

Q No 1 (a) → For men

Page (1)

Overall mean consumption of Fresh vegetable

$$\begin{aligned} \text{Mean} &= \frac{204 + 259 + 266 + 217}{4} \\ &= \underline{\underline{236.5}} \end{aligned}$$

→ mean of Fruits

$$\begin{aligned} \text{mean} &= \frac{31 + 45 + 69 + 105}{4} \\ &= \underline{\underline{62.5}} \end{aligned}$$

→ mean of Rice

$$\begin{aligned} \bar{X} &= \frac{(357 + 337 + 269 + 246)}{4} \\ &= \underline{\underline{304.75}} \end{aligned}$$

→ mean of Fish

$$\begin{aligned} \bar{X} &= \frac{23 + 28 + 31 + 44}{4} \\ &= 31.5 \end{aligned}$$

→ mean of meat

$$\begin{aligned} \bar{X} &= \frac{70 + 61 + 69 + 77}{4} \\ &= \underline{\underline{69.25}} \end{aligned}$$

→ Com. m. of vegetable.

$$\bar{x}_c = \frac{(245.75)(178) + (245.75)(235) + (245.75)(266) + (245.75)(304)}{178 + 235 + 266 + 304}$$

$$\bar{x}_c = \underline{245.75}$$

→ Com. m. of meat.

$$\bar{x}_c = \frac{(52)(48) + (52)(43) + (52)(54) + (52)(63)}{48 + 43 + 54 + 63}$$

$$\bar{x} = \underline{52}$$

→ Com. m. of Fish.

$$\bar{x}_c = \frac{(28.5)(19) + (28.5)(21) + (28.5)(28) + (28.5)(46)}{19 + 21 + 28 + 46}$$

$$= \bar{x}_c = \boxed{28.5}$$

→ Com. m. of Rice.

$$\bar{x}_c = \frac{(263.5)(315) + (263.5)(270) + (263.5)(243) + (263.5)(220)}{\bar{x}_c = \boxed{263.5}}$$

Combine mean

combine mean for men:

→ C.M of Fresh vegetable:

$$\begin{aligned}\bar{X}_{\text{comb}} &= \frac{\bar{x}_1 n_1 + \bar{x}_2 n_2 + \dots + \bar{x}_m n_m}{n_1 + n_2 + \dots + n_m} \\ &= \frac{[(236.5)(204) + (236.5)(259) + (236.5)(266) + (236.5)(47)]}{204 + 259 + 266 + 237} \\ &= \underline{236.5}\end{aligned}$$

→ C.M of ~~fresh~~ vegetable: Rice

$$\begin{aligned}\bar{X}_C &= \frac{(367)(304.75) + (337)(304.75) + (269)(304.75) + (246)(304.75)}{367 + 337 + 269 + 246} \\ \bar{X}_C &= \underline{304.75}\end{aligned}$$

→ Com. m. of Fish

$$\begin{aligned}\bar{X}_C &= \frac{(23)(31.5) + (28)(31.5) + (31)(31.5) + (44)(31.5)}{23 + 28 + 31 + 44} \\ \bar{X}_C &= \underline{31.5}\end{aligned}$$

→ Com. m. of meet:

$$\begin{aligned}\bar{X}_C &= \frac{(69.25)(70) + (69.25)(61) + (69.25)(69)}{70 + 61 + 69 + 70} \\ \bar{X}_C &= \underline{69.25}\end{aligned}$$

→ For woman

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mean of Fresh vegetable

$$\bar{x} = \frac{178 + 235 + 266 + 304}{4}$$
$$= \underline{\underline{245.75}}$$

→ Mean of Fruits:

$$\bar{x} = \frac{28 + 46 + 70 + 121}{4}$$
$$= \underline{\underline{66.25}}$$

→ mean of Rice:

$$\bar{x} = \frac{315 + 276 + 243 + 220}{4}$$
$$= \underline{\underline{263.5}}$$

→ Mean of meat:

