

Final Exam Example Questions

1. What is the result after the following statement is executed?

```
int *p = (int *) 3;
```

- A. Compile error
 - B. An integer variable p is allocated, and initialized to 3;
 - C. A pointer to integer is allocated, and the value of the integer it points to is set to 3.
 - D. A pointer to integer is allocated, and the address it points to is set to 3.
 - E. None of the above
2. What is the value of i after the following code segment is executed?

```
int i, *p;  
i = 5;  
p = &i;  
*p = 10;
```

- A. 5
- B. 10
- C. This code segment will have execution error
- D. bx3f56c
- E. None of the above

3. What is the output of the following code?

```
#include <stdio.h>
int main(void)
{
    char c;
    c = '0';

    printf ("%c\n", c);
    return 0;
}
```

- A. c
- B. '0'
- C. "0"
- D. 0
- E. \n

4. What is the output of the following program?

```
#include <stdio.h>
int main(void)
{
    int a = 2, b = 4, c = 1, d = 2;
    switch (a/b+c/d)
    {
        case 0: printf("%d ", a + b);
        case 1: printf("%d ", a - ++b);
        case 2: printf("%d ", a * - d / c); break;
        default: printf("%d\n", a > b ? a / b : d); break;
    }
    return 0;
}
```

- A. 6
- B. -3
- C. -3 -4
- D. 6 -3 -4
- E. None of the above

Consider the following program for question 5 and 6.

```
#include <stdio.h>
```

```
int x=1, y=2, z=3;  
int f(void);
```

```
int main (void)  
{  
    printf("%d\n", f());           // LINE 1  
    printf("%d, %d, %d\n", x, y, z); // LINE 2  
    return 0;  
}
```

```
int f(void)  
{  
    int x=2;  
    y=z++;  
    return (x+y+z);  
}
```

5. What is the output of LINE 1?

- A. 6
- B. 7
- C. 8
- D. 9
- E. None of the above

6. What is the output of LINE 2?

- A. 1, 2, 3
- B. 1, 3, 4
- C. 2, 3, 4
- D. 2, 4, 3
- E. None of the above

7. What is the output of this program?

```
#include <stdio.h>

#define NUMOFEXAM 3

struct grade{
    int id;
    float score[NUMOFEXAM];
};

int main(void)
{
    int i;
    struct grade a={ 1234, {87.2, 95, 90}}, *p=&a;

    for (i=0; i<NUMOFEXAM; i++){
        //a.score[i] += 5;
        //p->score[i] += 5;
        (*p).score[i] += 5;
        printf("%.1f \n", a.score[i]);
    }

    return 0;
}
```

- A. 12345, 2345, 345
- B. 1239, 2349, 349
- C. 92.2, 100.0, 95.0
- D. 92.2, 100, 95
- E. None of the above

1. D 2. B 3. D 4. D 5. D 6. B 7. C