KRISHNA UNIVERSITY

MACHILIPATNAM

BBA-(LOGISTICS)

BOARD OF STUDIES (BOS) 2026-2027

DEPARTMENT OF COMMERCE & MANAGEMENT

KRISHNA UNIVERSITY
MACHILIPATNAM

KRU/DAA/UG/BOS/BBA Logistics/2026-27 Dt:08-09-2026

PROCEEDINGS OF THE VICE – CHANCELLOR

Present: Prof. K. Ramji

Sub:- KRU-DAA-Orders to hold a meetings of BOS for BBA Logistics programme courses in I,II,III,IV,V,VI,VII & VIII semesters of UG programs for the Academic year 2026-27 admission batch onwards -Regarding-Issued.

Ref:- The Vice-Chancellors Note Orders Dt.07.09.2026, Computer. No.: 3407363, File No.:SCHE-KRU/264/2026-KU-EHE73.

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ORDER:

The Vice-Chancellor is pleased to issue orders for holding BOS meeting with the members of the Board of studies for BBA Logistics AEDP programme courses in I,II,III,IV,V,VI,VII & VIII semesters of UG programs for the Academic year 2026-27 admission batch onwards in consonance with the changes proposed by the logistics sector skill counscil. The proposed AEDP programme is intended to be offered in collaboration with/support of the Logistics Sector Skill Council (LSC) for effective academic delivery and industry-oriented development of the programme, in accordance with the relevant guidelines and academic requirements.

The Director, Academic Audit Cell, Krishna University, is authorized to communicate with the said BOS members to hold the BOS meeting, in the **online mode** to finalise the resolutions, syllabus, and model question papers for BBA Logistics AEDP programme courses in I,II,III,IV,V,VI,VII & VIII semesters. The chairperson of the board of studies may facilitate the BOS meeting by communicating and coordinating with the other members of BOS. The BOS Chairperson is also authorized to select two meritorious available students as members of the said BOS.

After the meeting is over, all the relevant documents, such as the syllabi, model question papers, minutes and claim bills, with the all signatures are to be submitted to the office of the academic audit cell (i.e to this email address), for further processing, within **7 days** from the date of this order. The Vice-Chancellor has also permitted to pay sitting allowance, through online/NEFT payment for all the members of the BOS attending the online BOS meetings, from the **"Affiliation Account"** under the head **"TA/DA and Sitting Allowance"** for the financial year 2026-27.

(BY ORDER)

REGISTRAR (I/C)

To:

The Chairperson and committee members concerned.

Copy to:

PS to the Vice Chancellor
PA to the Registrar
File.

Digitally signed by
Nekkalapudi Usha
Date: 09-09-2026
12:49:13

KRISHNA UNIVERSITY

Dr. P. Veera Bramhachari
REGISTRAR (FAC)
Rudravaram
Machilipatnam-521004.
Mobile : 9542487999
E-mail : registrarku@gmail.com

No.KRU/AAC/Board of Studies/BBA Logistics/2023 Dated: 20-12-2023

Sub: KU – Academic Audit – The constitution of the UG Board of Studies (BoS) members in BBA Logistics for the approval of the Under Graduation (UG) CBCS syllabus w.e.f 2023-24 (APSCHE-AC - Revision of syllabus under CBCS with effect from 2023-24 syllabus) – Reg.

Read: Note order's of the Vice-Chancellor, dt: 20-12-2023

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ORDER:

In accordance with the provisions contained by the Krishna University act No:29 of 2008 of A.P. Govt., Hon'ble Vice-Chancellor is pleased to appoint the UG Board of Studies in Faculty of BBA Logistics with the following members.

UG BOARD OF STUDIES FOR BBA LOGISTICS		
S.No.	**Name of the Faculty**	**Designation**
1	M Srinivasa Rao Dr. LHR Government Degree College,Mylavaram Mobile: 9441419534, E-Mail: srinivas.mallarapu08@gmail.com	Chairman
2	Syed Abubakar Shahryar Government Degree College, Tiruvuru Mobile: 8374046463, E-Mail: syedabubakar2212@gmail.com	Member
3	Dr. M Syambabu SRR & CVR Government Degree College(A), Vijayawada Mobile: 9030622876, E-Mail: mukkusyambabu@gmail.com	Member
4	K Murali Krishna Andhra Loyola College (Autonomous) Vijayawada Mobile: 9959483581, E-Mail: muralimba09@gmail.com	Member
5	Prof. S. Ganesan Head, Logistics sector Skill Council, Chennai, Cell: 9360544422 E-Mail: prof.ganesan@lsc-india.com	Member
6	A Venu Gopal Reddy Pharma Industry Mobile: 9440138240	Industrialist
7	M Brudavanam Class: II BBA Logistics Dr. LHR Government Degree College, Mylavaram Mobile: 7013898078, E-Mail: brundavanammudu@gmail.com	Student Member-1
8	T Mahalakshmi Class: IBBA Logistics Dr. LHR Government Degree College,Mylavaram Mobile: 7675905265, E-Mail:thotamahalakshmi7@gmail.com	Student Member-2

The term of office of all the members including the chairman of Board of studies until further orders with effect from the date of the order or untill the new boards of studies constituted.

These orders shall come in to force with immediate effect.

(BY ORDER)

REGISTRAR

REGISTRAR
KRISHNA UNIVERSITY
RUDRAVARAM (V)
MACHILIPATNAM - 521 004
ANDHRA PRADESH, INDIA

Copy to:
The Chairperson & all members of UG Board of Studies of the above
All Directors and Principals of the University and Constituent Colleges/Units
PA's to Vice-Chancellor/Registrar KRU

KRISHANA UNIVERSITY, MACHILIPATNAM
BOARD OF STUDIES MEETING

Minutes of the meeting of the UG Board of Studies in the subject of BBA (Logistics) (Honours)

The meeting of the UG Board of studies in the subject of BBA (Logistics) (Honours) under single Major Programme/ Minor held on 17 - 09 - 2026, Time: 3 to 4 pm, in ONLINE Mode at L.H.R. Govt. Degree College, Mylavaram.

The following members attended the meeting

UG BOARD OF STUDIES FOR BBA (LOGISTICS)		
Members	**Name of the Faculty**	**signature**
CHAIRMAN	Dr.M.Srinivasa Rao Government Degree College,Tiruvuru Mobile:9441419534, E-Mail: srinivas.mallarapu08@gmail.com	
MEMBER	Syed Abubakar Shahryar Dr.LHR Government Degree College,Mylavaram Mobile: 8374046463, E-Mail: syedabubakar2212@gmail.com	
MEMBER	Dr. M Syam babu SRR & CVR Government Degree College(A), Vijayawada Mobile: 9030622876, E-Mail: mukkusyambabu@gmail.com	
MEMBER	K.Murali Krishna Andhra Loyala college(Autonomous) Vijayawada Mobile:9959483581,Mail:muralimba09@gmail.com	—
MEMBER	Prof.S.Ganesan Head, Logistic sector skill council, Chennai	
INDUSTRIALIST	A.Venu Gopal Reddy Pharma Industry Mobile: 9440138240	-
STUDENT MEMBER-1	L.Ammulu Dr. LHR Government Degree College, Mylavaram Mobile: 7330775428 E-Mail: ammululanka9@gmail.com	L.Ammulu
STUIDENT MEMBER-2	G.Naga Vinay Dr. LHR Government Degree College,Mylavaram Mobile: 6309925790, E-Mail: nagavinayghantasala46@gmail.com	G.Nagavinay

Agenda:

Item 1: Approval of revise syllabus for BBA (Logistics) (Honours) semester I to VI for the Academic year 2026-27 batch

Item 2: Approval of blue print and model question papers

Item 3: Approval of division of marks for internal assessment.

Item 4: Any other item with the approval of the chair.

The Chairman, Board of studies Dr.M.Srinivasa Rao Welcomed the members and initiated the discussion on the syllabus for semester I to VI in the programme BBA (Logistics) major. He apprised the members of Board of Studies about the guidelines of the NEP, APSCHE & University regarding the framing of syllabus. The members discussed in detail the various aspects presented before them and unanimously resolved the following.

Resolutions:

1. It is resolved to adopt and implement the revise syllabi for BBA (Logistics) (Honours) the core and minor subjects as appended here under for the I to VI semesters for the Academic year 2026-27.

2. The Board of studies unanimously resolved to have 30 marks allocated for the continues internal Assessment in the college and 70 marks allocated for semester end examination to be held by Krishna University.

3. The Board of studies unanimously resolved the model question paper with its scheme of distribution of marks as laid down hereunder.

4. The BOS also came out with a model question paper.

5. **The programme collaborative with logistics skill sector council (LSC).**

6. **It is resolved that Semester I to IV are teaching semesters and V and VI are Apprenticeship semesters**.

7. It is resolved that in **Semester II and IV Two Allied Courses in the MOOC** Format, the students have to Select One paper out of Three papers for **50** Marks in semester end Examination conducted by LSC

8. It is resolved that **total credits** Consist in this Course **132** as per APSCHE Norms and LSC Curriculum.(Total credits as per APSCHE norms for three year Degree course 126)

KRISHNA UNIVERSIY

BBA (LOGISTICS) (Honours) Single Major

COURSE STRUCTURE (FIRST YEAR I SEMESTER)

WITH EFFECT FROM 2026-2027

BBA (LOGISTICS)				
Semester	**Subject name**	**Category**	**Hrs**	**Credits**
I	Logistics & Supply Chain Management	Major	4	4
I	Material Management	Major	5	4
I	Retail Logistics & E Commerce	Minor	4	4
I	AECC-English	Lang	4	3
I	SEC- Introduction to Artificial Intelligence	Skill Enhancement	4+2 (Practical)	4
				19

BBA (LOGISTICS)				
Semester	**Subject name**	**Category**	**Hrs**	**Credits**
II	Warehouse Management	Major	5	4
II	Liner Logistics	Major	4	4
II	Allied Course -MOOC	Minor	4	2
II	AECC-English	Lang	4	3
II	Multi disciplinary course	Multidisciplinary course	2	2
II	SEC-Application of Artificial Intelligence	Skill Enhancement	4+2 (Practical)	4
II	Indian knowledge system		2	0
				19
COMMUNITY SERVICE PROJECT (minimum of 80 hours with 1 credit)				1

