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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (BT) (2018 Batch) (Sem.-3)

BIostatISTICS

Subject Code : BTBT301-18

M.Code : 76945

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Answer briefly :**

1. What is Frequency Distribution?
2. What is Cluster Sampling?
3. Write the definition of Range.
4. What is Cumulative Frequency?
5. What is Uniform Distribution?
6. Write the difference between population and sample.
7. Which tests are used to compare means?
8. Name 4 parametric test for hypothesis testing.
9. Define Skewness and Kurtosis?
10. What is Biostatistics?

SECTION-B

11. Determine the binomial probability of getting 4 heads and 6 tails when 10 coins are tossed.
 $P(H) = P(T) = 0.5$
12. Determine the arithmetic mean, median, mode and standard deviation and range of the following data values : 7, 4, 4, 3, 10.
13. If, in a binomial population, $p = 0.22$ and $n = 5$, what is the probability of $X = 4$?
14. In a study it was found that 20% people wear spectacles. Using binomial probability find the probability that 3 individual in a sample of 8 wear spectacles.
15. With the help of an example define data on a nominal scale.

SECTION-C

16. Four different treatments are given to four groups of patients and we wish to test whether these treatments have had an effect on the Hb levels in the blood. Random samples of size 7 each were taken from all the groups and Hb levels were observed after one month. Perform single factor ANOVA to find whether Hb levels are same for all the four groups. The total sum of squares was found to be 34.6872 and groups sum of squares was 12.8929.
17. Mean weight change (weight after exercise minus weight before exercise (in g)) of twelve rats after regimen of forced exercise is -0.65 g while the variance of weight change is 1.5682 g^2 . Perform a two-tailed test for significant difference in weight change where the hypothesized weight change is zero at 0.05 level of significance.
18. Differentiate between population and sample. Also explain random sampling.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.