AGIB

- Fillup/mcq → Formulae. ~~419~~
- 1st central moment
- 2nd central moment
- formula based numerical (F/M)

- Mean
- mode
- median
- Variance.
- null hypothesis
- Cammulative frequency.
- Relation b/w mean, mode, median
- ~~statistic~~ statistic
- statistics
- null hypothesis
- Skewness.
- Kurtosis

(d) - Biostastistics.

- Measure of central tendency (S/N) or major
- Measure of dispersion. (S/N)
- Probability (d)
- non parametric test (d)/F/M.
- Composite hypothesis (d)
- laplace's law (S/N)

- Types of diagram

- Lepto ($\beta_2 > 3$) → Highest
- Meso ($\beta_2 = 3$)
- platy ($\beta_2 < 3$) → lowest

- Scientist और
- Range
- formulae

Fillup/MCQ

→ Test of Significance.

steps ✗ Application

- z test
- t test
- f test
- Anova

— major.

Difference b/w correlation & regression

— Diff. b/w CRD & RBD

- χ^2 test (major) — properties, Assumption, Application. [goodness of fit]

★ Example of +ve & -ve correlation

Range of correlation ⇒ -1 to +1

$r = \sqrt{b_{xy} \cdot b_{yx}}$ (F/M)

[Correlation]

(F/M) - no. of experiment more → RBD
Data missing → CRD]

F/M Degree of freedom = $N - K$

N = no. of observation

K = no. of constraints

AGB Fill/mcq

Date

Expt. No.

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1. father of statistics → by Ronald Fisher
2. rows and columns in data → tabulation
3. b/w mean and median, mode → mode = 3 median - 2 mean
4. measures of dispersion have → unit less.
5. measures of central tendency have min G.M
6. median can be computed using → o-give
6. mode can be computed from → histogram
7. Pie-diagram or sector diagram → degree
8. 1-D - length, 2-D area 3-D volume
9. Symmetrical distribution → Am = median = mode
10. mode used in - business.
11. The sum of the deviations of the variate values from the mean → zero
12. H.m used from - speed data
13. A.m > mode > median > w.m > G.m → सबसे छोटा
सबसे बड़ा
14. Some of deviation of mean is always - zero
15. SD > MD → more accuracy in used → S.D
16. Square mean deviation → variance
17. Root mean square deviation → S.D
18. The mean of these absolute deviation is called
↳ mean deviation
19. First moment about the origin → A.m
20. First order moment about mean - zero
21. 2 → moment of dispersion = variance (S.D)²
22. 3 → " = skewness
23. 4 → " = kurtosis.
24. degree of asymmetry = skewness
25. Flatness of mode = Kurtosis
26. Curve shaped = bell shaped.

Teacher's Signature

27. mesokurtic → Normal curve, $\beta_1 = 0$, $\beta_2 = 3$, $\gamma_1 = 0$

28. Fn. a normal distribution. $\beta_1 = 0$, $\beta_2 = 3$

29. Null hypothesis. name

30. the 1 and 3 moments. about mean are =

31. χ^2 test rang form 0 to ∞ and always +ve

32. χ^2 test is a non-parametric test.

33. Freq. curve by normal distribution =

34. Correlation of Rang → −1 to +1, unit less

35. Regression of Rang − −∞ to +∞. unit of variable

36. A _____ is a circle divided into portions that represent the relative freq. or percentages of a popu. or a sample belonging to different categories.

37. the value of chance that is used to provide lines of demarcation b/w acceptance and rejection of null hypothesis is known as Level of Significant

38. t-test is applied for comparison, when sample size is small and population parameters is know

39. When two samples are related with each other the mean of these samples can be compared using _____ t-test test statistics.

40. the Correlation coefficient measures the strength of the linear relationship b/w two variables.