BBA (LOGISTICS)				
Semester	**Subject name**	**Category**	**Hrs**	**Credits**
III	Freight Forwarding (Ocean & Air Cargo)	Major	5	4
III	AI in Logistics	Major	4	4
III	Transport Planning techniques	Major	4	4
III	First mile operations	Minor	4	4
III	Last mile operations	Minor	4	4
III	AECC-(Creative Writing/Business writing in English)	Lang	4	3
III	Multi disciplinary course	Multidisciplinary course	2	2
III	Skill Enhancement	Skill Enhancement	2	2
				27

BBA (LOGISTICS)				
Semester	**Subject name**	**Category**	**Hrs**	**Credits**
IV	Forecasting and Inventory management	Major	5	4
IV	IOT & Robotic Applications' in Logistics	Major	4	4
IV	Lean Six Sigma In Supply Chain Management	Major	4	4
IV	Allied course – MOOC	Minor	4	2
IV	Surface Transportation	Minor	4	4
IV	Multi disciplinary course	Multidisciplinary course	2	2
IV	Skill Enhancement	Skill Enhancement	2	2
				22

SEMESTER	COURSENAME	HRS	CREDITS
V	Apprenticeship-1	1008	**22**
VI	Apprenticeship-II	1008	**22**

OPERATIONS MANAGEMENT

Minor

	OPERATIONS MANAGEMENT		
SEMESTER	**COURSE NAME**	**HRS**	**CREDITS**
I	Retail Logistics & E Commerce	4	4
II	Allied Course –MOOC	4	2
III	First mile operations	4	4
III	Last mile operations	4	4
IV	Allied Course –MOOC	4	2
IV	Surface Transportation	4	4

Semester II-Allied Courses-MOOC								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Logistics 4.0	A	Domain	60	2		100	100
2	Export & Import Documentation	B	Domain	60	2		100	100
3	International Logistics Management	C	Domain	60	2		100	100
Semester IV-Allied Courses-MOOC								
No.	Course	Code	Type	Hours	Credit	CIA	ESE	Marks
1	Courier, Express & Parcel Services	A	Domain	60	2		100	100
2	Port Terminal Management	B	Domain	60	2		100	100
3	Multi modal Transportation	C	Domain	60	2		100	100

PROGRAMMESTRUCTURE

(From the AcademicYear2026-27)

The Programme Structure contains only the Domain Courses. The Collaborating Institutions may include other Courses in each Semester as per their Norms. The total Academic Credit shall be decided as per Collaborating Institutions' Norms.

YearI–NSQF3.5								
Semester I								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Logistics & Supply Chain Management	LD2601	Domain	60	2	25	75	100
2	Materials Management	LD2602	Domain	90	3	25	75	100
	Total			150	5	50	150	200
Semester II								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Warehouse Management	LD2603	Domain	90	3	25	75	100
2	Liner Logistics	LD2604	Domain	60	2	25	75	100
3	Allied course-MOOC	LD2605A/B/C	Domain	60	2		100	100
	Total			210	7	50	250	300
YearII-NSQF4.5								
Semester III								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Freight Forwarding(Ocean & Air Cargo)	LD2606	Domain	90	3	25	75	100
2	AI in Logistics	LD2607	Domain	60	2	25	75	100
3	Transport Planning Techniques	LD2608	Domain	60	2	25	75	100
	Total			210	7	75	225	300
Semester IV								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Forecasting and Inventory Management	LD2609	Domain	90	3	25	75	100
2	IoT & Robotic Application in Logistics	LD2610	Domain	60	2	25	75	100
3	Lean Six Sigma in Supply Chain Management	LD2611	Domain	60	2	25	75	100
4	Allied course-MOOC	LD2612A/B/C	Domain	60	2		100	100
	Total			270	9	75	325	400
Year III-NSQF5.5								
Semester V								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Apprenticeship–I	LD2613	Domain	1008	22	250	150	400
	Total			1008	22	250	150	400
Semester VI								
No.	***Course***	***Code***	***Type***	***Hours***	***Credit***	***CIA***	***ESE***	***Marks***
1	Apprenticeship–II	LD2614	Domain	1008	22	250	150	400
	Total			1008	22	250	150	400

B.A. B.Com. BBA (Honours) with Major+Minor 6th sem with Sem Internship

Semester	Major (4 Cr)			Minor (4 Cr)			AECC - Languages (3 Cr)			Multi Disny' (2 Cr)			Skill Enhancement Courses (4Cr/2Cr)			OOTC			(VAC) IKS# Env. Edn* (2 Cr)			Total		
	C	H	Cr	C	H	Cr	C	H	Cr	C	H	Cr	C	H	Cr	C	H	Cr	C	H	Cr	C	H	Cr
Sem 1	2	8	8				2	8	6				1	4+2	4							5	22	18
Sem 2	2	8	8				2	8	6	1	2	2	1	4+2	4				1#	2	0	7	26	20
Community Service Project of a minimum of 80 hours with 1 Credits.																								1
Sem 3	3	12	12	1	4	4	2	8	6	1	2	2	1	2	2							8	28	26
Sem 4	3	12	12	1	4	4				1	2	2	1	2	2							6	20	20
Sem 5	1+2	12	12	2	8	8													1*	2	2	6	22	22
Sem 6	2	8	8	2	8	8																4	16	16
Internship/Apprenticeship/OJT a minimum of 180 hours (8 weeks) with 3 Credits.																								3
3-YR	**15**		**60**	**6**		**24**	**6**		**18**	**3**		**6**	**4**		**12**				**1+1**		**2**	**36**		**126**
Sem 7	3	12	12										2	8	8	1	4	2	1#	2	0	7	26	22
Sem 8	3	12	12										2	8	8	1	4	2	1#	2	0	7	26	22
4-YR	**21**		**84**	**6**		**24**	**6**		**18**	**3**		**6**	**8**		**28**	**2**		**4**	**4**		**2**	**50**		**170**
C	Courses				H	Hours				Cr	Credits				OOTC	Open Online Transdisciplinary								
#	Indian Knowledge Systems - Audit Course									*	Environ Edn													

For B.Com courses, the number of instructional hours shall be five (5) for courses involving problem-solving, and four (4) for courses comprising only theory.

List of Skill Enhancement Courses

Semester-I

Introduction to Artificial Intelligence

Semester–II

Applications of Artificial Intelligence

Semester–III

A Student has to choose **ONE** Course in following four courses

1. Business Forecasting
2. Design Thinking
3. Cyber security
4. Tourism Guidance

Semester–IV

A Student has to choose **ONE** Course in following four courses

1. Information and communication technology
2. Digital Marketing
3. Data Analysis
4. Project Management

List of Multidisciplinary Courses

Semester-I

No Multidisciplinary course is offered in Semester 1

Semester-II

A student has to choose ONE course from among the six courses

- Introduction to Social Work
- Principles of Psychology
- Indian History
- Principles of Biological Sciences
- Principles of Chemical Sciences
- Principles of Physical Sciences

Semester–III

A student has to choose ONE course from among the six courses

- Introduction to Public Administration
- Principles of Management
- Principles of Accounting
- Basic Electronics
- Health and Hygiene
- Basic Mathematics

Semester–IV

A student has to choose ONE course from among the six courses

- Fundamentals of Economics
- Indian Philosophy
- Performing Arts
- Introduction to Geography
- Basic Statistics
- Introduction to Nanotechnology

NOTE: Skill Enhancement Course & Multi Disciplinary Course is on par with other programs

Assessment System

The Assessment System of the apprenticeship-based Degree Programme developed & offered by Logistics Sector Skill Council is designed to make an objective assessment of Knowledge, Skill, and Attitude development of students. In order to make the Assessment System fool-proof and inclusive the Programme provides adequate & appropriate representation to the Industry, Sector Skill Council and the Collaborating Institution in assessing the students .This makes the Assessment System objectively measure industry-readiness of students.

Teaching Semesters: Semesters I, II, III, and IV are Teaching Semesters. All Courses scheduled in Teaching Semesters are assessed by the Collaborating Institution. The Assessment System (proportion of marks between the Continuous Internal Assessment& End Semester Examination, and the Question Paper Pattern) for these courses shall be as per the norms, standards and practices of the Collaborating Institution, notwithstanding the Regulations given in the Curriculum Booklet issued by LSC.

Apprenticeship Semesters: Semesters V and VI are Apprenticeship Semesters. Assessment System for the Courses scheduled in these Semesters will be as per the processed prescribed below.

***Allied Courses*: In the II and IV semester** The Allied Courses are offered by LSC on the pattern of MOOC. LSC delivers the course online through Logistics Learning Management System (LLMS), **and makes online assessment of students. End Semester Examination (online) comprising 50 multiple choice questions is conducted for a maximum mark of 50** .Each question will have four choices of answers from which the candidate should choose the right answer. While each correct answer fetches 1 mark, the marks scored by students would be communicated to the Collaborating Institution by LSC. Being offered under MOOC format, the Allied Courses do not have Internal Assessment.

***Apprenticeship*:** The CIA Component of Apprenticeship is assessed by the Manager / Supervisor under whom the students work during Apprenticeship Semesters and LSC for a maximum mark of **250**. The Manager / Supervisor make the assessment for **150 marks** based on skill& attitudinal development of students.

The Collaborating Institution will evaluate the Apprenticeship Report (comprising Work Diary) submitted by students, and conduct Viva for a **mark of 150**, which is considered as ESE. The Evaluation &Viva shall be conducted by a Panel comprising of the HoD (or Programme Coordinator), Student's Mentor, and one Executive from Logistics Sector. The Collaborating Institution may modify the proportion of marks between CIA and ESE as per its norms, standards, and practices.

Minimum Marks, Grading& Classification:

Minimum Marks required for passing courses ,Pattern of Grading, and Classification of Successful Candidates between 'Distinction', 'First Class', 'Second Class', etc. shall be as per the norms, standards, and practices of Collaborating Institution.

BBA (LOGISTICS)

2026-2027 Batch

Semester–I Syllabus

BBA (Logistics) Semester I

Logistics & Supply Chain Management

Course Objectives:

- Introduce the basics of logistics and supply chain management.
- How logistics and supply chain processes optimize business operations.
- Learn to manage the flow of goods and information in supply chain networks efficiently.

Learning Outcomes*:*

- Understand the fundamentals of logistics and supply chain management principles.
- Apply logistics and supply chain strategies to optimize business operations.
- Manage the flow of goods and information effectively within supply chain networks.
- Understand global logistics concepts and the challenges of supply chain management.

