

APPRENTICESHIP-BASED UG DEGREE (LOGISTICS)

COLLABORATIVE PROGRAMME OF LSC



REGULATION & CURRICULUM

VERSION 2019-20

**GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(GITAM)**

**(Deemed to be University, Estd. u/s 3 of UGC Act 1956)
*VISA KHAPATNAM*HYDERABAD*BENGALURU*
Accredited by NAAC with 'A+' Grade**



**REGULATIONS & SYLLABUS
Bachelor of Business Administration (Logistics)**

**A Three Year Full Time Semester Program
(w.e.f. 2019-20 Admitted Batch)**

**GITAM INSTITUTE OF MANAGEMENT
GITAM UNIVERSITY
Gandhi Nagar Campus, Rushikonda
Visakhapatnam – 530045
Website: www.gitam.edu**

APPRENTICESHIP-BASED UG DEGREE (LOGISTICS)
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Collaborating Institution may change the curriculum and assessment system in consultation with LSC.

THE PROGRAMME

Logistics Sector Skill Council offers apprenticeship-based UG Degree Programmed in collaboration with select institutions across India from the Academic Year 2019-20.

Logistics Sector Skill Council (LSC), established by the Ministry of Skill Development and Entrepreneurship (MSDE) through National Skill Development Corporation of India (NSDC), has taken up a number of initiatives with the objective of creating adequate skills for gainful employment at various levels in Logistics Industry.

In order to make the programme effective and efficient LSC actively assists all collaborating institutions in the following ways.

- Curriculum Development and Continuous Improvement
- Securing Apprenticeship Training (On-the-job Training) in Logistics Companies for all students of this Degree programme under the provisions of Apprenticeship Act, 1961
- Securing a monthly Stipend, as prescribed by the Apprenticeship Act, during the Apprenticeship Training period for every student.
- Providing a list of resource persons for teaching critical courses for which the Collaborating Institutions (CI) do not have full-time faculty
- Assessing the performance & learning of students while in Apprenticeship
- Securing final placements for all students on successful completion of the Degree Programme
- Annual Assessment of Academic Process in the Collaborating Institution (CI) to ensure churning out skilled graduates in Logistics

1. ELIGIBILITY FOR ADMISSION

Candidates for admission to the Apprenticeship-based Collaborative UG Degree Programme shall have passed +2 in any group from a recognized Board or equivalent.

2. ADMISSION

Admission is based on the marks in the qualifying examination, and on the prevailing reservation norms of the State in which the CI functions.

3. PROGRAMME DURATION

The Programme extends over a period of THREE years under semester pattern comprising SIX semesters.

4. PROGRAMME CONTENT

- 21 Courses @ 7 per each Odd Semester
- 6 Practical Courses @ two per each Even Semester
- 3 Allied Courses @ one in each Even Semester
- Apprenticeship Training for 18 months (450 days) spread across equally in the three Even Semesters.

5. ELIGIBILITY FOR DEGREE

Students shall have successfully completed all requirements of the Degree Programme for a duration of not less than three academic years comprising 6 semesters, passed the examinations prescribed, and fulfilled such conditions as have been prescribed therefor.

6. STANDARD OF PASSING & AWARD DIVISION

- a. Students shall have a minimum of 50% of total marks of the University examinations in each Course, subject to the condition that the students secure a minimum of 60% marks in each level of Apprenticeship. The overall passing minimum is 50% both in aggregate of and separately in Continuous Internal Assessment and External Examination in each Course.
- b. A candidate whose score is 50% or more marks but less than 60% of the aggregate marks, shall be awarded the Degree with the gradation of 'SECOND CLASS'.

- c. A candidate, whose secure 60% or more of the aggregate marks, shall be awarded the Degree with the gradation of 'FIRST CLASS'.

7. CONTINUOUS INTERNAL ASSESSMENT FOR EVEN SEMESTERS

- Continuous Internal Assessment for each Course shall be by means of Written Tests, Assignments, and Class Tests for a total mark of 25.
- Two Internal Tests of 2 hours each may be conducted during the Semester for each Course and the best mark out of the two may be considered. One Model Examination may be conducted at the end of each Semester prior to University examinations. Students may be asked to submit at least three assignments in each Course.
- The valued answer papers/assignments shall be given to the students and the evaluation is completed and they be asked to check and satisfy themselves about the marks they scored.
- All records in respect of Continuous Internal Assessment shall be in the safe custody of the CI until the concerned Batch passes out successfully.
- Continuous Internal Assessment of students for each Course shall be the responsibility of the concerned Course Faculty.
- The Continuous Internal Assessment marks are to be submitted to the University at the end of every Semester, as per the norms and Examinations Calendar of the University with which the CI is affiliated.
- Assessment of the students on their Apprenticeship will be made by LSC involving Examination Committees constituted by LSC consisting of a faculty member of CI, Industry Mentor, and an External Expert (either from industry or academia). This assessment will take place in the premises of the companies where students are deputed for Apprenticeship.

8. CONTINUOUS INTERNAL ASSESSMENT FOR ODD SEMESTERS

8.1: The assessment of the student's performance in a theory course shall be based on two components: Continuous evaluation (40 marks) and semester end examination 60 marks

8.2: A student has to secure an aggregate of 50% in the course in the two components put together to be declared to have passed the course, subject to the condition that the candidate must have secured a minimum of 30 marks (ie. 50% in the theory components at the semester –end examination).

9. ASSESSMENT PROCEDURE

S.No.	COMPONENT OF ASSESSMENT	MARKS ALLOTTED	TYPE OF ASSESSMENT	SCHEME OF EXAMINATION
1.	Theory	40	Continuous Evaluation	(i) Mid Semester examination: 15 marks. (ii) Two surprise subject related (Best two will be taken out of three Quizzes) Quizzes: 10 marks. (iii) Class room Seminars and Case Discussion/ workshop/training/Assignments: 15marks.
		60	Semester-end Examination	The semester-end examination in theory subjects: 60 marks.
	Total	100		
2.	Viva Voce at the end of each semester	50	Viva Voce	Viva at the end of each Semester shall be on all courses of that Semester and Industrial visits of that Semester.

10. ATTENDANCE

Students must have earned 85% of attendance in each Course including Apprenticeship periods for appearing for the

examination.

11. ASSESSMENT OF PRACTICAL COURSES

A record of exercises assigned, and results obtained shall be submitted by each student to the Industry Mentor as soon as each exercise is completed. The Examination Committee would take up evaluation of such records, and conduct viva during its visit to companies for a maximum mark of 75. The Industry Mentor would award marks for Internal Assessment (maximum marks 25).

12. EXAMINATION COMMITTEE FOR ASSESSMENT OF PRACTICAL COURSES & APPRENTICESHIP

LSC would constitute an Examinations Committee for deputation to each company where students are allotted for Apprenticeship. Each Examination Committee will comprise of

- a. Industry Mentor (Company Executive) to whom students report in each company
- b. One Faculty Member nominated by CI
- c. One subject expert (either from industry or academia) nominated by LSC

The Examination Committee will visit the company three times during each Even Semester at the rate of one visit per two months. The visits would be scheduled by LSC in consultation with the Industry Mentor. The visiting Examination Committee would assess the students on their learning in Apprenticeship with a pre-set questionnaire. The questionnaire for this purpose would be prepared and provided to the Examination Committee. The Examination Committee would also assess the students on their performance in the Practical Courses.

The marks awarded by the Examinations Committee for Apprenticeship, and Practical Courses would be incorporated in the Grade Sheet issued by the CI/University.

13. EXAMINATION

The University to which the CI is affiliated will conduct and assess examination for all courses listed in Odd Semesters. The Examiners Committee constituted by LSC will assess students for Apprenticeships scheduled in Even Semesters.

8.0 RETOTALLING, REVALUATION & REAPPEARANCE AS PER NEW REFORMS

9.1 Retotaling of the theory answer script of the semester-end examination is permitted on request by the student by paying the prescribed fee within one week after the announcement of the results.

9.2 Revaluation of the theory answer scripts of the semester-end examination is permitted on request by the student by paying the prescribed fee within one week after the announcement of the result.

9.3.1 A student who has secured 'F' grade in a theory course shall have to reappear at the subsequent Semester - end examinations held for that course.

9.3.2 A student who has secured 'F' grade in Project work/industrial training etc shall have to improve his/her report and reappear for viva voce with the juniors for the first two years, whereas the final year student will appear for re-examination at the instant special examination.

9.4 Provision for Answer Book Verification & Challenge Evaluation:

9.4.1 If a student is not satisfied with his/her grade after revaluation, the student can

apply for, answer book verification on payment of prescribed fee for each course within one week after announcement of revaluation results.

9.4.2 After verification, if a student is not satisfied with revaluation marks/grade awarded, he/she can apply for challenge valuation within one week after announcement of answer book verification result/ two weeks after the announcement of revaluation results, which will be valued by the two examiners i.e., one Internal and one External examiner in the presence of the student on payment of prescribed fee. The challenge valuation fee will be returned, if the student is succeeded in the appeal with a change for a better grade.

9.5 Supplementary Examinations & Special Examinations:

- 9.5.1 The odd semester supplementary examinations will be conducted on daily basis after conducting regular even semester examinations in April/May.
- 9.5.2 The even semester supplementary examinations will be conducted on daily basis after conducting regular odd semester examinations during Oct/Nov.
- 9.5.3 A student who has completed his/her period of study and still has “F” grade in final semester courses is eligible to appear for Special Examination normally held during summer vacation.

10. Promotion to the Next Year of Study

- 9.6.1 A student shall be promoted to the next academic year only if he/she completes the academic requirements of 60% of the credits till the previous academic year.
- 9.6.2. Whenever there is a change in syllabus or curriculum he/she has to continue the course with new regulations after detention as per the equivalency established by the BoS to continue his/her further studies.

10.3 The courses like Workshop, Industrial tour and Industrial training are to be considered in supplementary exams.

10.4 A student who has secured ‘F’ Grade in project work / Industrial Training shall be permitted to submit the report only after satisfactory completion of the work and viva-voce examination.

11. Repeat Continuous Evaluation:

12.1 A student who has secured ‘F’ grade in a theory course shall have to reappear at the subsequent examination held in that course. A student who has secured ‘F’ grade can improve continuous evaluation marks upto a maximum of 50% by attending special instruction classes held during summer.

12.2 A student who has secured ‘F’ grade in a practical course shall have to attend Special Instruction classes held during summer.

12.3 A student who has secured 'F' grade in a combined (theory and practical) course shall have to reappear for theory component at the subsequent examination held in that course. A student who has secured 'F' grade can improve continuous evaluation marks upto a maximum of 50% by attending special instruction classes held during summer.

12.4 The Repeat Continuous Evaluation (RCE) will be conducted during summer vacation for both odd and even semester students. A student can register a maximum of 4 courses. Biometric attendance of these RCE classes has to be maintained. The maximum marks in RCE be limited to 50% of Continuous Evaluation marks. The RCE marks are considered for the examination held after RCE except for final semester students.

12.5 RCE for the students who completed course work can be conducted during the academic semester. The student can register a maximum of 4 courses at a time in slot of 4 weeks. Additional 4 courses can be registered in the next slot.

12.6 A student is allowed to Social Instruction Classes (RCE) 'only once' per course.

14. SPECIAL EXAMINATION

A student who has completed the stipulated periods of study for the BBA(Logistics) program and still has failure grade 'F' in not more than **Four theory courses**, excluding practical examination and Project viva, may be permitted to appear for special examinations, which shall be conducted during the summer vacation at the end of the last academic year.

15. BETTERMENT OF GRADES

- a) Candidates who have passed all the courses of a program within the stipulated period of study and who have obtained Second Class only are eligible for Betterment of Grades.
- b) Candidates who have already secured First Class or First Class with Distinction are not eligible for betterment of Grades.
- c) Candidates who have completed the program of study beyond the stipulated period of study i.e. through Special examinations or subsequently, are not eligible for betterment of Grades
- d) Betterment of Grades is permitted only through appearance of the theory examinations.
- e) Betterment of Grades is permitted only once, at the end of the program of study, simultaneously along with Special examinations.
- f) Candidates can appear for betterment at one course, across the semesters, for the number of semesters they have studied. i.e. a Six semester BBA (Logistics) student can appear for betterment in any Six

- courses of study.
- g) The better Grade secured either in the first or betterment appearance shall be considered as the final Grade.
 - h) New Grade Card/PC shall be issued to candidates who have improved their Grades/Class after submitting the old Grade Card/PC.
 - i) The date, month and year of the declaration of betterment result shall be printed on the Grade Card/PC
 - j) Betterment marks shall not be taken into consideration for award of ranks, prizes, and medals.
 - k) Candidates have to pay a betterment fee as prescribed by the University.
 - l) Betterment of Grades is permitted 'only once', immediately after completion of the program of study
 - m) The rules & regulations framed by the University from time to time shall be applicable.

