Exam answers Oct 2013

written by

slex04

Section A :

Question 1 : 3
Question 2 : 1
Question 3 : 2
Question 4 : 3
Question 5 : 4
Question 6 : 4
Question 7 : 1
Question 8 : 1
Question 9 : 2
Question 10 : 3

Section B :

Question 1.a :

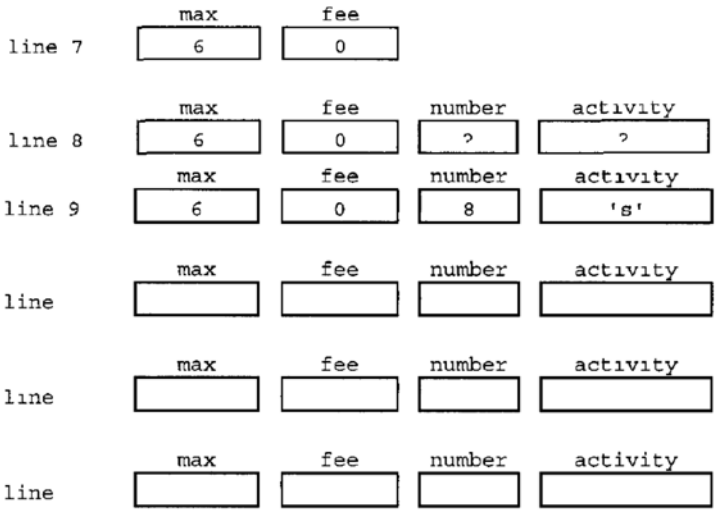
The purpose : Continue to print out the square value of the variable n per loop until n is greater than 5.

Question 1.b :

Set the boolean variable (valid) to false (per loop) if a specific element in the (numbers) array specified by the index variable (i) is greater than the array element standing next to it (specified by the index variable (i) plus 1).

Question 2.a.i :

Line 9 : max == 6, fee == 0, number == 8, activity == 's'
Line 10 : max == 6, fee == 0, number == 8, activity == 's'
Line 12 (10 -> 12) : max == 6, fee == 0, number == 8, activity == 's'
Line 13 : max == 6, fee == 0, number == 8, activity == 's'
Line 14 : max == 6, fee == 800, number == 7, activity == 's'

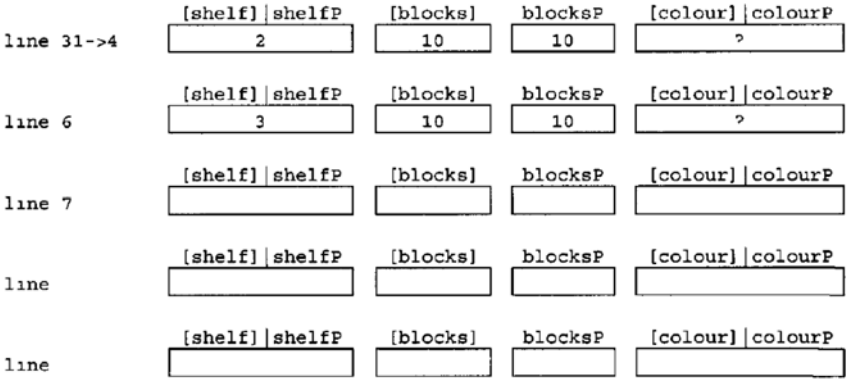


Quetion 2.a.ii :

2 650 7 s

Question 2.b.i :

Line 6 : shelf == 3, shelfP == 3, blocks == 10, blockP == 10, colour = ?, colourP == ?
Line 7 : shelf == 3, shelfP == 3, blocks == 10, blockP == 10, colour = "red", colourP == "red"
Line 8 : shelf == 3, shelfP == 3, blocks == 10, blockP == 10, colour = "red", colourP == "red"
Line 9 (9 -> 13) : shelf == 3, shelfP == 3, blocks == 10, blockP == 10, colour = "red", colourP == "red"



Question 2.b.ii :

5 10 green

Question 3 :

```
switch(ch)
{
   case '.' : nrFullStops++; break;
   case ',' : nrCommas++; break;
   case ';' : nrSemiColons++; break;
}
```

Question 4 :

```
while(answer == 'Y' || answer == 'N')
{
   if(answer == 'N')
   {
      nonRain++;
      if(!amount) amount = 1;
      else amount *= 2;
   }
}
```

Question 5 :

```
if(ch == 'm' || ch == 'M') cout << "Individual is married" << endl;
else if(ch == 's' || ch == 'S') cout << "Individual is single" << endl;
else if(ch == 'd' || ch == 'D') cout << "Individual is divorced" << endl;
else if(ch == 'w' || ch == 'W') cout << "Individual is widowed" << endl;
else cout << "An invalid code was entered" << endl;
```

Question 6 :

```
void countMoreThan60(int tests[NUM_TESTS], int &nrMoreThan60)
{
    nrMoreThan60 = 0;
    for(int i = 0; i < NUM_TESTS; i++)
    if(tests[i] > 60) nrMoreThan60++;
}
```

Question 7.a :

```
int scores[NUM_PLAYERS][NUM_MATCHES];
```

Question 7.b :

```
int totalScore = 0;
for(int i = 0; i < NUM_PLAYERS; i++)
{
   totalScore = 0;
   for(int j = 0; j < NUM_MATCHES; j++)
   totalScore += scores[i][j];
   cout << "The total score for player " << i + 1 " was " << totalScore << " runs." << endl;
}
```

Question 8 a:

```
void control(int v1, double v2);
double add(double v1, double v2);
void manipulate_date(int &day, int &month, int &year);
int countSpaces(string str);
```

Question 8.b :

```
int f2(int n)
{
   return n * 2;
}
```

Question 8.c :

```
int a;
a = f2(10);
a = f2(a);
```

Question 8.d :

```
int toAmt(int  numFifty, int numTwenty, int numTen)
{
   numFifty = rand() % (numFifty + 1);
   numTwenty = rand() % (numTwenty + 1);
   numTen = rand() % (numTen + 1);
   return numFifty + numTwenty + numTen;
}
```

Question 9.a :

Honda R 99999.00
Honda R 11111.00

Question 9.b :

```
void input_car_record(CarType &new_car)
{
   cout << "Enter brand : ";
   cin >> new_car.make;
   cout << "Enter price : ";
   cin >> new_car.price;
}
```

Question 10.a :

```
string changeSpaces(string senP)
{
  for(int i = 0; i < senP.size(); i++)
  {
    if(isspace(senP[i])) senP.replace(i, 1, "-");
    if(isdigit(senP[i])) senP.replace(i, 1, "*");
  }
  return senP;
}
```

Question 10.b :

14