```
int x;
x = 1 + 1;
printf("%d", x);
```

1. What is the output of the following code?

(A) 2 (B) 3.1415926 (C) Hello world! (D) segmentation fault

```
struct node {
   int v;
   struct node *next;
};

struct node array[2];
```

2. On a CSE machine, what is the size of this object: **array**?

(A) 8 bytes (B) 12 bytes (C) 16 bytes (D) 24 bytes

```
typedef struct node {
   char *s;
   node *next;
} NodeT;

NodeT *p;
```

3. Which of the following is true?

(A) p->next is of type *char
(B) p->next->s is of type char
(C) p->next->s[0] is of type *char
(D) p->next->s[0] is of type char

```
int a[2] = {1, 0};
int b[2][2] = {{1, 2}, {3, 4}};

printf("%d", b[1][a[1]]);
```

4. What is the output of the following code?

(A) 1 (B) 2 (C) 3 (D) 4

```c
#include <stdio.h>

char *f(char *);

int main(void) {
    char *str = "abc";
    printf("%c", *f(str));
    return 0;
}

char *f(char *p) {
   return p++;
}
```

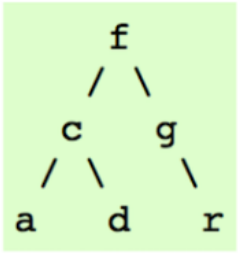
5. What is the output of the following program?

(A) a (B) b (C) bc (D) segmentation fault

```c
#include <stdio.h>

char *f(char *);

int main(void) {
    char *str = "abc";
    printf("%c", *f(str));
    return 0;
}

char *f(char *p) {
   return p++;
}
```

6. str is an object that is located in which memory region?

(A) code (B) global data (C) stack (D) heap



7. Traverse the following tree in **postorder**

(A) a c d g r f (B) a d c g r f (C) a d c r g f (D) a d r c g f

```c
r = random()%2 + 2;
for (i=0; i<r; i++) {
   printf("%d ", (int)random()%2);
}
```

8. What is a **possible** output of the following code?

(A) 1 2 (B) 1 0 0 (C) 0 1 2 (D) 1 1 1 1