16. GRADING SYSTEM

Based on the student performance during a given semester/trimester, a final letter grade will be awarded at the end of the trimester/semester in each course. The letter grades and the corresponding grade points are as given in Table 3.

Table 3: Grades and Grade Points

Sl.No.	Grade	Grade Points	Absolute Marks
1	O (outstanding)	10	90 and above
2	A+ (Excellent)	9	80 to 89
3	A (Very Good)	8	70 to 79
4	B+ (Good)	7	65 to 69
5	B (Above Average)	6	60 to 64
6	C (Average)	5.5	55 to 59
7	P (Pass)	5	50 to 54
8	F (Fail)	0	Less than 50
9	Ab(Absent)	0	-

17. GRADE POINT AVERAGE

CGPA required for classification of class after the successful completion of the programmed is shown in the table 4

TABLE 4: CGPA Required for Award of Degree	
First Class with Distinction	≥8.0*
First Class	≥6.0
Second Class	≥5.5
Pass	≥5.0

*In addition to the required CGPA of 8.0, the student must have necessarily passed all the courses of every semester in the First Attempt.

1.1 Examination pattern

- A. The following shall be the structure of the question papers of different courses with case Analysis

S. No.	Pattern	Marks
1.	Section A : Five one page answer questions (Five out of Eight to be answered).	5 X 2 = 10 marks
2.	Section B : Five Essay type questions (either or choice Questions from each unit)	5 X 8 = 40 marks
3.	Section C : One Case let (not more than 200 words)	1 X 10 = 10 marks
	Total	60 marks

- B. The following shall be the structure of question paper for courses with numerical problems.

S. No.	Pattern	Marks
1.	Section A : Five questions (both theory / problems) (Five out of Eight to be answered).	5 X 4 = 20 marks
2.	Section B : Problems/Theory (either or choice Questions from each unit)	5 X 8 = 40 marks
	Total	60 marks

- C. The following shall be the structure of question paper for all the other theory courses

S.No.	Pattern	Marks
1.	Section A : Five one page answer questions (Five out of Eight to be answered).	5 X 3= 15 marks
2.	Section B : Five Essay type questions (either or choice Questions from each unit)	5 X9 = 45 marks
	Total	60 marks

18. PATTERN OF QUESTIONPAPER

Part	Question Type	No. of Questions	Mark per Question	Total Marks
A	MultipleChoiceQuestionswith variedlevelsofdifficulty	10 (Without any Choice)	1	10
B	Descriptive Questions	5(Outof7Questions)	10	50
C	Essay Answer Question	1(WithoutanyChoice)	15	15
	Total			75

19. ALLIED COURSES

The Allied Courses scheduled in Even Semesters are offered to the students on MOOC format, through the web-portal of LSC. Content delivery, assignments, tests, and assessments are made through the web-portal. The marks secured by students in the Allied Courses would be incorporated in the Grade Sheet issued by the CI/University.

20. MISCELLANEOUS

- Each student shall possess the prescribed textbooks for all Courses.
- The CI/University will issue Identity Cards to all students.
- The University will award students, who successfully complete the Programme within the stipulated period, the degree.

21. FEE PAYMENT

While the Course Fee is payable to the CI as per its norms, the Examination Fee is payable to the University to which the CI is affiliated.

22. BATCH SIZE

The CI shall admit one section of students per Batch (Year). The CI shall strictly follow the norms of the University to which it is affiliated as far as the total number of students per Batch/Section.

23. OTHER REGULATIONS

Besides the above, the common Regulations of the University shall also be applicable to this programme.

24. PROGRAMME STRUCTURE**SEMESTER I**

No.	Code	Course	Hours	Credit	Marks		
					CIA	Exam	Total
1	L19C01	English	45	3	40	60	100
2	L19C02	Hindi/Sanskrit /Special English	45	3	40	60	100
3	L19C03	Fundamentals of Logistics	45	3	40	60	100
4	L19C04	Principles of Management	45	3	40	60	100
5	L19C05	Business Statistics	45	3	40	60	100
6	L19C06	Materials Management	45	3	40	60	100
7	L19C07	Warehousing and Distribution Centre Operations	45	3	40	60	100
8	MBL191	Semester End Viva Voce		2	50		50
		Total		23			750

SEMESTER II

No.	Code	Course	Hours	Credit	Marks		
					CA	Exam	Total
1	L19C08*	Materials Management – Practical	30	2	25	75	100
2	L19C09*	Warehousing Management – Practical	30	2	25	75	100

3	L19A01*	Allied course (1 out of 2)	45	3	-	100	100
4	L19C10*	Apprenticeship - Level 1	1200	12	400	-	400
5	MBL192	Semester End Viva Voce		2	50		50
		Total		21			750

Pass Marks:

SEMESTER III

No.	Code	Course	Hours	Credit	Marks		
					CIA	Exam	Total
1	L19C11	Soft Skills	45	3	40	60	100
2	L19C12	Business Communication)	45	3	40	60	100
3	L19C13	Freight Forwarding (Ocean & Air Cargo)	45	3	40	60	100
4	L19C14	Forecasting and Inventory Management	45	3	40	60	100
5	L19C15	Surface Transportation & Courier, Express, and Parcel	45	3	40	60	100
6	L19C16	Human Resources Management	45	3	40	60	100
7	L19C17	Management and Cost Accounting	45	3	40	60	100
8	MBL291	Semester End Viva		2	50		50
		Total		23			750

SEMESTER IV

No.	Code	Course	Hours	Credit	Marks		
					CIA	Exam	Total
1	L19C18*	Surface Transportation – Practical	30	2	25	75	100
2	L19C19*	Forecasting and Inventory Management – Practical	30	2	25	75	100
3	L19A02*	Allied Course (1 out of 2)	45	3	-	100	100
4	L19C20*	Apprenticeship – Level 2	1200	12	400	-	400
5	MBL292	Semester End Viva		2	50		50
				21			750

SEMESTER V

No.	Code	Course	Hours	Credit	Marks		
					CIA	Exam	Total
1	L19C21	MIS for Logistics	45	3	40	60	100
2	L19C22	International Logistics Management	45	3	40	60	100
3	L19C23	Marketing Management	45	3	40	60	100
4	L19C24	Retail Logistics and E-Commerce	45	3	40	60	100

5	L19C25	Logistics Network Design	45	3	40	60	100
6	L19C26	Port Terminal Logistics	45	3	40	60	100
7	L19C27	Liner Logistics	45	3	40	60	100
8	MBL391	Semester End Viva		2	50		50
		Total		23			750

SEMESTER VI

No	Code	Course	Hours	Credit	Marks		
					CI A	Exam	Total
1	L19C28*	Logistics Network Design – Practical	30	2	25	75	100
2	L19C29*	Freight Forwarding – Practical	30	2	25	75	100
3	L19A03*	Allied Course (1 out of 2)	45	3	-	100	100
4	L19C30*	Apprenticeship – Level 3	120 0	12	40 0	-	400
5	MBL392	Semester End Viva		2	50		50
		Total		21			750

25. PROGRAMME STRUCTURE –2019-20

APPRENTICESHIP BASED UG DEGREE PROGRAMME

Sem.	No.	Code	Course	Hours	Credit	Marks		
						CIA	Exam	Total
I	1	L19C01	English	45	3	40	60	100
I	2	L19C02	Sanskrit/Hindi/Special English	45	3	40	60	100
I	3	L19C03	Fundamentals of Logistics	45	3	40	60	100
I	4	L19C04	Principles of Management	45	3	40	60	100
I	5	L19C05	Business Statistics	60	4	40	60	100
I	6	L19C06	Materials Management	60	4	40	60	100
I	7	L19C07	Warehousing and Distribution Centre Operations	45	3	40	60	100
II	1	L19C08	Materials Management - Practical	60	2	25	75	100
II	2	L19C09	Warehousing Management - Practical	60	2	25	75	100
II	3	L19A01	Allied Course (1 out of 2) - MOOC	45	3	-	100	100
II	4	L19C10	Apprenticeship - I	1035	34	400	-	400
III	1	L19C11	Soft Skills	45	3	40	60	100
III	2	L19C12	Business Communication	45	3	40	60	100
III	3	L19C13	Freight Forwarding (Ocean & Air Cargo)	45	3	40	60	100
III	4	L19C14	Forecasting and Inventory Management	60	4	40	60	100
III	5	L19C15	Surface Transportation	45	3	40	60	100
III	6	L19C16	Human Resources Management	45	3	40	60	100
III	7	L19C17	Management and Cost Accounting	60	4	40	60	100
IV	1	L19C18	Surface Transportation - Practical	60	2	25	75	100
IV	2	L19C19	Forecasting and Inventory Management - Practical	60	2	25	75	100
IV	3	L19A02	Allied Course (1 out of 2) - MOOC	45	3	-	100	100
IV	4	L19C20	Apprenticeship - II	1035	34	400	-	400
V	1	L19C21	MIS for Logistics	60	4	40	60	100
V	2	L19C22	International Logistics Management	45	3	40	60	100
V	3	L19C23	Marketing Management	45	3	40	60	100
V	4	L19C24	Retail Logistics and E-Commerce	45	3	40	60	100
V	5	L19C25	Logistics Network Design	60	4	40	60	100
V	6	L19C26	Port Terminal Logistics	45	3	40	60	100
V	7	L19C27	Liner Logistics	45	3	40	60	100
VI	1	L19C28	Logistics Network Design- Practical	60	2	25	75	100
VI	2	L19C29	Freight Forwarding - Practical	60	2	25	75	100
VI	3	L19A03	Allied Course (1 out of 2) - MOOC	45	3	-	100	100
VI	4	L19C30	Apprenticeship - III	1035	34	400	-	400
			Total		192			4,200

26. ALLIED COURSES

Students shall choose any ONE Course out of the TWO scheduled for Semesters II, IV, and VI. These courses are delivered and assessed by LSC on MOOC format.

Sem.	No.	Code	Course	Hours	Credit	Marks		
						CIA	Exam	Total
II	1	L19A01A	Warehouse Automation	45	3	25	75	100
II	2	L19A01B	Best Practices in Transportation	45	3	25	75	100
IV	1	L19A02A	Inland Waterways & Coastal Shipping	45	3	25	75	100
IV	2	L19A02B	Courier, Express & Parcel Services	45	3	25	75	100
VI	1	L19A03A	Inplant Logistics	45	3	25	75	100
VI	2	L19A03B	Documentation for Exports & Imports	45	3	25	75	100

27. DISTRIBUTION OF COURSES

Semester	Courses	Academic Component	Practical Component	Total Credits
Semester I	7	23	0	23
Semester II	3 + A	3	38	41
Semester III	7	23	0	23
Semester IV	3 + A	3	38	41
Semester V	7	23	0	23
Semester VI	3 + A	3	38	41
Total	30 + 3A	78	114	192

L19C01 ENGLISH

Semester I	Course Type Core	Code L19C01	Hours 45	Credits 3
Version 2019-20				

Learning Outcomes:

- interact with academic content: reading, writing, listening, speaking;
- demonstrate ability to think critically;
- utilize information and digital literacy skills; and
- demonstrate behavior and attitudes appropriate to a university environment.

