Reg. No. : ....

Name : ....

M 8770

III Semester B.Sc. Degree Examination, November 2010
MATHEMATICS (Core) (Course – 3)
3B03MAT : Informatics

Time : 3 Hours   Maximum Weightage : 30

1. Fill in the blanks :

   i) An ———————— port is used to connect the computer to a network.

   ii) ———————— is a type of website that allows the change of content by a visitor.

   iii) Environmentally sustainable computing or IT is known as ————————

   iv) LISP uses the ———————— as its fundamental representation for function definition.   **(Weightage 1)**

2. Choose the correct answer :

   i) Which of the following is not a list making environment in LATEX ?

      a) Itemize   b) Enumerate   c) Description   d) Subsection

   ii) A device that transfer packets of data between two or more networks

      a) Switch   b) Gateway   c) Router   d) Bridge

   iii) Which of the following is not a social network ?

      a) Orkut   b) Myspace   c) LinkedIn   d) Bhoomi

   iv) Which is not an arithmetic operator in scilab ?

      a) +   b) ^   c) /   d) \   **(Weightage 1)**

Answer **any five** questions from the following (Weightage **one each**) :

3. Explain WWW.

4. What are the advantages of microwave technology ?

5. Differentiate between system software and application software.

6. Differentiate between data and information.

7. What are the disadvantages of cable internet ?

8. What are spams ?

9. Explain the different constants used in scilab.

10. How will you include graphics from other files in LATEX ?   (Weightage 5×1=5)

Answer **any seven** questions from the following (Weightage **two each**) :

11. Explain ISDN. What are its advantages ?

12. What is plagiarism ?

13. Write a short note on wireless technology.

14. Explain virtual reality in detail.

15. How will you create lists in LATEX ? Explain with example.

16. Explain the functions and libraries in scilab.

17. Illustrate the 2D and 3D plotting techniques in scilab.

18. Briefly explain Linux OS and Linux distributions.

19. Explain the search techniques used for academic purposes.

20. Explain the problems related with e-waste. What are the methods for minimising e-waste ?   (Weightage 7×2=14)

Answer **any three** questions from the following (Weightage **three each**) :

21. What are the functions of operating system ? Explain the different categories of operating systems in detail.

22. Explain the importance of IT in education.

23. Explain the different computer threats. What are the security measures used to prevent these threats ?

24. Explain the features of expert systems. Give two examples of its application.

25. Create a LATEX document which displays all the steps involving the solution of a quadratic equation $ax^2 + bx + c = 0$.   (Weightage 3×3=9)