Unit1: Introduction to logistics: The importance of logistics and supply chain management in engineering, demand management in the supply chain, inventory control models, warehousing and inventory management, forecasting, and information technology in logistics. Logistics and Customer Service - Definition of Customer Service Elements of Customer Service- Phases in Customer Service-Customer Retention-ProcurementandOutsourcing-DefinitionofProcurement/Outsourcing-Benefits of Logistics Outsourcing - Critical Issues in Logistics Outsourcing.

Unit2: Supply chain management and 3PL, 4PL & amp;5PL: Meaning and importance of SCM-Supplier collaboration, supplier selection, network design and planning in the supply chain, sustainable supply chain, distribution strategies in the supply chain, supply chain contracts, supply chain risk management, strategic sourcing, reverse logistics, transportation modes, and management. Integrated Logistics - Need for Integration – Activity Centers in Integrated Logistics. Role f 3PL; 4PL .and 5PL.

Unit3: **Global Logistics and Supply Chain Management**: Introduction to Logistics in a Global context, International trade and logistics, Logistics System Design, Logistics Channels, Concept of Inventory related to logistics-Logistics information systems, Integration of all activities for effective supply chain performance, Risk management in global logistics, Customs regulations and documentation, Inco terms, and international shipping terms. Introduction to global Supply Chain Management, global network supply chain design, Strategic Importance of IT and computer Simulation in Supply Chain Management; Supply Chain Performance; Supply Chain System Slacks; Demand Management; Supply Management.

Unit4: Naya Bharat and Logistics: National Logistics Policy and its role in the development and optimization of logistics process-A review of India's economic transformation and the "New India" vision lean and just-in-time(JIT) and lean concepts in Indian manufacturing, Logistics and the management of food supply chains, Last-mile delivery and Omni channel logistics, Logistics for pharmaceuticals and medical devices.

Unit5: GoI initiatives in Logistics & amp; SCM: The significance of logistics facilities and nodes, as well as the PM GatiShakti-Master National Plan, Government policies and initiatives promoting logistics and supply chain productivity, environmental and social responsibility practices in logistics, Logistics innovations fueled by digitalization and technology like block chain, and case studies about the National Logistics Policy and the PM GatiShakti-Master National Plan.

Text books

1. Course Material by LSC.
2. Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies (2022), 4th Edition by David Simchi-Levi, Philip Kamin sky, Edith Simchi-Levi, Ravi Shankar.
3. Supply Chain Management (2018), 7th Edition, by Sunil Chopra, Peter Meindl, Dharam VirKalra.
4. Logistics & Supply Chain Management, (Latest edition), Martin Christopher, Prentice Hall.

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
LOGISTICS & SUPPLY CHAIN MANAGEMENT
SEMESTER I

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is logistics? Explain its importance.

2. Explain customer service and its main elements.

3. What is Supply Chain Management? Explain its importance.

4. Explain the roles of 3PL, 4PL and 5PL in logistics.

5. Explain global logistics and international trade.

6. What are Incoterms? Explain their importance in international shipping.

7. Explain the National Logistics Policy and its role in India.

8. Explain last-mile delivery and omnichannel logistics.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is logistics? Explain its importance.

OR

10. Explain customer service and its main elements.

Unit II

11. What is Supply Chain Management? Explain its importance.

OR

12. Explain the roles of 3PL, 4PL and 5PL in logistics.

Unit III

13. Explain global logistics and international trade.

OR

14. What are Incoterms? Explain their importance in international shipping.

Unit IV

15. Explain the National Logistics Policy and its role in India.

OR

16. Explain last-mile delivery and omnichannel logistics.

Unit V

17. What is PM Gati Shakti? Explain its importance.

OR

18. Explain the role of digital technology and blockchain in logistics.

BBA (Logistics) Semester I

Materials Management

COURSE OBJECTIVES:

- To help Students to understand basic Principles and concept of material Management
- To orient students on contemporary development in the field of material management

LEARNING OUTCOMES:

- To apply the knowledge about material management in the real-life business situation.
- Understand the contemporary practices followed in the field of Materials Management.
- To enhance their managerial ability and professional skills

Unit 1: Introduction: Materials Management - Evolution, Importance, Scope and Objectives- Interface with other functions. -Supply Chain Management -Objectives- Components, Trade off Customer Service & Cost. Supply Chain Analytics.

Unit 2: Purchasing: purchasing and procurement activities under Materials management- Purchasing Methods- Purchasing and quality Assurance- Purchase Cycle – governmental purchasing practices and procedures - Negotiation & Bargaining – Vendor relations - Vendor Rating - Vendor Management - Purchase Department - Responsibility – Buyer Seller Relationship - Value Analysis.

Unit 3: Inventory - Need of Inventory -Types of Inventory - Basic EOQ Model - EOQ with discounts – Different types of Analysis. - Forecasting –methods of forecasting-Material Requirement Planning (MRP) -Input and output of MRP system-BOM Explosion - MRP II. Materials Handling Systems and Equipment, Economic aspects of Materials handling

Unit 4: Quality control of material: Incoming material quality control- statistical quality control (Various control charts)- Inventory control & Cost Reduction techniques. Value Analysis & Value Engineering. Standardization – need and importance. Codification - concept, benefits - Integrity Pact- Standard Operating Procedure

Unit 5: Stores - Functions- Stores layout -documentation- Materials handling and storage systems, - Principles of Materials Handling system – Safety issues - Store Keeping – Stores Responsibilities - Location of Store House - Centralized Storeroom - Equipment – Security Measures - Protection And Prevention of Store

Text & Reference Books:

1. Course Material Prepared by LSC
2. Materials management: procedures, text and cases - A.K. Datta
3. Materials Management, M.M Verma, Sultan Chand Publications,2012.
4. Production and Operations Management, Chary S.N., Tata McGraw Hill Publishing Co., Ltd., New Delhi

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
MATERIALS MANAGEMENT
SEMESTER I

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is Materials Management? Explain its objectives.

2. Explain Supply Chain Management and its main components.

3. Explain the purchasing cycle and purchasing methods.

4. Explain vendor rating and vendor management.

5. What is EOQ? Explain its importance in inventory management.

6. Explain MRP, BOM and MRP II.

7. Explain quality control of incoming materials.

8. Explain standardization and codification of materials.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is Materials Management? Explain its objectives.

OR

10. Explain Supply Chain Management and its main components.

Unit II

11. Explain the purchasing cycle and purchasing methods.

OR

12. Explain vendor rating and vendor management.

Unit III

13. What is EOQ? Explain its importance in inventory management.

OR

14. Explain MRP, BOM and MRP II.

Unit IV

15. Explain quality control of incoming materials.

OR

16. Explain standardization and codification of materials.

Unit V

17. Explain the functions of stores and stores layout.

OR

18. Explain safety and security measures in a storehouse.

BBA (Logistics) SEMESTER-I

RETAIL LOGISTICS AND E-COMMERCE (MINOR)

COURSE OBJECTIVES:

To develop competencies and knowledge of students
To become Retail logistics and Ecommerce professionals
To help Students to understand Retail logistics and E-commerce

Unit I

Concept and Scope: Concepts of Retail Logistics and supply chain- Importance of Logistics in these days global Sourcing, Dimension of Logistics: Macro and Micro aspects-Supply chain contours: Backward and forward linkages

Unit II

Logistics and Retail Marketing: Logistics as a Support function of Order Fulfillment, Assembling & Labeling from Multi-storage points and Delivery- Logistics as an interface of Market forecasting, Stock level management and other relevant activities till transportation, preparation for dispatch and outbound documentation and customer facilitation tracking out-bound shipments.

Unit III

Reverse Logistics: Basic of reverse logistics - concept, key activities, coordinating with carriers, route map optimization, collecting pickup and feedback –Types of reverse logistics –Roles and responsibilities-Best practices in reverse logistics

Unit IV

E-Commerce: Introduction to E-commerce logistics including delivery and pickup models and the overall logistic setup –Order Processing–Activities in order processing –Types of order processing-Procedures for generating plans and schedules through MIS

Unit V

Types of Ecommerce-B2B-B2C and intra business. Retail Ecommerce –Retailing through internet, Direct Online Sales model and its types- Business Models for ecommerce.
Electronic Payment system, Electronic CRM Applications E- Security

Text & Reference Books:

1. John Fernie & Leigh Sparks, "Logistics and Retail Management: Emerging Issues and New Challenges in the Retail Supply Chain ", Kogan Page 3rd Edition, 2009
2. James B.Ayers &Mary AnnOdegaard,"Retail Supply Chain Management "Taylor& Francis, 2nd edition

KRISHNA UNIVERSITY
B.B.A (LOGISTICS) SEMESTER I
RETAIL LOGISTICS AND E-COMMERCE

Time: 3Hours **Maximum Marks: 70**

SECTION-A

Answer any five of the following questions. (5*4=20)

1. Dimensions of logistics.
2. Importance of logistics.
3. Multi storage.
4. Shipment.
5. Feedback.
6. E-commerce.
7. B2B.
8. Electronic payment system.

SECTION-B

Answer any one question from each unit. (5x10M=50M)

UNIT-I

9. Explain supply chain efficiency in logistics?

OR

10. Explain backward and forward linkages

UNIT-II

11. Explain stock level management?

OR

12. Explain order fulfillment?

UNIT-III

13. Explain types of reverse logistics?

OR

14. Explain the role and responsibilities associated with order processing?

UNIT-IV

15. Explain the procedure for generating plans and scheduling through MIS?

OR

16. Explain the types of order processing?

UNIT-V

17. Explain the advantages of EDI application

OR

18. Explain the types of online sales.

AECC- ENGLISH

And

SEC-INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Syllabuses as per APSCHE

BBA (LOGISTICS)

2026-2027 Batch

Semester–II Syllabus

Semester II

Warehouse Management

Course Objectives:

• To develop competencies and knowledge in students to become Warehouse professionals.
• To orient students in the field of Logistics.
• To help Students understand Warehousing and distribution centre operations.

Learning Outcomes:

• Students will be able to apply the Basic knowledge of Warehousing and distribution centre operations in the real-life situation.
• Apply tools and techniques to improve the warehouse operations.
• This subject will enable them to enhance their ability and professional skills

Unit 1:

Introduction to Warehouse (Storage and Packaging) Background – Need for Warehouse – Importance of Warehouse - Types of Warehouses - Broad functions in a warehouse - Warehouse layouts and layout related to functions. Understanding Warehouse Management Function and Operations - Role of a Warehouse and a Warehouse Manager, Major warehouse processes and End-to-End Warehouse Operations, Automation in warehouses. Warehouse Layout and Material Handling.