UNIT I

PROSE

1. An Astrologer's Day-RK Narayan
2. The Gift of Magi-O'Henry
3. Education: Indian and American-Anurag Mathur
4. Speech on Indian Independence-Jawaharlal Nehru
5. A Talk on Advertising-Herman Wouk

UNIT II

POETRY

1. Bangle-Sellers-Sarojini Naidu
2. Stopping by Woods on a Snowy Evening-Robert Frost
3. Sonnet 'No-29'-William Shakespeare
4. The World Is Too Much With Us-William Wordsworth
5. The Wild Swan-W.B. Yeats

UNIT III

Short Stories

1. The Umbrella-Guy De Maupassant
2. The Lament-Anton Chekhov
3. The Fly-Katharine Mansfield
4. A Rose for Emily-William Faulkner
5. The Barber's Trade Union-Mulk Raj Anand

UNIT IV

Literature and Contemporary Issues

1. The Globalized World – AvinashJha.
2. Globalization and Education: Third World Experience – Amit Bhaduri.
3. Forests and Settlements - RomilaThapar
4. Riches-Ramachandra Guha
5. Sharing the World –Amartya Sen

Unit V

Grammar

Book/Film Review

TEXT BOOK

SANSKRIT

Semester I	Course Type Core	Code L19C02	Hours 45	Credits 3	Version 2019-20
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OBJECTIVES

- 1) To enlighten students about the richness and value of the classical language
- 2) To offer working knowledge of Sanskrit to the students.

LEARNING OUTCOMES

- 1) The student learns reading and writing Sanskrit
- 2) Understands and learns proper use of Grammar
- 3) Develops communication Skills.

POETRY : Lesson No. 1 SaranagathiFromValmikiRamayanamYuddhakanda
17th Canto Slokas 11 – 68

Adiparva 8th

Lesson No. 2 Ahimsa ParamodharmahFromSrimadbharatam,

chapterSloka 10 – to the end of 11 Chapter

Lesson No. 3 RaghohAudaryamFromRaghuvamsa 5th Canto 1 – 35

Slokas

PROSE : Lesson No. 4 MitrasampraptihFrom Pancatantra – Ist Story
(Abridged)

Lesson No. 5 Modern prose ChikrodakathaAndhra KavyaKathah
By SannidhanamSuryanarayanaSastry

Ramakrishnamacharyulu

Lesson No. 6 Computer YanthramBy Prof. K.V.

GRAMMAR**DECLENSIONS:****Nouns ending in Vowels:**

Deva, Kavi, BhanuDhatr, Pitr, Go, Rama, Mati, Nadee, Tanu, Vadhoo, Matr,
Phala,

Vari &Madhu

SANDHI:

SwaraSandhi : Savarnadeergha, Ayavayava, Guna, Vrddhi, Yanadesa

VyanjanaSandhi: Scutva, Stutva, Anunasikadvitva, Anunasika, Latva, Jastva

VisargaSandhi: Visarga Utva Sandhi, VisargalopaSandhi,
VisargaRephaSandhi, OoshmaSandhi

SAMASA :

- | | |
|------------------------|-------------------------|
| (1) Dwandwa | (2) Tatpurusha (Common) |
| (2a) Karmadharaya | (2b) Dwigu |
| (2c) ParadiTatpurusha | (2d) Gatitatpurusha |
| (2e) UpapadaTatpurusha | (3) Bahuvrihi |
| (4) Avyayibhava | |

CONJUGATIONS

IstConjugations – Bhoo, Gam, Shtha, DrhsLabh, Mud,

IInd Conjugation – As ()

IIIrd Conjugation – Yudh,

IV th Conjugation – Ish

VIII Conjugation – Likh, Kri ()

IXth Conjugation – Kreen ()

Xth Conjugation – Kath, Bhash, Ram, Vand.

MBG106: HINDI

INTRODUCTION

This course contains a rich selection from Hindi poetry and prose. Grammar and translations from official language are also included.

OBJECTIVES

- 1) To enlighten students about the richness and value of the national language
- 2) To offer working knowledge of Hindi to the students.

LEARNING OUTCOMES

- 1) The student learns reading and writing Hindi
- 2) Understands and learns proper use of Grammar
- 3) Develops communication Skills.

Introduction

The introduction of this course is to enlighten the students about enough working knowledge with the Hindi. The essence from Hindi Prose & Grammar and also the official language and translation are included.

गद्य विभाग (Prose Detailed Text)

- | | |
|---------------------------------|--------------------------------|
| 1. बाजार दर्शन | - जेनेन्द्र कुमार |
| 2. ईर्ष्या: तू न गया मेरे मन से | - रामधारी सिंह 'दिनकर' |
| 3. आपने मेरी रचना पढ़ी? | - आचार्य हजारी प्रसाद द्विवेदी |
| 4. भारतीय साहित्य की एकता | - नन्ददुलागे वाजपेयी |
| 5. अतिथि | - रामविलास शर्मा |
| 6. मेरी रुमाल खो गई | - विश्वानिवास मिश्र |
| 7. कवि और कविता | - महावीर प्रसाद द्विवेदी |
| 8. सोना हिरणी | - महादेवी वर्मा |
| 9. कफन | - प्रेमचंद |

उपवाचक विभाग (Non-Detailed Text)

- | | |
|--------------------|------------------------------|
| 1. पुरस्कार | - जयशंकर प्रसाद |
| 2. हाट | - श्रीमती मनु भण्डारी |
| 3. मदाचार का नाबीज | - हरिशंकर परसाई |
| 4. आदमी का बच्चा | - यशपाल |
| 5. हाट की जीत | - मुद्गल |
| 6. डाकुर का कुआँ | - प्रेमचन्द |
| 7. उमने कहा था | - श्री चन्द्रधर शर्मा गुलेरी |
| 8. राज | - श्री अज्ञेय |
| 9. चीफ की दावत | - भीष्म साहनी |

व्याकरण भाग

1. निर्देश के अनुसार वाक्यों को बदलकर लिखिए।

(Rewriting of sentences as directed)

1. कारक (Case)

2. लिंग (Gender)
 3. वचन (Number)
 4. काल (Tense)
 5. वाच्य (Voice)
- II. शुद्ध कीजिए (Correction of Sentences)
- क) 'चाहिए' प्रयोग
 - ख) लिंग और वचन संबंधी
- III. वाक्य प्रयोग (Make your Own Sentences)
- IV. कार्यालय हिन्दी : प्रशासनिक शब्दावली / परनाम (Karyalay Hindi : Administrative terminology)
- क) कार्यालयों के नाम
 - ख) पद नाम
- V. संधि विच्छेद (Sandhi Vichched)
- VI. विलोम शब्द (Antonyms)
- VII. पत्र लेखन (Letter Writing)
- VIII. मद्दांश के आधार पर दिये गये प्रश्नों का उत्तर देना चाहिए।
- VIII. निबंध

Text Book

1. Prose Text: Dr. Ajaya Kumar Patnaik, Gadya Gaurav, Sonam Prakashan, Badamdadi, Cuttak.
2. Non, Detailed Text: Dr. Gulam Moinuddin Khan, Charchit Kahaniyan, Shabnam Pustak Mahal, Badamdadi, Cuttak. Text: Dr. T. Nirmala & Dr. S. Mohan, Padya Manjari, Rajkamal Prakashan, New Delhi.* Latest Editions

BBA - II SEMESTER

MBG108: SPECIAL ENGLISH

INTRODUCTION

Linguistics is the scientific study of human language. It has got several branches. Phonetics is that branch of linguistics which deals with the study of speech sounds or phonemes in general. Phonemes are smallest units of speech sounds. They are not meaningful by themselves. But they can bring about change in meaning. Phonemes are combined into larger meaningful units called morphemes.

OBJECTIVES

- 1) To enable students to get familiarized with the sounds and symbols of English.
- 2) To enable students to apply the basics of phonetics and grammar for effective conversation.

LEARNING OUTCOMES

- 1) The student learns the basics of English phonetics and pronunciation, speech rhythm and intonation
- 2) The student also grasps the essentials of grammar and vocabulary, leading to effective communication skills.

SYLLABUS

UNIT-I: Basics of Phonetics

UNIT-II: Word Stress

UNIT-III: Intonation

UNIT-IV: Applied grammar and usage –Subject Verb agreement-Correct uses of tenses-types of clauses -Tag questions-Correct usage of punctuation marks

UNIT-V: Vocabulary- The importance of vocabulary in language.-2)Word formation techniques (3) Technical words, phrasal verbs, idiomatic usages, one word substitutions, homonyms, homophones, eponyms .

TEXT BOOK

Text Book will be prepared by GIM faculty

REFERENCE BOOKS

1. Mark Hancock (2013), *English in Use*, Cambridge University Press.
2. Gunter Gerngross and Herbert Puchta (2013), *Playway to English*, Cambridge University Press.

JOURNALS

1. International Journal of English Linguistics, Canadian Center for Science and Education.
2. Journal of English Linguistics, Sage Journals .

FUNDAMENTALS OF LOGISTICSSemester
ICourse Type
CoreCode
L19C03Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

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

LEARNING OUTCOMES:

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

Unit	Topics	Focus
I	Introduction to Logistics: History of Logistics Need for logistics-Cost and Productivity, cost saving & Productivity improvement. Logistics Cost, reduction in logistics cost, benefits of efficient Logistics, Principles of Logistics, Technology & Logistics-Informatics, Logistics optimization. Listing of Sub-sector of Logistics	Conceptual
II	Logistics and Customer Service-Definition of Customer Service Elements of Customer Service-Phases in Customer Service-Customer Retention-Procurement and Outsourcing-Definition of Procurement/Outsourcing-Benefit of Logistics Outsourcing-Critical Issues in Logistics Outsourcing	Conceptual
III	Global Logistics-Global Supply Chain-Organizing for Global Logistics-Strategic Issues in Global Logistics-Forces driving Globalization-Modes of Transportation in Global Logistics Barrier to Global Logistics-Markets and Competition-Financial Issues in Logistics Performance-Integrated Logistics-Need for Integration-Activity Centres in Integrated Logistics.Role of 3PL & 4PL.	Analytical
IV	a) Warehouse: Warehouse-Meaning, Types of Warehouses Benefit of Warehousing. b) Transportation-Meaning; Types of Transportations, efficient transportation system and Benefits of efficient transportation systems. c) Courier/Express - Courier/Express-Meaning, Categorization of Shipments, Courier Guidelines, Pricing in Courier-Express Sector for international and domestic shipping. d) E-Commerce-Meaning, Brief on Fulfillment Centers, Reverse logistics in e-commerce sector, Marketing in e-commerce and future trends in e-commerce.	Analytical
V	a) EXIM: Brief on EXIM/FF&CC, Multi-modal transportation, brief on customs clearance, bulk load handling and brief on trans-shipment. b) Supply chain. c) Cold chain. d) Liquid Logistics. e) Rail Logistics.	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. Fundamentals of Logistics Management (The Irwin/McGraw-Hill Series in Marketing), Douglas Lambert, James R Stock, Lisa M. Ellram, McGraw-hill/Irwin, First Edition, 1998.
3. Vinod V. Sople (2009) Logistic Management (2nd Edn.) Pearson Limited.
4. Logistics Management for International Business: Text and Cases, Sudalaimuthu & Anthony Raj, PHI Learning, First Edition, 2009.
5. Fundamentals of Logistics Management, David Grant, Douglas M. Lambert, James R. Stock, Lisa M. Ellram, McGraw Hill Higher Education, 1997.
6. Logistics Management, Ismail Reji, Excel Book, First Edition, 2008.

PRINCIPLES OF MANAGEMENTSemester
ICourse Type
CoreCode
L19C04Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become effective professionals
- To orient students on recent changes and development in the field of management
- To help students to understand basic Principles and concepts of Management

LEARNING OUTCOMES:

- Students will be able to apply the knowledge about management in the real-life business situation
- This subject will enable them to enhance their managerial ability and professional skills

Unit	Topics	Focus
I	Management: Nature, Definition, Characteristics and Scope of Management- Management as a Science or Art or Profession- Contemporary Issues and Challenges in Management of 21st Century- Level of Management- Skills of a manager- Roles of a manager.	Conceptual
II	Planning and Decision Making: (a) Planning: The Process of Planning, Objectives, Policy and Procedures, Forecasting and Decision Making. Strategic Planning – meaning and process MBO – meaning, process and requirements for implementation; (b) Decision Making – Meaning; Types of decisions; Process; Significance; Limitations; – Rational economic model and Administrative model; - Programmed and non-programmed decisions- Creativity and innovation- Blue Ocean & Red Ocean Strategy	Conceptual
III	Directing and Staffing: a Directing- Principles- Theory X & Y- Motivation and Behaviour- Theories of Motivation- Maslow's theory and Herzberg theory, Leadership: Styles and Theories b Staffing- Manpower Planning- Recruitment and Selection- Training and Development- Performance Appraisal	Analytical
IV	Organisation Design and Structure a Organisation – Meaning; Process; Principles; Organisation structure – Determinants and forms: line, functional, line and staff, project, matrix and committees; Formal and Informal b Organisation; Departmentation – Meaning and Bases; Span of Control – Meaning and Factors influencing; Authority, Responsibility and Accountability; Delegation – Meaning, Process; Principles; Centralisation and Decentralisation – Meaning; Degree of decentralisation; Difference between delegation and decentralisation.	Analytical
V	Ethics in the contemporary management and corporate social responsibility; Macro and Micro environmental factors of business- Controllable and uncontrollable factors, SWOT analysis and 7s model of analysis, Management challenges in 21st century	Analytical

Text & Reference Books:

1. LM Prasad, Principles and Practices of Management, Himalaya Publishing House
2. Rao, P.S. Principles of Management, Himalaya Publishing House.
3. Rao, V.S.P. & Krishna, V.H. Management: Text and Cases, Excel Books
4. Sharma, R.K. & Gupta, S.K. Business Management (3rd edition), New Delhi: Kalyani Publishers.

