Statistical tech- Sem2 P32 statistical sem-2

P30/P32/CMP221/EE/20190206

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.

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

   a) Write properties of CDF of continuous RVX. 5

   b) What are merits and demerits of standard deviation? 5

   c) What is the meaning of G.M (Geometric Mean)? 5

   d) Explain component Bar Diagram. 5

   e) What are the requirements of a good statistical table? 5

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

   a) What is the scope and importance of statistics? 5

   b) Write tests based on Chi-square distribution. 5

   c) Define mode write merits and demerits of mode. 5

   d) How to classify data? 5

   e) What is critical Region and Acceptance Region? 5

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

a) The CDF of a r.v.x is given below. Using it obtain 5

i) pmf of x

ii) $p(x \leq 2)$

iii) $p(x \leq 4)$

iv) $p(x > 4)$

v) $E(x)$ and $v(x)$

x	1	2	3	4	5	6
$f(x)$	0.08	0.26	0.50	0.68	0.93	1.00

b) Write note on counting techniques. 5

c) What are tests for variances? 5

d) Define continuous random variable. Give suitable examples. 5

e) In which situations regression equations can be applied. 5

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

a) What is the meaning of conditional probability? Write multiplicative law. 5

b) Explain Inclusive and Exclusive method of frequency distribution. 5

c) Explain uniform distribution. 5

d) Write note on union and intersection of events. 5

e) Write applications of correlation in various fields. 5

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