

SEMESTER –II

Subjects:

- Business Mathematics II
- Principles of Macro Economics
- Employee Behavior and Relationship Management
- Introduction to Business Environment
- Workshop (Computers Skills)
- Air Traffic Control (ATC)

Programme Name: BBA Aviation
Subject Name: Business Mathematics II
Subject Code: 1150503107
Semester: II

Prerequisite: Zeal to learn the subject

Objective

- To equip the students with in-depth knowledge of mathematics with emphasis on conceptual clarity.
- The emphasis is placed on the improvement of student's quantitative skills.

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
3	1	0	4	4	16/40	24/60	00	00	100

Content:

Unit No.	Contents
1	DIFFERENTIATION • Definition of derivative and differentiation; • Derivatives of functions by definition • Standard results of derivative (without proof); • Rules of derivative; chain rule • Logarithmic differentiation • Higher order derivative; interpretation of derivatives; application of derivatives • Value of derivatives at specific points
2	MAXIMA & MINIMA OF A FUNCTION • Maxima & Minima; Discrete Optimization • Average and Marginal functions of Cost & Revenue • Applications • Introduction to Partial Derivatives
3	INTEGRATION • Introduction to Integration • Interpretation of Integration • Integration of Some Standard Functions • Rules of Integration • Integration by Substitution • Integration by Parts • Definite Integration: Definition and properties • Business Application of Integration
4	MATRICES & LINEAR EQUATIONS Matrices: • Introduction to Matrices; Meaning and Definition of matrix • Types of Matrices; Matrix Operations; • Determinants of a Square Matrix; Inverse of A Square matrix of 2x2 and 3x3; • Cramer's Rule; Rank of Matrix Linear Equations • System of Linear Equations; • Solution of a System of Linear Equations using definition of Inverse of a Matrix

Course Outcome:

- To equip students with mathematical ability to resolve problems in the business context.

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

1. Audio
2. Video
3. Power point

Text Books:

- A Text Book of Business Mathematics: Padmalochan Hazarika, Publishers: S.Chand

Reference Books:

- Business Mathematics: D.C. Sancheti and V.K. Kapoor, Publishers Sultan Chand
- Business Mathematics: Theory and Application: J.K. Sharma, Publisher: Ane Books
- Business Mathematics: J.K. Singh, Himalaya Publishing House
- Mathematics for Management: M. Raghavachari, Tata Mc Graw Hill

Web resources:**MOOCs:**

Programme Name: BBA Aviation
Subject Name: Principles of Macro Economics
Subject Code: 1150503109
Semester: II

Prerequisite: Zeal to learn the subject

Objective:

- To explain students the basic macro economic concepts.
- To apply economic analysis in the formulation of business policies.

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
3	1	0	4	4	16/40	24/60	00	00	100

Content:

Unit No.	Contents
1	<p>Unit-I</p> <ul style="list-style-type: none"> • Introduction to Macro Economics • National Income: Concepts & Its Measurement
2	<p>Unit-II</p> <p>Theories of macroeconomics:</p> <ul style="list-style-type: none"> • Different Macro Economics approaches Classical; Keynesian • Consumption Function, Investment Function, Concept of Multiplier & Acceleration
3	<p>Unit-III</p> <ul style="list-style-type: none"> • Money: Concepts, Types and component of money Interest: • Classical theory of Interest • Liquidity preference theory of interest • IS-LM Module <p>Derivation of the IS curve, Slope of IS curve, Shift in IS curve; Derivation of the LM curve, Slope of LM curve, Shift in LM curve Equilibrium of IS-LM Effects of criticisms of IS-LM Module.</p>

4

Unit-IV

- Public Finance, Public Revenue and Public Expenditure
- Monetary Policy Fiscal Policy Budget and budget deficit

Course Outcome:

- Describe the macro economy using aggregate demand and aggregate supply analysis.
- Understand the basic macro economic theories
- Understand how National Income Accounting function
- Demonstrate an understanding of business cycle and concept of money

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

4. Audio
5. Video
6. Power point

Text Books:

- Macro Economic Theory by H.L. Ahuja (S. Chand)
- Macro-Economic Theory by M. L Jhingan Vrinda Publications
- Dwivedi, D. N, Managerial Economics,(2002)6thed (Vikas Publishing House: New Delhi)
- Managerial Economics Theory and Applications Dr. D.M. Mithani Himalaya Publication latest edition

Web resources:

MOOCs:

Programme Name: BBA Aviation
Subject Name: Employee Behavior and Relationship Management
Subject Code: 1150503110
Semester: II

Prerequisite: Zeal to learn the subject

Objective

- Develop thorough knowledge and understanding of the human behavior at work.