BUSINESS STATISTICSSemester
ICourse Type
CoreCode
L19C05Hours
60Credits
4Version
2019-20**COURSE OBJECTIVES:**

- This course aims at aiding the students in reaching a level of increased competence in business statistics and expands understanding of the applications of statistical concepts in business.
- Emphasis is placed upon learning statistical concepts through common business problems.

LEARNING OUTCOMES:

- Gain conceptual and working knowledge of Business Statistics and use it in the applications of business.
- Learn the methods of solving problems on basic concepts and analytical business statistical model.
- Enable the student to use introductory level of Transportation and queuing theory.

Unit	Topics	Focus
I	Data collection and Measures of Central Tendency : Collection and Presentation of Data – Statistical data – Primary and Secondary; Methods of collection of Primary data; Presentation of Data – Textual, Tabular and Diagrammatic form (Line chart, Bar chart, Pie chart, Histogram, Frequency polygon and Ogive); Frequency distribution. Measures of Central Tendency – Mean (A.M., G.M., H.M.), Median, Mode – different properties; Partition values – Quartiles, Deciles, Percentiles; Partition values from Ogives. Measures of Dispersion – Range, Q.D., M.D., S.D. – their coefficients; Comparing consistency; Different properties. Moments, Skewness and Kurtosis – Moments about an arbitrary number; Central Moments; Relation between central and non-central moments upto 4th order and coefficients.	Conceptual
II	Correlation Analysis: Methods of Studying Correlation for Grouped and Ungrouped Frequency Distribution. Regression Analysis: Equation of Regression Lines for Grouped and Ungrouped Frequency Distribution, Standard Error Estimate.	Conceptual
III	Index Number – Construction, Price and Quantity index numbers, Laspeyres', Paasche's, Edgeworth-Marshall's, Fisher's method, Relative methods, Tests of index number formulae: Time and Factor reversal tests, General index number, Chain base index number, Cost of living index number (CLI), Uses of CLI and its applications, Uses and limitations of index numbers Analysis of Time Series – Components of a time series, Adjustment in time series, Measurement of trend by moving average and least squares methods (linear and quadratic trends), Measurement of seasonal variation by simple average method, Forecasting, De-seasonalisation.	Analytical
IV	Transportation and Assignment Problems Nature and scope of transportation and allocation models, different methods for finding initial solution – N-W Corner Rule, Least Cost Method and VAM. Unbalanced TP, Test for optimality – MODI method, AP a variant of Transportation model, Hungarian method, Restricted Assignment problems. Queuing Theory – Models – Simple Problem – Introduction to simulation	Analytical
V	Probability and Sampling: Probability theory – concept and approaches; Probability rules – addition and multiplication theorem, Binomial, Poisson and Normal Distribution and their applications. Sampling – Purpose and Methods of Sampling, Merits and limitations of Sampling.	Analytical

Text & Reference Books:

- Gupta and Gupta, Business Statistics. (Sultan Chand & Sons: New Delhi).
- Chandan, J. Statistics for Business Economics. (Vikas: New Delhi)
- Sharma, Shenoy and Srivastava, Quantitative Analysis for Managerial Decision Making,

MATERIALS MANAGEMENTSemester
ICourse Type
CoreCode
L19C06Hours
60Credits
4Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become effective professionals
- To orient students on recent changes and development in the field of material management
- To help students understand basic principles and concept of material management

LEARNING OUTCOMES:

- Students will be able to apply the knowledge about material management in the real-life business situation
- This subject will enable them to enhance their managerial ability and professional skills

Unit	Topics	Focus
I	Introduction: Materials Management - Evolution, Importance, Scope and Objectives - Interface with other functions. Concept of Logistics and Supply Chain Management and evolution to 4PL - Supply Chain Management - Objectives, Components, Significance, Tradeoff Customer Service & Cost.	Conceptual
II	Purchasing: Purchasing in Materials management - system concept - purchasing and procurement activities under Materials management - Value Analysis and Value Engineering - Purchasing and Assurance - Purchase Cycle - Negotiation & Bargaining - Vendor relations - Purchasing Methods - Global Sourcing - Stores - Functions, Importance, Organization of stores & Stores layout. Stores procedure - documentation	Conceptual
III	Inventory - Need of Inventory - Types of Inventory - Basic EOQ Model - EOQ with discounts - Classification of material - ABC Analysis - VED, HML, FSN, GOLF, SOS (Numerical expected on Basic EOQ, EOQ with discounts & ABC) Material Requirement Planning (MRP) - Advantages over conventional planning (Order Point Method) - Input and output of MRP system - Forecasting - Overview of quantitative and qualitative methods of forecasting - Master Production Schedule - Bill of Materials - BOM Explosion - Material flow in MRP. MRP II. Concept of ERP. (Numerical likely on BOM Explosion, estimating Net requirements)	Analytical
IV	Quality control of material: Incoming material quality control - statistical quality control - governmental purchasing practices and procedures - Inventory control & Cost Reduction techniques: Inventory turns ratios - Standardization - need and importance. Codification - concept, benefits. Value Engineering and Value Analysis - concept and process.	Analytical
V	Material handling and storage systems, Physical distribution logistics - transportation, Traffic and claims management - operations research and related techniques - Principles of Materials Handling system - Materials Handling Equipment - Safety issues.	Analytical

Text & Reference Books:

- Course Material Prepared by LSC
- Materials management: procedures, text and cases - A.K. Datta
- Materials management: An integrated approach - P. Gopalakrishnan
- Introduction to Materials management - J.R. Tony Arnold & Stephen N. Chapman
- Purchasing and Materials Management - K.S. Menon
- Handbook of Materials Management - Gopalakrishnan
- Materials & Logistics Management - L.C. Jhamb

WAREHOUSING & DISTRIBUTION OPERATIONS

Semester
ICourse Type
CoreCode
L19C07Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of 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
- This subject will enable them to enhance their ability and professional skills

Unit	Topics	Focus
I	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. Associate warehouse-Its functions-equipment available in associate warehouse-Video on warehouse–Visit to warehouses-Warehouse Organization Structure-Benefit of Warehousing.	Conceptual
II	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	Conceptual
III	Warehouse Activities Explain receiving, sorting, loading, unloading, Picking Packing and dispatch, activities and their importance in a warehouse-quality parameters-Quality check-need for quality check-importance of quality check. Procedure to develop Packing list / Dispatch note-Cross docking method-Situations suited for application of cross docking-Information required for coordinating cross docking-Importance of proper packing-Packing materials-Packing machines-Reading labels	Analytical
IV	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.Channel of distribution:role of marketing channels–channel functions–channel structure–designing distribution channel–choice of distribution channels	Analytical
V	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-Instruction 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.	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. JPSaxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd, First Edition, 2003.
3. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems [With CDROM], Michael Ten Hompel, Thorsten Schmidt, Springer-verlag, First Edition, 2006.
4. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
5. Kapoor Satish K., and Kansal Purva, 'Basic of Distribution Management: A Logistical Approach', Prentice HALL of India

MATERIALS MANAGEMENT - PRACTICALSemester
ICourse Type
CoreCode
L19C08Hours
60Credits
2Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Practice on different types of material handling equipment's (MHEs) that is being handled inside the organization follow the operating procedure, pre-operating conditions of the MHE's under supervision & guidance and follow the tolerance.
II	Handle the MHE's in an empty format (without load) at the idle time of operations under guidance and large loads under supervision and follow the steps to avoid the risks.
III	Handle pallet loads, boxes load and various loads as per the company's needs and always follow safety and security rules/instructions in the workplace to maintain safety and security.
IV	Perform Total Production Management, Total Quality Management) and record keeping system.
V	Perform various activities of MHE maintenance operations, identify critical parts, tools and equipment required to perform select repairs or replacement of parts in various types of MHE. Identify and familiarize with lubricants and spares used in routine maintenance
VI	Prepare the job sheet with completed preventive/breakdown maintenance with observations, indent form to obtain required replacement of parts. Report to supervisor in case of delay in completing the maintenance operation with correct reason.
VII	Assess and escalate future problems related to MHE performance during the service operation. Account for the replaced parts and lubricants and update appropriate reports to store. Follow safe disposal methods for worn out parts and used lubricants as per standard operating procedure. Test MHE for its fully functional and fit for use. Schedule next maintenance date based on the type of MHE and usage.
VIII	Detect & resolve issues during execution, demonstrate possible solutions and agree tasks within the team.
IX	Build on effective communication with inter departments, sub-ordinates and super-ordinates for smooth operations and safety procedures

WAREHOUSING MANAGEMENT-PRACTICALSemester
IICourse Type
CoreCode
L19C09Hours
60Credits
2Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Identify the uses and limitations of various types of goods coming in the warehouse based on organization requirements and list them.
II	Perform inspection process on the physical availability of the goods, against the goods and the invoice.
III	Identify whether it is a fresh order, a partial order, left over ones, returns, etc.
IV	Carry out counting of goods unloaded, Cross verification of the physical count with the invoice and advanced shipment notice (ASN),
V	Locate the missing items for reconciliation. Prepare a detailed report for the management. Prepare the goods receipt note after reconciliation of count with driver's copy
VI	Carry out the Dispatch activities in warehouse. Arrange items for inspection in staging area before dispatch. Follow quality assurance procedures.
VII	Collect items after unloading from truck. Initiate allocation of items to storage at proper location. Use standard storing procedure.
VIII	Check for the document requirements after unloading till it is put away.
IX	Verify if hazmat cargo legal and regulatory requirements are complied with. Reconcile items with dispatch order. Initiate action to arrange for missing items in the dispatch order. Take necessary action in case of stockout.
X	Perform physical counting of items as per dispatch order in staging area. Provide verified dispatch list to the transport coordinator to initiate loading. Check if proper handling and packing equipment is being used.
XI	Organizing and Managing emails. Update computer system to release dispatch list to transport coordinator. Report any incidents and near-misses noticed during receipt and dispatch operations

WAREHOUSE AUTOMATIONSemester
IICourse Type
AlliedCode
L19A01AHours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To familiarize the student with the basic concept of the most common automations from light to heavy
- To familiarize the student with the basic concept of the supply chain including Logistics, warehousing, IT as well as distribution and planning.

LEARNING OUTCOMES:

The students will be able to:

- Recognize the Knowledge of the common and latest automation solutions for warehousing
- Understand and Recognize the costs and pre-requisites for each automation solution and the expected benefits of the different solutions
- Able to complete the analysis and to select the most appropriate solution for warehouse automation

Unit	Topics	Focus
I	Overview of the Traditional Warehouse Operations- Warehouse Automation Systems: Over-view, Applications, Costs, Benefits, ROI – Receiving Automation: Pallet Inverter- Palletizers	Conceptual
II	Storage and Retrieval Automation: Vertical and Horizontal Carrousel- Vertical Lift Module- Orbital Shuttle Systems- AS/RS Mini Load- AS/RS Unit Load- Garmentson Hangers	Conceptual
III	Material Flow Automation- Conveyors- Lifts- Automated Guided Vehicles- Monorail	Analytical
IV	Picking/Outbound Automation: Pick/Put To Light- A Frame- Automated Order Selection – Pick-N-Go- Outbound Sorters- Automatic Truck Loading.	Analytical
V	Automating Data Collection: RFID- Automated Measurements Systems- Unique Solution Providers: Kiva Robot - Auto Store - Additional Automation Around the Warehouse Building Management System: Weightscales- Delivery Drones- Delivery Robots.	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. Industrial Automation and Robotics: A.K. Gupta and SK Arora
3. Advanced Industrial Automation and its Application: Ravindra Sharma
Industrial Control Electronics Devices, Systems, & Applications 3D Edition Author: Terry Bartler Publisher: Delmar

BEST PRACTICES FOR TRANSPORTATIONSemester
IICourse Type
AlliedCode
L19A01BHours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To familiarize the student with the information about transportation considerations for the import, export and domestic trade processes.

