

CSE142 Summer 2000 Midterm I Answers

Multiple Choice

Version A

1. A
2. A
3. E
4. C
5. D
6. D
7. A
8. D
9. C
10. C
11. C
12. D

Version B

1. D
2. A
3. A
4. E
5. C
6. D
7. C
8. C
9. C
10. D
11. D
12. A

Written Portion
Versions A and B
(Answers may vary—that's okay.)

13.

```
#include <stdio.h>
/* define any needed constants here */

#define GAS_COST  2.00
#define MPG       13.0

int main(void) {

    /* declare all necessary variables here */
    double miles;
    double money;
    double money_needed;

    /* read in the user's input */
    printf("How far do you want to go? ");
    scanf("%lf", &miles);
    printf("How much money do you have? ");
    scanf("%lf", &money);

    /* compute and print the necessary output */
    money_needed = (miles / MPG) * GAS_COST;

    if (money_needed > money) {
        printf("Whoops!  You need $%.2f more to make the trip!\n",
            money_needed - money);
    }
    else {
        printf("You'll have $%.2f left over after the trip!\n",
            money - money_needed);
    }

    return 0;
}
```

14.

```
#include <stdio.h>

int main(void) {

    /* Declare all necessary variables here */
    int age;

    /* Prompt the user and perform the necessary input */
    printf("Enter your age: ");
    scanf("%d", &age);

    /* do the necessary computation and remaining I/O */
    if (age < 8) printf("You get a red balloon!\n");
    else if (age < 18) printf("You get a stylish t-shirt!\n");
    else printf("You get an exciting C book!\n");

    if ((age % 2) == 1)
        printf("You also get a Britney Spears CD!\n");

    return 0;
}
```