EXAMINATION MATERIAL ZUEB - 2022

BUSINESS STATISTICS XII

SECTION "C"
EXTENDED RESPONSE QUESTION (ERQ'S)

02)   Presentation of Data:

Question no.01:

The following data shows the purchase price of a particular item during 30 week:

65.7	59.4	53.6	69.1	43.9	77.7	56.7	65.3	95.5	64.2
48.8	72.1	66.6	51.3	75.4	44.1	67.6	53.4	55.4	67.8
49.2	81.7	54.9	94.8	62.6	72.1	67.1	41.8	88.3	69.1

a)   Construct a frequency distribution, taking 10 as the size of the class interval with first class interval as 40.0 – 49.9.
b)   Find Class Boundries.
c)   Find Mid-point.

Question no.02:

The following represents the retail price of a sample of 40 items:

50	50	28	50	65	40	50	22	32	30
79	50	22	20	35	24	25	38	35	65
35	20	14	25	24	48	15	10	17	60
25	22	60	30	12	30	10	12	20	68.

Prepare a frequency distribution taking a suitable number if equal classes.

Question no.03:

The following data represents the retail prices of a sample of different brands of a commodity:

50	50	50	28	65	40	50	22	32	30.
79	50	22	20	35	24	25	38	35	35.
65	20	14	25	24	48	15	10	17	60.
25	22	60	30	12	30	10	12	20	68.

Prepare a frequency distribution with equal classes of size 10.

Also find:

i)   Percentage frequency.
ii)   Relative frequency.
iii) Cumulative frequency less than and more than.
iv)   Find Class Boundries.
v)   Find Mid-point.

04)   Averages:

Question no.01:

From the following data:

Class Interval	20 – 24	25 – 29	30 – 34	35 – 39	40 – 44
Frequency	15	20	30	20	15

Compute: Mean, Median, and Mode.

Question no.02:

Compute the Mean, Median and Mode of the given frequency distribution.

Weight	16 – 20	21 – 25	26 – 30	31 – 35	36 – 40.	41 – 45
Frequency	4	6	8	14	8	6

Question no.03:

Find Mean, Median and Mode of the following data:

Class Interval	5 – 9.9	10 – 14.9	15 – 19.9	20 – 24.9	25 – 29.9	30 – 34.9
Frequency	06	22	35	17	12	08

05)   Index Number:

Question no.01:

a)   Define index number?

b)   Construct a price index number for the year 2008, from the data given below, using the:
i)   Base year quantity weighted method.
ii)   Current year quantity weighted method.

Commodity	Price		Quantity	
	2007	2008	2007	2008
A	64	75	270	276
B	40	45	124	118
C	18	21	130	121
D	58	68	185	267

Question no.02:

Calculate Laspeyre's, Paasche's and Fisher's Ideal price index numbers for 2011 using 2010 as base year:

Commodity	Price		Quantity	
	2010	2011	2010	2011
A	10	12	15	16
B	15	20	20	22
C	25	30	10	15

Question no.03:

For the following data: calculate weighted index number for the year 2018 using:
i)   Laspeyre's price index numbers.
ii)   Paasche's price index numbers.
iii)   Fisher's price index numbers.

Commodity	2017		2018	
	Price	Quantity	Price	Quantity
Wheat	6.60	240	7.10	330
Sugar	4.15	185	4.90	210
Oil	1.25	315	2.00	345
Milk	0.65	260	1.30	115

06) **Probability:**

Question no.01:

Three coins are tossed together:

Find: i)   The sample spaces.

ii)   The probability of getting at most 1 tail.

iii)   The probability of getting at least 2 heads.

Question no.02:

A bag contains 12 red marbles and 8 black marbles. If two are drawn from the bag at random. What is the probability that?

i) Both are red.   (ii) Both are black.   (iii) One is red and one is black.

Question no.03:

If one card is drawn at random from an ordinary pack of 52 playing cards. Find the probability that the card;

a) a jack.   (b) Spade.   (c) Black.   (d) An Ace.   (e) not a king

Question no.04:

A pair of fair dice is rolled once. What is the **probability** of getting;

(i)   The same number.   (ii)   First die is 3.   (iii)   Second die is 5.

(iv)   The sum of the two faces is greater than 10.