

2010_December

A1.

- a) TRUE
- b) FALSE
- c) FALSE
- d) TRUE
- e) TRUE
- f) FALSE
- g) FALSE
- h) TRUE
- i) TRUE
- j) FALSE

A2.

- a)

```
SELECT Title
FROM Book
WHERE Quantity<5;
```
- b)

```
SELECT MAX(Price) AS EXPENSIVE
FROM Book;
```
- c)

```
SELECT Title
FROM Book
WHERE Title LIKE "DA%";
```

A3.

a) DDL – Data Definition Language

-used to organize (create and destroy) databases and database objects.

b) DCL – Data Control Language

-used to control access to data in a database.

A4. Already Done!!! :-)

-enforces uniqueness of a row

-Must not contain null value

-Must contain unique value in each row

A5.

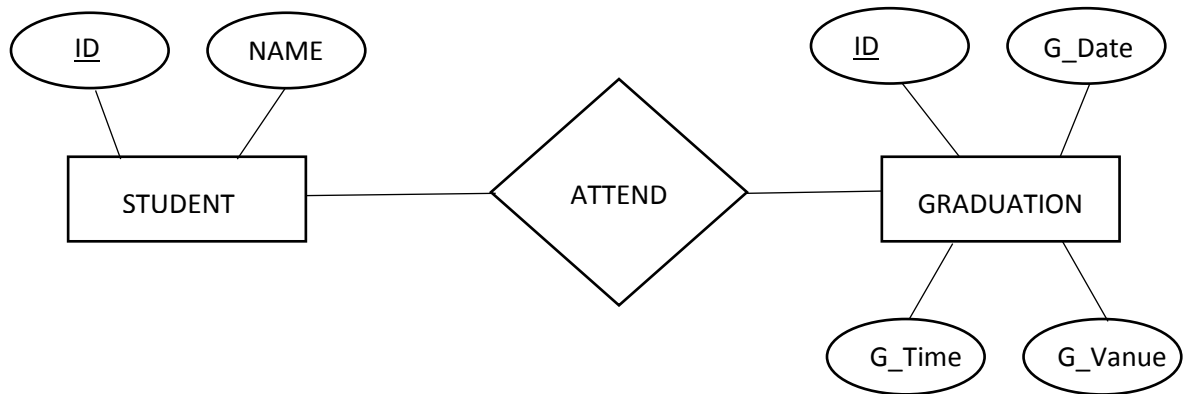
a) Multi value attribute: an attribute having any number of values for a particular record.

Eg; phoneNum

b) Ternary relationship: a simultaneous relationship among instances of three entity types.

Eg; **PATIENT** must administer a given **TREATMENT** in the same **LOCATION**.

A6.



B1.

a)

- (i)

```
SELECT Name
FROM Patient
WHERE Companyname ='AAA MARINE ';
```
- (ii)

```
SELECT Name, YEAR(getDate()) – YEAR(DateOfBirth) AS Age
FROM Patient
WHERE Companyname IS NULL;
```
- (iii)

```
SELECT Companyname, Count(*)
FROM Patient
GROUP BY Companyname;
```
- (iv)

```
SELECT MIN(DateOfBirth) AS Youngest
FROM Patient
```
- (v)

```
SELECT LCASE(Name)
FROM Patient;
```

b) (In Book)

B2.

a)

- (i) CREATE TABLE Student
(
STUDID int(5) NOT NULL PRIMARY KEY,
NAME varchar(25) NOT NULL UNIQUE,
DOB date
);
- (ii) ALTER TABLE Student
ADD ADDRESS varchar(30) NOT NULL;
- (iii) DROP TABLE Student;

b)

- (i) View:
 - It is a virtual table based on the result-set of an SQL statement.
 - Contains rows and columns
 - Fields in a view are fields from one or more real tables in database.
 - SQL functions, WHERE and JOIN statements can be added to a VIEW.
- (ii) CREATE VIEW TARGET AS
SELECT D.Country, T.Departure_Date, T.Price
FROM Destination As D
INNER JOIN TourPackage AS T ON D.ID = T.ID;

c)

- (i) Tuple - A tuple is composed of fields that contains the data about one particular item in a table.
- (ii) Field - A field is a part of a record and contains a single piece of data of the record.

B3.

a)

- (i)

```
SELECT DISTINCT P.Pid, name
FROM Pupil AS P
LEFT JOIN Exam AS E On P.Pid = E.Pid;
```
- (ii)

```
SELECT Subject, MAX(Mark) AS [Highest Mark]
FROM Exam
GROUP BY Subject;
```
- (iii)

```
INSERT INTO Exam(Pid, Subject)
VALUES(4, 'MATHEMATICS');
```
- (iv)

```
UPDATE Exam
SET Mark = 88
WHERE Pid = 4 AND Subject = 'Mathematics';
```
- (v)

```
DELETE FROM Exam
WHERE Pid = 4 AND Subject = 'Mathematics';
```

b)

(i) UNION – used to combine the result-set of two or more SELECT statements.

(ii) Three rules when using UNION:

- Each SELECT statement must have same number of Columns.
- The columns must have similar data types.
- Columns in each SELECT statement must be in same order.