LEARNING OUTCOMES:

The students will be able to assess transportation operations towards increased logistics efficiency while discovering opportunities for saving time, expense and hassle.

Unit	Topics	Focus
I	Transportation Strategy Considerations: An Overview of the Import Process - An Overview of the Export Process - Bonding Issues for Exporters - Negotiating Rates - Insurance and Liability - E-Logistics and the Internet - UN Module regulation - introduction to carriage of dangerous goods.	Conceptual
II	Import and Export Documentation Requirements: An overview of commercial documents - Commercial Invoice - Consular Invoice - Packing List - Certificates of Origin - Permits of Export and Import of Goods - Cargo Control Documents - Other Commercial Documents - Distribution of Commercial Documents	Conceptual
III	Airfreight: Introduction - Documents - The Air Waybill (AWB) - Moving Goods by Air - Export Packaging - Air Cargo Handling, Delivery - The Role of IATA - Shipping Dangerous Goods by Air - Glossary of Airfreight Terminology. Oceanfreight: Documents - Containers - FCL/LCL - Handling the LCL - Handling the Ocean Freight Shipment - Shipping Dangerous Goods by Ocean	Analytical
IV	Road Transportation: Introduction to Road Transportation - Trucking/Highway Regulations - Documents - The Truck Bill of Lading - Standard Trucks - Specialized Trucks - Lorry haul trucks - Heavy load haulage multi axle multi truck - Service Options for Truck Transport - Shipping Dangerous Goods by Truck - LTL/FTL Shipments - Trucking Rates and Tariffs A Checklist of Trucking Considerations - Border Security Issues. Rail Transportation: Introduction - Shipping Goods by Rail - The Railway Bill of Lading - Rail Equipment - Moving Dangerous Goods by Rail - Over Dimensional and Heavy Lift Cargo by Rail.	Analytical
V	Intermodal Transport: Introduction - Shipping goods intermodally - Documentary Considerations - Other Considerations - Telematics - Routing - GPRS - Monitoring fuel economy - Driver practice - Indicators - Future prospectus growth of road - Automation - INCOTERMS 2000 - Transfer of Liability - Incorporating INCOTERMS into the Contract of Sale - INCOTERMS Structures - Mode of Transport Related to INCOTERMS. Advantages of multimodal transport document.	Analytical

Text & Reference Books:

- Course Material Prepared by LSC
- "Self-Compliance Strategies and the Administrative Monetary Penalty System", a Manual for Importers and Exporters: PFCollins Customs Broker Ltd., November 2002
- OAG@Air Cargo Guide TMMay 1997, published by OAG, a division of Reed Elsevier Inc., OAG, 2000 Clearwater Drive, Oak Brook Illinois.
- International Air Transport Association (IATA) Dangerous Goods Regulations

APPRENTICESHIP ISemester
IICourse Type
OJTCode
L19C010Hours
1035Credits
34Version
2019-20**COURSE OBJECTIVE:**

- To orient students in the practical field of Logistics
- To make Students perform Warehousing and distribution centre operations
- To develop competencies and Skills in students to become Warehouse professionals

LEARNING OUTCOMES:

- On completion of Apprenticeship I,
- Students will be able to perform the activities of Warehousing and distribution centres in the real-life situation
 - This On-the-job training will enable them to enhance their ability and professional skills in Logistics

Actual training will depend on the existing facilities available in the company. However, the company shall ensure that the broad skills defined against On-Job Training are imparted. In case of any deficiency in any in a single division/department, the company may impart the training in other divisions/departments.

Students in Apprenticeship would be assessed on the extent of skilling and aptitude gained by them during the Apprenticeship.

No.	Skill components to be covered during the Apprenticeship Training in Industry
I	<p>Industry Health, Safety, Security & Environment:</p> <p>Familiarization with the industry. Health, Safety & Environment and Follow health, safety and security procedures - Introduction to safety Equipment's and their uses - Demonstration of 5S Concept on shop floor - Use of Personal protective Equipment's (PPE).</p>
II	<p>Warehousing:</p> <p>Perform warehouse activities like receiving, sorting, Picking, packaging, kitting, labelling and binning, Loading, unloading, dispatch, and maintaining quality parameters -</p> <p>Develop knowledge on the layout of the warehouse and explore the various storage happening at different locations. Understand the uses and limitations of various types of goods coming in the warehouse based on organization requirements - Forecasting and trend analysis - Forecasting and trend analysis - Maintain integrity and ethics in operations - Perform material handling activities pertaining to warehouse - Perform preventive and breakdown maintenance checks - Handle perishable goods, FMCG goods, automotive goods, bulk cargo in warehouse - Perform the operations of Material Handling Equipment Like BOPT, Reach truck, Forklift, order picker - Supervise loading and unloading - Feed data into ERP and analyse in warehouse - Maintain integrity and ethics in operations - Perform Inbound and outbound documentation - Perform quality check and inventory check documentation - Perform transport coordination - perform the Verification of GST invoices - perform Forecasting and trend analysis</p>
III	<p>Material Handling and Management:</p> <p>Practice on different types of material handling equipment's (MHEs) that is being handled inside the organization follow the operating procedure, pre-operating conditions of the Handle pallet loads, boxes load and various loads as per the company's needs - Perform TPM (Total Production Management), TQM (Total Quality Management) and record keeping system - Perform various activities of MHE maintenance operations, identify critical parts, tools and equipment required to perform select repairs or replacement of parts in various types of MHE.</p>

SOFT SKILLS

Semester III	Course Type Core	Code L19C11	Hours 45	Credits 3	Version 2019-20
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INTRODUCTION

Management involves utilizing the human capital of an enterprise to contribute to the success of the enterprise. Management is the act of coordinating the efforts of people to accomplish desired goals using available resources efficiently and effectively.

Today's workforce comes from varied social and cultural backgrounds, with differing standards of behaviour. These may not always be in sync with the norms of the organization. The ability to deal with differences, multiculturalism and diversity is needed more than ever. It is important, for students who would be entering the corporate world for the first time, to inculcate behaviour that is appropriate for the workplace. The importance of personal grooming, business etiquette, verbal and non-verbal communication, telephone etiquette and general professional conduct, can never be undermined.

Soft Skills is now recognised as key to making businesses more profitable and better places to work. Increasingly, companies aren't just assessing their current staff and future recruits on their business skills. They are now assessing them on a whole host of soft skill competencies around how well they relate and communicate to others.

It has been found that soft skills can be developed and honed on an on-going basis through good training, insightful reading, observation, and of course, practice, practice, practice.

Students can focus on areas of self-improvement to help improve their behavior, transform their professional image and create a positive impact in their careers. Greater awareness of grooming and etiquette will help one to develop poise and confidence. This will significantly impact the image that one has in any formal, professional and social situations

LEARNING OBJECTIVES

- To understand and enhance social skills
- To develop logical reasoning and quantitative abilities
- To help build greater confidence when interacting with people
- To build on the ability to make a positive first impression
- To help improve the overall appearance

LEARNING OUTCOMES

Soft skills would enable the student in

1. Understanding the strengths and weaknesses of oneself and
2. Gaining confidence in participating in group discussion on current topics.
3. Improving problem solving abilities (Quantitative & Logical)

ACTIVITY STRUCTURE

Students would be focusing on the following major activities under this Course:

- a) Grooming & etiquette
- b) Introspection, self awareness and self introduction
- c) CV writing
- d) Facing interviews
- e) Training in aptitude and employability tests

Guidance on the above issues would be given by an expert and Faculty would be guiding them through one-to-one interaction. Assessing them on their performance would be done by the Faculty.

To be developed by the Collaborating Institution)

BUSINESS COMMUNICATIONSemester
IIICourse Type
CoreCode
L19C12Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop written and verbal communication skills for effective business communication.
- To identify various communication skills involved in the business organization.
- To develop business communication skills among the students.
- To improve language skills—reading, writing and listening

LEARNING OUTCOMES:

- Expose learner to variety of text to interact with them
- Capability to increase learner to visualize texts and its reading formulas
- Develop critical thinking.
- Develop a more humane and service-oriented approach to all forms of life around them.
- Improvement in their communication skills for larger academic purposes and vocational purposes
- Critical participants in their everyday business life

Unit	Topics	Focus
I	Introduction to Business Communication- Characteristics of Effective Organizational Communication- Basic Forms of Communication- Process of Communication- Principles of Effective Business Communication- 7C's.	Conceptual
II	Academic Vocabulary and English for Business- Creative Writing Critical Thinking: Introduction to critical thinking— Benefits- Barriers— Reasoning— Arguments- Deductive and inductive arguments — Fallacies- Inferential comprehension Critical thinking in academic writing- Clarity- Accuracy— Precision – Relevance.	Conceptual
III	1. Business letters— layout of Business letters- types- Business enquiries and replies— offers— quotations— orders— complaints and adjustments— collection letters— circular letters— status enquiries. 2. Email Writing- The Process of Writing E-Mails, breaking it Down— The PAIBOT technique, Structuring an E-Mail— The 3T's— Introduction, Body and Conclusion, Effective Subject lines, Salutation and Signing off- Teleconferencing, videoconferencing	Analytical
IV	1. Communication in Business Environment: Business Meetings, Notice, Agenda, Minutes- Press Releases - Corporate Communication: Internal and External, Group Discussion, Seminars, Presentations. - Reporting of Proceedings of a meeting. Office Memorandum, Office Orders, Press Release 2. Listening: Active listening— Barriers to listening— Listening and note taking— Listening to announcements— Listening to news on the radio and television.	Analytical
V	1. Reports and Presentations- Business reports and Proposals, Format, visual aids and contents, Oral Business presentations. 2. Job Application and Resume Writing	Analytical

Text & Reference Books:

- R.C. Bhatia. Business Communication.
- R.K. Madhukar. Business Communication.
- Shraf Ravi. Effective Technical Communication.
- Marilyn Anderson, Pramod K Nayar and Madhu Chandra Sen. Critical Thinking,
- Lesikar R.V & Flately MV, Basic Communication Skills for empowering the internet generation, Tata- McGraw Hill, 2009.
- Sharma RC & Mohan K, Business Correspondence & Report Writing, TMH, 2009.

