Difference blw ANOVA, MANOVA, ANCOVA, MANCOVA.

One way ANOVA

Independent Variables (factor)

Level of Education (High School, College Degree, Graduate Degree .....)

⟹

Dependent Variable (Response)

Test Score

Two way ANOVA

Independent Variables (factors)

Student Category
Freshman, Sophomore, Junior, Senior...

(factors)

Types of Restaurants
Baldy's, Swoops, The Roost

⟹

Dependent Variable

Student's Happiness Scores

ANCOVA (One Way)

Independent Variables
(factor)

Level of Education
(High School, Collage Degree,
Graduate Degree

Dependent Variable
(Response)

Test Score

(Covariate)

Number of Hours
spent Studying

ANCOVA (Two Way)

Independent Variables
(Factor)

Diet (Diet, NoDiet)

(Factor)

Exercise
(Low, Moderate, High)

(Covariate)

Weight

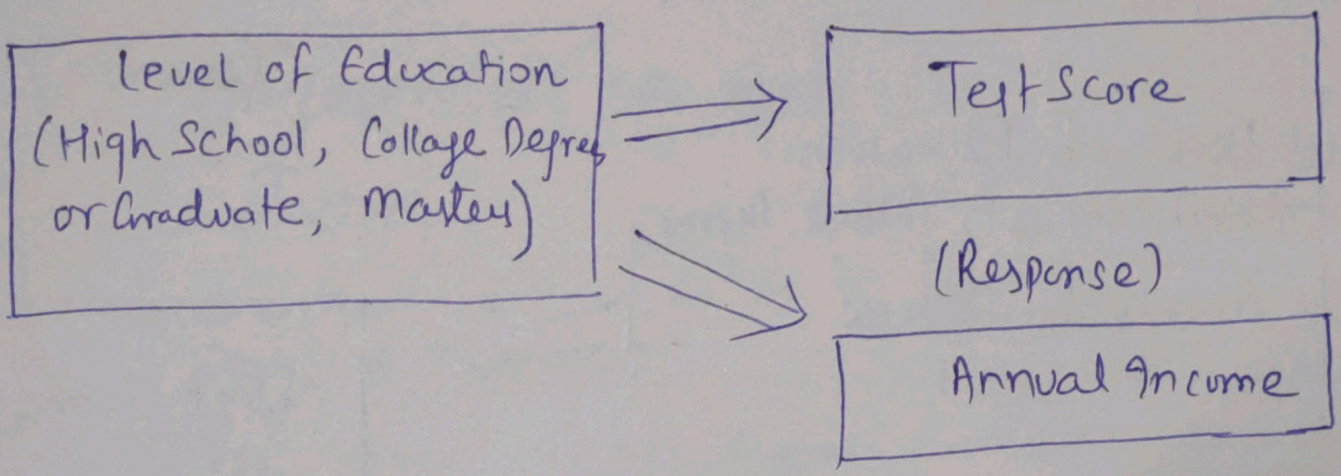
Dependent Variable
(Response)

Cholesterol

One Way Manova

Independent Variable (Factor)

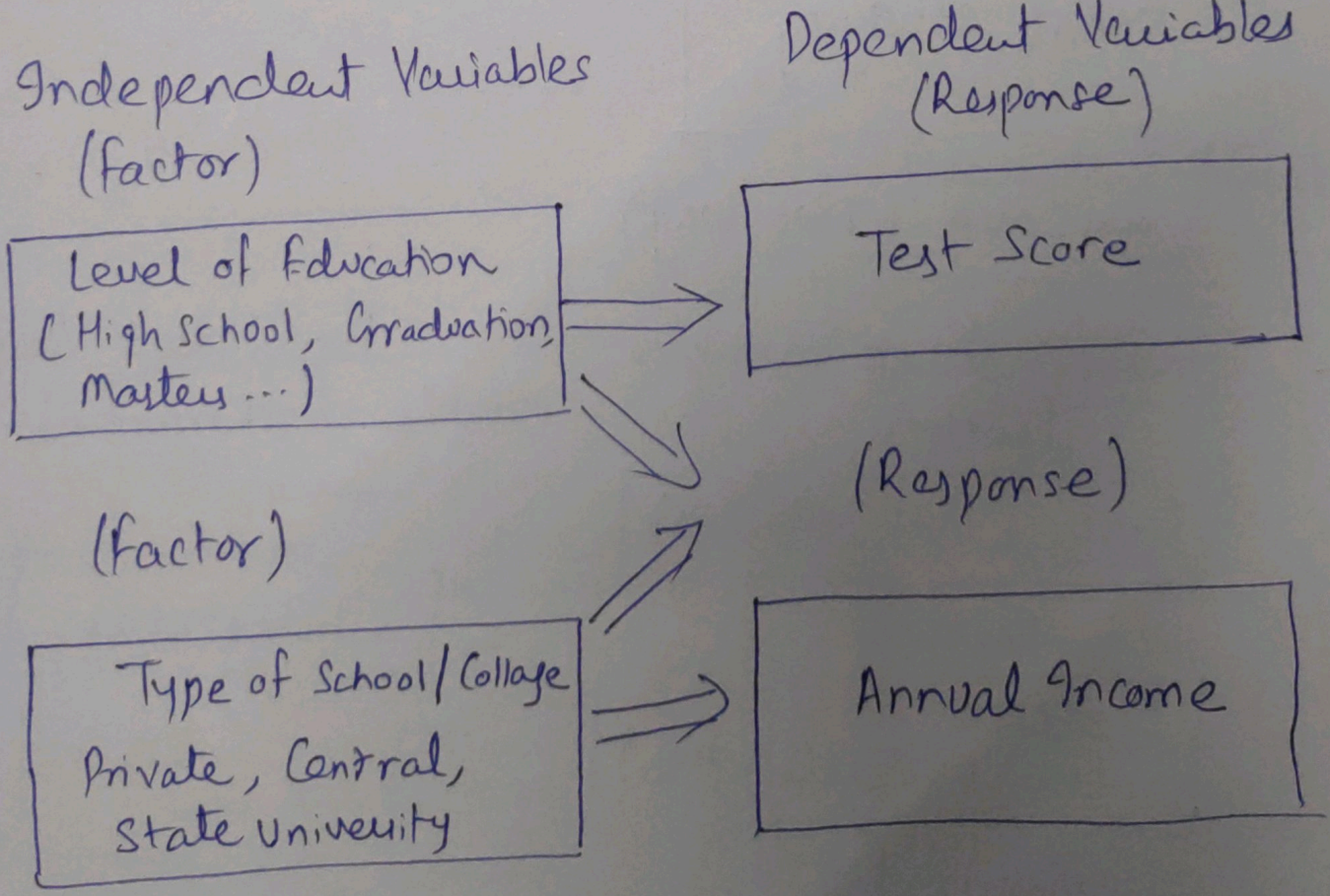
Dependent Variable (Response)



