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FIRST SEMESTER M.Sc. DEGREE EXAMINATION FEBRUARY 2013

(CUCSS)

Environmental Science

ES 1C 04 – STATISTICAL COMPUTING

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

Answer **all** *questions.*

Each question carry 1 *weightage.*

1. Write important types of computer hardware.

2. Write four specific types of application software.

3. Write two RAM technologies used in PC.

4. Name the four areas that are created on a magnetic disk.

5. Name the primary types of magnetic storage.

6. Give names of diagrams which are two dimensional.

7. Name important measures of central values.

8. Name different measures of dispersion.

9. Define a simple or elementary event.

10. Define independent events.

11. Define an estimator.

11. Define an estimator.

12. Write two examples of basic data types in C.

13. What is meant by selection?

14. What is the purpose of break statement?

(14 × 1 = 14 weightage)

Turn over

Part B

*Answer any **seven** questions.*
Each question carry 2 weightage.

15. Write two reasons why computers use the binary number system.

16. Why the process of starting a computer is called booting?

17. Explain why DOS is no longer the dominant operating system for personal computers

18. Write the main uses of power point.

19. Explain in brief a histogram.

20. Discuss intersection of events.

21. Define null and alternative hypothesis using an example.

22. Discuss the Chi-square test of independence of two events.

23. What do you understand by analysis of variance?

24. Describe two different ways to utilize the increment and decrement operators.

$(7 \times 2 = 14$ weightage$)$

Part C

*Answer any **two** questions.*
Each question carry 4 weightage.

25. Write a program in C to find the variance of n numbers.

26. Discuss the models for Environment Impact Analysis.

27. The Turbine Oil Oxidation Test (TOST) and the Rotating Bomb Oxidation Test (RBOT) are two different procedures for evaluating the oxidation stability of steam turbain oils. The accompanying observations on X = Tost time (hr) and Y = RBOT time (min) for 11 oil specimens has been reported:

TOST : 4200 3600 3750 3675 4050 2770 4870 4500 3450 2700 3750

RBOT : 370 340 375 310 350 200 400 375 285 225 345

Calculate and interpret the value of the sample correlation coefficient.

28. A manufacturer of dry cells claimed that the life of their cells is 24.0 hours. A sample of 10 cells had mean life of 22.5 hours with a standard deviation of 3.0 hours. On the basis of available information, tests whether the claim of the manufacturer is correct. Tabled value at 5% level is 2.2623.

$(2 \times 4 = 8$ weightage$)$