDATE Department SET DEPNAME = 'FRONT OFFICE' WHERE DEPNAME = 'RECEPTION';
COMMIT;
DELETE FROM Department WHERE DEPNAME = 'FRONT OFFICE';
ROLLBACK;
SELECT * FROM Department;
```
What will be the output of the above given SELECT statement?
### CBSE AISSCE 2017 Marking Scheme for Informatics Practices

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<table>
<thead>
<tr>
<th>Ans</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEPCODE</strong></td>
<td><strong>DEPNAME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>OFFICE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>FRONT OFFICE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>PERSONNEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>HRD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(½ mark for each correct line of output)

4. (a) Write the values of c and d after execution of following code:
   ```java
   int a = 1;
   int b = 2;
   int c;
   int d;
   c = ++b;
   d = a++;
   c++;
   ```
   Ans
   | c = 4 |
   | d = 1 |

(½ mark for each correct part)

(b) What is the difference between getSelectedIndex() and getSelectedItem() methods?
   Ans
   getSelectedIndex() retrieves index of selected item whereas getSelectedItem() retrieves selected item.

(1 mark for correct difference)

(c) What will be displayed in jTextField1 after the following code is executed?
   Also write how many times will the loop execute.
   ```java
   a = 5;
   b = 2;
   While (b != 0)
   {
   r = a%b;
   a = b;
   b = r;
   }
   jTextField1.setText(""+a);
   ```
   Ans
   | jTextField1 will display 1 |

(1 mark for correct answer)

NOTE: 1 mark to be allotted if:
· 'While' mentioned as error
· ’No output’ / 'Error' is mentioned

(d) Write the values that will be assigned to x, y, z and t after executing the following Java code:

<table>
<thead>
<tr>
<th>(d)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>Code</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>--------</td>
<td></td>
</tr>
</tbody>
</table>
| (e) | ```java
String s1, s2, s3, x, y, z;
int t;
S1 = "classxii";
S2 = "cbseboard";
S3 = "aisse2016 ";
x = s1.substring(5, 8);
y = s2.concat(s1);
z = s3.trim();
t = z.length();
``` | x = xii  
y = cbseboardclassxii  
z = aisse2016  
t = 9  
NOTE: Full 2 marks to be allotted if:  
'S1,S2,S3' or 's1,s2,s3' mentioned as error  
OR  
'No output' / 'Error' is mentioned  
(½ mark for each correct value of variables) |
| (f) | ```java
Write the value that will be stored in variable num and sum after execution of following code: 
``` | ```java
int sum=0, num = -2;
do 
{ 
  sum = sum + num;
  num++;
} 
while (num < 1);
``` | num = 0  
sum = -3  
(1 mark for each correct part) |
| (f) | ```java
The following code has error(s). Rewrite the correct code underlining all the corrections made: 
``` | ```java
integer counter=0;
for(num =i; num>=1; num--); 
{
  If i%num = 0 
  { 
    counter = counter + 1;
  }
}
``` | ```java
int num;
int i;
int counter=0;
for(num =i; num>=1; num--)semicolon deleted``` |  
(1 mark for each correct part) |
### C B S E A I S S C E 2017 Marking Scheme for Informatics Practices

(Sub Code: 065 Paper Code 90/1 Delhi)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

```java
{  
    if (i%num ==0)  
    {  
        counter = counter + 1;  
    }  
}
```

**(½ mark each for correcting any 4 errors)**

**OR**

**(1 mark for only identifying any 4 errors - without making any corrections)**

(g) Ms. Angela works as a programmer in a Bus Tour Company named “Heritage Experiences”. Groups of people come and reserve seats. There are 3 stopovers for the bus. First stop is at Alwar, second at Jaipur, third at Udaipur. A group may choose any one destination out of Alwar, Jaipur and Udaipur.

Angela has designed a software to compute charges to be paid by the entire group. A screenshot of the same is shown below:

![Heritage Experiences](image)

A group can opt for **one destination** out of Alwar / Jaipur / Udaipur.

If the group is “Frequent Traveller Group”, the group gets a 10% discount on Total charges.

Help Ms. Angela in writing the code to do the following:

After selecting appropriate Radio Button and checkbox (if required), when ‘Calculate Charges’ button is clicked, ‘Total Charges’, ‘Discount Amount’, ‘Amount to Pay’ should be calculated and displayed in the respective text fields. The Charges per person for various destinations are as follows:
<table>
<thead>
<tr>
<th>Destination</th>
<th>Amount (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alwar</td>
<td>200.00 per person</td>
</tr>
<tr>
<td>Jaipur</td>
<td>500.00 per person</td>
</tr>
<tr>
<td>Udaipur</td>
<td>900.00 per person</td>
</tr>
</tbody>
</table>

'Total Charges' is obtained by multiplying 'Number of People in Group' with Amount per person.
If 'Frequent Traveller Group' checkbox is selected, 'Discount Amount' is calculated as 10% of 'Total Charges'. Otherwise 'Discount Amount' is 0.