Unit-2

Receiving and Dispatch of Goods in warehouse Various stages involved in receiving goods – Stages involved receipt of goods- Advanced shipment notice (ASN) or invoice items list- Procedure for Arranging of goods on dock for counting and Visual inspection of goods unloaded- Formats for recording of goods unloaded from carriers- Generation of goods receipt note using computer- Put away of Goods- Put away list and its need-Put away of goods into storage locations - storage location codes and its application- Process of put away activity- Procedure to Prepare Warehouse dispatches. Warehouse Activities -receiving, sorting, loading, unloading, Picking Packing and dispatch - Procedure to develop Packing list / Dispatch note-Cross docking method - Situations suited for application of cross docking -Information required for coordinating cross docking..

Unit-3

Warehouse Management: Warehouse Utilization Management - Study on emerging trends in warehousing sector - DG handling -use of Material Handling Equipment's in a warehouse - Inventory Management of a warehouse - Inbound & Outbound operations of a warehouse and handling of Inbound & Outbound operations. Distribution – Definition – Need for physical distribution – functions of distribution – marketing forces affecting distribution. The distribution concept – system perspective. Channels of distribution: role of marketing channels – channel functions – channel structure –designing distribution channel – choice of distribution channels.

Unit 4:

Warehouse Automation - Warehouse Automation Analysis, Warehouse design - RFID leveraged warehouse systems, Application areas and technological advancements in Warehouse automation, Latest trends in Warehouse Automation. Use of Analytics and Optimization in Warehouse Management - Optimizing order picking, Data Analytics in different functions – Inventory, Order fulfillment, Procurement and storage.

Unit 5:

Warehouse Safety Rules and Procedures: The safety rules and 'Procedures to be observed in a Warehouse - Hazardous cargo – Procedure for Identification of Hazardous Cargo - safety data sheet- Instructions to handle hazardous cargo - Familiarization with the industry. Health, Safety & Environment - safety Equipment's and their uses - 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Basics of Warehouse and Inventory Management: (The pillars of business Logistics) INDIA SPECIFIC EDITION 2022: Villivalam Rangachari Rangarajan.
3. Warehouse Management: The Definitive Guide to Improving Efficiency and Minimising Costs in the Modern Warehouse by Gwynne Richards | 30 November 2021
4. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
WAREHOUSE MANAGEMENT
SEMESTER II

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is a warehouse? Explain its importance and functions.

2. Explain warehouse layout and material handling.

3. Explain the receiving process in a warehouse.

4. What is cross docking? Explain its uses and process.

5. Explain inbound and outbound warehouse operations.

6. Explain channels of distribution and their importance.

7. Explain warehouse automation and RFID applications.

8. Explain the use of data analytics in warehouse management.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is a warehouse? Explain its importance and functions.

OR

10. Explain warehouse layout and material handling.

Unit II

11. Explain the receiving process in a warehouse.

OR

12. What is cross docking? Explain its uses and process.

Unit III

13. Explain inbound and outbound warehouse operations.

OR

14. Explain channels of distribution and their importance.

Unit IV

15. Explain warehouse automation and RFID applications.

OR

16. Explain the use of data analytics in warehouse management.

Unit V

17. Explain important warehouse safety rules.

OR

18. What is 5S? Explain PPE and its importance in warehouse safety.

Semester II

Liner Logistics

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to Liner logistics professionals
- To orient students in the field of Logistics
- To help Students to understand Liner logistics

LEARNING OUTCOMES:

- Students will be able to apply the Basic knowledge of Liner Logistics in the real-life situation.
- This subject will enable them to enhance their ability and professional skills in Logistics.

Unit 1: Definitions of liner trades; tramp trades; containerization- Unitization - containerization, liner operations, port organization – Vessel loading and discharging, liner trade routes, The major ports, liner service options - Liner trade – ship types – Tonnages; basic ship layout, types of container ships, Ro-Ro barge carrying vessels, The refrigerated cargo ship conventional (Break bulk) vessels future vessel developments, economy of scale, shipboard handling equipment.

Unit 2: Cargoes & cargo equipment – Dangerous goods IMO special goods, cargo handlings other methods of lifting cargo port handling equipment, port terminals; port and terminal management; the role of ships officers - agent. Liner Shipping operations - Management and policy, ship management and operations, independent ship management, insurance, trade of commercial department, accounting, budgeting, freight collection and port disbursements agency duties.

Unit 3: Containerization unitization and inter-modalism - Growth in world trade unitization; container dimensions, types of container other container expressions container inventory, owning, leasing meeting the demand for containers tracking the container fleet, container control, FCLS LCLS & ICDS, legal & insurance implications in the container trade.

Unit 4: The Bill of Lading and other Documentation - The Bill of Lading UK bill of lading Act 1855 and UK carriage of goods by sea Act 1992, The use of Bill of Lading in liner trades, Bill of Lading documentary credits, Bill of Lading clauses The printed clauses – The evidence of the contract, other forms of Bill of Lading other liner documents, Intl conventions relating to Bill of Lading, paperless trading.

Unit 5: The Exchange of goods transfer - Transfer of funds from country to country, methods of payments in International trade who are the merchants, International contracts of sale INCO terms; Legal aspects of the liner trades - The carrier insurance the carrier's liability for the cargo the liabilities of the agent, legal aspects of the Bill of Lading, cargo claims general average (GA), security, ISPS code.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Ship Operation Management, Fujita, N.H. Publisher, 1974.
3. Ship Operation Management, Bertrams Publication, 2010.
4. Handbook of Ship Calculations, Construction and Operation, Charles H. Hughes, Wexford College Press, 2008.
5. Ocean Shipping - Elements of Practical Steamship Operation, Robert Edwards Annin, Thompson Press, 2010.

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
LINER LOGISTICS
SEMESTER II

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is liner trade? Explain its features.

2. Explain containerization and types of container ships.

3. Explain cargo handling and dangerous goods.

4. Explain port and terminal management and the role of a ship's agent.

5. Explain containerization, unitization and inter-modalism.

6. Explain FCL, LCL and ICD.

7. What is a Bill of Lading? Explain its uses.

8. Explain important liner documents and paperless trading.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is liner trade? Explain its features.

OR

10. Explain containerization and types of container ships.

Unit II

11. Explain cargo handling and dangerous goods.

OR

12. Explain port and terminal management and the role of a ship's agent.

Unit III

13. Explain containerization, unitization and inter-modalism.

OR

14. Explain FCL, LCL and ICD.

Unit IV

15. What is a Bill of Lading? Explain its uses.

OR

16. Explain important liner documents and paperless trading.

Unit V

17. Explain methods of payment in international trade and Incoterms.

OR

18. Explain carrier liability, cargo claims and the ISPS Code.

Semester II

Allied course – MOOC (A)

Logistics 4.0

COURSE OBJECTIVES:

• To develop competencies and knowledge of students to understand the revolution in Logistics Industry

• To orient students in the field of Logistics

• To help students to learn the recent technology changes and challenges in Logistics Industry

LEARNING OUTCOMES:

• Students will be able to apply the basic knowledge of technology and ITC development.

• This subject will enable them to enhance their ability and professional skills in Logistic.

Unit 1: First Three Industrial Revolutions: Industry 1.0–3.0 - Introduction to Industry 4.0 - Digitalization and the Connected Economy - Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0 - The Journey so far: Developments in USA, Europe, China, and other countries - Comparison of Industry 4.0 Factory and Today's SMART Factory - Trends of Big Data (Evolution) along with the Maturity framework and Predictive Analytics for Smart Business Transformation.

Unit 2: Evolution of Logistics - Introduction to Logistics 4.0 - Digital Transformation of Supply Chain Management - Advanced robots, Augmented Reality, Digital Twins - Simulation — Network simulation and optimization - The Industrial Internet of Things - Cloud Computing - Cyber Security.

Unit 3: Big data and analytics – Data Warehouse v/s Data Mart - Digitalization of Logistics and Challenges in Logistics 4.0 - Inventory Control Systems (ICS)-MRP-1-MRP-2-ERP-1 3.3 The Internet of Things - Challenges of The Internet of Things - Changes in Business Models and Production Processes - Telematics Technology – Application in Logistics.

Unit 4: Technology in Procurement 4.0 (Consignor Inventory Model) - Technology in Inventory Management 4.0 (Impact of Digital Technologies on the Inventory Management Techniques) - Technology in Logistics and Warehousing 4.0 - Logistics and Supply Chain Analytics.

Unit 5: Business issues in Logistics 4.0 - Opportunities and Challenges - Future of Works and Skills for Workers in the Logistics 4.0 Era - Advantages and disadvantages of Logistics 4.0 - Strategies for competing in a Logistics 4.0 world. 15

Semester II

Allied course – MOOC (B)

Export & Import Documentation

COURSE OBJECTIVES:

• To familiarize the student with the basic concept of formalities for export trade, and the documentation process required for import and export.

LEARNING OUTCOMES:

• Recognize the impact of information and communication technologies, especially of the internet in business operations.

• Recognize the fundamental principles of E Business and E Commerce.

• Explain the security protocols and the issues in internet security.

Unit 1: Introduction to Export and Import 12 Hrs Basics of Exports - Classification of goods - Preparation for Exports - Methods of Exporting - Export Marketing Organizations - Functions - Registration formalities IEC Number - Procedure of obtaining IEC Number - RCMC (Registration Cum Membership Certificate) –Export Credit Guarantee Council (ECGC) - Application for import and export of restricted items.

Unit 2: Documentation Framework and Contracts 15 Hrs Aligned Documentation System: Commercial Documents - Auxiliary Commercial Documents - Regulatory Documents - Documents related to goods - Documents related to Shipment - Documents related to Payments - Documents related to Inspection - Documents related to Excisable Goods - Types of Contracts - Export Contracts.

Unit 3: Payments and Finance 15 Hrs Factors - Methods of receiving Payment - Instruments of Payments-Letter of Credit Pre-shipment Finance - Post-shipment Finance - Post-shipment Credit in Foreign Currency - Negotiation of documents with bank - CENVAT - Duty Draw back.

Unit 4: Quality Control and Clearance of Cargo 15Hrs Objective of Quality Control - Methods - Procedure for Pre shipment Inspection - Role of Clearing and Forwarding Agents – Role of Inspection Agents-Clearance of Cargo Central Excise Clearance Procedure - Central Excise Clearance Option - Shipment of Export Cargo.