FREIGHT FORWARDING (OCEAN AND AIR CARGO)Semester
IIICourse Type
CoreCode
L19C13Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become freight forwarding professionals
- To orient students in the field of Logistics
- To help students understand freight forwarding

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of freight forwarding including ocean and air cargo in the real-life situation
- This subject will enable them to enhance their ability and professional skills

Unit	Topics	Focus
I	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 – domestic and international freight forwarding networks – process of freight forwarding.	Conceptual
II	Multimodal transportation - Vendor management - bulk load handling - brief on transshipment - DG handling - customer acquisition and management - Customs clearance procedure - Documents and its importance - Stages of Documentations process and procedures - Documentation types and filing processes - Details of documents as per the format approved by the Customs - The requirement of documents for pre-shipment and requirement of documents for Import - DO's and DON'T's while handling different documents during Custom Clearance	Conceptual
III	Operation Procedures of Freight Forwarding - The procedures for Pre-Operating Checks and Operational check to be performed for every shipment/consignment - List of basic handling of errors and the Operational errors that occur in common - Procedure for checking of shipping bill, Airway bill based on invoice and packing list received from department for Freight Forwarding. Regulations (EXIM/IATA/Countries)/COM based on permutations and combinations of weight vs volume.	Analytical
IV	Cargo handling, INCOTERMS and terminologies used in Cargoes - Different Types of Cargoes for transportation. Full Export and Import value of the cargo – Importer and exporter Code (IEC), The registered PAN based Business Identification Number received from the Directorate General of Foreign Trade - Different type of Cargo, Their quantity and value - Packaging requirement for the cargo during shipment from the shipper - Inspection procedure for the cargo while unloading - DO's and DON'T's while handling different cargo - Basic Regulation pertaining to Cargo movement by Air, Sea, and Land. Climatic conditions of different routes in different seasons.	Analytical
V	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 - and their roles. Technical knowledge on Containers; Pallets; Palletization; Fumigation - The general reporting processes and timeframes - Different airline/shipping line available for different routes - Letters of Credit and payment Terms. Etc. - Movement policy - Details of the transport available in different routes - Organization fees, charges structure and Organizational procedures - computer and its application in internal systems of documentation.	Analytical Different P.G.A

Text & Reference Books:

1. Course Material Prepared by LSC
2. JPSaxena, Warehouse Management and Inventory Control - Vikas Publication House Pvt Ltd, First Edition, 2003.
3. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems [With CDROM], Michael Ten Hompel, Thorsten Schmidt, Springer Verlag, First Edition, 2006.
4. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
5. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India

FORECASTING&INVENTORY MANAGEMENTSemester
IIICourse Type
CoreCode
L19C14Hours
60Credits
4Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of 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
- This subject will enable them to enhance their ability and professional skills in inventory management

Unit	Topics	Focus
I	Forecasting: meaning – need for forecasts – types of forecasts – timeframe – Demand Forecasting – Types of Demand Forecasting – Survey methods and statistical methods – importance of demand forecasting – Demand planning v/s forecasting – Sources of demand – Supply chain dynamics – Key roles and responsibilities	Conceptual
II	Sales and Operations Planning – S&OP goals and objectives – S&OP best practices – S&OP meeting activity – Collaborative Planning – Types of collaboration – Collaborative Forecasting – Collaborative planning, forecasting and replenishment – Ingredients of successful CPFR – Regression analysis and cyclic decomposition techniques. Short-term forecasting techniques – Technology Forecasting – Methodologies: - Trend Analysis, Analogy, Delphi, Soft System Methodology, Mathematical Models, Simulation, System Dynamic – Role of Technology Information Forecasting and Assessment Council (TIFAC).	Analytical
III	Inventory: Purpose of Inventory – Goods – Types of Goods – Finished Goods Inventories – General Management of Inventory, Stocks – Types of Stocks, Tracking the Paper Life – Work-in-Process Inventories – Finished Goods & Spare Parts Inventories – Multi-Echelon Inventory Systems – Spare Parts Inventories – Use of Computers in Inventory Management – Evaluation of Performance of Materials Function – Criteria and methodology of evaluation – Forecasting model run – Ongoing improvement	Conceptual
IV	Codification – Classification – Methodology – Requirement of codes – Coding Structure and Design – Advantages – International Codification – Cost and Consequences – Right Quantity – Economic Ordering Quantity – Derivation of EOQ – Costs associated with Inventories – DuPont model – Turnover & Modeling in logistics	Analytical
V	Influence of production policy on inventory levels – inventories and customer service level – steps to improve inventory management – optimum inventory to improve profit performance – inventory management under condition for substantial EOQ – inventory management uncertainty (fixed order quantity model) – Calculation of safety stocks – Importance of role of inventory – Inventory Management Systems – execution – Ratio Analysis on Inventory, Profit Margin.	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3rd edition, 2007
3. Operations Research – Concepts, Problems & Solutions – Kapoor V.K. – Sultan Chand & Sons/2017- 978-81-8054-854-3 (TC-532)
4. Vijay Kumar Khurana, 2007, Management of Technology and Innovation, Anebooks India, Chennai Further Reading Source
5. Simchi-Levi, David, "Designing and Managing Supply Chain", Tata McGraw Hill, 3rd Edition, 2007.
6. David E Mulcahy, "Warehouse Distribution and Operations Handbook, McGraw Hill, 6th Edition, 1993.

SURFACE TRANSPORTATION

Semester
IIICourse Type
CoreCode
L19C15Hours
45Credits
3Version
2019-20**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

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of surface transportation in the real-life situation
- This subject will enable them to enhance their ability and professional skills

Unit	Topics	Focus
I	Introduction to surface transportation - Need for transportations - Role of transportations in logistics - Importance of transportations - Types of transportations metrics - functions of transportations - inter modal transport - various land transport carriers and their Load capacities - pricing and availability - verification of carriers and drivers - transit rules - traffic rules in sidewarehouse premises - Docking procedure and safety steps. Procedure to Confirm vehicle for loading of goods.	Conceptual
II	Tracking of transport: Transportation Optimisation - Documentation for transportation – GST – E Waybill Filing- Transportation Telematics- Vehicle tracking system- Communication with vehicle driver or transport company- Probable reasons for delay or any issues during transit- Solutions for corrective actions (such as talking to local authorities or breakdown service assistance)- Road signs, List good practices in driving.	Conceptual
III	Types of Trucks and Load capacity/ Organisation structure in a Transport organization/ Incident management systems & Processes - Explain types of temperature-controlled carriers - Discuss hazmat goods rules - Importance of safety data sheet and labels - Procedure for Consolidation of consignments for optimal loads, to verify count of material- Reporting discrepancies such as pilferages, loss or damage of goods in transit- Checking insurance and claims- steps to close deliveries and Coordinate with loading/unloading supervisor.	Analytical
IV	Benefits of efficient transportation systems/ Study on emerging trend in transportation sector/ pricing in transportation sector/ govt regulations on transportation in India. Safety procedures during transit and emergency response steps- keeping track of news on traffic and communicate with driver to identify delays and suggest re-routing- Explain tracking systems- Importance of consignment number- GPS systems and tracking devices- Procedure for downloading and reading tracking data from devices	Analytical
V	Customer Management/ Vendor coordination for return truck loads/ DG Handling – features and facilities offered by railways factors influencing growth in rail logistics – suitability for different cargo and distance ranges segments – innovative schemes- facilities to popularize rail logistics in India	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. JPSaxena, Warehouse Management and Inventory Control- Vikas Publication House Pvt Ltd, First Edition, 2003.
3. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems [With CDROM], Michael Ten Hompel, Thorsten Schmidt, Springer-verlag, First Edition, 2006.
4. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
5. Kapoor Satish K., and Kansal Purva, 'Basic of Distribution Management: A Logistical Approach', Prentice HALL of India

HUMAN RESOURCES MANAGEMENTSemester
IIICourse Type
CoreCode
L19C16Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Human resource management professionals
- To orient students in the field of Logistics
- To help students understand Human resource management

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of Human resource management in the real-life situation
- This subject will enable them to enhance their ability and professional skills

Unit	Topics	Focus
I	Introduction To HRM- Functions of HR Management- Qualities of HR Manager- Role of HR Executives International Human Resource Management- Concepts of IHRM Approaches to IHRM- Features of IHRM- Importance of IHRM- Factors affecting IHRM	Conceptual
II	Human Resource Planning- Objectives of HR Planning- HR Planning at different Planning Levels- Process of HR Planning Job Analysis and Design: Job Analysis Information- Uses of Job Analysis- Process of Job Analysis- Methods of collecting Job Analysis Data- Job Description. Recruitment and Selection- Recruitment Policy- Objectives of Recruitment- Selection Procedure- Essentials of Selection Procedure- Steps in Selection Procedure.	Conceptual
III	Promotion, Transfer, Job Rotation & Career Planning, Career Development- Need for Career Planning- Career Development- Suggestions for Effective Career Development. Performance Appraisal- Evaluation Process- Performance Appraisal Methods- Management by Objectives- Behaviorally Anchored Rating Scale- Pitfalls in Performance Appraisal- Use of Performance Appraisal.	Analytical
IV	Employee Training and Development- Steps in Training Programmes- Training Evaluation- Areas of Training- Importance of Learning- Employee Training Methods- Evaluating Management Development Program Compensation Management- Process of Job Evaluation- Techniques of Job Evaluation- Advantages of Job Evaluation- Types of Incentive Plans- Employee Benefits- Objectives of Employee Benefits.	Analytical
V	Occupational Safety and Health- Causes of Safety and Health problems at the work place- Provisions to prevent Accidents in the work place- Stress and Consequences on Employee Performance. Grievance Handling- Concept of Grievance- Causes of Grievance- Effective Grievance Redressal- Steps in Grievance Redressal Procedures. Discipline Action- Aims and Objectives of Discipline- Forms and Types of Discipline- Principles of Maintaining Discipline- Disciplinary Procedure- Types of Disciplinary Actions- Dismissal.	Analytical

Text & Reference Books:

1. VSP Rao, Human Resource Management: Text and cases, First edition, Excel Books, New Delhi-2000.
2. Dr. R. Venkatapathy & Assisi Mencheri, Industrial Relations & Labour Welfare, Adithya Publications, CBE, 2001.
3. Robert L. Gibson and Marianne H. Mitchell, Introduction to Counseling and Guidance, VI edition, PHI, 2

MANAGEMENT & COST ACCOUNTINGSemester
IIICourse Type
CoreCode
L19C17Hours
60Credits
4Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Management and cost accounting professionals
- To orient students in the field of Logistics
- To help Students to understand Management and cost accounting

LEARNING OUTCOMES:

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

Unit	Topics	Focus
I	Cost Accounting-Concept of Cost Centres-Cost Units-Classification of Cost-Overheads-Simple historical and estimated cost sheets.-Tenders and quotations-Contract costing-Activity based costing (ABC). Management Accounting: Meaning and Definition-Nature and Scope-Objectives of Management Accounting-Importance and Limitations-Management Accounting vs Cost Accounting.	Conceptual
II	Marginal Costing and Break even analysis: Marginal Costing and Cost-Volume-Profit (CVP) analysis: meaning, concept - assumptions and practical applications of Break-even analysis- decisions regarding sales mix-make or buy-limiting factor-export decision-plant merger-shutdown of a product line-DuPont Analysis.	Conceptual
III	Budgeting and Budgetary control: Budget and Budgetary Control: Meaning, -establishing a system of Budgetary Control-Preparation of Sales-Production-Cash Budget-Fixed and Flexible budgets, Master budget-Zero based (ZBB)-Performance budgeting	Analytical
IV	Analysis of Financial Statements: Analysis and Interpretation of Financial Statements: Objects-importance-Types of financial analysis - Comparative statements - Common size statements, Ratio analysis - Preparation of Balance sheet using ratios Fund flow analysis: Fund flow statement-Preparation-Cash flow statement-cash flow analysis-Analysis of income statements of ports/shipping companies.	Analytical
V	Standard Costing and Variance Analysis: Standard Costing and Variance Analysis: Meaning of Standard Cost-Relevance of Standard Cost for Variance Analysis-Significance of Variance Analysis-Computation of Standard Costs for Materials, Labour and Overhead Variances- Comparison between Budgeting and Standard Costing - Variance reporting- Responsibility Accounting - Meaning and Objects - types of Responsibility Centres- Management Reporting.	Analytical

Text & Reference Books:

1. MAHESHWARI, S.N., (2013) Cost and Management Accounting. 14th edition
2. JAIN, S.P. & NARANG, K.L. (2014) Cost and Management Accounting. 14th Edition, Kalyani publishers: New Delhi.
3. TULSIAN, P.C. (2000) Practical Costing. Vikas Publications: New Delhi.
4. SAXENA, V.L. & VASHISHT (2014) Advanced Cost & Management Accounting-Problems & Solutions. Prentice Hall of India.
5. MAHESHWARI, S.N. (2014) Principles of Management Accounting. Sultan Chand & Sons.
6. MURTHY & GURUSAMY (2009) Management Accounting. Tata McGraw Hill: New Delhi.
7. REDDY, T.S. & HARIPRASAD REDDY (2014) Cost & Management Accounting. Margham Publications.

SURFACE TRANSPORTATION - PRACTICALSemester
IVCourse Type
CoreCode
L19C18Hours
60Credits
2Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Identify various land transport carriers, Load capacities, pricing and availability Check Statutory documents for verification of carriers and drivers Follow transit rules and place indent for land transport vehicles.
II	Follow traffic rules inside warehouse premises. Adopt Docking procedure and safety steps. Ascertain vehicle fitness. Confirm vehicle for loading of goods Check vehicle tracking system. Communicate with vehicle driver or transport company Identify the reasons for delay or any issues during transit and take Corrective actions and verify shipments status.
III	Follow road signs, Good practices of driving and safety procedures.
IV	Carry out Consolidation of consignments for optimal loads. Carry out booking, loading, receiving and unloading of consignments. Coordinate with supervisor.
V	Verify discrepancies such as pilferages, loss or damage of goods in transit Check insurance and claims. Follow the Steps to closed deliveries
VI	Identify routes and transit rules. Estimate transit time, delay and decide on routing of shipments. Keep track of news on traffic. Communicate with driver to identify delays. Suggest re-routing of shipments.
VII	Use GPS System tracking devices, consignment number. Download, read tracking data from devices and Track transport vehicles.
VIII	Use various types of temperature controlled carriers and transport temperature controlled and hazardous goods Follow the hazmat goods rules, safety data sheet and labels.

