ASSIGNMENT

1. Write a function to implement four function calculator. Function would take operands and operator as arguments and returns result. In above program, division may fail if denominator is zero. Use global variable as an error flag to avoid this problem.

2. Write a function to indicate whether given number is prime or not. Write another function to print prime numbers in the given range.

3. Write a function to calculate power using recursion.

TWISTERS

```
1. #include <stdio.h>
int main(void)
{
        static int val = 8;
        if(val--) main();
        printf("%d ", val);
        return 0;
}
```

A. -1 -1 -1 -1 -1 -1 -1 -1 -1
B. 0 0 0 0 0 0 0 0 0
C. -1 -1 -1 -1 -1 -1 -1 -1 -1 ...
D. 0 0 0 0 0 0 0 0 0 ...

Answer: A

```
2. #include <stdio.h>
int main(void)
{
        register char reg = 20;
        char *ptr_reg = NULL;
        ptr_reg = &reg;
        *ptr_reg = 40;
        printf("%d ", reg);
        return 0;
}
```

A. 20
B. 40
C. Compile time error
D. Run time error

Answer: C

3. #include <stdio.h>

```
int ext = 30;

int main(void)
{
        extern int ext;
        printf("Ext = %d ", ext);
        extfun();
        return 0;
} int ext = 10;

int extfun(void)
{
        int ext = 20;
        printf("%d\n",ext);
}
```

A. Ext = 10 20
B. Ext = 30 20
C. Compile time error
D. Run time error

Answer: C

4. #include <stdio.h>

```
static char char1 = 'A';
extern char char2 = 'B';
register char char3 = 'C';

void mystorage(void)
{
        printf("%c %c %c\n", char1, char2, char3);
}

int main(void)
{
        printf("%c %c %c\n", char1, char2, char3);
        mystorage();
        return 0;
}
```

A. A B C
   A B C

B. Compile time error -
   static variable cannot be declared globally

C. Compile time error -
   extern variable cannot be declared globally

D. Compile time error -
   register variable cannot be declared globally

Answer: D