Reg. No ....   Name **24P1041**

M.Sc. DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024
SEMESTER 1 : AQUACULTURE AND FISH PROCESSING
COURSE : **21P1AQCT03 : BIOSTATISTICS AND COMPUTER APPLICATION**
(For Regular 2024 Admission and Improvement/Supplementary 2023/2022/2021 Admissions)

Duration : Three Hours   Max. Weights: 30

PART A
Answer any 8 questions   Weight: 1

1.	Define fraction defective charts.	(U, CO 1, CO 2, CO 3)
2.	Define Bionomial distribution. What is its mean and variance.	(U, CO 1, CO 2)
3.	Define LAN and WAN.	(U, CO 4, CO 5)
4.	Define standard deviation. How it is different from mean deviation?	(U, CO 1, CO 2)
5.	What is 'Coefficient of Correlation.'	(U, CO 1, CO 2)
6.	Explain Snedecor's F-statistics.	(A, CO 1, CO 2)
7.	Explain length -weight relationship in fishes.	(E, CO 1, CO 2)
8.	What is the importance of normal distribution in statistics?	(U, CO 1, CO 2)
9.	Explain Global Positioning System.	(U, CO 3, CO 4, CO 5)
10.	Define levels of significance.	(A, CO 1, CO 2)

(1 x 8 = 8)

PART B
Answer any 6 questions   Weights: 2

11.	Distinguish between process control and product control in statistical quality control. Explain the different control charts for attributes.	(E, CO 1, CO 2, CO 3)
12.	Describe the basic principles of experimentation.	(U, CO 1, CO 2)
13.	What do you mean by hard disk? Explain its characteristics.	(A, CO 4, CO 5)

14. Find Karl Pearson's coefficient of correlation for the following data   (An, CO 1, CO 2)

X	15	17	10	18	8	7	13	11
Y	5	9	13	9	15	16	10	17

15. A populations contains 30% males and 70% females. If a sample of five is drawn from this population, what is the probability that: (An, CO 1, CO 2)
    (a) all of them will be females
    (b) 3 will be females and 2 males

16. The length-frequency data of 100 fishes are given below. Calculate Median   (An, CO 1, CO 2)

Length (in cm) class	3-6	8-13	13-18	18-23	23-28	28-33	33-38
Frequency	6	14	17	30	18	10	5

17. Define addition theorem of probability.   (A, CO 1, CO 2)

18. Explain the uses of Photoshop.   (U, CO 4, CO 5)

(2 x 6 = 12)

PART C
Answer any 2 questions   **Weights: 5**

19. Write an essay on measures of central tendencies. Discuss their various merits and demerits.   (E, CO 1, CO 2)

20. Explain the procedure of testing of hypothesis along with the statistical terms involved in it.   (A, CO 1, CO 2)

21. Explain characteristics, generation and types of computers.   (U, CO 4, CO 5)

22. Calculate Karl Pearson's coefficient of correlation between export and landings of fish from the following data   (An, CO 1, CO 2)

Landings (tons)	39	65	62	90	82	75	25	98	36	78
Export (tons)	24	53	58	86	62	68	16	91	28	64

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Application of statistical tools for experimental practices	An	1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 19, 20, 22	35
CO 2	Basic awareness on statistical tools in research and analysis of biological phenomenon	An	1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 19, 20, 22	35
CO 3	Computer knowledge are imparted as applicable to aquaculture practices	An	1, 9, 11	4
CO 4	Computer knowledge at preliminary level for further studies	U	3, 9, 13, 18, 21	11
CO 5	Appropriate use of internet and communication system	U	3, 9, 13, 18, 21	11

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