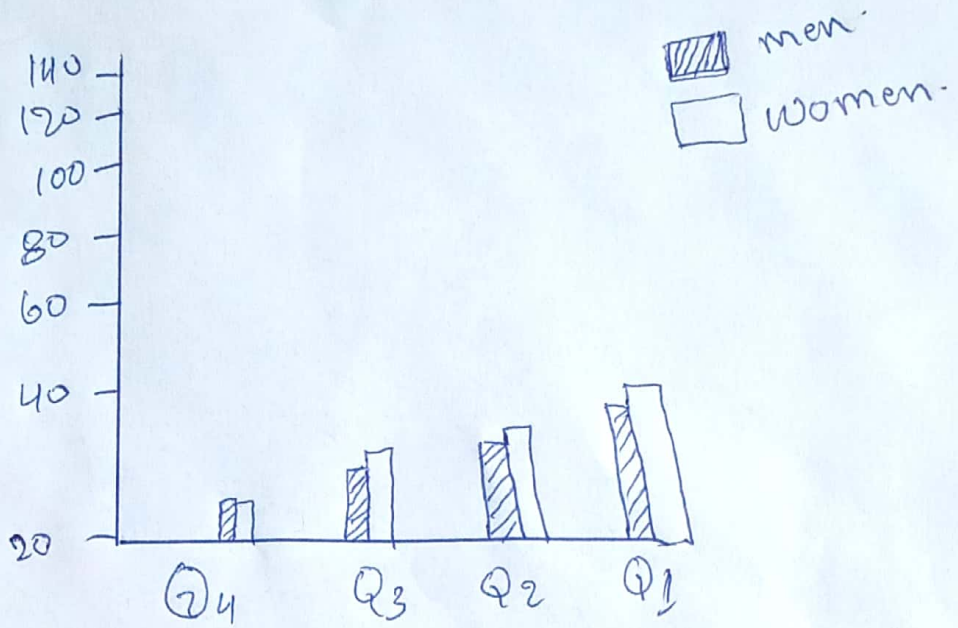
$$\bar{x} = \frac{48 + 43 + 54 + 63}{4}$$
$$= \underline{\underline{52}}$$

→ Mean of Fish:

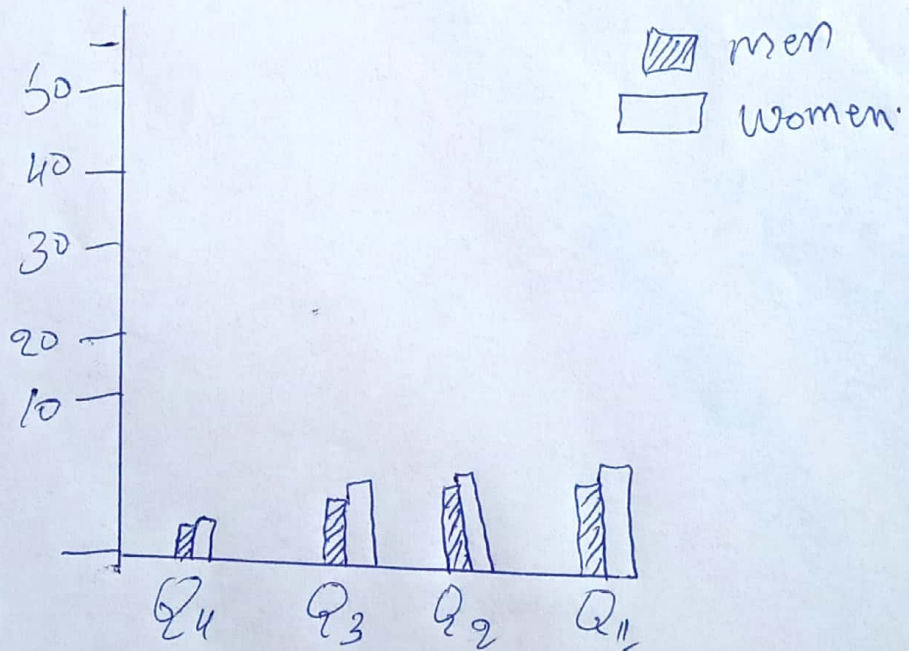
$$\bar{x} = \frac{19 + 21 + 28 + 46}{4}$$
$$= \underline{\underline{28.5}}$$

Q1 (D)

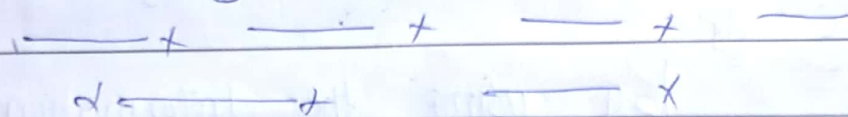
Draw a Suitable diagram for Fruits and



For Fish



Q1 (B) Ans milk, root vegetable and wheat flour are very low for both men and woman in Q4 and Q3. But it raise high in Q2 and Q1. So these who eat most vegetable consume must more milk root vegetable and wheat flour than those who eat less fresh vegetable.



