

Question 1 Source Code:

```
1  #include<stdio.h>
2  #include<stdlib.h>
3
4  int main(){
5      int num = 5;
6      int* myPtr;
7      myPtr = &num;
8      printf("num is stored at: %p\n", &num);
9      printf("myPtr is stored at: %p\n", &myPtr);
10
11     printf("num holds the value: %d\n", num);
12     printf("myPtr holds the value: %p\n", &*myPtr);
13     printf("myPtr points to this value: %d\n", *myPtr);
14     return 0;
15 }
```

Question 1 Sample Output:

```
zhong@JJ-Laptop /cygdrive/c/se185/jaden_burke_quiz07
$ ./q1
num is stored at: 0xffffcc2c
myPtr is stored at: 0xffffcc20
num holds the value: 5
myPtr holds the value: 0xffffcc2c
myPtr points to this value: 5
```

Question 2 Source Code:

```
1  #include<stdio.h>
2
3
4  int main() {
5      int a = 15;
6      int* copy_a;
7      copy_a = &a;
8      a /= 3;
9      *copy_a += 1;
10     if(*copy_a == a) {
11         printf("Copy_a = %d\n" , *copy_a);
12         printf("a = %d\n" , a);
13         printf("Therefore, copy_a = a = %d\n" , *copy_a);
14     }
15     return 0;
16 }
```

Question 2 Sample Output:

```
zhong@JJ-Laptop /cygdrive/c/se185/jaden_burke_quiz07
$ ./q2
Copy_a = 6
a = 6
Therefore, copy_a = a = 6
```

Question 3 Sample Code:

```

1  #include<stdio.h>
2  void examScores(int scores[], int numScores);
3  void examStat(int scores[],double result[], int numScores, int resultLength);
4
5  int main() {
6      int numExams = 30;
7      int resultLength = 5;
8      int midtermScore[30];
9      double result[resultLength];
10
11
12      examScores(midtermScore,numExams);
13      examStat(midtermScore,result,numExams,resultLength);
14
15      printf("Midterm 1 exam average: %.2lf\n",result[0]);
16      printf("Maximum score: %.2lf\n",result[1]);
17      printf("Minimum score: %.2lf\n",result[2]);
18      printf("Number of student fails: %.2lf\n",result[3]);
19      printf("Number of student A's: %.2lf\n",result[4]);
20      return 0;
21  }
22
23  void examStat(int scores[],double result[], int numScores, int resultLength){
24      double avgHolder;
25      double maxHolder = scores[0];
26      double minHolder = scores[0];
27      double failHolder;
28      double AHolder;
29      for(int i = 0; i < numScores; i++){
30          avgHolder += scores[i];
31          if(scores[i] > maxHolder){
32              maxHolder = scores[i];
33          }
34          if(scores[i] < minHolder){
35              minHolder = scores[i];
36          }
37
38          if(scores[i] < 60){
39              failHolder++;
40          }
41          if(scores[i] >= 93){
42              AHolder++;
43          }
44      }
45      result[0] = avgHolder / numScores;
46      result[1] = maxHolder;
47      result[2] = minHolder;
48      result[3] = failHolder;
49      result[4] = AHolder;
50  }
51
52
53  void examScores(int scores[], int numScores){
54      for(int i = 1; i < numScores + 1;i++){
55          printf("Student %d midterm exam score: ", i);
56          scanf("%d" , &scores[i-1]);
57      }
58  }

```

Question 3 Sample Input Output:

```
zhong@JJ-Laptop /cygdrive/c/se185/jaden_burke_quiz07
$ ./q3
Student 1 midterm exam score: 90
Student 2 midterm exam score: 93
Student 3 midterm exam score: 95
Student 4 midterm exam score: 47
Student 5 midterm exam score: 56
Student 6 midterm exam score: 48
Student 7 midterm exam score: 43
Student 8 midterm exam score: 51
Student 9 midterm exam score: 49
Student 10 midterm exam score: 82
Student 11 midterm exam score: 67
Student 12 midterm exam score: 51
Student 13 midterm exam score: 84
Student 14 midterm exam score: 35
Student 15 midterm exam score: 2
Student 16 midterm exam score: 97
Student 17 midterm exam score: 81
Student 18 midterm exam score: 52
Student 19 midterm exam score: 64
Student 20 midterm exam score: 38
Student 21 midterm exam score: 15
Student 22 midterm exam score: 46
Student 23 midterm exam score: 81
Student 24 midterm exam score: 67
Student 25 midterm exam score: 38
Student 26 midterm exam score: 15
Student 27 midterm exam score: 26
Student 28 midterm exam score: 46
Student 29 midterm exam score: 87
Student 30 midterm exam score: 97
Midterm 1 exam average: 58.10
Maximum score: 97.00
Minimum score: 2.00
Number of student fails: 17.00
Number of student A's: 4.00
```