

**BBA REGULAR**

**M1 15 AR 104: BUSINESS MATHEMATICS & STATISTICS**

**LESSON PLAN - 2017 - '18**

**(Module wise)**

<b>UNIT/ SESSION/ HOURS (TIME REQUIRED)</b>	<b>TOPICS FOR STUDENT PREPARATION (INPUT)</b>	<b>PROCEDURE (PROCESS)</b>	<b>LEARNING OUTCOME (OUTPUT)</b>	<b>ASSESSMENT</b>
<b>Module – 1 : Theories of Equations 10 hrs.</b>	Theory of equations: Linear – Quadratic- Simultaneous- Application of equations in business and commerce	Explain with illustration problems	To be able to work out simple application oriented problems in these topics	Evaluation through test
<b>Module-2: Interest and Annuities 10hrs</b>	Laws of indices and logarithms- Simple interest – Compound Interest – Annuities - Meaning - Types - Present value and Future value of annuity –Applied problems on Perpetuity - loans - Sinking fund - Endowment fund using Annuity Tables	Explain with illustration problems	To be able to work out simple application oriented problems in these topics	Evaluation through test
<b>Module-3: Introduction to Statistics 8hrs</b>	Meaning and Definition of Statistics, Functions, Scope, Limitation of statistics, Classification of Data, Tabulation of Data, Diagrammatic and Graphic	<ul style="list-style-type: none"> <li>• Lecture with illustrations</li> <li>• Discussion</li> </ul>	To understand the significance of statistics in research purposes and its applicability	Evaluation through test

	Representation of Data using Excel			
<b>Module-4: Measures Of Central Tendency and Dispersion 14 Hours</b>	Measures of Central Tendency: Meaning-Arithmetic, Weighted and Combined Mean, Median and Mode, Empirical Relationship, Measures of Dispersion: Meaning, Range, Quartile Deviation, Mean Deviation, Standard deviation and their coefficients	<ul style="list-style-type: none"> <li>Lecture</li> <li>Solving Problems</li> <li>Discussion</li> </ul>	To understand the use of simple statistical tools like mean, median and mode	Evaluation through test
<b>Module-5: Time Series 6 Hours</b>	Components of time series, Trend analysis by Moving Averages, Least Squares Method (linear).	<ul style="list-style-type: none"> <li>Lecture</li> <li>Solving Problems</li> <li>Discussion</li> </ul>	To understand the significance and usage of complex statistical tools and to interpret their results	Evaluation through tests
<b>Module-6: Correlation and Regression 12 Hours</b>	Correlation: Meaning, Karl Pearson's Coefficient of Correlation, Spearman's Correlation Coefficient  Regression: Concept, Regression Equations	<ul style="list-style-type: none"> <li>Lecture</li> <li>Solving Problems</li> <li>Discussion</li> </ul>	To understand the significance and usage of complex statistical tools and to interpret their results	Evaluation through tests

## UNIT WISE BREAK UP

**LECTURE HOURS: 60**

	UNITS	No. of Lecture Hours	Methodology/Instructional techniques	Evaluation/learning confirmation
<b>MODULE 3</b>	<b>Introduction to Statistics</b>	<b>8</b>		Assignment
1.	Meaning and Definition of Statistics, Functions, Scope, Limitation	3	Lecture and Discussion	

2.	Classification and Tabulation of data	2	Lecture with illustration and work out problems	
3.	Diagrammatic and Graphic Representation	3	Presentation and Computer Lab.	
<b>MODULE 4</b>	<b>Measures Of Central Tendency and Dispersion</b>	<b>14</b>		Test
1.	Measures of Central Tendency: Mean	3	Illustrations and Problems	
2.	Median and Mode	3	Illustrations and Problems	
3.	Measures of Dispersion: Range, Quartile Deviation and their coefficients	2	Illustrations and Problems	
4.	Mean deviation	2	Illustrations and Problems	
5.	Standard deviation and their coefficients	4	Illustrations and Problems	
	<b>CIA I (10 marks)</b>		Statistics Assignment	
<b>MODULE 2</b>	<b>Interest and Annuities</b>	<b>10</b>		Test
1.	Laws of indices and logarithms	1	Illustrations and Problems	
2.	Simple interest - Compound Interest - Annuities - Definition - Types - Present value and amount of annuity	4	Illustrations and Problems	
3.	Perpetuity applied problems on loans - Sinking fund - Endowment fund by use of formulae and Annuity Tables	5	Illustrations and Problems	
	<b>Mid Term Test – Modules 3, 4, 2</b>			
<b>MODULE 6</b>	<b>Correlation and Regression</b>	<b>12</b>		Test

1.	Correlation: Meaning, Karl Pearson's Coefficient of Correlation	5	Illustrations and Problems	
2.	Spearman's Correlation Coefficient	2	Illustrations and Problems	
3.	Regression: Concept, the two Regression Equations	5	Illustrations and Problems	
	<b>CIA II (10 marks)</b>	<b>1</b>	Test	
<b>MODULE 1</b>	<b>Theories of Equations</b>	<b>10</b>		Test
	Theory of equations (Linear, Quadratic, and Simultaneous)	5	Illustrations and Problems	
	Application of equations to business and commerce	5	Illustrations and Problems	
<b>MODULE 5</b>	<b>Time Series</b>	<b>6</b>		Test
1.	Components of time series	1	Work out problems	
2.	Trend analysis by Moving Averages	2	Work out problems	
3.	Least Squares Method (linear).	3	Work out problems	