



## **[Frequently Asked Questions]**

### **Dummy Variables**

<b>Subject:</b>	Business Economics
<b>Course:</b>	B.A., 3 <sup>rd</sup> Semester, Undergraduate
<b>Paper No. &amp; Title:</b>	Paper – 304 Basic Econometrics
<b>Unit No. &amp; Title:</b>	Unit - 5 Dummy Variables
<b>Lecture No. &amp; Title:</b>	Lecture – 1 Dummy Variables

## **Frequently Asked Questions**

### **Q1. Define quantitative variable.**

**A1.** A variable which can be measured with discrete or continuous scale is called quantitative variable.

### **Q2. Give two examples of quantitative variable.**

**A2.** 1. Age of a person 2. Demand of the product

### **Q3. Define qualitative variable.**

**A3.** A variable which cannot be measured but simply we can observe is called qualitative variable.

### **Q4. Give two examples of qualitative variables.**

**A4.** 1. Color of the product 2. Defective or non-defective item

### **Q5. Define dummy variable.**

**A5.** A variable which is used in regression model in place of qualitative variable is called dummy variable.

### **Q6. What is the rule for defining dummy variable for a qualitative variable?**

**A6.** Number of dummy variables = number of categories in the qualitative variable – 1.

### **Q7. How many dummy variables are used for four directions: East, West, South, and North?**

**A7.** Number of dummy variables for directions =  $4 - 1 = 3$

**Q8. State the regression equation to predicting sales per month based on advertising cost per month and gender of the sale-man.**

**A8.** Sales = a + b( adv. Cost) + c(D1) + U, where D1 = 1 for male and D1 = 0 for Female.

**Q9. State the regression model for predicting sales based on the four quarters only.**

**A9.**  $Y = \beta_0 + \beta_1 D_2 + \beta_2 D_3 + \beta_3 D_4 + U$

Where  $D_2 = 1$  for 2<sup>nd</sup> quarter, 0 otherwise

$D_3 = 1$  for 3<sup>rd</sup> quarter, 0 otherwise

$D_4 = 1$  for 4<sup>th</sup> quarter, 0 otherwise.