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Course code: SE121, Course title: Structured Programming

Section A - Class Test 2 (Set A)

Time: 30 mins **Full marks: 15**

1. Which loop is best suited when the number of iterations is known in advance? 1
   a) while b) do-while c) for d) if-else
2. What will be the output of the following code?
   ```
   int i=0;
   while(i<=5)
      printf("%d", ++i);
   ```
   1
   a) 1 2 3 4 5 b) 0 1 2 3 4 c) 1 2 3 4 d) None of the above
3. Write a C statement to declare a one-dimensional array of size 5. What will be the index of the first element of the array? 2
4. Identify the error(s), if any, in the following C code snippets and correct them: 4

   a.
   ```
   int i = 1;
   while (i < 5);
     printf(%d", i);
   ```

   b.
   ```
   int arr[5] = {1, 2, 3, 4, 5};
   int sum = 0;
   for(int i = 0; i <= 5; i++) {
      sum += arr[i];
   }
   printf("Sum = %d", sum);
   ```

5. Based on the marks (out of 15) obtained in Class Test 1, I would like to provide feedback using a grade scale (A–C) as follows:
   A: You are a true learner (11-15).
   B: Passed, but needs improvement (6-10).
   C: Failed (0-5).
   For any other input, the default message should be: "Unknown."
   Write a C program that implements the above scenario using a switch-case statement. 3
6. Write a for loop to print all even numbers from 1 to 20. 4

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