Pointers :

Section 1:

1. Draw Memeory diagrams for the Below.
2. If there is a Wrong Statement
    1. Draw the memory diagram
    2. explain what is wrong with statement
    3. provide the correct Statement.

1.

```
int a;

a = 40;
```

2.

```
int a;
int *a_ptr;

a = 0;

a_ptr = NULL;

a = 40;

*a_ptr = 80;

a_ptr = &a;

*a_ptr = 90;
```

3.

```
int a;
int *iptr;
int **ipptr;

a = 0;
iptr = NULL;
iiptr = NULL;

a = 40;

iptr = &a;

ipptr = &iptr;

a = *iptr + **ipptr;
```

5.

```
float a;
int *ptr;

a = 10;

ptr = &a;

*ptr value ??

*ptr = 10;

a value ??
```

6.

what is NULL? (it is a Macro check the value)

7.

```
int a;

int **ptr = NULL;

*ptr = &a;

**ptr = 20;
```

8.

```
int a;

int **ptr = NULL;

ptr = &a;

**ptr = 30;
```

9.

```
int a[10];

int *ptr = NULL;

ptr = a;

*ptr = 20;

ptr++;

*ptr = 25;
```

10.

```
int *ptr1;

int *ptr2;

ptr1 = malloc(10*sizeof(int));

ptr2 = malloc(10*sizeof(int));

*ptr1 = 30;

*ptr2 = 50;

free(ptr2)

*ptr2 = 80;

ptr1++;

*ptr1 = 90;
```