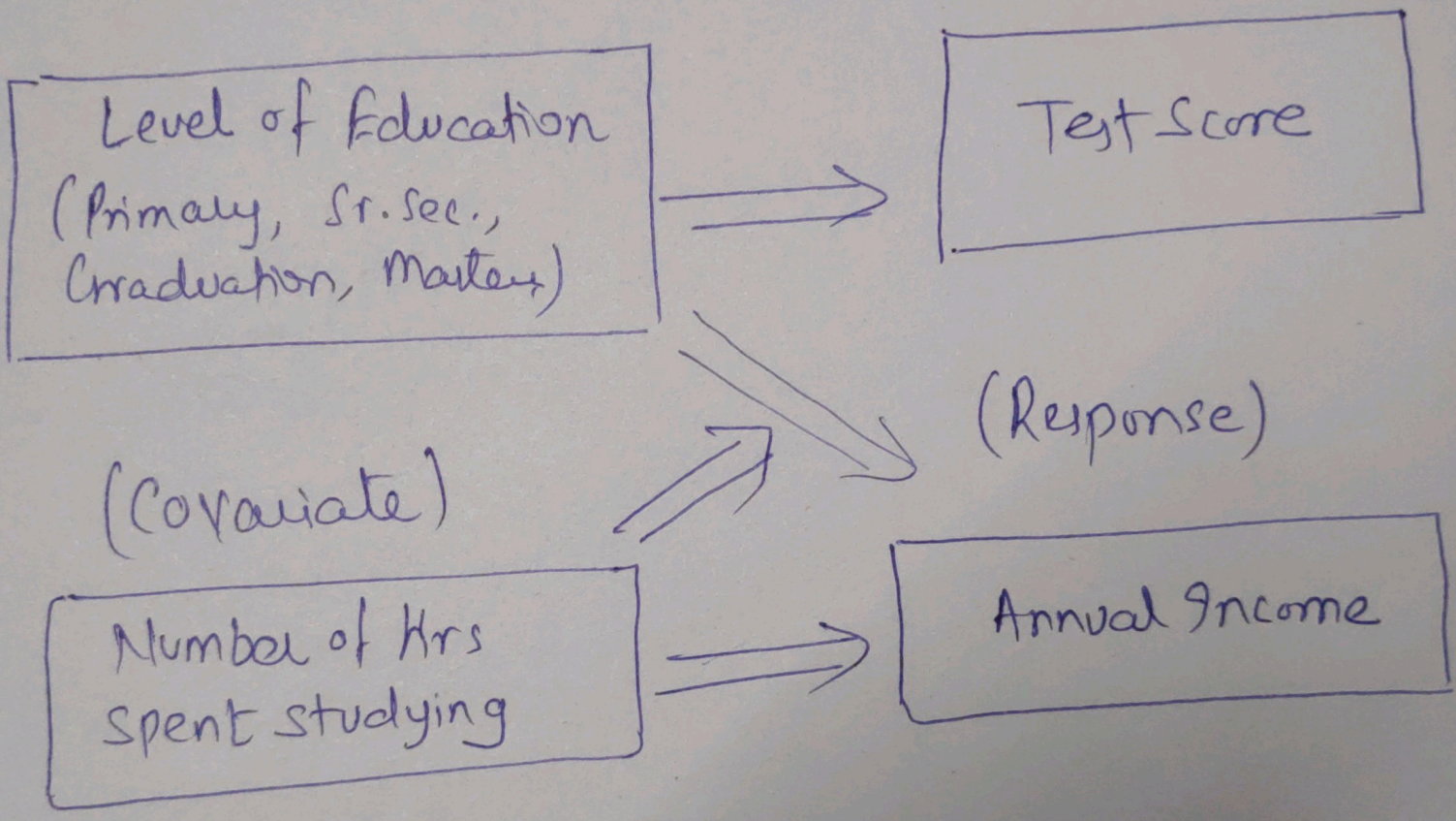
Two way MANOVA

Independent Variables (factor)

Dependent Variables (Response)



MANCOVA (one way)

Independent Variables (Factors)

Dependent Variables (Response)