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
3	1	0	4	4	16/40	24/60	00	00	100

Content:

Unit No.

Contents

- 1 **Introduction to Organisational Behaviour:**
 - Meaning and definition of OB
 - Evolution of OB as a field of study and practice
 - OB model
 - Contributing disciplines to the OB Field.

- 2 **Understanding dynamics of Individual behavior: Personality & Perception**
 - Personality: Meaning and definitions of personality, determinants & functions of personality, trait and fit theories of personality, determinants of personality
 - Perception: Concept, factors affecting perception, perceptual process and impression management

- 3 **Understanding dynamics of Individual behavior: Motivation; Values and Attitude**
 - Understanding Motivation at work: Concepts of Needs, Drive, and Motives evolution of motivational theories, content theories of motivation Theories
 - Understanding Values and Attitude: Meaning and importance of values, how a person develops

values, types of values. Understanding attitude at work and their impact on behavior.

- 4 **Understanding Dynamics of Group Behavior:**
- Meaning, definitions and importance of working in Groups
 - Formation of Groups
 - Stages of Group Development. Teams
 - Difference between groups and teams
 - Types of teams

Course Outcome:

- Gaining insights into the foundation and formation of individual behaviour and group behaviour and how it links to achieve the organizational objectives.

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

7. Audio
8. Video
9. Power point

Text Books:

- Pareek. U., (2006), Understanding Organizational Behavior, Oxford University Press, 5thed.
- Robbins S.P., (2005), Organizational Behavior, Prentice -hall publication, Eleventh edition.

Web resources:

MOOCs:

Programme Name: BBA Aviation
Subject Name: Introduction to Business Environment
Subject Code: 1150503111
Semester: II

Prerequisite: Zeal to learn the subject

Objective

- The main aim of this course is to extend understanding of environmental basics and changes that affect the earth and its human being.
- To provide the students with an understanding of the presentation and understanding of environmental studies.

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
3	1	0	4	4	16/40	24/60	00	00	100

Content:

Unit No.

Contents

- 1 • Concept, Significance, Components of Business environment, Factor affecting Business Environment, Social Responsibilities of Business
- 2 • Economic Systems: Capitalism, Socialism, Communism, Mixed Economy-Public Sector & Private Sector
- 3 • Industrial Policy –Its historical perspective(In brief);Socio-economic implications of Liberalization, Privatization, Globalization.
- 4 • Role of Government in Regulation and Development of Business; Monetary and Fiscal Policy; EXIM Policy, FEMA

Course Outcome:

- The course will create awareness of the economic, social and Political environment facing business organizations in India.

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

10. Audio
11. Video
12. Power point

Text Book:

- K. Aswathapa Business Environment Himalaya Publication

Reference Book:

- Francis Cherunilum Business Environment Himalaya Publication

Web resources:**MOOCs:**

Programme Name: BBA Aviation
Subject Name: Workshop (Computers Skills)
Subject Code: 1150503112
Semester: II

Prerequisite: Zeal to learn the subject

Objective

- To develop awareness about computer.
- To understand practical aspect of computer and its functions.

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
0	0	2	2	1	00	00	16/40	24/60	100

Content:

Unit No.	Unit	Contents
1	Unit-I	<ul style="list-style-type: none"> • Basics of Computer Windows XP Overview
2	Unit-II	<ul style="list-style-type: none"> • E-mail & Internet Application Software
3	Unit-III	<ul style="list-style-type: none"> • Search Engine • Surfing Webpages • Virus : General Introduction & Antivirus Utilities •
4	Unit-IV	<ul style="list-style-type: none"> • Other Applications • Widows Seven Overview • Burning CD / DVDs • Basics of Audio/Video editing • Fundamentals of Hardware & Networking • Formatting Hard disk Installing Windows

Course Outcome:

