Assignment 2
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The below table shows the number of hours slopt in a study on 45 individuals.

Class Interval	Frequency	Relative Frequency	Francional	Cumulative Rit Frequency (Tessthantype)	ाजाडी . ज
3-5	12 1	26.67	6142	26.67	一个
5-7	18	40.00	30	66.67	
7-9	9	20.00	1 30 30U	86.67	. 21am9ULA
9-11	-363	43.33	45, 12	100	n all it

Comment: the class between 5 to 7 has 40% relative

## Answere to the Question no. 12321 . 321 . 321

- a. Number of welders get hourly wage at 6 to 10 = 13+8 = 21.
- b. Number of welders get hourly mage of less than \$6 = 15+27+20 = 62

- a Number of welders get hourly wage of mone tha \$8 = 8+5+2=15
- d. Number of welders are studied 9m this Survey = 15+27+20+13+8+5+2 = 90
- e Percentage of weldors get hourly wage of \$4 to \$8 = 20+13 ×100 = 36.69 1/2

Answer to the Juestion no. 3

a. The mean hotel room rate,  $\bar{x} = \frac{\sum x}{n}$ 

b. Hotel Room Rate in Ascending order -120, 123, 125, 126, 134, 139, 144, 145, 146, 160, 162, 163, 167, 167, 173, 177, 192, 207, 245. Modlan = (2+1)+h) Data  $= \frac{(10+h+11+h)}{2} Dota$   $= \frac{(60+162)}{2} = 161$ 

$$= \frac{160 + 162}{2} = 161$$

The astimated median hotel room roote 95 161

C. The number 167 95 the mode because 9t appears more in the set than the other hotel room note,

d. The first guardile = ((20+1)x 25) th value

aron no 1/2 is a grapos a solo assum by

154×00)+(214×02)+(34×00) = 000 134+(0.25)×(139-134)

0200 = 135.25

1st One fourth rootes are less than 135.25.

(AMS) e. The third Quantile = (20+1)×75 th value promont

15.75th valveor botunion

85.01 (Fab = 167+ (675) X (173-167) 1001

ME(121/2) = urboun onlauroay

The rate of 75% hotel noom is less than 171.5 B.

112.28

premetric anean travert morenze in solos 1.85.31 = poined ant 21010

## Answer to the grestion no. 4 morbon bolimber on

Total person = 200 m only of the sportion on is

50 nurses aides recieve = \$8 an hour.

50 practical nunses aides recieve - \$ 15 am mun.

100 Registerned nunses aides recieve = \$ 24 cm hour

... We ighted mean hourly wage =  $\frac{(50\times$8)+(50\times$15)+(100\times$24)}{200}$ 

 $\frac{3550}{200}$ 

. 22.201 mod 2001 =1017.7501 per hour 1012.121

(Ans)

## Answereto the Question no. 5 office baint on

Acumuted Value: N-27.21

109.4, 113.8, 111.7, 111.9, 114.7, 112.28

Geometric mean = (Tx) to

-8 2-17 mod-20= (109.4x113.8x111.7x1110x1147X11228) =

= 112.28

heametric mean percent Increase In sales over the period = 12.28%

(Ans)

Answer to the Drestion no.6 Geometric mean =  $(\frac{752,000,000}{720,000})^{\frac{1}{15}}$ volve and eve connot rupe. I for nominal and orguny . Lit weget are seen found for found nominal. but made is used in every scale of the GM annual increase 50% for the period, Answer to the guastion not protected ant of nawaran The number of days 9n Ascending Order - 100 01 6, 8, 10, 11, 13, 15, 15, 16, 17, 19, 22, 4900 011.0 a. O Arithmetic Mean = \(\frac{\infty}{n}\) = \(\frac{201}{10}\) d. About 75% of 240 A to Act make 1865 - Hoon 1 Median = 6th + 7th Data Oct (021-01-101-10) mont- seed 95+15 believes studied anablew out to mal a (SHO) = 18 (SIS. = 15 (11) Herre 15 15 most trequent Data.

: Mode = 45.

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b. Among the measure above mode is best.

Because herre 49 is extreme value and we know arithmetic mean attected by extreme value and we connot use it in nominal and ordnal. For median we cannot use it in overy scale at measurement. So, mode is best ton this data.

Asswer to the Question no. 8 it out of some of

- a. 40 weldons were studied of eyob to nodmun and
- 6. The class interval is Relative Frequency. 33
- C 10 welders earn loss than \$10.00 per hour.
- d. About 75% of the weldows make less than (5+10+15+20)=2 \$00 \$50.000 AFT Ald = 100 100 100
- E. Ten of the welders studied made less than (5+10) = 10 \$15.