'Amount to Pay' is calculated as:
Amount to Pay = Total Charges - Discount Amount.

```java
Double Total = 0;
if (jRadioButton1.isSelected())
    Total = 200 * Integer.parseInt(jTextField2.getText());
else if (jRadioButton2.isSelected())
    Total = 500 * Integer.parseInt(jTextField2.getText());
else if (jRadioButton3.isSelected())
    Total = 900 * Integer.parseInt(jTextField2.getText());
jTextField3.setText("" + Total);
double Disc, Net;
if (jCheckBox1.isSelected())
    Disc = 0.10 * Integer.parseInt(jTextField3.getText());
else
    Disc = 0.0;
jTextField4.setText(" " + Disc);
Net = Total - Disc;
jTextField5.setText(" " + net);
```

(½ mark for use of `getText()`)
(½ mark each for checking conditions based on any 2 Radiobuttons and 1 Checkbox)
(½ mark each for Calculation of Total, Disc and Net)
(½ mark for displaying correct values in the text fields)

(ii) When 'CLEAR' button is clicked, all the textfields, radio button and checkbox should be cleared.

```java
jTextField1.setText("");
jTextField2.setText("");
jTextField3.setText("");
jTextField4.setText("");
jTextField5.setText("");
jCheckBox1.setSelected(false);
jRadioButton1.setSelected(false);
jRadioButton2.setSelected(false);
jRadioButton3.setSelected(false);
```
When ‘EXIT’ button is clicked, the application should close.

```java
System.exit(0);
```

(1 mark for correct answer)

5. (a) Consider the table given below.

Write Answer to (i). Write SQL queries for (ii) to (viii) and output for SQL queries (ix) and (x).

(Table: Salesperson)

<table>
<thead>
<tr>
<th>SID</th>
<th>Name</th>
<th>Phone</th>
<th>DOB</th>
<th>Salary</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>S101</td>
<td>Amit Kumar</td>
<td>98101789654</td>
<td>1967-01-23</td>
<td>67000.00</td>
<td>North</td>
</tr>
<tr>
<td>S102</td>
<td>Deepika Sharma</td>
<td>99104567834</td>
<td>1992-09-23</td>
<td>32000.00</td>
<td>South</td>
</tr>
<tr>
<td>S103</td>
<td>Vinay Srivastav</td>
<td>98101546789</td>
<td>1991-06-27</td>
<td>35000.00</td>
<td>North</td>
</tr>
<tr>
<td>S104</td>
<td>Kumar Mehta</td>
<td>88675345789</td>
<td>1967-10-16</td>
<td>40000.00</td>
<td>East</td>
</tr>
<tr>
<td>S105</td>
<td>Rashmi Kumar</td>
<td>98101567434</td>
<td>1972-09-20</td>
<td>50000.00</td>
<td>South</td>
</tr>
</tbody>
</table>

NOTE: Columns SID and DOB contain Sales Person Id and Date of Birth respectively.

(i) Write the data types of SID and DOB columns.

Ans
Data type of SID : varchar/char
Data type of DOB : Date

(½ mark each for mentioning correct data type)

(ii) Display names of Salespersons and their Salaries who have salaries in the range 30000.00 to 40000.00

Ans
SELECT Name, Salary
FROM Salesperson
WHERE Salary BETWEEN 30000 AND 40000;
OR
SELECT Name, Salary
FROM SalesPerson
WHERE Salary>=3000 AND Salary<=4000;

(½ mark for SELECT)
(½ mark for WHERE)

(iii) To list names, phone numbers and DOB (Date of Birth) of Salespersons who were born before 1st November, 1992.

Ans
SELECT Name, Phone, DOB
FROM Salesperson
WHERE DOB <‘1992-11-01’;
OR
SELECT Name, Phone, DOB
FROM Salesperson
WHERE DOB < 19921101;
(iv) To display names and salaries of salespersons in descending order of salary.

