statistical Tech.

P32/P131/CMP221/EE/20180624

Time : 3 Hours   Marks : 80

Instructions :

1. All Questions are Compulsory.

2. Each Sub question carry 5 marks.

3. Each sub question should be answered between 75 to 100 words. Write every questions answer on separate page.

4. Question paper of 80 Marks, it will be converted in to your programme structure marks.

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1. Solve any **four** sub-questions.

    a) Write note on scales of **measurement**.   5

    b) What are the merits and **demerits** of median?   5

    c) Explain Coefficient of **Variation** (C.V).   5

    d) There are 40 white balls & 50 black balls in an urn 20% of white balls are 10% of black balls is marked. A person tossed a fair coin. If coin shows head he selects a ball from white balls. Otherwise he selects a ball from black balls. What is the probability that he selected ball is marked?   5

    e) Give examples of discrete random variable.   5

2. Solve any **four** sub-questions.

    a) Explain paired t-test for dependent samples.   5

    b) Define Null hypothesis and Alternative hypothesis.   5

    c) What are the features of **normal** distribution.   5

    d) Write Baye's theorems on probability.   5

    e) What are the properties of correlation coefficient 'r'.   5

3   Solve any four sub questions.

a) What are the properties of central moments?   5

b) Write limitations of statistics.   5

c) What are the advantages of tabular presentation?   5

d) Show that the following distribution of patients according to type of disease.   5

Disease	GI	Chest	ENT	Diabetes	Heart	Total
Number	293	260	110	700	40	2030
Gender	17	10	13	26	2	100
Angle(°)	49.9	35.1	35.9	94.4	6.7	360

e) State the merits and demerits of Arithmetic mean.   5

4   Solve any four sub questions.

a) Arithmetic mean.

b) What are the measures of skewness?

c) State and explain the operation of Limited/Non factor tests.

d) A milk producer... claims his milk contains on average 1000 gm total undialized solute per litre. This is checked and records of 8 selected bags were 1005, 99, 985, 995, 998, 102, ... the data support the claims that average would range 1000 gm 29.0 %.

e) Give explicit definitions of statistics.

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