

1)question no:1

a)

b)

```
mysql> create database studentdetails;
Query OK, 1 row affected (0.11 sec)

mysql> use studentdetails;
Database changed
mysql> CREATE TABLE stu_details (
  ->   reg_no INT PRIMARY KEY,
  ->   stu_name VARCHAR(50),
  ->   DOB DATE,
  ->   address VARCHAR(100),
  ->   city VARCHAR(50)
  -> );
Query OK, 0 rows affected (0.54 sec)

mysql>
mysql> CREATE TABLE mark_details (
  ->   reg_no INT PRIMARY KEY,
  ->   mark1 INT,
  ->   mark2 INT,
  ->   mark3 INT,
  ->   total INT
  -> );
Query OK, 0 rows affected (0.82 sec)
```

i)

```
mysql> ALTER TABLE mark_details ADD average FLOAT;
Query OK, 0 rows affected (0.26 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ii)

```
mysql> SELECT TIMESTAMPDIF(MONTH, DOB, CURDATE()) AS months FROM stu_details;
+-----+
| months |
+-----+
|    288 |
|    295 |
+-----+
2 rows in set (0.00 sec)
```

iii)

```
mysql> ALTER TABLE stu_details DROP COLUMN address;
Query OK, 0 rows affected (0.12 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

iv)

```
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE calculate_marks_sum_avg()
-> BEGIN
->     DECLARE total_marks INT;
->     DECLARE avg_marks FLOAT;
->
->     SELECT SUM(mark1 + mark2 + mark3) INTO total_marks FROM mark_details;
->     SELECT AVG(mark1 + mark2 + mark3) INTO avg_marks FROM mark_details;
->     SELECT CONCAT('Total Marks: ', total_marks) AS total_marks, CONCAT('Average Marks: ', avg_marks) AS avg_marks
;
-> END //
Query OK, 0 rows affected (0.14 sec)

mysql>
mysql> DELIMITER ;
mysql> CALL calculate_marks_sum_avg();
+-----+-----+
| total_marks | avg_marks |
+-----+-----+
| Total Marks: 778 | Average Marks: 259.333 |
+-----+-----+
1 row in set (0.02 sec)
```

v)

```
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE check_marks(
->     IN mark1 INT,
->     IN mark2 INT,
->     IN mark3 INT
-> )
-> BEGIN
->     DECLARE total_marks INT;
->
->     IF mark1 < 0 OR mark2 < 0 OR mark3 < 0 THEN
->         SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Marks cannot be negative.';
->     END IF;
->
->     SET total_marks := mark1 + mark2 + mark3;
->
->     IF total_marks > 300 THEN
->         SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Total marks cannot exceed 300.';
->     END IF;
->
->     SELECT 'Marks are within the valid range.' AS message;
-> END //
Query OK, 0 rows affected (0.08 sec)

mysql>
mysql> DELIMITER ;
mysql>
mysql> CALL check_marks(85, 90, 88);
```