



Sri Lanka Institute of Information Technology

B.Sc. Degree
in
Information Technology

Mid-Term Examination
Year 1, Semester 1 (2014)

Computer Programming Techniques and Practices
(N101)

Duration: 1 Hour

Instruction to Candidates:

- ◆ This paper contains 7 questions on 5 pages without the cover page.
- ◆ Answer all questions on this paper itself.
- ◆ Read all questions before start answering.
- ◆ The total marks obtainable for this examination is 100.
- ◆ This is a closed book examination.

- 1) Following table lists the generations of computer programming languages. Complete the table for the programming language and level columns. (15 marks)

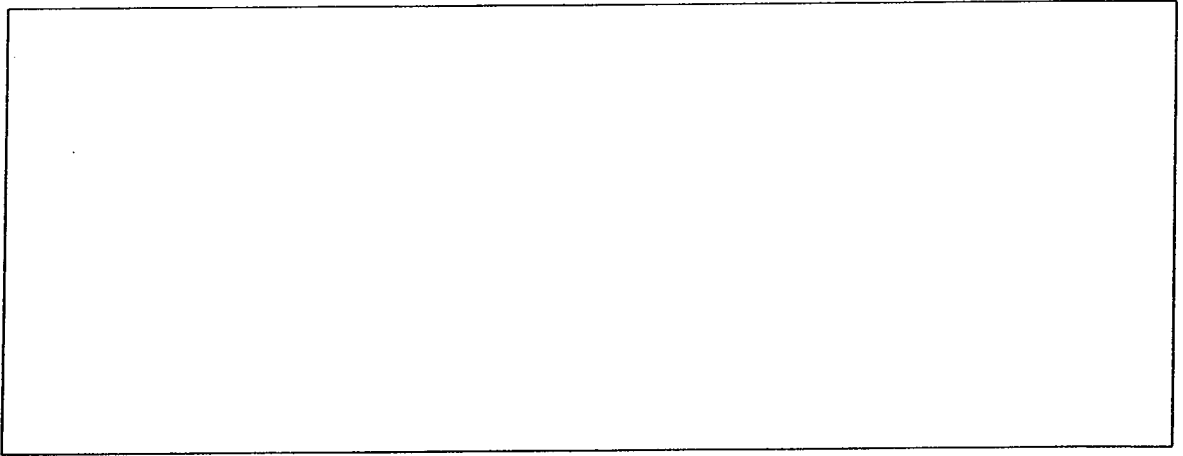
Generation	Programming language	Level
1 st		
2 nd		
3 rd		
4 th		
5 th		

- 2) Explain what are 5th generation languages by giving an example. (6 marks)

- 3) What are the main tasks of a compiler? (6 marks)

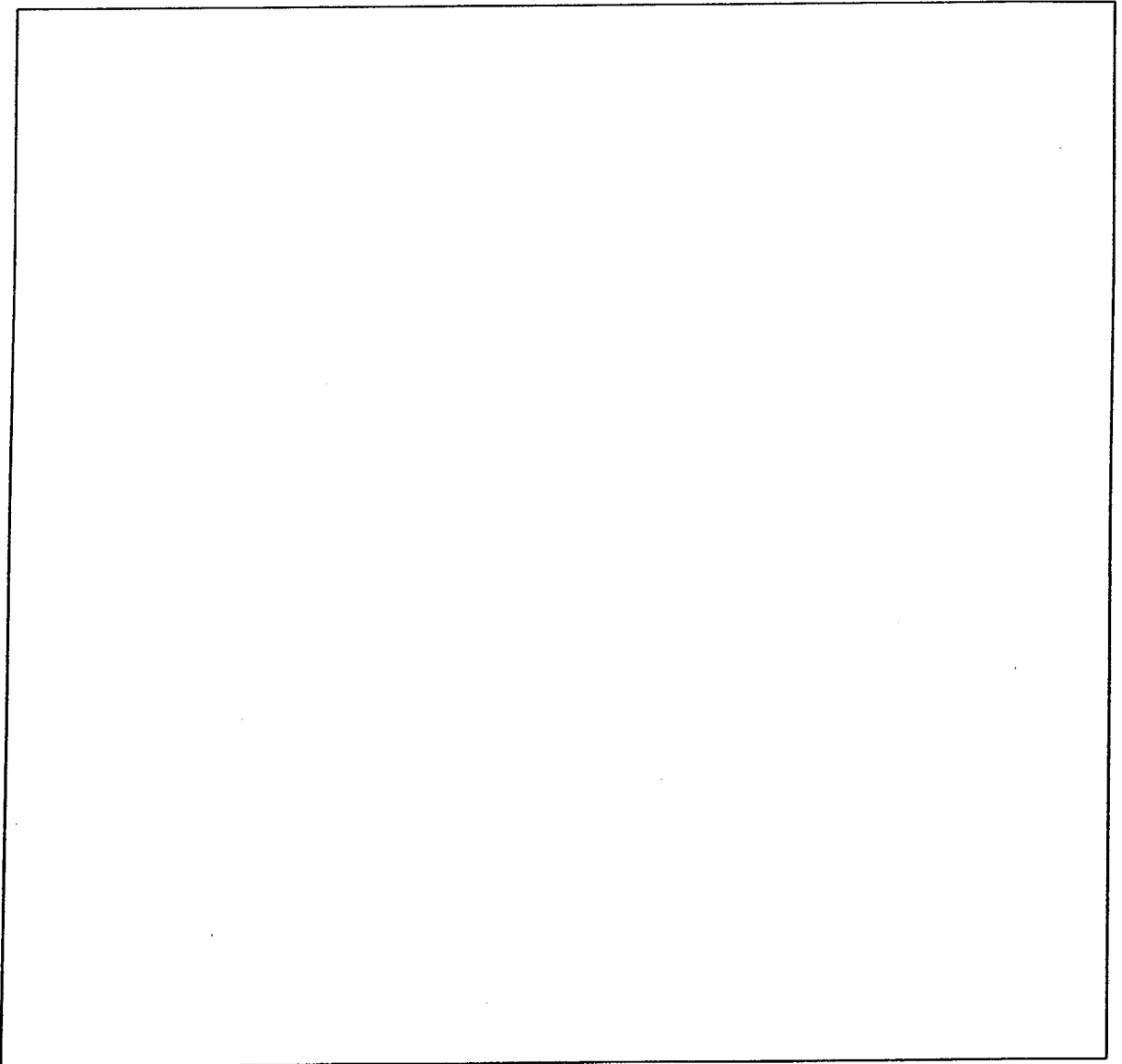
a) Draw the defining diagram for the above scenario.

(10 marks)



b) Write the solution algorithm for the above scenario.

(17 marks)



c) Desk check the solution algorithm for the following two test cases.

(12 marks)

	Test case 1	Test case 2
year	2000	2002
message	Leap year	Not a Leap year

- 7) A novel programmer has written the following algorithm in order to print the square numbers starting from 1 to 25 (1, 4, 9, 16, 25).

```
Square_Numbers
  Integer a, b
  a=1
  b=3
  While ( a <= 36) Do
    Display a
    A=a+b
    B=b+1
  End While
End
```

Desk check the above algorithm and decide whether the algorithm gives the expected result.
(12 marks)