- To impart fundamental knowledge of computer and networks. To provide hands on training on Ms Office and Windows XP / Windows 7

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

13. Audio
14. Video
15. Power point

Text Books:

- Computer Fundamentals by P K Sinha published by BPB Publications
- Mastering Excel by Thomas Chester and Richard Alden published by Sybex.
- Information Technology Management by Turban Efraim, Linda Volonino, Janice CSipior , Published by John Wiley & Sons

Web resources:**MOOCs:**

Programme Name: BBA Aviation
Subject Name: Air Traffic Control
Subject Code: 1150503116
Semester: II

Prerequisite: Zeal to learn the subject

Objective

- To understand the working of ATC

Teaching and Examination Scheme:

Teaching Scheme					Evaluation Scheme				Total Marks
L	T	P	Contact Hours	Credit	Theory		Practical		
					CIE (TH)	ESE (TH)	CIE (PR)	ESE (PR)	
3	0	0	3	3	16/40	24/60	00	00	100

Content:

Unit No.

Contents

- 1 Introduction –
 Air Traffic Control (ATC) and Air Traffic Services (ATS) –
 Functions of ATC – Scope of ATC – ATS Air Space
 Classifications – VFR (Visual Flight Rules)–Meaning , Facilities
 available at Visual Flight Radar Airport - Requirement of an
 Aircraft to land at Visual Flight Rules Airport- IFR (I Industry
 Financial Performance – Meaning – Facilities Available at
 Instrument Flight Rules Airport – Requirements of an Aircraft to
 land at IFR Airports – Metrological Department – Meaning –
 Coordination between ATS and Metrological Department – Flight
 Plan – Meaning – Standard Operating Procedure to file a Flight
 Plan with ATC – Minimum Visibility Requirements at Airport
- 2 ATC FUNCTIONS
 Information processing – Sensation and sensory memory –
 Perception – Detection – Attention – Recognition – Decision
 Making and response selection – the visual system – visual
 sensation, perception, cognition, imagery – visualization in air
 traffic control. Auditory cognition – Spatial Orientation – Situation
 awareness – Mental Models – decision making and Judgment –
 Cognitive aspects – attitudinal behavioral aspects – selection and
 training

- 3 NAVIGATION SERVICES & FACILITIES
Emergency Procedure and Rule of the Air - Flight Information Alerting Services – Radar Services – Basic Radar Terminology -, Identification Procedures – Using Primary and Secondary Radar – Performance Checks Use of Radar in Area and Approach Control Service – Types of Air Navigation Services - Air Navigation Facilities – Air Navigation Service Providers – Assignment of Raising level minimum Flight Altitude – Flight Plan – Position Reports
- 4 AERODROME FUNCTIONS & NAVIGATION SERVICES
Aerodrome Data – Physical Characteristics and Obstacles Restriction Aerodrome Data –Basic Terminology – Aerodrome Reference Code – Aerodrome Reference Point – Aerodrome Reference Temperature Instrumental Runway – Physical Characteristics – Length of Runway Visual and for Navigation – Visual Aids for Denoting Obstacle Emergency and other Services – Visual Aids for Navigation – Wind Direction Indicator – Landing Direction Indicator – Marking at Aerodrome
- 5 ATC STRESS MANAGEMENT
Stress – causes of stress – noise and vibration – stress recognition – Stress management -Estimating stress levels -Changing Attitudes and behavior – Post traumatic stress Disorder – Sleep and fatigue – Circadian Rhythms – Cardiovascular and respiratory systems – The digestive system and the kidneys – Mental performance – psychological problems – performance changes – safety management –A case study – The Mount Erebus Disaster – Individual Performance factors – task factors – organizational culture – ATS organizations

Course Outcome:

- Assignment on how ATC Staff Members overcome Stress.
- Prepare a flowchart on Instructions given by ATC to Pilot for Departure.
- Assignment on SOP to file a Flight Plan with ATC.

Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

16. Audio
17. Video
18. Power point

REFERENCE BOOKS:

- ATC and Airport Strategic Planning by FlySky Aviation. Edition 2020
- Fundamentals of Air Traffic Control by Michel Nolan.
- The global Airline Industry by Peter Belobaba
- Airport System Planning, Design and Management by Richard de Neufville

Web resources:**MOOCs:**