Homework 5

Problem 1

q. Cluster sampling as the population has been divided into clusters which is 40 blocks. A common sampling bias here could be no response bias as it is possible that some residutes are not in the house holds

bi) Stratified sampling -> The entire population i.e the entire compiled is stratified into 25 one Acre plats & then a random sample is picked from each. Lack of control could be a source of sampling bias here

c.) Systematic sampling as there is a system of intervals being involved in this technique. And No response bias could be a potential bias in this study

of Convenience Sampling -7 where the friend group is a sample youn the entire population and each member of the sample has on equal Chance of being selected the stoolast specifically chose their founds honce there is a lack of Frenchomization. No response has is also possible

C.7 Simple random Semping-. Ten scats are randomly chosen and cicry member from the sample is selected

Problem 2:

a) No because a sample of 500 students is not a big enough sample especially lift it is a by university. Simple Bandom

Sample potentially could be a valid technique if the sample Chox is slightly biggin

b) Viggerent field of study could be of chifferent sizes and Dil does not provide for opportunity for wyone to be selected. May be assess the chifferent sizes of the elifferent fields and then assess of ciffment proportions for each field of study to be surveyed to Minimize the bias

c.) In my opinion this is a better approach because ages in university do not vary by alot in universities and also there is a foir amount of randomization when it comes to what Clusters should be selected.

Problem 3

Class	Midpoint	Frequency	Rel. Freq	Cumu-free
0-90	45	19	0.38	19
90-180	135	18	0'3	34
180-270	225	8	0.16	42
270-360	235	5	0.10	47
368-450	3 3 5	3	0.06	50

Homework 6 Adam Kaderbhai

a.) Since the x-9xis is the midpoint of class interval: 300,350, 400----

325-300-25

Class width is 25

917

<u>Class</u>	Mid point	Freq	Rel-fra	Cumu-Grev	
275 <u>4</u> x < 325	300	6	0.24	6	
325L2L375	350	3	0.12	9	
375 L X L 425	400	8	0.32	}7	
773 - 70 - 7	400		, , , , , , , , , , , , , , , , , , ,	, ,	
425 1 22 475	450	6	0.54	23	
475 <u>L</u> 2L 525	500	2	0.08	25	
		25			

b. 25 people

C.) Greatics & Frequency = 375 L x L 425 Loast Frequency = 475 L x L 525

Greatest Rel. fren = 0.32 least Rel greg = 0.08

d.) 325 LX L 425 = 8+3=11s tudents

Problem Z a.) Total Sample Size is 100 Lemurs

b) For an O-give. Two extra points are added on each end to form a polygon. From the graph we an say that there are four actual data points so 60.65, 70 and 75. The upper bound of a previous intend is the lower bound of the next intimal. Since an O-give yees upper bounds to infer the cumulative frequencies. I can pick two consecutive upper bounds e.g. 60\$65-7 These are both upper bounds.

and 60 is the lower bound of the intimal

60 Lx L65. We can say that the Class width is 5

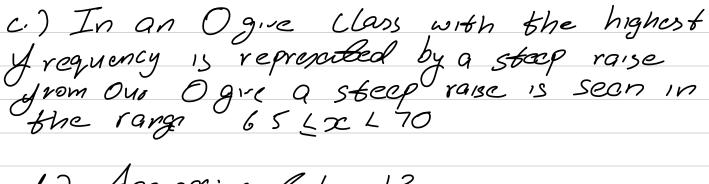
Class boundaries. 5512L 60

60 5 x 6 65

656 x < 70

70 < x<75

756 26 80



d.) Approximately 13

e.) ≈ 24 as ≈ 76 lemurs have a fail longth of 70

J.) = 76-13 = 63 lemars have 6916 length

Problem 3

9.) A plot of symmetric distribution as it works roughly the same on left and right. Also the plot roughly looks like a bell shape cure

bi) A plot of assymetric distribution. It is right skewed. The tail of the data extends further to the right of the center of distribution then to the left

c.) A plot of assymetric chatintion. It is left skewed. The tail of the class extends from the left of the center of distribution