# M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2022 <br> SEMESTER 1 : ENVIRONMENTAL SCIENCE COURSE : 21P1EVSTO2 : RESEARCH METHODOLOGY I <br> (For Regular - 2022 Admission and Supplementary - 2021 Admission) 

## PART A

Answer any 8 questions

1. Explain the term "Generation of Computers".
2. Name the types of commands in DOS.
3. What are different measures of dispersion?
4. Define primary data and secondary data.
5. What is Internet. Explain the working of Internet.
6. Define

- Algorithm
- Flowchart

7. How do we calculate median from ungrouped frequency
(U, CO 1)
distribution?.
8. Briefly explain 'Statistical hypothesis'.
9. What are microcomputers? How are they classified?
10. State the multiplication theorem of probability.

## PART B

Answer any 6 questions
Weights: 2
11. Explain the different types of $h / w \& s / w$ ?
12. Distinguish between sampling errors and non-sampling errors.
13. What is the need of protocols? Which are the different types of protocols?
14. What difference does the 5th generation computer have from other generation computers?
15. What are the different measures of vital statistics?
16. Define Powerpoint. Explain how to create a slide show in PowerPoint.
17. Find mean, median and mode for the following data $40,50,30,20,25,35,30,30,20,30$
18. What do you mean by analysis of variance?. Give its assumptions.

## PART C <br> Answer any 2 questions

## Weights: 5

19. What is a Computer Program? List out the desirable characteristics of a good program.
20. Write a short note on various secondary storage devices.
21. The following table gives the yields of wheat in 22 best plots which are given two different fertilizers. Test whether the fertilizers are equal in their effects.(for $5 \%$ level of signinificance table value is 2.086)
Fertilizer I : $9 \quad 7 \quad 6 \quad 5 \quad 8 \quad 12 \quad 101413 \quad 813$
Fertilizer II : $7 \times \begin{array}{llllllllll}7 & 4 & 5 & 4 & 5 & 10 & 12 & 15 & 9 & 8\end{array}$
22. In the recently concluded exhibition, the child health care department conducted psychological test
of intelligence of arthmetical ability on 10 children. The record showing intelligence and arthmetic ratio is as given below. Calculate the Pearson's coefficient of correlation
Child: A B C $\quad$ D $\quad$ E $\quad$ F $\quad$ G $\quad$ H $\quad$ I $\begin{array}{lllllllllll}\text { I.R: } & 105 & 104 & 102 & 100 & 100 & 99 & 98 & 96 & 93 & 92\end{array}$
$\begin{array}{lllllllllll}\text { A.R: } & 101 & 103 & 100 & 98 & 95 & 96 & 104 & 92 & 97 & 94\end{array}$
$(5 \times 2=10)$

OBE: Questions to Course Outcome Mapping

| CO | Course Outcome Description | CL | Questions | Total <br> Wt. |
| :--- | :--- | :--- | :--- | :--- |
| CO 1Calculate and apply measures of central tendency and measures of <br> dispersion for grouped and ungrouped data and to analyse <br> demographic data | A | $4,7,12$, <br> 17 | 6 |  |

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;

