Student's Name:
As on Canvas

(1)   Write an ARM program that uses stack pointers, frame pointers and stacks for implementing following C++ code .   (20 points).

```
int    power (int a, int b)
{
        if (b==0)
            return 1;
        else
            return  a * power (a, b-1);

}
                // an = a r^{n-1}
int       geometric_progression (int a, int r,
                                            int n)

    {
            int second_term = power (r, n-1);
            int result = a * second_term;

            return result;
    }
```

```c
int    main()
{
    int  a=2;
    int  r= 3;
    int  n = 4;

    int  d = geometric_progression (2,3,4);

    return 0;
}
```

Initialize Stack Pointer with 0x2000