FORECASTING AND INVENTORY MANAGEMENT - PRACTICAL

Semester
IV

Course Type
Core

Code
L19C19

Hours
60

Credits
2

Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Carry out computerized inventory system Carry out basic inventory management which include Issues of Stock, sold, transferred, reordered for production
II	Issue stock based on customer orders and rules Place indent for replenishment orders Follow Rules of replenishment orders
III	List and explain Importance of stock counting Follow Stock counting procedures and perform Stock Counting Ascertain inventory counts Follow Do's and Don'ts in inventory counting Observe general Reasons for discrepancies in Inventory mismatch Identify the issues for Inventory mismatch and take corrective actions
IV	Use technologies for Inventory counting Track Inventory within the warehouse Apply Knowledge on Computer and Associated software Use Communication Devices in warehouse environment Use Scanning equipment's including Bar Scanner and RFID Use proper Tools for measurements Maintain Records, Goods Receipt, Issues and inventory balance Use inventory module in ERP

INLAND WATERWAYS & COASTAL SHIPPINGSemester
IVCourse Type
AlliedCode
L19A02AHours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To familiarize the student with the basic concept of inland waterways and coastal shipping, their importance and future development of Indian waterways

LEARNING OUTCOMES:

- Recognize the impact of inland waterways and coastal shipping
- Recognize the importance and future development of Indian waterways.

Unit	Topics	Focus
I	Basics of shipping-Introduction for shipping-Types of ship-sizes of ship-Basic terminology of ships-Sea transport and its importance-Roles of ports in sea transport-Coastal shipping and its importance.	Conceptual
II	Inland waterways: Introduction-Scope-Sources (lakes, Rivers, Canals, Backwater, creeks, water courses inlets and bays)-Working principles-Impact-Inland waterways in India: locations	Conceptual
III	Role and importance of inland waterways: Infrastructure facility required-Role and importance of inland waterways in transportation-Transportation through creeks	Analytical
IV	Inland waterways: Road connectivity-Availability of cargo (scarcity)-Navigation (night navigation)-Draft restriction	Analytical
V	Inland waterways in other countries: Bangladesh-China-Vietnam-Europe Inland waterways in India: Network in India-upcoming inland waterways-Inland waterways authority-Government policies on inland waterways-National waterways Act	Analytical

Text & Reference Books:

- Course Material Prepared by LSC
- Inland Waterway Transport: Challenges and prospects (Routledge Studies in Transport Analysis) Hardcover – Import, 12 Jul 2016 by Bart Wiegman (Editor), Rob Konings (Editor)
- Inland waterways Transportation (IWT) in India-Machiraju presentation Pvt Ltd

COURIER, EXPRESS & PARCEL SERVICESSemester
IVCourse Type
AlliedCode
L19A02BHours
45Credits
3Version
2019-20**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	Topics	Focus
I	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	Conceptual
II	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	Conceptual
III	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-Area to receive, sort and inspect-Documentation activities in hub-spoke-Inspection process of inbound sorted and outbound consignments	Analytical
IV	Tracking and tracing; AWB – essential time of arrival delivery-Last mile delivery – LMD-First mile delivery	Analytical
V	Customer satisfaction-quality, delivery time, costs (shortest cost, loss prevention)-Weight rate, cube scan – diversions/LBW/Volumetric density of cargo	Analytical

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
4. Warehouse management and Inventory control- Vikas Publication House

APPRENTICESHIP IISemester
IVCourse Type
OJTCode
L19C20Hours
1035Credits
34Version
2019-20**COURSE OBJECTIVE:**

- To orient students in the practical field of Logistics
- To make Students perform Freight forwarding and Land transportation
- To develop competencies and Skills of students to become Logistics professionals

LEARNING OUTCOMES:

- On completion of Apprenticeship II,
- Students will be able to perform the activities of Freight forwarding, Land transportation and Logistic terminals operations in the real-life situation
 - This On-the-job training will enable them to enhance their ability and professional skills in Logistics

Actual training will depend on the existing facilities available in the company. However, the company shall ensure that the broad skills defined against On-Job Training are imparted. In case of any deficiency in any in a single division/department, the company may impart the training in other divisions/departments.

Students in Apprenticeship would be assessed on the extent of skilling and aptitude gained by them during the Apprenticeship.

No.	Skill components to be covered during the Apprenticeship Training in Industry
I	<p>Freight Forwarding:</p> <p>Performing the various activities for Freight Forwarding on export and import Cycle. Performing the various activities of cargo operations in Freight Forwarding area. Use the processes; sequence; time frames and compliances of different type of Custom Clearance - Applying the correct procedure of the Freight Forwarding like filing; Examination; export order; stacking; loading; out of Customs charge; post Clearance processes; etc - Plan for Stuffing or Cargo. (which involves booking the container, take delivery order from shipping line, give it to transporter for both water and Air Cargo.) - Use the different documents available for Freight Forwarding. Prepare/updated documents for handling of cargoes. - Process irregularities like damage/loss etc - Perform PG A processing or specific certificate of origin related Processing - Prepared documents for Export and Import processing including EDI filing - Maintain integrity and ethics in operations - Follow health, safety and security procedures - Verify GST invoices - Plan and arrange for cargo movement - Perform custom clearance field activities - Perform custom clearance office activities - Perform custom clearance supervisory activities - Feed data into ERP and analyse in courier hub.</p>
II	<p>Land Transportation:</p> <p>Perform Customer support activities like booking, tracking and claims processing - Follow loading and unloading procedures for various consignments - Understand the uses and limitations of various types of vehicles, transit rules and carry out the activities - Apply knowledge on the various routes and explore the various alternate routes to reach key destinations - Carry out various vehicle operations activities such as placement on time, keeping track of loading and unloading time, verifying material count, inspection of vehicle, etc - Carry out the inspection process on the physical vehicle and safety checklist - Cross verify the goods loaded/unloaded and sign off from the drivers - Follow safety instructions while handling dangerous goods - Locate the missing items for reconciliation and preparation of detailed reports for the management - Complete closure of deliveries and prepare the vendor rating report - Undertake route planning and vendor coordination - Undertake gate operations - Arrange and track movement of consignment - Undertake transport data processing and analysis - Coordinate with internal and external employees - Maintain integrity and ethics in operations - Follow health, safety and security procedures - Verify GST invoices - Arrange and track movement of articulated trucks - Arrange and track movement of free fer vehicles - Perform inbound/outbound documentation - Transport consolidation and consignment tracking - Transport consolidation and consignment tracking - Feasibility assessment and route optimization - Feasibility assessment and route optimization - Perform transport consolidation - Conduct feasibility assessment - Prepare EXIM documentation - Use telematics to drive efficiency.</p>

MIS FOR LOGISTICS

Semester
VCourse Type
CoreCode
L19C21Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become MIS for logistics professionals
- To orient students in the field of Logistics
- To help students understand MIS for Logistics

LEARNING OUTCOMES:

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

Unit	Topics	Focus
I	Introduction-IT and management opportunities and challenges-Strategic planning and models-Information management & IT Architecture-IT Architecture & infrastructure, cloud computing and services, Virtualization and Virtual Machines.	Conceptual
II	Database Technology-Data warehouse-Data Mart Technologies-Data and Text mining-Business Intelligence & Analytics, Digital and physical document management. Networks, collaboration & sustainability: Business IT networks & components, communication technologies-Sustainability and Ethical issues-Internal control-Business Control and Auditing.	Conceptual
III	Dissemination of technology information and strategic planning-Technology choice and evaluation methods-Analysis of alternative technologies-Implementing technology programmes-Intellectual Capital-An introduction to Intellectual Property Right-Patent-Copyrights-Trademarks and other issues.	Conceptual
IV	Functional Area & Compliance systems: Management levels and functional systems Enterprise Systems and applications: Enterprise systems, Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Collaborative Planning, Forecasting, and Replenishment system (CPFR), Customer Relationship Management (CRM). Performance Management: Data visualization, Mashups, and Mobile intelligence, Fleet Management Information System.	Conceptual
V	Business Process and Project Management: - Architecture & IT design, System development, Software & Applications for management (Business software tools), Support system. ERP modules -sales and Marketing, Accounting, Finance, Materials and Production management etc.	Conceptual

Text & Reference Books:

1. Course Material Prepared by LSC
2. KENNETH C.L., JANE P.L., & RAJANISH DASS (2001) Management Information System- Managing the Digital Firm. Pearson Education: New Delhi.
3. RAVI, K., & ANDREW, B. W. Frontiers of Electronic Commerce. Pearson Education: New Delhi.
4. KENNETH, C. L., & JANE P, L. (2001) Essentials of MIS. Prentice Hall India: New Delhi.
5. SADAGOPAN, S. (2003) Management Information System. Prentice Hall India: New Delhi.
6. EFF, O. Z. (2003) Management Information Systems. Vikas Publishing House Pvt. Ltd.: New Delhi.

INTERNATIONAL LOGISTICS MANAGEMENTSemester
VCourse Type
CoreCode
L19C22Hours
45Credits
3Version
2019-20**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	Topics	Focus
I	International Logistics: Definition, Evolution, Concept, Components, Importance, Objectives; Logistic Subsectors; The work of Logistics; Integrated Logistics; Barrier to Internal Integration.	Conceptual
II	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.	Conceptual
III	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	Conceptual
IV	Containerization: Genesis, Concept, Classification, Benefits and Constraints; Inland Container Depot (ICD): Roles and Functions, CFS, Export Clearance at ICD; CONCOR; ICDs under CONCOR; Chartering: Kind of Charter, Charter Party, and Arbitration.	Conceptual
V	International commercial documents- International contracts, terms of payments, international insurance, packaging for export, custom clearance and infrastructure: transportation, communication and utilities -Brokerage	Conceptual

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

MARKETING MANAGEMENT

Semester
VCourse Type
CoreCode
L19C23Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To emphasize the importance of the marketing function in an organization.
- To understand the core concepts right from deciding the segment till customer satisfaction
- To impart knowledge with respect to latest trends in Marketing, Marketing Mix, Social responsibility and ethical issues in Marketing
- Global Marketing approach

LEARNING OUTCOMES:

- Discuss the importance of macro and micro environment in molding the company's marketing function.
- Differentiate the consumer and institutional buyer behavior.
- Define the target segments for the products.
- Justify the importance of products, branding and new product development.
- Understand the importance of Channel of distribution.

Unit	Topics	Focus
I	Meaning and concepts of Marketing, Sales Concept, Marketing concept, Social Marketing concepts, Societal Marketing concept, Marketing Mix, 4Ps of Marketing, Marketing Environment in India.	Conceptual
II	1. Consumer Behaviour – Factors influencing buying behaviour – consumer buying decision process – Buying motives - influences. 2. Market segmentation – criteria - Bases of segmentation – benefits. Marketing research process: Defining research problem, research objective research techniques	Conceptual
III	1. Product Planning & Development - Definition, Classification of Product, Stages of Product Life Cycle (PLC) and Factors affecting PLC. - Product Planning – Genesis and Importance of Product Planning in Marketing. - Product Development: Meaning, Principle of Product Development, Stages of New Product Development and Factors affecting development of New Products. 2. Pricing - Meaning, Objectives, Price Policies and Strategies and Methods of fixing prices.	Analytical
IV	1. Distribution Channel - meaning, Types of Distribution channel - Direct & Indirect. Role of intermediaries and distribution channel management. Channel Management Decisions, Returns Management and Reverse Logistics. 2. Promotion – elements of promotion mix - Advertising, sales promotion, personal selling and sales management. Public and customer relations, direct and online marketing, multilevel marketing - the new marketing model.	Analytical
V	1. An overview. Advertising, sales promotion, personal selling and sales management. Public and customer relations, direct and online marketing, multilevel marketing - the new marketing model. 2. Marketing and society - Social responsibility and ethical issues in marketing. Global marketing program. The old and new economies. Demand side marketing. Legal issues in marketing. Marketing skills, Brand marketing skills, CRM. Marketing in Indian Context. Marketing in 21st Century	Analytical

Text & Reference Books:

1. N. Rajan Nair, Marketing Management, Sultan Chand & Sons.
2. Ramasamy V. S. and Namakumary S, Handbook of Marketing Management, Macmillan.
3. Rajagopal, Marketing Management, Vikas Publishing House Pvt., Ltd.,
4. S. Jayachandran, Marketing Management, Excel Books.
5. Rajan Saxena, Marketing Management, TMH.