Q1 (C) Ans:-

in fruits and fish the value of men increasing from Q4 to Q2 in men and woman. But the rice the value of men decreasing from Q4 to Q1.

Q21 (F) By Standard deviation = $S.E \sqrt{n}$

By using above formula
the ~~value~~ values of

Standard deviation of

men In more than

Woman wheat flour

Vegetable & fruits, wheat flours

Whole grain and varies

of Standard deviation

is Same for both

men and woman

In Rememngy categories.

Q21 (E) Ans

By using the information

of given table it is true

that men needs

more food to maintain

its energy levels.

Date: ___/___/20__

(1)

Day: **M T W T F S**

Q2: a The purpose of census is to count the entire population of a country and individuals at location where they actually live. Census counts the number of living in the home, their age, sex and race. It helps in the forming and important base for planning, policy development and decreasing numbering.

a Ironic response to the census by the public signify their inward attitude to the survey and their carelessness in following accurate data. Questions of these type are invalidated with such abuse response.

(2)

Q2. In censuses each and every unit of the population is studied in the sampling the censuses refer to periodic collection of information about the populace from the entire population it is more suitable to use census method if population in some in nature.

The census survey is much bigger in population compare to sample survey censuses survey

Take more time.

Q3. Not all of the population in a interest friendly so may be the response rate might be less other area of concern are cost

③ Obtusely not having a pull response rate to the censuses is a problem for the accuracy of census as insufficient data will be collected to know about population and of following base for planning and policy development.

④ The additional data held by government agencies might cause some problem too. The potential or chances of problem might be confidentiality and privacy disclosure of the common people.
→ They may also know about the income of many people which has not on the record and they were not paying tax.

(4)

Date: MTWTFES

Date: 1/1/20

So the Fear of Such Things will Spread uncertainty among general population.

→ Heavens may also get that ~~extra~~ extra

Information and use that illegal things.

x	$1/x$	$\log(x)$	$(x - \bar{x})$	$(x - \bar{x})^2$	$ x - \bar{x} $
22	0.045	1.34	-14.8	219.04	14.8
(27)	0.037	1.4313	-9.8	96.04	9.8
27	0.037	1.4313	-9.8	96.04	9.8
27	0.037	1.4313	-9.8	96.04	9.8
32	0.0312	1.5051	-4.8	23.04	4.8
32	0.0312	1.5051	-4.8	23.04	4.8
32	0.0312	1.5051	-4.8	23.04	4.8
32	0.0312	1.5051	-4.8	23.04	4.8
32	0.0312	1.5051	-4.8	23.04	4.8
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
37	0.027	1.5682	0.2	0.04	0.2
42	0.0238	1.6232	5.2	27.04	5.2
42	0.0238	1.6232	5.2	27.04	5.2
42	0.0238	1.6232	5.2	27.04	5.2
42	0.0238	1.6232	5.2	27.04	5.2
42	0.0238	1.6232	5.2	27.04	5.2
47	0.0212	1.6720	1.76	3.10	1.76
47	0.0212	1.6720	1.76	3.10	1.76
57	0.019	1.7558	20.2	408.04	20.2
Total	0.73	38.92		1172.12	136.40

Q36

$$A.M = \frac{\sum_{i=1}^n X_i}{n} = \frac{920}{25}$$

$$A.M = 36.8$$

$$H.M = \frac{n}{\sum_{i=1}^n (1/X_i)} = \frac{25}{0.73}$$

$$H.M = 34.25$$

$$G.M = \text{Anti-log} \left[\frac{\sum_{i=1}^n \log(X_i)}{n} \right]$$

$$= \text{Anti-log} \left[\frac{38.92}{25} \right]$$

$$= \text{Anti-log} (1.56)$$

$$G.M = 36.04$$

(4) mode = most repeated value is called mode

$$\text{So, } \boxed{\text{mode} = 37}$$

⑤ median : median is the mid values of a data Set.