Unit 5: Customs Clearance, Risk and Insurance Policy 15 Hrs Customs Clearance of Export Cargo - Customs Clearance of Import Cargo - Risk: Types - Types of cover issued by ECGC - Cargo Insurance. Processing of an export order - Major laws governing export contract

Text & Reference Books:

1. RAMA, GOPAL C. (2008) Export Import Procedures Documentation and Logistics. New Age International Publishers: New Delhi.

2. KHUSHPAT, S. J. (2013) Export Import Procedures and Documentation. Himalaya Publishing House: New Delhi.

3. PAWAN, KUMAR (2001) Export of India's Major Products Problems and Prospects. New Century Publications: New Delhi.

4. KAPOOR, D. C. (2002) Export Management. Vikas Publications: New Delhi.

5. CHERUNILAM, F. (2004) International Trade and Export Management. Himalaya Publications: New Delhi.

Websites:

1. www.cbec.gov.in/customs/cs-act/cs-act-idx.htm (Central Board of Excise and Customs - Customs Act, 1962, Customs Tariff Act – 1975, Other Acts)

2. www.epckenya.org/(Export Promotion Council)

3. commerce.nic.in/MOC/index.asp (Ministry of Commerce and Industry)

4. www.dgft.gov.in/ (Directorate General of Foreign Trade)

Semester II

Allied course – MOOC (C)

International Logistics Management

COURSE OBJECTIVES:

• To develop competencies and knowledge of students to become International logistics management professionals

• To orient students in the field of Logistics

• To help Students to understand international Logistics management

LEARNING OUTCOMES:

• Students will be able to apply the Basic knowledge of International Logistics management in the real-life situation.

• This subject will enable them to enhance their ability and professional skills in Logistics.

Unit 1: International Logistics: Definition, Evolution, Concept, Components, Importance, Objectives; Logistic Subsectors; The work of Logistics; Integrated Logistics; Barrier to Internal Integration.

Unit 2: Customer Focused Marketing; International Marketing: Introduction, Definition, Basis for International Trade, Process, Importance; International Marketing Channel: Role of Clearing Agent, Various Modes of Transport, Choice and Issues for Each Mode, Transport Cost etc.

Unit 3: Transportation Functionality and Principles; Multimodal Transport: Modal Characteristics; Modal Comparisons; Legal Classifications; International Air Transport; Air Cargo Tariff Structure; Freight: Definition, Rate; Freight Structure and Practice.

Unit 4: Containerization: Genesis, Concept, Classification, Benefits and Constraints; Inland Container Depot (ICD): Roles and Functions, CFS, Export Clearance at ICD; CONCOR; ICDs under CONCOR; Chartering: Kinds of Charter, Charter Party, and Arbitration.

Unit 5: International commercial documents - International contracts, terms of payments, international insurance, packaging for export, custom clearance and infrastructure: transportation, communication and utilities – Brokerage.

Text & Reference Books:

1. Course Material Prepared by LSC
2. International Marketing by Gupta and Varshing, Publisher: Sultan Chand and Sons
3. International logistics by Pierre David, Publisher: Biztantra
4. Logistic Management and World Sea Borne Trade by Multiah Krishnaveni, Publisher: Himalaya Publication
5. Logistic and Supply Chain Management by Donald J. Bowerson, Publisher: Prentice Hall of India

AECC- ENGLISH

And

MULTI DISCIPLINARY COURSE

And

SEC-INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Syllabuses as per APSCHE

BBA (LOGISTICS)

2026-2027 Batch

Semester–III Syllabus

Semester III

Freight Forwarding (Ocean & Air Cargo)

Course Objectives:

• To develop competencies in documentation procedures
• To help students understand freight forwarding
• To give an insight into Freight and Cargo management in various industries

Learning Outcomes:

• Procedure for loading and unloading in various containers.
• Knowledge of transit loading and unloading.
• Students will be able to demonstrate their skills in documentation in their profession.

Unit 1: Introduction to EXIM, Freight forwarding and custom clearance – types of custom clearances – Importance of custom clearance – certificate of origin, ICEGATE and insurance – Custom Act – Regulations pertaining to custom clearance – different modes of freight forwarding– process of freight forwarding. Cargo handling, INCO terms and terminologies used in Cargoes - Different Types of Cargoes for transportation– Importer and exporter Code (IEC), The registered PAN-based Business Identification Number received from the Directorate General of Foreign Trade.

Unit 2: Loading and Unloading- Stevedoring, Lighterage Services and Security - Port trusts - operational unit - services – Seaports – Vessel Operations – pilotage - Stevedoring - Dock Labour Boards - charges – Automated Container Handling - security at ports and harbours. Role of security agencies - logistics services-- Letters of Credit and payment Terms. Etc. - Computer and its application in internal systems of documentation.

Unit 3: Shipping Lines Hub & Spoke - Process flow - Advices – Booking - Containerization – Containers – Container numbering - Process flow - Shipping Sales – Leads – Quotations – Customer Service- Documentation of Freight Forwarding process as per customer timelines and requirements - Carting, unloading, Stacking, Loading, and Stuffing - Procedure for dealing with loss or damage to goods - Different P.G.A and their roles. -Containers; Pallets; Palletization; Fumigation.

Unit 4: History of Air Cargo- History of Air Cargo& Mail, Air Freight, Air Express, Overnight Air Express & Air Mail Other Multi-Modal forms of Transport- Rail, Sea & Surface Transport- Key Concepts-Key Organizations Facilitating Air Cargo International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), International Federation of Freight Forwarders Association (FIATA), The International Air Cargo Association (TIACA).

Unit 5: Air Freight Forwarding-Air freight Exports and Imports - Special Cargoes - Consolidation - Documentation – Air Way Bill (AWB) – Communication – Handling COD shipments – POD – Conditions of contract - Dangerous (DGR) or Hazardous goods.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Air Cargo Management: Air Freight and the Global Supply Chain, Routledge, Michael Sales
3. Swapna Pillai, Export Import Procedures & Documentation, Sahitya Bhawan Publication, 2020.

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
FREIGHT FORWARDING (OCEAN & AIR CARGO)
SEMESTER III

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is freight forwarding? Explain its process.

2. Explain customs clearance, IEC and Certificate of Origin.

3. Explain stevedoring and loading/unloading operations.

4. Explain port security and the role of security agencies.

5. Explain the freight forwarding process from booking to delivery.

6. Explain containerization, palletization and fumigation.

7. Explain the history and development of air cargo.

8. Explain the roles of IATA, ICAO, FIATA and TIACA.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is freight forwarding? Explain its process.

OR

10. Explain customs clearance, IEC and Certificate of Origin.

Unit II

11. Explain stevedoring and loading/unloading operations.

OR

12. Explain port security and the role of security agencies.

Unit III

13. Explain the freight forwarding process from booking to delivery.

OR

14. Explain containerization, palletization and fumigation.

Unit IV

15. Explain the history and development of air cargo.

OR

16. Explain the roles of IATA, ICAO, FIATA and TIACA.

Unit V

17. Explain Air Way Bill and its uses.

OR

18. Explain special cargoes and dangerous goods in air freight.

Semester III

AI in Logistics

Course Objectives:

• Introduce fundamental AI and machine learning concepts and applications in logistics.

• Investigate the use of AI and machine learning technologies to optimize logistical operations.

Learning Outcomes:

• Describe the underlying concepts and uses of artificial intelligence and machine learning in logistics.

• Use artificial intelligence and machine learning to optimize logistics operations.

• Use AI and machine learning in logistics and supply chain management to do predictive analytics.

Unit 1: Introduction of Logistics & AI: Origin & Definition of AI-Three Components of AI-Trends Accelerating AI-Challenges & Risks-Detail the trends Accelerating AI-IoT and Big Data-Challenges & risks associated with the usage of AI-Consumer AI-Ambient Assistance works in devices. Foundations of AI, Intelligent Agents – Agents and Environments – Good Behaviour – Nature of Environments – Structure of Agents.

Unit 2: AI in Logistics: AI is used to augment core business activities (Enterprise AI). Detail how AI enables personalization in logistics and its 12 sub-sectors, and their activities are essential in Logistics and Supply Chain.

Unit 3: Predictive Logistics Predictive Logistics RPA is and how it can support back-office processes. AI-powered customer Experience with examples like drone-operated last-mile deliveries, etc. List the major aspects of AI and explain the ones mainly used in Logistics.- Technologies integrated with AI and widely used in Indian Logistics-Current Impact of AI in Logistics in terms of automation of processes.

Unit 4: Artificial Intelligence and Problem Solving: Regression Algorithms: Linear Regression, Decision Tree Regression, Comparison of Regression Algorithms – Regularisation Techniques, Additional Techniques for Improving Accuracy in Challenging Scenarios through Smart Feature Engineering and Modelling Methodologies. Supervised Learning, unsupervised, reinforcement learning- Logistic regression, Linear regression, Decision trees and random forests, Linear Discriminant Analysis, Clustering algorithms (K-means, hierarchical clustering)

Unit 5: Introduction to AI Ethics Introduction – Introduction to Artificial Intelligence – Overview for Law and Regulations – Impacts of AI – Ethics of AI – Approaches in AI Ethics. 9 Unit II Rise of AI Ethics AI Ethics – Common Themes and Varieties of Questions – Ethical Questions in AI – AI Ethics Now – AI Ethics Law – Case study: An Indigenous AI Report.

Text & Reference Books:

1. Course Material from LSC

2. George Luger (2017). Artificial Intelligence: Structures and Strategies for Complex Problem-Solving, 6th edition, Pearson Education.

3. Giuseppe Bonaccorso (2017). Machine Learning Algorithms, Packt Publishing.

4. Géron, Aurélien. Hands-on machine learning with Scikit-Learn, Keras, and Tensor Flow. "O'Reilly Media, Inc..", 2022.

5. Stuart J Russell and Peter Norvig, Artificial Intelligence – A Modern Approach, PHI Learning, Fourth Edition, 2022.

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
AI IN LOGISTICS
SEMESTER III

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is Artificial Intelligence? Explain its basic components.

2. Explain intelligent agents and their environments.

3. Explain Enterprise AI and its role in logistics.

4. Explain how AI can improve logistics activities and customer service.

5. What is Predictive Logistics? Explain its uses.

6. Explain RPA and AI-based automation in logistics.

7. Explain supervised, unsupervised and reinforcement learning.

8. Explain decision trees, random forests and K-means clustering.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is Artificial Intelligence? Explain its basic components.

