**Business Mathematics Study Material for B.Com (H) IIyr Sem 4- 20th to 24th April 2020**

Dear Students

In the week of 20th to 24th April 2020 we had to cover the following topics from “Applications of Integration” and “Practical Part of Mathematics of Finance”. Kindly go through these topics (from the pages mentioned below from our text book J.K. Thukral “Business Mathematics”) and solve all the examples. I am also attaching the relevant youtube videos (most relevant available video for our topic) which will help you understand the topic well.

1. Applications of Integration (Chapter-11)
* Applications to Marginal Analysis
	1. To find Cost function and AC function from MC function

 (pg. 11.1 to 11.5)

<https://www.youtube.com/watch?v=qqOLUff_-RE>

* 1. To find TR function and demand function from a given MR function (pg. 11.7 to 11.11;covered in later part of following the video)

<https://www.youtube.com/watch?v=qqOLUff_-RE>

* 1. To find Maximum Profit given MR and MC functions (pg. 11.13 to 11.16)

<https://www.youtube.com/watch?v=qoCafE6kxiE>

* 1. To find maximum profit over time if MR and MC are given as function of time (pg. 11.16 to 11.18)
	2. To find demand function when price elasticity of demand is given (pg 11.20 to 11.25)
* Consumers’ and Producers’ Surplus (pg. 11.26 to 11.36)
* <https://www.youtube.com/watch?v=heSuaUK5-WE>
* Rate of Sales (pg. 11.38 to 11.41)
* The Learning Curve (pg. 11.43 to 11.45)
1. Practical Part of Mathematics of Finance (Chapter-12)
* Simple Interest

<https://www.youtube.com/watch?v=9nBcwpZjLfI&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=1>

* PV and FV Function

<https://www.youtube.com/watch?v=0M8B9MeEEQg&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=2>

* Nper and Rate Function

<https://www.youtube.com/watch?v=Aud1GInzHk4&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=3>

* Nominal, Effective and Force of Interest

<https://www.youtube.com/watch?v=seaTKya0O7w&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=4>

* Depreciation

<https://www.youtube.com/watch?v=-8hpfcXpx0Q&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=5>

* Ordinary Annuity

<https://www.youtube.com/watch?v=AjHYHA7XFGA&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=6>

* PMT and CUMPRINC Function

<https://www.youtube.com/watch?v=2yoCps6RJr4&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=7>

* Annuity Due

<https://www.youtube.com/watch?v=QN9wqI4RlIA&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=8>

* Lease or Buy

<https://www.youtube.com/watch?v=B2BLgiHu9As&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=9>

* Bond Valuation

<https://www.youtube.com/watch?v=j669U4F6VRk&list=PLKdrIpCFogeXqXKIgLHV4sVriQDTIY35r&index=10>

Thanks and All the Best!

Dr. Meghna Malhotra

Assistant Professor

Department of Commerce

Hansraj College

University of Delhi