$$\begin{aligned} \text{median} &= \left[\left(\frac{n}{2} \right) + 1 \right]^{th} \\ &= \left[\left(\frac{26}{2} + 1 \right) \right]^{th} \\ &= (13 + 1)^{th} \end{aligned}$$

median = 13th Integer = data Set

$$\boxed{\text{median} = 37}$$

⑥ Quartiles :

$$\begin{aligned} Q_1 &= \left[\left(\frac{n}{4} \right) + 1 \right]^{th} \\ &= \left[\left(\frac{26}{4} \right) + 1 \right]^{th} \\ &= (6.25 + 1)^{th} \\ &= (7.25)^{th} \\ &= 7^{th} \\ &= \boxed{Q_1 = 32} \end{aligned}$$

$$Q_3 = \left[\left(\frac{3n}{4} \right) + 1 \right]^{th}$$

$$= \left[\left(\frac{3+25}{4} \right) + 1 \right]^{th} = (9.75)^{th}$$

= (20)th, Integer

$$Q_3 = 42$$

7

Deciles

$$As, D_9 = \left[\left(\frac{9n}{10} \right) + 1 \right]^{th} = \left[\left(\frac{9 \times 25}{10} \right) + 1 \right]^{th}$$

= (5+1)th = 6th, Integer

$$D_9 = 82$$

8

Percentile

$$As P_{30} = \left[\left(\frac{30n}{100} \right) + 1 \right]^{th}$$

$$= \left[\left(\frac{30 \times 25}{100} \right) + 1 \right]^{th}$$

$$= \left[(7.5 + 1)^{th} \Rightarrow (8.5)^{th} \right]$$

$$P_{30} = 9^{th} \text{ integer}$$
$$P_{30} = 32$$

(9) Range = Largest value - Smallest value
= $57 - 22$
 $R = 36$

(10) $Q.D = \frac{Q_3 - Q_1}{2}$
= $\frac{47 - 32}{2}$
 $Q.D = 7$

(11) $\text{Skewness} = \frac{\text{mean} - \text{mode}}{S.D}$
= $\frac{20.8 - 37}{7.41}$
 $\text{Skewness} = -0.63$

(12) $C.V = \frac{S.D}{\bar{x}} \times 100$
= $\frac{7.41}{38.6} \times 100$
 $C.V = 20.19$

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$$\text{Mean deviation} = \frac{\sum_{i=1}^n |x_i - \bar{x}|}{n}$$

$$= \frac{136.40}{25}$$

$$\boxed{\text{M.D} = 5.46}$$

$$\text{Variance} = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n}$$

$$= \frac{1172.12}{25}$$

$$\boxed{\text{Variance} = 46.88}$$

$$\text{S.D} = \sqrt{\text{Var}}$$

$$= \sqrt{46.88}$$

$$\boxed{\text{S.D} = 6.85}$$

		Q1																																			
Row	Col	J	K	L	M	N	O	P	Q	R	Qartiles			Decile		Percentile...																					
Coln	Freq	xbar																																			
		AM				GM		HM	Median	Mod	Q1	Q2	Q3	D1	D2	P1	P2	Range	MD	QD	Var	Stand Dev	Coeff of Var	m2	m3	Skewness											
1	22		1.34	1.34			0.05													15		225			225	3375											
4	81		1.43	4.29			0.11													30		300			100	1000											
9	160		1.51	7.53			0.16													25		125			25	125											
17	296		1.57	12.55			0.22													0																	
22	210		1.62	8.12			0.12													25		125			25	125											
24	94		1.97	3.94			0.04													20		200			100	1000											
24	0		1.72	0.00			0.00													0		0			225	3375											
25	57		1.76	1.76			0.02													20		400			400	8000											
3	920	37	38.52	1.56		36.06	0.71	35.30	36.75	37	33.63	36.75	39.88	31.75	33	30.63	30.8	39	5.4	3.13	55	7.42	20.15	44	461.96	2.51											