Duration :- 2.30 Hrs

V625NQM19

F4BCBI - Quantitative Methods

Maximum Marks : 75

Note : 1) Use of simple calculator is allowed.
2) Graph paper is provided on demand.

Q.1 a) **Fill in the blanks. (Any 8)** **08 M**

1) _____ can be found using Histogram.
[Mean, Mode]

2) _____ data is available very easily.
[Primary, Secondary]

3) Find mode if 5,6,7,8,6,4 is the data, z = _____.
[8,6]

4) Percentile means _____parts of data.
[10, 100]

5) The difference between the highest value & lowest value is called _____.
[Range, Mean]

6) Correlation can not be more than _____.
[1,5]

7) Formula of Rank Correlation is given by _____.
[Karls Pearson, Spearsmen]

8) There is _____ probabilities in a coin.
[2,4]

9) Regret means _____ table.
[Profit, Loss]

10) The amount which we pay to Insurance Company is called _____.
[Premiums, Claim]

Q.1.B) **True or False. (Any 7)** **7 M**

1) Primary data is the very lengthy in collecting.
2) Mode means highest repeated data.
3) Root of variance is standard deviation.
4) Correction factor is calculated when data is repeated in Rank Correlation.
5) Karl Pearson has given rank correlation formulae.
6) Fisher is the only person to give Index Numbers formula's.
7) Probability of any event can be more than 1.
8) EOL, is a loss.
9) The sum assured is the amount we get at the time of event of loss.
10) Annual premium is better to apply for a policy.

Q.2.a) Find the mode of following data **8 M**

C.I	0-10	10-20	20-30	30-40	40-50
F	4	7	8	6	5

b) Draw Less than ogive **7 M**

C.I	0-20	20-40	40-60	60-80	80-100
F	2	18	42	28	5

OR

c) Find Q.D. & C.Q.D. 8 M

C.I	0-40	40-80	80-120	120-160	160-200
F	8	10	12	15	5

d) Find standard deviation. 7 M

C.I	0-10	10-20	20-30	30-40	40-50
F	2	3	5	6	4

Q.3.a) Find Karl Pearsons correlation. 8 M

x	8	10	12	9	5	4
y	1	13	15	10	6	5

b) Calculate two regression equations. 7 M
$\bar{x}=50$, $\bar{y}=20$, S.D(x) = 5, S.D (y) = 4, r = 0.8

OR

c) Two unbiased coins are tossed. Find the probability of getting. 8 M
i) At least one head up
ii) At most one head up.

d) Find E.M.V. for the following data. 7 M

State of Nature	Courses of Action				Prob.
	A_1	A_2	A_3	A_4	
S_1	40	70	60	50	0.4
S_2	50	60	70	80	0.3
S_3	70	50	40	30	0.2
S_4	60	40	30	50	0.1

Q.4.a) Find I_L, I_P, I_F, I_{DB} if
$\Sigma p_1q_0 = 375$, $\Sigma p_0q_0 = 220$
$\Sigma p_1q_1 = 490$, $\Sigma p_0q_1 = 290$

b) Find cost of living Index Numbers 7 M

COM	A	B	C	D
I	123	134	119	128
W	40	50	70	40

OR

c) Mr. Dheeraj, had a policy of Rs.200000. after paying 6 annual premiums at the rate of 32 per thousand, he surrendered the policy. Surrender value is 30% granted by company, Excluding first years premium. Find surrender value. 8 M

d) A person wished to take life insurance policy for 1,00,000 at Rs.40 per thousand. Discount Rs. 2 allowed if annual policy is selected. Find the premium. [annual] 7 M

Q.5. Write Short Note. 15 M
1) Merits of Mean
2) Primary data
3) Scatter Diagram
4) Mutual Events
5) Course of Action

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