OR

10. Explain intelligent agents and their environments.

Unit II

11. Explain Enterprise AI and its role in logistics.

OR

12. Explain how AI can improve logistics activities and customer service.

Unit III

13. What is Predictive Logistics? Explain its uses.

OR

14. Explain RPA and AI-based automation in logistics.

Unit IV

15. Explain supervised, unsupervised and reinforcement learning.

OR

16. Explain decision trees, random forests and K-means clustering.

Unit V

17. What is AI ethics? Explain its importance.

OR

18. Explain major legal and ethical issues related to AI.

Semester III

Transport Planning Techniques

Course Objectives:

• To ensure that students can apply the underlying operating and economic principles to develop solutions to various problems, such as forecasting, scheduling, and network design.

• To understand the route mapping and use of TMS

Learning Outcomes:

• Design and administer surveys to obtain the data required for transportation planning.

• Estimate travel demand generation at aggregate and disaggregate levels.

• Determine travel demand distribution using growth factor methods and gravity models.

• Develop land use integrated travel demand models.

Unit-1: Introduction:-Transport and Socioeconomic-Activities;-Historical Development of Transport;-Transportation in the Cities-Freight Transportation-Future Developments.

Unit 2: Introduction, Transportation and development of Map: Transportation Planning Process and Concepts: Role of Transportation and Changing Concerns of Society in Transportation Planning; Transportation Problems and Problem Domain; Objectives and Constraints; Flow Chart for Transportation Planning Process-Preparation of Map Basic Terminology; Base Map Preparation: Representation of Spatial Data; Choice of Appropriate Scales; Notations – Basic Disciplines of Maps.

Unit 3: Assignment:- Description of Transport Network- Route Choice Behaviour- Minimum Path, Minimum Path Algorithm- Route Assignment Techniques- Multipath Traffic Assignment-Capacity-Restrained Traffic Assignment.

Unit 4: Land use-Transportation Models: Location models – Opportunity Models, Lowry-based Land use Transportation Models – Allocation Function, Constraints, Travel Demand Estimation – Iterative Solutions, Matrix Formulation, Dynamic and Disaggregated extensions; Urban Forms and Urban Structures.

Unit 5: Introduction to Intelligent Transport Systems (ITS) Functioning and Utility of ITS; Historical Background of ITS Development; Technology Building Blocks: Data Acquisition, Communication Tools, Data Analysis, Passenger and Cargo Information; Detection, Identification and Collection Methods: Roadway Sensors, Environmental Sensors, Probe-Based Sensors, Bluetooth, RFID, Mobile Reports, Real Time Traffic Monitoring Using Cellular Network and GPS Probe, Smart Cards.

Text & Reference Books:

1. Meyer M.D. and Miller E.J., Urban Transportation Planning, McGraw-Hill International.
2. Khisty, C J., Transportation Engineering – An Introduction, Prentice-Hall, NJ, 2007
3. Meyer, M. D, ITE Transportation Planning Handbook, John Wiley and Sons 2016
4. Intelligent Transport Systems, by P. K. Sarkar and A.K. Jain, PHI Learning Pvt. Ltd., 2018

B.B.A. (LOGISTICS) – 2026–27

MODEL QUESTION PAPER

TRANSPORT PLANNING TECHNIQUES

SEMESTER III

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. Explain the relationship between transport and socioeconomic activities.

2. Explain freight transportation and future developments.

3. Explain the transportation planning process.

4. Explain base map preparation, scale and map notations.

5. What is route choice behaviour? Explain.

6. Explain minimum path and route assignment techniques.

7. Explain land use-transportation models.

8. Explain travel demand estimation and iterative solutions.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. Explain the relationship between transport and socioeconomic activities.

OR

10. Explain freight transportation and future developments.

Unit II

11. Explain the transportation planning process.

OR

12. Explain base map preparation, scale and map notations.

Unit III

13. What is route choice behaviour? Explain.

OR

14. Explain minimum path and route assignment techniques.

Unit IV

15. Explain land use-transportation models.

OR

16. Explain travel demand estimation and iterative solutions.

Unit V

17. What are Intelligent Transport Systems? Explain their uses.

OR

18. Explain GPS, RFID, sensors and real-time traffic monitoring.

Semester III

FIRST MILE OPERATION (MINOR)

UNIT-1

Role of First Mile in E-Commerce Logistics

Difference between First Mile, Line Haul and Last Mile operations.-First Mile Operations-Overview.-Why is First Mile operations important in e-commerce logistics-First Mile process flow.

UNIT II

Shipment Pickup Operations

Shipment pickup process. –Pickup operations staff - roles and responsibilities. –Pickup coordination. -Safety and security of shipments during pickup-Pickup documentation.

UNITIII

Shipment Processing Operations

Primary and secondary processing.-Bagging operations.-Manual processing operations-Automated processing operations

UNIT IV

Layout of A Processing Centre Inbound operations-Processing Operations-Outbound Operations-Safety and security-Processing Centre staff - roles and responsibilities

UNIT V

First Mile Analytics and Metrics

Productivity-Pickup operations metrics-Processing operations metrics-First Mile dashboard.

Tools and Applications

Pickup tools and applications-Processing tools and applications-Exceptions in First Mile and impact on operations-Tools and communication to resolve exceptions.

Text & Reference Books:

1. Course Material Prepared by LSC

KRISHNA UNIVERSITY
B.B.A (LOGISTICS) SEMESTER III
FIRST MILE OPERATIONS

Time: 3Hours **Maximum Marks: 70**

SECTION-A

Answer any five of the following question. **(5*4=20)**

1. E- Commerce.
2. Process of first mile.
3. Pick-up coordination.
4. Manual processing operation.
5. Plant layout.
6. First-Mile dashboard.
7. Logistics.
8. Processing center staff.

SECTION-B

Answer any one question from each unit. **(5x10M=50M)**

9. Why is first mile operation important in e-commerce logistics? Explain.

(OR)

10. Distinguish between first mile and last mile operation.

11. Explain the roles and Responsibilities of pickup operation staff.

(OR)

12. What are some of the measure takes to ensure safety in shipping operation?

13. Explain primary and secondary processing operations.

(OR)

14. Write briefly on automated processing operations.

15. Describe layout of a processing plant.

(OR)

16. Inbound versus out bonds logistics. Give Examples.

17. What are the tools and application in first mile operation?

(OR)

18. What is a delivery exception? How to handle it?

Semester III

LAST MILE OPERATION (MINOR)

UNIT-1

Introduction

What is Last Mile in Ecommerce Importance of Last Mile in the supply chain Last Mile Delivery challenges for ecommerce Trends in Last Mile delivery Route optimization in Last Mile operations

UNIT-2

Last Mile Processes Delivery Process & its challenges Reverse pickup process in Last mile operations Challenges in Reverse Pickup process Tools and applications in Last Mile operations Considerations for effective last mile logistics strategy

UNIT-3

Metrics

3.1 Metrics to measure in last file

3.2 Automation and technology driving metrics.

UNIT-4

Customer service

4.1 Customer service and its importance

Good and bad customer service (Dos and Don'ts of customer service) Relationship between metrics and customer service.

UNIT-5

Prospects of Last Mile Logistics-Innovations in Last Mile Logistics Technology Trends in Last Mile Delivery Last Mile Delivery Market Future Prospects

Tex t& Reference Books:

Course Material Prepared by LSC

KRISHNA UNIVERSITY
B.B.A (LOGISTICS) SEMESTER III
LAST MILE OPERATIONS

Time: 3Hours **Maximum Marks: 70**

SECTION-A

Answer any five of the following question. **(5*4=20)**

1. Explain the last mile in e-commerce.
2. What do you understand by route optimization in last mile operation?
3. What are the various challenges that are encountered in reverse pick up process
4. Describe the various applications in last mile operations
5. Elucidate the significance of customer service
6. Explain the relationship between metrics and customer service
7. What are the different innovations in last mile logistics
8. Explain the various technology trades in last mile delivery

SECTION-B

Answer any one question from each unit. **(5x10M=50M)**

9. Describe the various trades in last mile delivery

(OR)

10. What are the last mile delivery challenges for e-commerce?

11. Explain the reverse pickup process in the last mile operation in detail?

(OR)

12. What are the considerations for effective last mile logistics strategy?

13. Discuss in detail the various automation and technology driving metrics

(OR)

14. Enumerate the various metrics that are a available to measure the last mile.

15. Mention in detail do's and don'ts of customer service

(OR)

16. Explain in detail how customer service is decided factors of the success are failure or organization?

17. Elucidate the various prospects of last mile logistics

(OR)

18. What are the various futures for prospect of last mile logistics?

AECC- ENGLISH
And
MULTI DISCIPLINARY COURSE
And
SKILL ENHANCEMENT COURSE

Syllabuses as per APSCHE

BBA (LOGISTICS)

2026-2027 Batch

Semester–IV Syllabus

Semester IV

Forecasting and Inventory Management

Course Objectives:

• To develop competencies and knowledge in students to become Forecasting and inventory management professionals

• To orient students in the field of Forecasting and inventory management

• To help Students to understand forecasting and inventory management

Learning Outcomes:

• Students will be able to apply the Basic knowledge of forecasting and inventory management in the real life situation.

• It will enable them to enhance their ability and professional skills in inventory management

Unit 1: Forecasting: Meaning –Need -Types of forecasts –Demand Forecasting- Types of Demand Forecasting- Importance - Demand planning v/s Forecasting- Sources of Demand- Process of predicting future demand for products or services by analyzing historical data, trends, and other relevant factors. Types of Forecasting- Qualitative- Based on expert opinions or market research- Delphi method, focus groups- Quantitative- Based on numerical data and statistical methods- Time series, regression model- Supply chain dynamics - Include simple problems on Calculation of Demand Forecasting.

Unit 2: Inventory Management Concepts- a process of ordering, storing, tracking, and controlling inventory to ensure the right quantity is available at the right time. Types of Inventory- Raw Materials-Work-in-Progress (WIP) Finished Goods-Maintenance, Repair, and Operations (MRO)- Inventory Control Techniques- EOQ (Economic Order - Safety Stock Quantity)- ABC Analysis- JIT (Just-in-Time)- VMI (Vendor-Managed Inventory).

Unit 3: Inventory costs and their relevance for decision making – Inventory policies and control - Push Pull inventory methods - Risk pooling - Inventory management process - Inventory control system - Performance measurement in inventory management- Strategic Sourcing - Strategic sourcing process - Supplier Evaluation - Selection- Key factors for supplier selection - Standards for supplier selection - Standards and certification - Quality Characteristics - Supplier Quality Management, Rating measurement criteria - Replace the Use of Computers in Inventory Mgmt by Use of a Technology in Inventory Mgmt.

