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[Frequently	Asked	Questions		
[Elementary Difference Equations & Their Applications to				
Economics]				
Subject:		Business Economics		
Course:		B.A., 6 <sup>th</sup> Semester,		
		Undergraduate		
Paper No. & Title:		Paper – 631		
		Advanced Mathematical		
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Unit No. & Title:		Unit - 4		
		Difference Equations		
Lecture No. & Title: 1:		1:		
		Elementary Di &Their Applicati	ifference Equations ons to Economics	

# Frequently Asked Questions

### Q1. What is differential equation?

Ans. A differential equation is an equation involving an unknown function and its derivatives"

### Q2. How degree of differential equation can be determined ?

Ans. degree of differential equation can be determined if it's polynomial equation is in derivatives.

## Q3. What is particular solution ?

Ans. The solution free from arbitrary constants is called particular solution.

### Q4. What do we mean by degree of differential equation ?

Ans. Degree of differential equation is the highest power of the highest order derivative in it.

# Q5.What is the condition for the homogeneity of first order differential equation?

Ans. For a first order differential equation to be homogeneous it's right hand side should be zero.

### Q6. How one can say that differential equation is exact ?

Ans. A differential equation is exact if certain parts of the differential equation have matching partial derivatives.

### Q7. What is the role of integrating factor in differential equation?

Ans. The integrating factor transformed a linear equation into an

exact equation.

### Q8. How one can say that differential equation for the inverse function is

#### also exact?

Ans. If a differential equation is exact and a solution is invertible, then the

differential equation for the inverse function is also exact.