Ans

```
SELECT Name, Salary
FROM Salesperson
ORDER BY Salary DESC;
```

(v) To display areas in which Salespersons are working. Duplicate areas should not be displayed.

```
SELECT DISTINCT Area
FROM Salesperson;
```

(vi) To display SID, Names along with Salaries increased by 500. (Increase of Rs.500 is only to be displayed and not to be updated in the table)

```
SELECT SID, Name, Salary+500
FROM Salesperson;
```

(vii) To display Area along with number of Salespersons working in that area.

```
SELECT Area, COUNT(*) OR COUNT(SID)
FROM Salesperson
GROUP BY Area;
```

(viii) To display Names of Salespersons who have the word ‘Kumar’ anywhere in their names.

```
SELECT Name
FROM Salesperson
WHERE Name LIKE '%Kumar%';
```

(ix) SELECT Name, LENGTH(Name) FROM Salesperson;

<table>
<thead>
<tr>
<th>Name</th>
<th>LENGTH(Name)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amit Kumar</td>
<td>10</td>
</tr>
<tr>
<td>Deepika Sharma</td>
<td>14</td>
</tr>
<tr>
<td>Vinay Srivastav</td>
<td>15</td>
</tr>
<tr>
<td>Kumar Mehta</td>
<td>11</td>
</tr>
<tr>
<td>Rashmi Kumar</td>
<td>12</td>
</tr>
</tbody>
</table>
(x) SELECT Area, COUNT(*)
FROM Salesperson
GROUP BY Area
HAVING COUNT(*) > 1;

<table>
<thead>
<tr>
<th>Area</th>
<th>COUNT(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>2</td>
</tr>
<tr>
<td>South</td>
<td>2</td>
</tr>
</tbody>
</table>

(½ mark each for each row)

6 “ABC” Event Management Company requires data of events that are to be organized. Write SQL query to create a table ‘Event’ with the following structure:

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>EventId</td>
<td>Integer</td>
<td>Primary key</td>
</tr>
<tr>
<td>Event</td>
<td>Varchar(50)</td>
<td></td>
</tr>
<tr>
<td>DateEvent</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>NumPerformers</td>
<td>Integer</td>
<td></td>
</tr>
</tbody>
</table>

Ans CREATE TABLE Event
(   EventId INTEGER PRIMARY KEY,
   Event VARCHAR(50),
   DateEvent DATE,
   NumPerformers INTEGER
);

(½ mark for CREATE TABLE )
(½ mark for PRIMARY KEY constraint)
(1 mark for Column Names with Data Types)

(b) Consider the tables given below and answer the question that follows

<table>
<thead>
<tr>
<th>WorkshopId</th>
<th>Title</th>
<th>NumSpeakers</th>
<th>MeantFor</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>551</td>
<td>Time Management</td>
<td>3</td>
<td>Senior Manager</td>
<td>7000</td>
</tr>
<tr>
<td>553</td>
<td>App Development</td>
<td>1</td>
<td>Computer Programmer</td>
<td>9000</td>
</tr>
<tr>
<td>554</td>
<td>Planning</td>
<td>2</td>
<td>Senior Manager</td>
<td>8000</td>
</tr>
<tr>
<td>556</td>
<td>Marketing Strategies</td>
<td>2</td>
<td>Junior Manager</td>
<td>9000</td>
</tr>
</tbody>
</table>
Table: Participant

<table>
<thead>
<tr>
<th>ParticipantId</th>
<th>Name</th>
<th>WorkshopId</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Prabhu Shankar</td>
<td>551</td>
</tr>
<tr>
<td>101</td>
<td>Dev Sen</td>
<td>554</td>
</tr>
<tr>
<td>102</td>
<td>Fauzia Khan</td>
<td>551</td>
</tr>
<tr>
<td>103</td>
<td>Tom Winters</td>
<td>553</td>
</tr>
</tbody>
</table>

(i) WorkshopId ‘552’ is missing in the table Workshop. Is there any discrepancy (something not correct)? Give reason for your answer.

(ii) WorkshopId ‘551’ is present twice in the table Participant. Is there any discrepancy? Give reason for your answer.

Ans
There is no discrepancy if 552 is missing. It is not necessary that all workshop ids maintain a sequence.
There is no discrepancy if 551 is present twice as more than one participant may attend the same workshop.

**NOTE:** WorkshopId is a foreign key column in the Participant table, so it can store duplicate values, may also be accepted.

(1 mark each for reasons)
**NOTE:** (½ mark each for stating ‘NO Discrepancy’ without stating reason)

(c) With reference to the above given tables (in Q.6-(b), Write commands in SQL for (i) to (iii) given below:

(i) To display names of Participants along with workshop titles for only those workshops that have more than 2 speakers.