41. Regression can be defined as the measure of change in the dependent variable per unit change in the independent variable

42. the value of χ^2 will always be → +ve

43. Critical diff is used for the identification of → comparison of treatment means

44. test of significance of regression coefficient can be test with → t-test; z-test

45. Presence of linkages in dihybrid inheritance can be test. Chi-square test

College of Veterinary and Animal Science
Rajasthan University of Veterinary and Animal Sciences, Bikaner
2nd B.V.Sc. & A.H. 1st Internal Assessment Theory Examination – 2023
Subject: Animal Genetics & Breeding

Date: 12-07-2023 **Time: 02:00 to 03:00 PM** **Total Marks: 40**

Q.1. Fill in the blanks **(20x0.25=05)**

i. Pin.....maps are suitable when the data are changing fast and diagram is required to be kept up to date.

ii. Polar.....diagrams are used when frequencies of occurrence of any event in different hours of the day are given.

iii. ....cf.....needs to be calculated to draw an ogive curve.

iv. Cumulative frequencies are calculated in computation of...median

v. ...HM/GM...is suitable measure of central tendency for rates of changes in ratios.

vi. ...MD.....has minimum value when it is calculated about the median.

vii. ...Leptokurtic...is the symmetry of frequency distribution curve when $\beta_2 > 3$.

viii. R.A. Fisher...the famous statistician who gave the term null hypothesis.

ix. The value of chi-square ranges between...0 to ∞...

x. (m-1)(n-1)...is the formula for degree of freedom in mxn contingency table.

(xi.) I. Central..... moment is always zero.

xii. The number of blocks and replications are..equal...in case of RBD.

xiii. In..perfect positive.....correlation the value of r =1.

xiv. The formula for correlation coefficient in term of regression coefficient is expressed as....√bxy..by x

xv. √npq...is the standard deviation for a binomial distribution.

xvi. When the values of known quantitative character are near the average..purposive. sampling is used.

xvii. .ANOVA.....table is used to test the homogeneity of more than two sample means.

xviii. To determine tabulated value of f-test of hypothesis n_1 is the degree of freedom for sample with ..higher..variance.

xix. .....one.....way ANOVA is used in complete randomized design.

xx. Poisson distribution is used for ..rare.....events.

Q.2. Choose the right option **(20x0.25=05)**

i. The preferred measure of central tendency in business is

a. Mean
b. Median
c. Mode
d. Harmonic mean

ii. The graphical representation of a time series is known as.....

a. Histogram
b. Historigram
c. Ogive curve
d. None

iii. The measure of central tendency i.e. used when data are qualitative type

a. Mean
b. Median
c. Mode
d. Geometric mean

iv. When X is added in each variate the new standard deviation of the data series will be

a. SD+X
b. SD*X
c. SD-X
d. No change

v. Which is the comparative measure of dispersion

a. SD
b. Variance
c. CV
d. None

vi. The per cent area under curve between $\mu \pm 1\sigma$ ordinates for a normal distribution is

a. 68.27
b. 68.55
c. 95
d. 99

vii. Which of the following is NOT a measure of central tendency?

a. Mean
b. Median
c. Mode
d. Range

viii. Find the median in the following numbers: 36, 38, 33, 32, 30, 34, 35

30 32 33 34 35
36 38

a. 34
b. 55
c. 45
d. 35

ix. Which test of significance is applied on enumeration statistics?

a. z-test
b. t-test
c. F test
d. Chi-square test

x. Individuals or items are classified on the basis of.....characteristics

a. Numerical
b. Descriptive
c. None
d. Both

Q.3 State whether the following statements are true or false: (10× 0.25 = 2.5)

i. Arithmetic mean is a widely used measure of central tendency. – T
ii. Harmonic mean has a bias towards higher values. – F
iii. Standard deviation is not affected by change of scale but affected by change of origin. – F
iv. Paired t-test is used for comparing the mean difference of two samples with zero. – T
v. Yates correction for continuity is used when the cell frequency is <5 in case of a chi-square distribution. – T
vi. Type II error is more serious in a test of hypotheses. – F

vii. When the value of a test statistic lies in critical region the null hypothesis is accepted. – F

viii. Missing plot technique is used in CRD. – F

ix. Normal distribution is the limit of binomial series. – F

x. James Bernoulli is the scientist associated with normal distribution. – F

Q.4 Define the following: **(6×2 = 12)**

i. Biostatistics
ii. Laplace's 2nd principle
iii. Composite hypothesis
iv. Standard error
v. Degrees of freedom
vi. Null Hypothesis

Q.5 Write down the differential points for following: **(3×3= 9)**

i. Correlation and Regression
ii. Binomial distribution and Poisson distribution
iii. CRD and RBD

Q.6 Describe in detail. **(1×9 =9)**

i. Write down the procedure for test of significance in detail where more than two sample means are under consideration.

→ Test of significance.

Null = $\bar{X}_1 = \bar{X}_2 = \cdots = \bar{X}_n$