

Documentation Research and Training Centre,  
Indian Statistical Institute  
Paper 5: Foundations of Computer and Information Technology  
1<sup>st</sup> Semester Examination

Time: 10 am – 1 pm

Total Marks: 100

Answer any FIVE Questions. All questions carry equal marks

1. Write a *Bourne-again shell* program to print
  - a) first 10 Fibonacci numbers.
  - b) First 10 odd numbers
2. For a simple library circulation system, define minimum tables and write an SQL program that prints users who did not return books within 15 days of issue.
3. Explain regex with illustrations
4. Describe various join clauses in SQL with examples the.
5. Explain briefly various classes of IP address, including private Ips and subnetmask.
6. Write Short notes on the following concepts of UNIX
  - a) Redirection
  - b) Environment Variables
7. Write Short notes on the following concepts of UNIX
  - a) Unicode & ASCII
  - b) UNIX directory structure

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