ARYAMAN MISHRA 19BCE1027 20.12.19

Lab 2

1)data=c(9,27,18,54,45,72,36,63,81)

mean=moment(data)

mean

median(data)

sd(data)

all.moments(data1,order.max =4, central=FALSE, absolute=TRUE, na.rm=FALSE) all.moments(data1,order.max = 4, central=TRUE, absolute=FALSE, na.rm=FALSE)

2)total\_marks\_failed=25\*10

total\_passed\_marks=2810-total\_marks\_failed

passed\_students=50-10

passed\_avg=total\_passed\_marks/passed\_students

passed\_avg

3)cv1 = 0.58

cv2 = 0.69

sd1 = 21.2

sd2 = 15.6

AM1 = (sd1/cv1)\*100

AM1

AM2 = (sd2/cv2)\*100

AM2

4)total\_items=200

incorrect\_mean=60

incorrect\_sd=20

incorrect\_total=total\_items\*incorrect\_mean

incorrect\_total

correct\_total=incorrect\_total+(13+17)-(3+67)

correct\_total

correct\_mean=correct\_total/total\_items

correct\_mean

> total\_items=200

> incorrect\_mean=60

> incorrect\_sd=20

5)total\_items=100

incorrect\_mean=50

incorrect\_sd=5

incorrect\_total=total\_items\*incorrect\_mean

incorrect\_total

correct\_total=incorrect\_total+(30+60)-(40+50)

correct\_total

correct\_mean=correct\_total/total\_items correct\_mean

incorrect\_summation=(incorrect\_sd)^2 + (incorrect\_mean)^2

incorrect\_summation

correct\_summation=((incorrect\_summation\*total\_items)-40^2-50^2+30^2+60^ 2)/total\_items correct\_summation

correct\_sd=(correct\_summation-(correct\_mean)^2)^0.5

correct\_sd

6)total\_values\_sample1=90

mean\_sample1=55

sd\_sample1=3

d\_sample1=(mean\_sample1-combined\_mean)^2

total\_values\_sample2=110

mean\_sample2=60

sd\_sample2=2

d\_sample2=(mean\_sample2-combined\_mean)^2 combined\_mean=((total\_values\_sample1\*mean\_sample1)+(total\_values\_sampl e2\*mean\_sample2))/(total\_values\_sample1+total\_values\_sample2)

combined\_mean

combined\_sd=((total\_values\_sample1\*(sd\_sample1^2+d\_sample1^2))+(total\_v alues\_sample2\*(sd\_sample2^2+d\_sample2^2)))/(total\_values\_sample1+total\_v alues\_sample2) combined\_sd

[1] 55.75

[1] 46.08203