

Q1

```
create aa (m int);
insert into aa values (2),(3),(4),(5);
```

delimiter !

```
create procedure sum_el (out s int)
begin
select sum(m) into s from aa;
end!
```

```
mysql> call sum_el(@r)!
Query OK, 1 row affected (0.00 sec)

mysql> select @r;
-> !
+-----+
| @r    |
+-----+
| 14    |
+-----+
1 row in set (0.00 sec)

mysql>
```

Q2

```
create procedure qq (in s int , out ans varchar(1000))
begin
set ans="";
while s<>0 do
    set ans =concat(ans,'hello world ');
    set s=s-1;
end while ;
End!
```

```
mysql> call qq(4,@w)!
Query OK, 0 rows affected (0.00 sec)

mysql> select @w;
-> !
+-----+
| @w    |
+-----+
| hello world hello world hello world hello world |
+-----+
1 row in set (0.00 sec)

mysql>
```

Q3

```
mysql> call qq_corr(-11,@f);
-> !
Query OK, 0 rows affected (0.00 sec)

mysql> select @f!
+-----+
| @f    |
+-----+
| !number is less than 1 |
+-----+
1 row in set (0.00 sec)
```

```
create procedure qq_corr (in s int , out ans varchar(1000))
begin
set ans="";
if s >0 then
while s<>0 do
        set ans =concat(ans,'hello world ');
        set s=s-1;
end while ;
else
set ans=' !number is less than 1 ' ;
end if;
end!
```

Q4

Create table area (radius int, a DECIMAL(14,2)) ;

insert into area (radius) values (1),(10);

delimiter!

create procedure ar ()

begin

declare finish int default 0;

declare r int ;

declare cur cursor for select radius from area;

declare continue handler for not found set finish=1;

open cur;

f : loop

fetch cur into r;

if finish =1 then leave f;

end if;

update area set a = 3.14\*r\*r where radius=r;

end loop f;

```
close cur;  
end !
```

```
mysql> call ar()!  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> select * area;  
-> !  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that  
L server version for the right syntax to use near '' at line 1  
mysql> select * from area;  
-> !  


| radius | a      |
|--------|--------|
| 1      | 3.14   |
| 10     | 314.00 |

  
2 rows in set (0.00 sec)  
  
mysql>
```

Q5

```
create table power( n int , sq int , cub int);
```

```
create procedure ints ()
```

```
begin
```

```
declare i int;
```

```
set i=20;
```

```
while i<31 do
```

```
insert into power values (i,i*i,i*i*i);
```

```
set i=i+1;
```

```
end while;
```

```
end !
```

```

mysql> select * from power;
-> !
Empty set (0.00 sec)

mysql>
mysql> call ints();
-> !
Query OK, 1 row affected (0.04 sec)

mysql> select * from power!
+-----+-----+
| n    | sq    | cub   |
+-----+-----+
| 20   | 400   | 8000  |
| 21   | 441   | 9261  |
| 22   | 484   | 10648 |
| 23   | 529   | 12167 |
| 24   | 576   | 13824 |
| 25   | 625   | 15625 |
| 26   | 676   | 17576 |
| 27   | 729   | 19683 |
| 28   | 784   | 21952 |
| 29   | 841   | 24389 |
| 30   | 900   | 27000 |
+-----+-----+
11 rows in set (0.00 sec)

mysql>

```

Q6

create procedure ff(in a varchar(20) , out b varchar(20))

begin

declare l int;

declare i int;

set l=length(a);

set i=0;

set b="";

f : loop if i = l+1 then leave f; end if; set b=concat(substr(a,i,1),b); set i=i+1; end loop f;  
end !

```
mysql> call ff('yash',@f);
-> !
Query OK, 0 rows affected (0.00 sec)

mysql> select @f!
+-----+
| @f    |
+-----+
| hsay  |
+-----+
1 row in set (0.00 sec)
```

Q7

create table employee (salary int)!  
 alter table employee add column ssn int primary key !  
 insert into employee values (100,1);

create procedure up(in s int)  
 begin  
 update employee set salary= 1.15\*salary where ssn =s;  
 End!

```
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> call up(1)!
Query OK, 1 row affected (0.01 sec)

mysql> select* from employee!
+-----+-----+
| salary | ssn  |
+-----+-----+
| 115    | 1    |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

#### Question 8

```
create procedure ch (in new varchar(20), in old varchar(20),out ms varchar(20))
begin
declare i int ;
declare finish int default 0;
declare cur cursor for select ssn from employee where job=old;
declare continue handler for not found set finish =1;

select count(*) into i from employee where job=old;
if i= 0 then
    set ms='zero old jobs';
else
    open cur;
    t : loop
        fetch cur into i;
        if(finish=1) then
            leave t;
        end if;
        update employee set job = new where ssn = i;
    end loop t;
end if;
end !
```

#### Q 9

```
create procedure sal (in sal int,out ms varchar(100))
begin
declare i varchar(20) ;
declare finish int default 0;
declare cur cursor for select sname from employee where salary<sal;
declare continue handler for not found set finish =1;
open cur;
t : loop
    fetch cur into i;
    if(finish=1) then
        leave t;
    end if;
    set ms=concat(ms,' ',i);
end loop t;
end !
```

#### Question 10

```
create trigger air
after insert on members
for each row
begin
if new.DOB='NULL'
then
    insert into reminder values (new.mname,new.mid,'Your DOB is NULL. Please update.');
```

end if;

end !