Ans

```
SELECT Name, Title
FROM Participant, Workshop
WHERE Participant.Workshopid = Workshop.Workshopid
AND Numspeakers > 2;
OR
SELECT Participant.Name, Workshop.Title
FROM Participant, Workshop
WHERE Participant.Workshopid = Workshop.Workshopid
AND Workshop.Numspeakers > 2;
OR
SELECT P.Name, W.Title
FROM Participant P, Workshop W
WHERE P.Workshopid = W.Workshopid
AND W.Numspeakers > 2;

NOTE: && should be accepted in place of ‘AND’
```

(½ mark for SELECT)
(½ mark for FROM)
(½ mark for correct use of join)
(½ mark for correct use of condition)

(ii) To display ParticipantId, Participant’s name, WorkshopId for workshops meant for Senior Managers and Junior Managers.

Ans

SELECT ParticipantId, Name, Workshopid
FROM Participant, Workshop
WHERE Participant.Workshopid = Workshop.Workshopid
AND Meantfor = 'Senior Manager' OR Meantfor = 'Junior Manager';

OR

SELECT Participant.ParticipantId, Participant.Name, Participant.Workshopid
FROM Participant, Workshop
WHERE Participant.Workshopid = Workshop.Workshopid
AND Workshop.Meantfor = 'Senior Manager' OR Workshop.Meantfor = 'Junior Manager';

OR

SELECT P.ParticipantId, P.Name, P.Workshopid
FROM Participant P, Workshop W
WHERE P.Workshopid = W.Workshopid
AND W.Meantfor = 'Senior Manager' or W.Meantfor = 'Junior Manager';

NOTE: || should be accepted in place of ‘OR’

(1 mark for SELECT)
(½ mark for FROM)
(½ mark for condition using WHERE)

(iii) To display WorkshopId, title, ParticipantId for only those workshops that have fees in the range of 5000.00 to 8000.00

Ans

SELECT Workshop.WorkshopId, Title, ParticipantId
FROM Participant, Workshop
WHERE Participant.Workshopid = Workshop.Workshopid
AND Workshop.Fee BETWEEN 5000 AND 8000;

OR

SELECT P.WorkshopId, W.Title, P.ParticipantId
FROM Participant P, Workshop W
WHERE P.Workshopid = W.Workshopid
AND Fee BETWEEN 5000 AND 8000;

(½ mark for SELECT)
(½ mark for FROM)
(½ mark for correct use of join)
(½ mark for correct use of condition)

NOTE: “Fee >= 5000 AND FEE <=8000” should be accepted in place of BETWEEN 5000 AND 8000
7  (a)

(i) Define e-governance.

\[ \text{Ans: Using technology to deliver Government services.} \]

\(2\text{ mark for correct answer}\)

(ii) List two advantages of e-governance to a disabled person.

\[ \text{Ans: Advantages of e-governance} \]

1. They get access to Government related information online without having to travel long distances.
2. They become aware of the opportunities/schemes especially meant for them.

\(1\text{ mark each for any two valid points}\)

(b) How does E-business help organizations to provide better customer services?

\[ \text{Ans:} \]

1. Organisations are able to offer services and support to customers 24x7.
2. Organizations analyze customers reviews about their products/services and keep improving them.

\(1\text{ mark for any one valid point}\)

(c) Ms. Fauzia is creating a form for an application to be used in a Gym. Help her to choose most appropriate controls from ListBox, ComboBox, TextField, TextArea, RadioButton, CheckBox, Label and Command Button for the following entries.

\[ \begin{array}{|c|c|}
\hline
\text{S.No.} & \text{Function} \\
\hline
1 & \text{To enter NAME} \\
2 & \text{To enter EMAIL ID} \\
3 & \text{To allow user to choose any one MEMBERSHIP DURATION out of 1 Month, 3 Months, 6 Months, 1 year.} \\
4 & \text{To choose PRE-EXISTING MEDICAL CONDITIONS out of Diabetes, Heart Disease, Chest Pain, Shortness of Breath, Epilepsy, Others.} \\
\hline
\end{array} \]

\[ \begin{array}{|c|c|}
\hline
\text{S.No} & \text{Function} & \text{Control} \\
\hline
1 & \text{To enter NAME} & \text{TextField} \\
2 & \text{To enter EMAIL ID} & \text{TextField} \\
3 & \text{To allow user to choose any one MEMBERSHIP DURATION out of 1 Month, 3 Months, 6 Months, 1 year.} & \text{RadioButton/ComboBox} \\
4 & \text{To choose PRE-EXISTING MEDICAL CONDITIONS out of Diabetes, Heart Disease, Chest Pain, Shortness of Breath, Epilepsy, Others.} & \text{ListBox/CheckBox} \\
\hline
\end{array} \]

\(\frac{1}{2}\text{ mark for each correct answer}\)