

B.com-I  
II<sup>nd</sup> Semester

Name of Teacher - Pinky

Session - 2023-24

BUSINESS MATHEMATICS

Feb February:-

Differentiation:- derivative of simple functions and other functions having applications in business studies; maxima and minima of Revenue, Cost, Demand, Production, Profit functions and other functions related to business and commerce.

March:-

Integration:- Definite and indefinite, basic rules of integration, application of integration in commercial and business problems.

April:-

Permutation and Combinations:- Factorial Notation, Difference between Permutation and Combination, Permutatic Restricted Permutations, Permutation with repetitions, Permutation of objects Not all different, Combination, Practical Problems on Combinations. Binomial Theorem.

May:-

Linear Programming:- Formulation of linear Programming Problems and their solution by graphical and simplex methods, Application of Linear Programming in solving problems related to business and commerce.

Session 2023-24

B.Com - I Paper - Numerical Ability  
Sem - II Enhancement skills

Name of Teacher - Dr. Rinby

Sl. No.	Date	Topic
1.	Feb 2024 16-17	Real Number System, operations on numbers Test for divisibility of Natural Number
2.	Feb 23	Square roots, Cube roots, Surd and Indices, Use of Bodmas
3.	March 1-2	HCF, LCM of integers, Ratio and Proportion, Progressions: Arithmetic Progression
4.	March 9	Geometric Progression, Harmonic Progression with their simple and basic practical applications
5.	March 15-16	Number Series completion, Percentage, Profit & Loss
6.	March 22	Alligation or mixture, Average, Average speed problems, Calender, Test
7.	April 5-6	Logarithms, Area of Quadrilateral (Parallelogram, Square, Rectangle)
8.	April 12-13	Area of Rhombus, Trapezium, Revision
9.	April 19-20	Volume and Surface Area of Cube, Cuboid, Cylinder, Cone, Sphere, Hemisphere
10.	April 26-27	Examples of Area and Volume
11.	May	Problem discussion and Revision

<b>Pt. C.L.S. Govt. College Karnal</b>					
<b>LESSON PLAN</b>					
<b>SESSION 2023-24 (01.01.2024 to 30.04.2024)</b>					
<b>Weekly Lesson Plan (Even Semester)</b>					
<b>PG ( IV - Semester)</b>					
<b>Name of the Paper:- General Measure And Integration Theory</b>					
<b>Name of the Teachers : Dr. Rinky</b>					
<b>WEEK</b>	<b>DATE</b>	<b>TOPICS</b>			
<b>1</b>	<b>January (1-6)</b>	Measures and its properties			
		Outer measures			
		Some results based on outer measures			
		Extension of measures			
		Uniqueness of extension			
		Completion of a measure			
<b>SUNDAY - 07.01.2024</b>					
<b>2</b>	<b>January (8-13)</b>	Combinations of measurable functions			
		Limits of measurable functions			
		Revision			
		Localization of measurability			
		Simple function			
		Some more results of simple functions			
<b>SUNDAY - 14.01.2024</b>					
<b>3</b>	<b>January (15-16)</b>	Revision			
		Revision			
	<b>January (18-20)</b>	Localization of measurability			
		Simple function			
		Section-II Measure spaces			

		Some more results of Measure spaces			
<b>SUNDAY - 21.01.2024</b>					
4	January (22-25)	Revision			
		results of Measure spaces			
	January (27)	Almost everywhere convergence			
		Some more results of Almost everywhere convergence			
<b>HOLIDAY - 26.01.2024 - REPUBLIC DAY</b>					
<b>SUNDAY - 28.01.2024</b>					
5	January (29-31)	Some more results of fundamental almost everywhere			
		Convergence in measure			
		Fundamental in measure			
	February (1-3)	Some more results of fundamental in measure and convergence in measure			
		Almost uniform convergence			
<b>SUNDAY - 04.02.2024</b>					
6	February (5-10)	Riesz-Weyl theorem			
		Integration with respect to a measure: Integrable simple functions			
		Some more results of integrable simple functions			
		Problem Discussion			
		Non-negative integrable functions			
<b>SUNDAY - 11.02.2024</b>					
7	February (12-13)	Integrable functions			
		Some more results of Integrable functions			
	February (15-17)	Indefinite integrals			
		Some more results of Indefinite integrals			
<b>HOLIDAY 14.02.2024 - BASANT PANCHMI/SIR CHHOTU RAM JAYANTI</b>					

SUNDAY - 18.02.2024					
8	February (19-24)	Revision			
		The monotone convergence theorem			
		Problem Discussion			
		Test			
		Mean convergence			
SUNDAY - 25.02.2024					
9	February (26-29) March (1-2)	Some more results of Mean convergence			
		Some more results of Mean convergence			
		Problem Discussion			
		Test			
		Product Measures:Rectangles			
SUNDAY - 03.03.2024					
10	March (4-7) March (9)	Mean convergence			
		The Radyon-Nikodym theorem for a finite measure space,			
		Problem Discussion			
		Test			
		Product Measures:Rectangles			
HOLIDAY - 08.03.2024 - MAHA SHIVRATRI					
SUNDAY - 10.03.2024					
11	March (11-16)	Cartesian product of two measurable spaces			
		Cartesian product of two measurable spaces			
		Some more results of Cartesian product of two measurable spaces			
		Measurable rectangle			
		Some more results of measurable rectangle			
The product of two finite measure spaces					
SUNDAY - 17.03.2024					

12	March (18-22)	The product of two finite measure spaces			
		Some more results of the product of two finite measure spaces			
		product of two s - finite measure spaces			
		Iterated integrals			
		Fubini's Theorem			
HOLI VACATION - 23.03.2024 - 31.03.2024 (SHAHEEDI DIWAS - 23.03.2024)					
13	April (1-6)	A partial converse to the Fubini's theorem			
		Signed Measure: Absolute continuity			
		Finite signed measure			
		Contractions of a finite signed measure			
		Purely positive and purely negative sets			
SUNDAY - 07.04.2024					
14	April (8-10)	some results on Purely positive and purely negative sets			
		Comparison of finite measures			
	April (12-13)	Some more results of Comparison of finite measures			
		Lebesgue decomposition theorem, A preliminary Radon-Nikodym theorem,			
		Hahn decomposition, Jordan decomposition			
upper variation, Lower variation, total variation, domination of finite signed					
HOLIDAY - 11.04.2024 - ID-UL-FITR					
SUNDAY - 14.04.2024					
15	April (15-16)	Baire sets			
		Baire function			
	April (18-20)	Baire-sandwich theorem			
		Baire measure			
		Borel set			
HOLIDAY - 17.04.2024 - RAM NAVMI					

<b>SUNDAY - 21.04.2024</b>					
<b>16</b>	<b>April (22-27)</b>	Some results of Borel sets			
		Regularity of Baire measures			
		Some results of Regularity of Baire measures			
		Regular Borel measures			
		Some results of Regular Borel measures			
Integration of continuous functions with compact support					
<b>SUNDAY - 28.04.2024</b>					
<b>17</b>	<b>April (29-30)</b>	The Radyon-Nikodym theorem for a finite measure space,			
		Riesz-Markoff's theorem			
		Revision			
		Revision			
<b>University Examinations w.e.f. 01.05.2024</b>					