Unit 4: Inventory Management with Advanced Tech--Futuristic Technologies -IoT (Internet of Things)-Smart sensors for tracking inventory levels, temperature (cold chain), location, and shelf life.- Blockchain-inventory and supplier records, traceability, and tamper-proof audit trails.- RFID & Drones- Automated inventory counting, warehouse navigation, and real-time stock updates.

Unit 5: Integration of Forecasting & Inventory Management-Demand-Driven MRP (DDMRP): Combines forecasts and real-time signals to drive inventory planning.- AI-Powered Inventory Optimization: Balances service levels and carrying costs dynamically.- Predictive Replenishment: Systems auto-order stock based on consumption trends and external factors - Along with periodical inventory systems also include perpetual inventory systems.

Text & Reference Books:

1. Course Material Prepared by LSC

2. Operations Research – Concepts, Problems & Solutions- Kapoor V.K.-Sultan Chand & Sons/2017- 978-81 8054-854-3 (TC-532)

3. Inventory and Production Management in Supply Chains by Edward A. Silver, David F. Pyke, & Douglas J. Thomas Edition: 4th Edition (2021): Taylor & Francis Group: ISBN: 978-1032179322

4. Achieving Effective Inventory Management by John Toomey-6th Edition (2017)- Effective Inventory Management, Inc.-ISBN: 978-0967820071

5. Business Forecasting and Modelling by J. Holton Wilson & Barry Keating-6th Edition (2014)- McGraw Hill/Europe, Middle East & Africa-978-0077172022.

B.B.A. (LOGISTICS) – 2026–27
MODEL QUESTION PAPER
FORECASTING AND INVENTORY MANAGEMENT
SEMESTER IV

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is forecasting? Explain its importance.
2. Explain qualitative and quantitative forecasting methods.
3. Explain different types of inventory.
4. Explain EOQ, Safety Stock and ABC Analysis.
5. Explain push and pull inventory methods.
6. Explain supplier evaluation and selection criteria.
7. Explain IoT and smart sensors in inventory management.
8. Explain RFID and drones in inventory counting and tracking.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is forecasting? Explain its importance.

OR

10. Explain qualitative and quantitative forecasting methods.

Unit II

11. Explain different types of inventory.

OR

12. Explain EOQ, Safety Stock and ABC Analysis.

Unit III

13. Explain push and pull inventory methods.

OR

14. Explain supplier evaluation and selection criteria.

Unit IV

15. Explain IoT and smart sensors in inventory management.

OR

16. Explain RFID and drones in inventory counting and tracking.

Unit V

17. Explain Demand-Driven MRP and predictive replenishment.

OR

18. Explain periodic and perpetual inventory systems.

Semester IV

IoT & Robotic Application in Logistics

Course Objectives:

• Introduce fundamental IoT and Robotic Applications in Logistics concepts and applications in logistics.

• Investigate using AI and machine learning technologies to optimise logistical operations.

Learning Outcome:

• Understand the role of Robotic Process Automation (RAP) in general.

• Analyse applications of RPA in enterprises.

• Mark the scalability opportunities of RPA in LSCM.

• Recognise the foundations of Machine Learning.

Unit 1: Basics of IoT Evolution of Internet of Things, Enabling Technologies, M2M Communication, IoT World Forum (IoTWF) standardised architecture, Simplified IoT Architecture, Core IoT Functional Stack, Fog, Edge and Cloud in IoT, Functional blocks of an IoT ecosystem, Sensors, Actuators, Smart Objects and Connecting Smart Objects.

Unit 2: Robotic Processes Introduction to Robotic Process Automation & Bot Creation Introduction to RPA and Use cases – Automation Anywhere Enterprise Platform – RPA Development and Implementation. Advanced Features and Capabilities – Ways to Create Bots.

Unit 3: Advances in Robotic Processes Advanced RPA Techniques; RPA Deployment and Management. Emergence, Evolution, Future of RPA, Differentiating RPA from Automation, Defining RPA and its Benefits, Types of Bots, Application areas of RPA, List of RPA tools

Unit 4: Integration of Robotic Processes RPA Integration with Enterprise Systems; Future Trends in RPA: Intelligent Automation, Hyper automation, and beyond.

Unit 5: Artificial Intelligence and Machine Learning Overview of AI and ML, Types of machine learning: supervised, unsupervised, reinforcement learning. Logistic regression, Linear regression, Decision trees and random forests, Linear Discriminant Analysis, Clustering algorithms (K-means, hierarchical clustering).

Text & Reference Books:

1. M.C. Trivedi (2013). A Classical Approach to Artificial Intelligence. Khanna Book Publishing.
2. Jeeva Jose. (2023). Introduction to Machine Learning. Khanna Book Publishing Company Private Limited, New Delhi.

B.B.A. (LOGISTICS) – 2026–27

MODEL QUESTION PAPER

IoT & ROBOTIC APPLICATION IN LOGISTICS

SEMESTER IV

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is IoT? Explain its evolution and applications.

2. Explain sensors, actuators and smart objects in IoT.

3. What is Robotic Process Automation? Explain its uses.

4. Explain the basic process of creating and implementing RPA bots.

5. Explain advanced RPA techniques and deployment.

6. Explain different types of RPA bots and their applications.

7. Explain RPA integration with enterprise systems.

8. Explain intelligent automation and hyperautomation.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is IoT? Explain its evolution and applications.

OR

10. Explain sensors, actuators and smart objects in IoT.

Unit II

11. What is Robotic Process Automation? Explain its uses.

OR

12. Explain the basic process of creating and implementing RPA bots.

Unit III

13. Explain advanced RPA techniques and deployment.

OR

14. Explain different types of RPA bots and their applications.

Unit IV

15. Explain RPA integration with enterprise systems.

OR

16. Explain intelligent automation and hyper automation.

Unit V

17. Explain supervised, unsupervised and reinforcement learning.

OR

18. Explain linear regression, decision trees and clustering.

Semester IV

Lean Six Sigma in Supply chain Management

Course Objective:

• To provide students with a comprehensive understanding of Lean Six Sigma methodologies and their application in optimizing logistics and supply chain processes.

• Design of experiments, solutions implementation and validation, change management, control charts, advanced Lean Six Sigma tools, and real-world case studies.

Learning Outcome:

• To possess the knowledge and skills needed to apply Lean Six Sigma methodologies to improve efficiency, reduce waste, and optimize logistics and supply chain processes.

• To lead and contribute to continuous improvement initiatives in various industry settings.

Unit 1: Historical Overview – Definition of quality – What is six sigma -TQM and Six sigma - lean manufacturing and six sigma- six sigma and process tolerance – Six sigma and cultural changes – six sigma capability – six sigma need assessments - implications of quality levels, Cost of Poor Quality (COPQ), Cost of Doing Nothing.

Unit 2: Tools for definition – IPO diagram, SIPOC diagram, Flow diagram, CTQ Tree, Project Charter – Tools for measurement – Check sheets, Histograms, Run Charts, Scatter Diagrams, Cause and effect diagram, Pareto charts, Control charts, Flow process charts, Process Capability Measurement, Tools for analysis – Process Mapping, SWOT, PESTLE, Five Whys, interrelationship diagram, overall equipment effectiveness, TRIZ innovative problem solving – Tools for improvement – forced field analysis – Tools for control – Gantt chart, Activity network diagram, Radar chart, PDCA cycle, Milestone tracker diagram, Earned value management.

Unit 3: Design For Six Sigma (DFSS), Design For Six Sigma Method - Failure Mode Effect Analysis (FMEA), FMEA process - Risk Priority Number (RPN)- Six Sigma and Leadership, committed leadership – Change Acceleration Process (CAP)- Developing communication plan – Stakeholder.

Unit 4: Lean Six Sigma in Logistics; Data Collection and Analysis; Cause and Effect Analysis (Fishbone Diagram); Failure Mode and Effects Analysis (FMEA); Regression Analyses and Correlation; Hypothesis Testing: t tests, ANOVA, Chi-Square Tests; Lean Tools for Waste Reduction: Kanban, Poka-Yoke, SMED; Design of Experiments (DOE); Solutions Implementation and Validation; Change Management in Lean Six Sigma

.

Unit 5: Measure Phase Tools: CTQ Tree, Detailed process map, Data collection planning sheet, data collection forms, process capability calculation, measurement system analysis, Gauge R&R Study.

Text & Reference Books:

1. Course Material from LSC

2. Baker, B. (2003). Lean Six Sigma: Combining Six Sigma Quality With Lean Speed. Quality Progress, 36(10)

3. Antony, J. (2023). Design of experiments for engineers and scientists. Elsevier.

4. N. Gopalakrishnan, Simplified Six Sigma – Methodology, Tools and Implementation, PHI.

5. Textbooks 4 Montgomery, D. C. (2017). Design and analysis of experiments. John Wiley & sons.

B.B.A. (LOGISTICS) – 2026–27

MODEL QUESTION PAPER

LEAN SIX SIGMA IN SUPPLY CHAIN MANAGEMENT

SEMESTER – IV

TIME: 3 HOURS **MAX. MARKS: 70**

SECTION – A

Answer any FIVE questions. **5 × 4 = 20**

1. What is Six Sigma? Explain its importance and benefits..

2. Explain Lean Manufacturing and Six Sigma. Also explain Cost of Poor Quality (COPQ).

3. Explain SIPOC Diagram, Flow Diagram, CTQ Tree, Project Charter and Check Sheet.

4. Explain Histogram, Pareto Chart, Cause and Effect Diagram, Control Chart and Five Whys.

5. What is FMEA? Explain its steps and the meaning of RPN.

6. Explain the role of leadership in Six Sigma and Change Acceleration Process (CAP).

7. Explain the use of Lean Six Sigma in Logistics and Supply Chain Management.

8. Explain Kanban, Poka-Yoke, SMED, DOE and Change Management.

SECTION – B

Answer any ONE question from each Unit. **5 × 10 = 50**

Unit I

9. What is Six Sigma? Explain its importance and benefits.

OR

10. Explain Lean Manufacturing and Six Sigma. Also explain Cost of Poor Quality (COPQ).

Unit II

11. Explain SIPOC Diagram, Flow Diagram, CTQ Tree, Project Charter and Check Sheet.

OR

12. Explain Histogram, Pareto Chart, Cause and Effect Diagram, Control Chart and Five Whys.

Unit III

13. What is FMEA? Explain its steps and the meaning of RPN.

OR

14. Explain the role of leadership in Six Sigma and Change Acceleration Process (CAP).

Unit IV

15. Explain the use of Lean Six Sigma in Logistics and Supply Chain Management.

OR

16. Explain Kanban, Poka-Yoke, SMED, DOE and Change Management.

Unit V

17. Explain CTQ Tree, Process Map and Data Collection Forms.

OR

18. What is Process Capability? Explain Measurement System Analysis and Gauge R&R Study.

Semester IV
Allied course – MOOC (A)

Courier, Express & Parcel Services

COURSE OBJECTIVES:

• To develop competencies and knowledge of students to become Courier and Express Professionals
• To orient students in the field of Courier and Express
• To help Students to understand Courier and Express

LEARNING OUTCOMES:

• Students will be able to apply the Basic knowledge of Courier and Express in the real-life situation.
• This subject will enable them to enhance their ability and professional skills.

