

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: I (New)	Term	: First	Academic Year	: 2023-24
Course No.	: II/STAT 111	Title	: Elementary Statistics and Computer Application		
Credits	: 3 (2+1)				
Day & Date	: Thursday, 18.01.2024	Time	: 10:00 to 13:00 hrs.	Total Marks	<u>80</u>

- Note :**
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 a) Give probability density function of Normal Probability Distribution with specifications of terms used. State its any four properties.
- b) Give probability density functions of Poisson Probability Distribution and Binomial Probability Distribution.
- Q.2 Prepare data table, calculation of Sum of Squares and ANOVA table of randomized complete block design with 't' treatments each replicated 'r' times.
- Q.3 a) What do you mean by Measures of central tendency? What are the merits and demerits of Arithmetic Mean?
- b) Define Harmonic Mean and Geometric Mean. Give formulae for calculating these two measures for continuous frequency distribution.
- Q.4 a) What do you mean by Correlation? List the types of correlation and methods of studying correlation.
- b) State model and prepare layout of two factor factorial experiment, where factor A having three levels and factor B having two levels (for layout consider three replications).
- Q.5 a) Draw block diagram of a 'Computer'.
- b) Write features of 'Word processing software'.
- Q.6 a) State five different steps followed in testing a hypothesis. What is Type I error and Type II error?
- b) Differentiate between Split-plot Design and Strip-plot Design.
- Q.7 Write short notes on (Any Four):
- a) χ^2 test for the 2 x 2 contingency table
 - b) Internet
 - c) Measures of dispersion
 - d) Latin Square Design
 - e) Web browser with suitable example
 - f) Spearman's rank correlation coefficient
 - g) Random sampling

(P.T.O.)

- Q.8 a) List out custom animation used in MS-Power point for "Entrance" listed under add effects (Any Four).
b) Write names of inbuilt 'statistical functions' in MS-Excel (Any Eight).
- Q.9 a) What are the limitations of 'Statistics'? List out the different methods of sampling.
b) What is Classification? State addition and multiplication theorem of probability.
- Q.10 a) What is Operating system? Enlist the functions of operating system.
b) Enlist the types of computer based on size. Explain Personal Computers.

SECTION 'B'

Q.11 Choose the correct answer-option:

- 1) The geometric mean of 0,1,2,3 and 4 is _____.
a) 2 b) 2.5 c) 0 d) None of these
- 2) The value of probability lies in between _____.
a) -1 and +1 b) 0 and +1 c) -1 and 0 d) $-\infty$ and $+\infty$
- 3) The probability of getting even number, if an unbiased die is rolled once, is _____.
a) 2, 4, 6 b) 0.1667 c) 0.3333 d) 0.50
- 4) Equality of variance of two populations is tested by _____.
a) t-test b) Chi-square test c) F-test d) None of these
- 5) Interaction effect can be determined in _____ Experimental Design.
a) CRD b) RCBD c) LSD d) Split-Plot Design
- 6) Standard Deviation of Standard Normal Distribution is always _____.
a) less than 0 b) greater than 1 c) 0 to 1 d) None of these
- 7) The first page of a website is called the _____.
a) Home page b) Net page c) Website d) Information page
- 8) EPROM stands for _____.
a) Erasable Programmable Read-only Memory b) Error Programmable Read-only Memory
c) Erasable Problem Read-only Memory d) Error Problem Read-only Memory

Q.12 Define the following terms (without formula):

- | | |
|------------------------------|----------------------------------|
| 1) Sample | 2) Standard error |
| 3) Dependent events | 4) Model in design of experiment |
| 5) Mutually exclusive events | 6) Degrees of freedom |
| 7) Statistic | 8) Experimental unit |

