```
Preprocessor Directives
Dynamic MemoryAllocation
1.
#include <stdio.h>
void fun():
int main( void )
    fun():
    return 0:
void fun()
    #ifndef value
        #define value 100
        #undef value
    #else
        #undef value
        #define value 200
    #endif
   #define Value 300 printf("Value : %d", Value);
    return :
A. Value : 100
B. Value : 200
C. no output
D. Compile time error
E. Value : 300
Answer: C
2.
#include<stdio.h>
#line 100
int main( void )
    printf("\n line = %d ", LINE );
    #line 0
    printf(" line = %d ",__LINE___ );
    #line 100
    printf(" line = %d ",__LINE__ );
    return 0:
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```
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A. run time error
```



```
B. compile time error
C. line = 102 line = 0 line = 100
D.
   line = 103 line = 0 line = 102
Answer: C
3.
#include<stdio.h>
#include<string.h>
int main( void )
    #define SUNBEAM "SUNBEAM IT PARK \n"
   #define Sunbeam "SUNBEAM MARKETYARD\n"
    #ifdef SUNBEAM
        printf(SUNBEAM);
    #endif
    #ifdef SUNBEAM
        printf(Sunbeam);
    #endif
    printf("\'Sunbeam\'\n");
    printf("\"SUNBEAM\" \n");
    return 0:
A. SUNBEAM IT PARK
B. SUNBEAM IT PARK
   SUNBEAM MARKETYARD
   Sunbeam
   SUNBEAM
C. SUNBEAM IT PARK
   SUNBEAM MARKETYARD
   'Sunbeam'
   "SUNBEAM"
D. SUNBEAM MARKETYARD
Answer: C
```

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3.
#include<stdio.h>
#define A(x)((x)*(x))
int main( void )
    int a, b=3;
    a = 75 / (b* A((b+2)));
    printf("%d\n", a);
    return 0:
A. 1
B. 625
C. 75
D. 225
Answer: A
4.
#include <stdio.h>
#define MACRO(n, i, a, m) m##a##i##n
#define MAIN MACRO(n, i, a, m)
#define SUNMEAM sunbeam
int MAIN(void )
    printf("\"SUNBEAM\"");
    return 0:
A. "SUNBEAM"
B. SUNBEAM
C. sunbeam
D. compile time error
Answer: A
```

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5.
#include<stdio.h>
#define SWAP(a, b) {b ^= b; a ^= a; b ^= b;}
int main( void )
    int x = 10:
    int y = 20;
    x=x*y; y=x/y; x=x/y;
    SWAP(x, y);
    x=x+y; y=x-y; x=x-y;
    printf("X=%d, Y=%d", x, y);
    return 0:
A. X=0, Y=0
B. X=10, Y=20
C. X=20, Y=10
D. Compile time error
Answer: A
6.
#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

Answer: A

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7.
#include<stdio.h>
#define int char
int main( void )
  int* i = 65, i=56;
  printf("sizeof(i)=%d sizeof(j)=%d", sizeof(i), sizeof(j));
  return 0:
A. sizeof(i)=8 sizeof(i)=1
B. sizeof(i)=4 sizeof(i)=1
C. sizeof(i)=8 sizeof(j)=8
D. sizeof(i)=4 sizeof(j)=4
Answer: B
8.
#include <stdio.h>
#define INCREMENT(x) --x
#define DECREMENT(x) ++x
int main( void )
    char *ptr = "SunbeamKarad";
    int x = 10;
    printf("%s",
                   DECREMENT(ptr));
    printf("%3d\t", DECREMENT(x));
    printf("%s",
    printf("%s", INCREMENT(ptr)
printf("%3d", INCREMENT(x));
                   INCREMENT(ptr)):
    return 0:
A. unbeamKarad 11
                      SunbeamKarad 10
B. SunbeamKarad 11
                      unbeamKarad 10
C. garbage value SunbeamKarad 11 SunbeamKarad 10
D. garbagevalue SunbeamKarad 9 SunbeamKarad 10
Answer: A
```

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9.
#include<stdio.h>
#define f1(para1,para2) para1##para2
#define f2(para2,para1) para1##para2
int main(void)
    char var ='A';
    printf("%c ",++f1(var,_));
    printf(" %d",--f2(_,var));
    return 0:
A. B 65
B. A 65
C. B 66
D. B 65
Answer: A
10.
#include<stdio.h>
#include<string.h>
int main(void)
    char joining1[10]="", joining2[10]="", joining3[10]="";
    strcat(joining1,"TIME");
    strcat( joining1,"_"); strcat( joining1,"_");
    strcat( joining3, joining1);
    strcat( joining2,"_"); strcat( joining2,"_");
    strcpy( joining1, joining2);
    strcat( joining1, joining3);
    printf("\n time= %s", joining1);
    return 0:
A. time= TIME
b. time= current time will print
c. compile time error
D. run time error
Answer: A
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11.
#include<stdio.h>
#include<stdlib.h>
int main ( void )
   char *title=NULL:
  title = (char *) malloc(15);
  strcpy(title, "C Programming");
  printf("String = %c", *title);
  free(title); title=0;
  strcpy(title, "C++");
   printf(" %s", title);
   return 0:
A. String = C Programming
B. Complile time error
C. String = C C++
D. exit value -1
Answer: D
12. Consider 32 bit compilation.
#include<stdio.h>
#include<stdlib.h>
int main(void)
{
    char *ptr=NULL;
    ptr = (char *)calloc(20, sizeof(char));
    printf("%d bytes\n", sizeof(ptr));
    free(ptr): ptr=NULL:
    return 0:
A. 4 bytes
B. 1 bytes
C. 8 bytes
D. 20 bytes
Answer: A
```

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13.
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```
13.
#include<stdio.h>
#include<stdlib.h>
int main(void)
    char *ptr=NULL;
    ptr = (char *)calloc(1,10);
    strcpy(ptr, "Sunbeam");
ptr = (char *)realloc(ptr,20);
    strcat(ptr," IT PARK");
    printf("%c",
    (ptr[0]>=65 && ptr[0]<=90)? ptr[14]+32 : ptr[0]-32);
    free(ptr);
    ptr=NULL;
    return 0:
A. K
B. k
C. s
D. S
Answer: B
14.
#include<stdio.h>
#include<stdlib.h>
int main(void)
{
    char *ptr=NULL;
    strcpy(ptr , "Demo1");
    strcpy(ptr , "Demo2");
    free(ptr);
    printf("%s\n",ptr);
    return 0:
```

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```
A. Demo1
B. Demo2
C. Demo1Demo2
D. exit value -1
Answer: D
15.
what type of data u can store in this block of memory?
#include<stdio.h>
#include<stdlib.h>
int main(void)
    void *ptr=NULL;
    ptr = malloc(10);
    return 0:
A. int
B. char
C. float
D. all of above data types
Answer: D
16.
Which of the above three functions are likely to cause
problems with pointers?
int * fun1 (void)
  int x=10;
  return (&x);
int * fun2 (void)
  int * px;
  *px= 10;
  return px;
```

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```
int *fun3 (void)
{
   int *px;
   px = (int *) malloc (sizeof(int));
   *px= 10;
   return px;
}

A. function fun1 and fun2
B. function fun2 and fun3
C. function fun1 , fun2 and fun3
D. function fun3
Answer: A
```