Unit 1: Types of consignments for shipment - Information on labels and handling instructions - consignee locations- consignments and destinations- consignment shipment operations – (loading, handling, scheduling and documentation) - Special instructions for safe handling of fragile consignments.

Unit 2: Customer declarations – verification of customer declarations and consignment package - Clarification procedure in case of discrepancies noticed - Generation of bill of lading / shipping bill for export consignments – Coordination for import/export consignments clearance.

Unit 3: Hub-Spoke Operations & Inbound and Outbound activities: Introduction – Hub spoke activities inbound and outbound activities. Types of consignments coming in the hub-spoke - layout of the hub-spoke - Areas to receive, sort and inspect - Documentation activities in hub-spoke - Inspection process of inbound sorted and outbound consignments.

Unit 4: Tracking and tracing; AWB –essential time of arrival delivery - Last mile delivery – LMD - First mile delivery.

Unit 5: Customer satisfaction- quality, delivery time, costs (shortest cost, loss prevention) - Weighment rate, cube scan–diversions/LBW/Volumetric density of cargo.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Logistics and Supply chain management – Martin Christopher
3. Basics of Distribution Management; A Logistical Approach Prentice HALL of India - Kapoor Sathish Warehouse management and Inventory control - Vikas Publication House

Semester IV
Allied course – MOOC (B)

Port Terminal Management

Course Objectives:

- To provide basic knowledge on the functioning of the Port.
- To develop knowledge in good management practices in Port.
- To Orient the student to leverage port efficiency to improve logistics.

Learning Outcomes:

- Student will develop understanding of Port infrastructure facilities and functioning.
- Student will understand how the functioning of port contributes to overall logistics efficiency.

Unit 1: Economic impact of ports on the regional economy – Location Characteristics – Organization structure in Ports -Port-Main functions of a Port-Types of Port -Port Infrastructure-Port Equipment-Cargo types – container- Liquid- Bulk- Break bulk- Port Channel – Draft-mooring-Anchorage.

Unit 2: Port Operations- Berths and terminals- Services rendered in a Port – pre-shipment planning-stowage plan and on-board stowage- yard planning- Transport movement planning- developments in container/cargo handling- safety- security. Environmental issues connected with Ports & Terminals - Health and safety issues – International Ships and Port facility security (ISPS) code.

Unit 3: Green field projects for development of minor ports – Comparative analysis coastal shipping vs inland movement Storage yards- Rail sidings- Rail operations – Stevedoring- Layout and working of container terminals. Port system and sub systems, Value added service- bunkering-Ballast water management.

Unit 4: Factors affecting choice of a port – Productivity parameters and factors determining productivity. Measuring and evaluating – performance and productivity – Ease of Doing Business initiatives in India.

Unit 5: Port Organisation-Service Port- Tool Port-Land lord Port- Captive berths- Introduction to Public Private Partnerships in Ports –Port ownership in Indian scenario- Acts regulating ports in India. Responsibilities of port trusts, growth and status of ports in India- Pricing of Port services-TAMP guidelines- cost plus method- normative method.

Text & Reference Book:

1. Port Management and Operations – Patrick Alderton,4th edition
2. Port Development: A Handbook for Planners in developing countries – UNCTAD
3. Port Management and Operations, Maria G.Burns, CRC Press, 2014.

Semester IV
Allied course – MOOC (C)

Multimodal Transportation

COURSE OBJECTIVES:

- Introduce Multi-modal and Intermodal Transport concepts.
- Explain Regulatory framework and policies for Multi-modal transportation.
- Describe Indian Railways' initiatives to promote Multimodal Logistics in India.
- Overview evolution of infrastructure facilitating Multi-modal Logistics in India.

LEARNING OUTCOMES:

After completing this Course, the student will have the following learnings:

- The importance and role played by Multi-modal transport in the efficient and cost-effective movement of cargo.
- Types of multi-modal movement and the role of containerization for security and speed.
- The provisions and procedures for Exim trade and INCOTERMS.
- Indian Government's policies and vision R for development of seamless multi-modal transport.

Unit 1: Transportation Systems & Multi modal Transport –Concept of Multi modal & Intermodal Transport – introduction to Multi modal transport, the difference between Multi modal and Intermodal transport Type of transport Modes – detail and characteristics of air, road, rail, water, pipelines, package carriers Need, Aim and Key Issues of Multi modal transport.

Unit 2: How to organise Multi modal transport-Role of Containerization in MMT- history, utility, types, ease of handling, cost saving-Types of Multi modal transport – combined container transport, rolling Road & forwarding of trailers, RORO & LASH transportation-National Multi modal Transport Committee (NMTC) and Logistics Policy of India – key features and importance.

Unit 3: Multi modal Transportation Act & Procedures-MMTG Act of 1993-Custom procedures for Export & Import – Bill of Lading – Hague Rules, Visby Rules, Hamburg Rules, Voyage by Sea-INCOTERMS – meaning, explanation, list, and types.

Unit 4: MMT and Indian Railways-PFT Policy – maintenance of rolling stock, cargo handling, customs, etc Warehousing Policy – stuffing, de-stuffing, stacking, use of MHE, etc-Layout and design of Multi modal Logistics parks.

Unit 5: Multi modal transport & Practice Today-India's growing conflict between Trade & transport – issues, policy, problems & pricing-Integrated Transport – Bharatmala, Sagarmala, IWT, DFC, the concept of ICP (International Check Posts-Scenario in India and neighbouring countries with a case study).

Text & Reference Books:

1 Course Material Prepared by LSC

SEMESTER-IV
SURFACE TRANSPORTATION (MINOR)

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become transportation professionals
- To orient students in the field of Logistics
- To help Students to understand surface transportation including road and rail transport

UNIT I

Introduction to surface transportation -Need - functions of transportations in logistics -Types of transportations metrics-various land transport carriers and their Load capacities- types of temperature-controlled carriers-intermodal transport-verification of carriers and drivers - transit rules

UNIT II

Transportation Optimization -Documentation for transportation – GST – E Waybill Filing - Importance of consignment number -Transportation Telematics-Vehicle tracking system - GPS systems-Procedure for downloading and reading tracking data from devices –Probable reasons for delay or any issues during transit -Solutions - re-routing

UNIT III

Organization structure in a Transport organization- Incident management systems & Processes - hazmat goods rules-Importance of safety data sheet and labels-Procedure for Consolidation of consignments for optimal loads –Reporting discrepancies such as pilferages, loss or damage of goods in transit -Checking insurance and claims -steps to close deliveries.

UNIT IV

Benefits of efficient transportation systems-emerging trends in transportation sector-pricing in transportation sector-govt regulations on transportation in India. Safety procedures during transit and emergency response steps - List of good practices in driving.

UNIT V

Customer Management-Vendor coordination for return truck loads-DG Handling–features and facilities offered by railways – innovative schemes-facilities to popularize rail logistics in India

Text &Reference Books:

1. Course Material Prepared by LSC
2. JP Saxena, WarehouseManagementandInventoryControl-VikasPublicationHousePvtLtd, First Edition, 2003.
3. A Practical Guide to Logistics:An Introduction toTransport,Warehousing, Tradeand Distribution -Jerry Rudd-Kogan Page publications
4. Management Guide to Efficient Money SavingWarehousing, Stephen Frey,Gower, 1982.
5. Kapoor SatishK.,and KansalPurva,'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India

B.B.A (Logistics) 2026-27
Semester -IV
Model Paper
Surface Transportation

Time: 3 hours **Maximum Marks: 70**

Section: A

I. Answer any **FIVE** of the following question **(5*4=20)**

1. Load capacity
2. Transit rules
3. E waybill filling
4. Hazmat goods
5. Safety data sheet and labels
6. Government regulation on transportation in India
7. DG Handling
8. Important of consignment number

SECTION-B

Answer one question from each unit each question carries 10 marks. **(5*10=50)**

9. Explain the types of transportation metrics in detail.

(OR)

10. Describe various land transport carriers and their Load capacities.

11. Explain Transportation Optimization and documentation for transportation in detail.

(OR)

12. Explain both-Vehicle tracking system and GPS systems in detail.

13. Explain the concept of incident management system & process.

(OR)

14. Describe the procedure for consolidation of consignments for optimal loads.

15. Explain the emerging trends in transportation sector.

(OR)

16. Describe the safety procedures during transit and emergency response steps.

17. Explain the concepts of vendor coordination for return truck loads.

(OR)

18. Describe the facilities to popularize rail logistics in India

MULTI DISCIPLINARY COURSE
And
SKILL ENHANCEMENT COURSE

Syllabuses as per APSCHE

Semester –V

Apprenticeship – I

The students would be on boarded in Logistics Processes of companies by the Logistics Sector Skill Council for Apprenticeship Training. The duration of Apprenticeship Training is 6 months. During Apprenticeship Training students would be assigned on-the-job-training by companies. Being a legal engagement, students would receive a monthly stipend during Apprenticeship Training as per the existing norms.

On completion of the Apprenticeship Training, students shall submit Apprenticeship Report in the form of Work Diary to the Collaborating Institutions. The Report would be evaluated and Viva conducted by the Collaborating Institution.

Semester VI

Apprenticeship – II

The students would be on boarded in Logistics Processes of companies by the Logistics Sector Skill Council for Apprenticeship Training. The duration of Apprenticeship Training is 6 months. During Apprenticeship Training students would be assigned on-the-job-training by companies. Being a legal engagement, students would receive a monthly stipend during Apprenticeship Training as per the existing norms.

On completion of the Apprenticeship Training, students shall submit Apprenticeship Report in the form of Work Diary to the Collaborating Institutions. The Report would be evaluated and Viva conducted by the Collaborating Institution.