

CIS 1201 Finals Mock Exam (Retake) Answer Key

Test 1:

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

Test 2:

- 11-12. $39 \gg 2 \ll 2 = 00100111 \gg 2 \ll 2 = 00100100 = 36$
- 13-14. $22 \& -11 \wedge 11 = 00010110 \& 11110101 \wedge 00001011$
 $= 00010100 \wedge 00001011 = 00011111 = 31$
- 15-16. $00010001 \mid A = 01110101 \rightarrow A = 01100100 = 100$
- 17-18. 124
19. 15
20. True
21. False
22. -3
23. ABC018
24. ABC028
25. ABC030
- 26-28. `int (*ptr)[5] = arr + 1;`
- 29-30. -9

Test 3:

- 31-32. `(int**) malloc (col * sizeof(int*))`
- 33-34. `a < col`
- 35-36. `trans[a] = (int*) malloc (row * sizeof(int))`
- 37-38. `b < row`
- 39-40. `trans[a][b] = arr[b][a]`
- 41-42. `int temp[col]`
- 43-44. `arr[b][x] > arr[b+1][x]`
- 45-46. `memcpy(temp, arr[b], col*sizeof(int))`
- 47-48. `memcpy(arr[b], arr[b+1], col*sizeof(int))`
- 49-50. `memcpy(arr[b+1], temp, col*sizeof(int))`

Test 4:

51-70.

```
void buyTickets(TPRLIST *L, Mall *M){
    int a, isReserved;
    TPRLIST *trav, temp;

    for(trav=L; *trav!=NULL; ){
        isReserved = 0;
        for(a = 0; a < SIZE && M->Cinema[a].movie.id != (*trav)->movieID; a++){
            if(a < SIZE){
                if((*trav)->loc.row < ROW && (*trav)->loc.col < COL){
                    if(M->Cinema[a].seats[(*trav)->loc.row][(*trav)->loc.col].seat == 0){
                        M->Cinema[a].seats[(*trav)->loc.row][(*trav)->loc.col].custName = (*trav)->custName;
                        M->Cinema[a].seats[(*trav)->loc.row][(*trav)->loc.col].seat = 1;
                        temp = *trav;
                        *trav = temp->next;
                        free(temp);
                        isReserved = 1;
                    }
                }
            }
        }
        if(isReserved == 0){
            trav = &(*trav)->next;
        }
    }
}
```

71-80.

```
float getTotalSales(Mall *M){
    float sum=0, num;
    int a, x, y;

    for(a = 0; a < SIZE; a++){
        num = 0;
        for(x = 0; x < ROW; x++){
            for(y = 0; y < COL; y++){
                if(M->Cinema[a].seats[x][y].seat == 1){
                    num++;
                }
            }
        }
        sum += num * M->Cinema[a].movie.price;
    }
    return sum;
}
```