

1.

What **will** be the output of the following code on **64** bit compilation

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    char *p=NULL; short int *q=NULL;
    p = (char *)malloc(sizeof(char)*20);
    q = (short int *)malloc(sizeof( short int)*20);
    printf("%d bytes\n", sizeof(p));
    free(p);
    p=NULL;
    return 0;
}
```

- A. 4 bytes
- B. 2 bytes
- C. 8 bytes
- D. 20 bytes
- E. 40 bytes

Answer: C

2.

```
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
int main()
{
    char *ptr=NULL, s[]="Sun", d[]="Beam";
    ptr = (char *)calloc(1,30);
    strcat(ptr,d);
    strcat(ptr,s);
    printf("%d",ptr[strcmp("SunBeam",ptr)]);
    free(ptr);
    ptr=NULL;
    return 0;
}
```

- A. nothing
- B. 0
- C. Error: in **free(ptr);**
- D. No error
- E. Memory Leakage

Answer: B

3.

```
#include<stdio.h>
#include<string.h>
int main()
{
    #define sunbeam "Karad SunBeam\n"
    #define SUNBEAM "Pune SunBeam\n"
    #define Sunbeam strlen(SUNBEAM) - 2 * 2 * 2
    #ifdef SUNBEAM
        printf(SUNBEAM);
    #endif
    #ifdef SUNBEAM
        printf(Sunbeam+SUNBEAM);
    #endif
    return 0;
}
```

- A. Pune SunBeam  
SunBeam
- B. Pune SunBeam  
Pune SunBeam
- C. SunBeam  
SunBeam
- D. Karad SunBeam  
SunBeam
- E. Pune Sunbeam  
Sunbeam

Answer: A

4.

What is the output of the following code:

```
#include<stdio.h>
#define exp(a) a+a * 5 / a*a
int main( void )
{
    int x = exp(3+2) * 5;
    printf("Value of X=%d",x);
    return 0;
}
```

- A. Value of X=27
- B. Value of X=32
- C. Value of X=20
- D. compile time error
- E. Value of X=28

Answer: A

5.

```
#include<stdio.h>
#define float double
int main( void )
{
    float pi=3.142f;
    float *i = &pi, j=56.22f;
    double *l= (double*)&pi, J=56.22;
    printf("sizeof(i)=%d sizeof(j)=%d",sizeof(i),sizeof(j));
    return 0;
}
```

- A. sizeof(i)=8 sizeof(j)=8
- B. sizeof(i)=4 sizeof(j)=8
- C. sizeof(i)=2 sizeof(j)=8
- D. sizeof(i)=4 sizeof(j)=4
- E. Error

Answer: B