

Q1. Write a program to multiply matrix $A_{m \times n}$ by matrix $B_{p \times q}$.

Q2. (a) How strings can be initialized?

(b) Explain the working of strcmp() function.

(c) Is there any error in the following program? If yes, then tell what is the error and if not, then what will be the output?

```
#include <stdio.h>
void main()
{
    char str[10] = "wonderful";
    int i;
    for( i = 0; i <= 10; ++i )
    {
        printf("\n%d", *str);
        str++;
    }
    printf("\n");
}
```

Q3. (a) Compare and contrast between call by reference and call by value mechanism of passing arguments to a function.

(b) Give the output of the following program.

```
#include <stdio.h>
void swap(int x, int y);
void main()
{
    int x = 5, y = 10;
    swap(x, y);
    printf("\n%d,%d\n", x, y);
}
void swap(int a, int b)
{
    int temp;
    temp = a;
    a = b;
    b = temp;
}
```

Q4. What will be the output of the following programs? If there are any errors, identify them.

(a)

```
#include <stdio.h>
void main()
{
    int *p, a[] = {1,2,3,4,5};
    p = &a[2];
    printf("%d", p[-1]);
}
```

(b)

```
#include <stdio.h>
void main()
{
    char str[3][5]={"Chan","jakie","joe"};
    int i;
    for (i = 0; i < 3; i++)
        puts(str[i]);
}
```