

**REGENT UNIVERSITY**  
COLLEGE OF SCIENCE AND TECHNOLOGY



**EXAMINATION PAPER**

**FIRST SEMESTER EXAMINATIONS**

**LEVEL 100 APRIL 2008**

**COURSE: PRINCIPLES OF PROGRAMMING  
(USING C)**

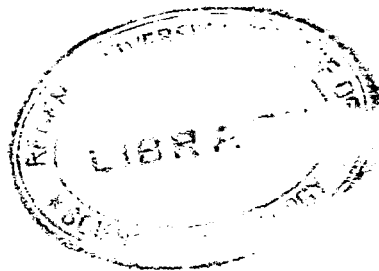
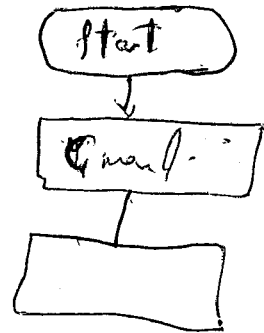
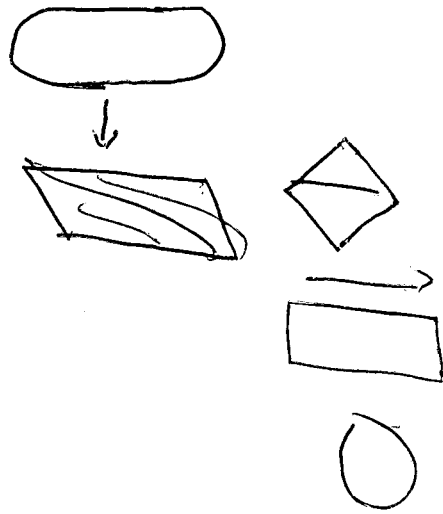
**SICS 151**

**TIME: TWO AND HALF HOURS**

**LECTURER: DAVID BOTWE**

**Please Read ALL Instructions**

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**Section A [30 Marks]**

**Attempt all Questions**

1. In C programs, comments are used to include header files containing information about C libraries. True / False (2 marks)

2. In C, a statement always ends with a semicolon(;). True / False (2 marks)

3. Which of the following are valid variable names? (2 marks)

- a. first.name
- b. amount
- c. my Name
- d. level300

4. Which of the following are valid statements? (3 marks)

- a. int k = 5;
- b. double score = 5.0;
- c. float totalScore;
- d. char name = "David";

5. What is the value of the following arithmetic expressions? (2 marks)

- a.  $(10 - 6) * 8 - 5 = ?$
- b.  $20 + 18 \% 5 = ?$

6. Given the following variable declarations, state whether the statements (a to e) are true or false

```
int x = 5;
int y = 8;
```

- a.  $x * y == 10$
- b.  $(x > y) \ \&\& \ (y < 10)$
- c.  $(x < 3) \ || \ (x < 10)$
- d.  $(x > 3) \ \&\& \ (x < 10)$
- e.  $(x - y) == (y - x)$

7. What does the following code print to the screen? (2 marks)

```
int scores[] = {2, 4, 6, 8, 10};
int sum = 0;
int i;
for (i=0; i<5; i++){
    sum += scores[i];
}
printf("%d", sum);
```

8. What is the output of the following code? (2 marks)

```
char grade = 'D';
switch (grade) {
case 'A':
    printf("Excellent.");
    break;
case 'B':
    printf("Very Good.");
    break;
case 'C':
    printf("Good.");
    break;
default:
    printf("Average.");
}
```

9. Write a for loop that calculates the sum of odd numbers in the range 1 to 100.

(4 marks)