RETAIL LOGISTICS & E-COMMERCE

Semester
VCourse Type
CoreCode
L19C24Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Retail logistics and E-commerce professionals
- To orient students in the field of Logistics
- To help students understand Retail logistics and E-commerce

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of Retail logistics and E-commerce in the real-life situation
- This subject will enable them to enhance their ability and professional skills in Logistics

Unit	Topics	Focus
I	Concept and Scope: Concepts of Retail Logistics and supply chain-Importance of Logistics in these days global Sourcing, Production and consumption- Dimension of Logistics: Macro and Micro aspects-Supply chain contours: Backward and forward linkages-Supply chain efficiency-Logistics as a competitive edge driver-Peculiarities and diversity of needs of Logistics for Retailing.	Conceptual
II	Logistics and Retail Marketing: Logistics as a Support function of Order Fulfilment, Assembling & Labelling from Multi-storage points and Delivery-Logistics as an interface of Market forecasting, Stock level management, invoice or sales documentation, picking products, consolidation, transport- packaging, marking, preparing outbound documentation and shipping out by loading into containers-customer facilitation tracking out-bound shipments.	Conceptual
III	E-Commerce: introduction to E-commerce logistics including delivery and pickup models and the overall logistic setup – Order Processing – Activities associated with order processing like identifying order request from MIS, creating customer account for new customers, identifying the order requirements and placing a processing request in MIS, notifying customer through system, updating the delivery requirements, checking with stock, coordinating with vendor, etc-Types of order processing-Roles and responsibilities associated with order processing-Procedures for generating plans and schedule through MIS	Analytical
IV	Reverse Logistics: Basic of reverse logistics-The concept of reverse logistics.The key activities involved in terms of identifying daily pickups, scheduling pickup for the day, coordinating with carriers, route map optimization, collecting pickup and feedback - Types of reverse logistics – Return from customer, return by carrier, return of damaged product, etc-Roles and responsibilities associated with reverse logistics-Global best practices and statistics associated with reverse logistics	Analytical
V	Types of E-commerce-B2B-B2C and intrabusiness.Retail E-commerce–Retailing through internet, Direct Online Sales model and its types- Business Models for e-commerce- meaning definition importance.E-business models based on the relationship of transaction types-manufacture model, advertising model, value chain model, brokerage Model Marketing on the web-marketing strategies, creating web presence, advertising, customer service and support, web branding strategies, web selling models. Electronic Payment system Electronic CRM Applications. E-Security-Understanding of Key terms of E-Commerce: Electronic Commerce & Banking-Electronic Payment Systems, Electronic Payment Technology, On-line credit card, ECommerce Security. - Electronic Data Interchange (EDI); EDI definition; Overview of advantages and disadvantages; EDI application in business development; EDI technology.	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC
2. Mr. Gibson G, "Retail Management: Functional Principles & Practices", Jaico Publishing house, 6th Edition, 2003.
3. Ray, Supply Chain Management For Retailing, TMH, 2010.
4. James B. Ayers, Retail Supply Chain Management, Auerbach Publications, 2007

LOGISTICS NETWORK DESIGN

Semester
VCourse Type
CoreCode
L19C25Hours
60Credits
4Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Logistics network design professionals
- To orient students in the field of design and configuration of the logistics network.
- To help students understand Logistics network design

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of design and configuration of the logistics network in the real-life situation
- This subject will enable them to enhance their ability and professional skills in design and configuration of the logistics network.

Unit	Topics	Focus
I	Introduction-Components of Logistics network: Facilities-Plants/Vendors-Ports--Warehouse Retailers/Distribution Centres-Customers-Raw materials and finished products that flow between the facilities. The three models of Network Design: 1. Logistics network design with differentiated delivery lead time 2. Logistics network design with price discount 3. Consolidated logistics network design using consolidation hubs	Conceptual
II	Key issues of Network design: Pick the optimal number, location, and size of warehouses and/or plants - Determining optimal sourcing strategy - Which plant/vendor should produce which product? - Determining best distribution channels - Which warehouses should service which customers?	Conceptual
III	Data required for Network Design: A listing of all products - Location of customers, stocking points and sources - Demand for each product by customer location - Transportation rates - Warehousing costs - Shipment sizes by product - Order patterns by frequency, size, and season, content - Order processing costs - Customer service goals	Conceptual
IV	1. The strategic decisions in terms of warehouses when plants and retailer locations are fixed; Pick the optimal number - location - size of warehouses - Determining optimal sourcing strategy - Which plant/vendor should produce which product - Determining best distribution channels - Which warehouses should service which retailers - The objective is to design or reconfigure the logistics network so as to minimize annual system-wide costs, including Production/purchasing costs, inventory carrying costs, and facility costs (handling and fixed costs) Transportation costs. 2. Find a minimal-annual-cost configuration of the distribution network that satisfies product demands at specified customer service levels.	Conceptual
V	1. Data Collection - information on: a) Location of customers, stocking points and sources—location theory - b) A listing of all products - c) Demand for each product by customer location—forecast technique - d) Transportation Cost - Transportation rates by mode—information system, like rating engine - e) Mileage estimation—f) Warehousing costs (handling and fixed)—inventory management g) Service level requirement—probabilistic technique h) Shipment sizes by product 2. Data Aggregation - The impact of aggregated demand - a heuristic to aggregate data. 3. Data Validation and Model 4. Optimization.	Conceptual

Text & Reference Books:

1. Course Material Prepared by LSC
2. Supply Chain Management: Logistics Network Design by Donglei Du, Faculty of Business Administration, University of New Brunswick, NB Canada Fredericton.
3. Joseph D. Patton, Logistics Technology and Management, Solomon, 1986.
4. Philip T. Frohne, Quantitative Measurements for Logistics, McGraw Hill, 2007

PORT TERMINALS LOGISTICS

Semester
VCourse Type
CoreCode
L19C26Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

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

LEARNING OUTCOMES:

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

Unit	Topics	Focus
I	Difference between Major and Minor Ports- Ports in India- Natural Harbours- New Port to be developed in India- Major Ports of the World- Largest Port in the world- Port Officials and their roles- Role of Ports- Who are Port users	Conceptual
II	Container Terminals- Privatisation of Terminals- Reason for Privatisation- Major Terminal Operators in India- Terminal Operators of the world- Privatisation the need of the hour- Agreement between an existing Port Terminal and the new operator	Conceptual
III	Import Cycle- Export Cycle- Positions and Places in a Terminal- Facilities in a Terminal- Container Monitoring and stacking- CFS in a Terminal- Reasons for Congestion of a terminal- de-congesting the terminal- Windows system in a terminal.	Conceptual
IV	Major Port Trust Act- Port as a custodian of the cargo- Transit sheds- Cargo receivers- Wharfs and Berths- Various berths in a Port- Meaning of Berth Restrictions- Port equipment's and damage- Extra services- Berth reservation schemes	Conceptual
V	Port Tariff- Pilots and their duties- Tugs and its usage- Night navigations- Light Dues- Tariff Authorities of Major Port- Revision of rates- Port Trustees- Safety Procedures- Introduction of ISPS- Damage to Port property by ships- Compensation and confiscation of cargo to adjust dues	Conceptual

Text & Reference Books:

1. Course Material Prepared by LSC
2. Major Port Trust Act – Government of India
3. Port Industry Statistics, American Association of Port Authorities
4. APMOLLOR Guidebook on Terminal
5. DUBAI PORT AUTHORITIES Manual

LINER LOGISTICS

Semester
VCourse Type
CoreCode
L19C27Hours
45Credits
3Version
2019-20**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to Liner logistics professionals
- To orient students in the field of Logistics
- To help students 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	Topics	Focus
I	Definitions of liner trades; tramp trades; containerization- Unitization - containerization, liner operations, port organization – Vessel loading and discharging, liner trader 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.	Conceptual
II	Cargoes & cargo equipment – Dangerous goods IMO special goods, cargo handling other methods of lifting cargo port handling equipment, port terminals; port and terminal management; the role of ship 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.	Conceptual
III	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 container tracking the container fleet, container control, FCLSLCLS & ICDS, legal & insurance implications in the container trade.	Conceptual
IV	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	Conceptual
V	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 INCOTERMS; 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.	Conceptual

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.

LOGISTICS NETWORK DESIGN - PRACTICALSemester
VCourse Type
CoreCode
L19C28Hours
60Credits
2Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Select any one of the following model for Network. <ol style="list-style-type: none"> 1. Logistics network design with differentiated delivery leadtime 2. Logistics network design with price discount 3. Consolidated logistics network design using consolidation hubs.
II	Pick the optimal number, location, and size of warehouses and/or plants
III	Determine optimal sourcing strategy - Which plant/vendor should produce which product?
IV	Determine best distribution channels - Which warehouses should service which customers?
V	Collect information like list of all products, Location of customers, stocking points and sources, Demand for each product by customer location, Transportation rates, Warehousing costs, Shipments sizes by product, Order patterns by frequency, size, and season, content. Order processing costs and Customer service goals
VI	Adopt the strategic decisions: <ol style="list-style-type: none"> 1. in terms of warehouses when plants and retailer locations are Fixed; 2. Find a minimal-annual-cost configuration of the distribution network that satisfies product demands at specified customer service levels.
VII	Follow all major steps of network design (Data Collection, Data aggregation, Data Validation and Optimization) and complete the process.

FREIGHT FORWARDING - PRACTICALSemester
VCourse Type
CoreCode
L19C29Hours
60Credits
2Version
2019-20

- Indicative list of exercises is given below. The Industry Mentor can modify the exercises, and assign exercises relevant to the particular industry.
- The exercises shall be assigned in equal proportion during the six months of Apprenticeship.

No.	Exercises
I	Prepare the documents related to the movement of Carrier, Transporter, Custodian and Customs. Plan for Stuffing or Cargo. Prepare Invoice, packing list, Annexure and Booking Etc.
II	Prepare of Note for Special requirement during Custom Clearance examination, drawback, export promotion, etc. Prepare documents as per the format given by the Customs. Prepare documents for pre-shipment/import. Follow the DO's and DON'T's while handling different documents
III	Examine and verify customs related documents. Record and document for future. Read of Documents Ascertain the common errors and correct them. Check shipping bill, Airway bill based on invoice and packing list Received. Handle Cargo documents. Receive the Importer-Exporter Code (IEC) from shipper.
IV	Obtain the registered PAN based business Identification number. Receive different type of cargo including quantity and value details
V	Prepare note of any packaging requirement for the cargo during shipment from the shipper Supervise Carting unloading; Stacking; Loading; Stuffing
VI	Inspect the cargo while unloading. Follow procedure and ensure there is no damage during the transit. Draft certificate of Origin and other certificate. Supervise Containers; Pallets; palletization; Fumigation. Follow the DO's and DON'T's while handling different cargo.
VII	Plan for transportation of Import & Export cargo. Follow Basic Regulations. Apply Climatic conditions of different routes in different seasons. Use Different airline/shipping line available for different routes
VIII	Track schedule for cargo movement from the supplier destination to the customer destination

INPLANT LOGISTICS

Semester
V

Course Type
Allied

Code
L19A03A

Hours
45

Credits
3

Version
2019-20

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become In-plant logistics professionals
- To orient students in the field of Logistics
- To help students understand In-plant logistics operations

LEARNING OUTCOMES:

- Students will be able to apply the basic knowledge of In-plant operations in their real life situation
- This subject will enable them to enhance their ability and professional skills

Unit	Topics	Focus
I	Introduction to Logistics in a manufacturing setup- Manufacturing process- physical flow- Assembly line- OTIF (on time in full)- Basic activities of in-plant logistics: Loading, Unloading, Receiving, sorting, Storing, Picking and dispatch activities- process of coordination with assembly line	Conceptual
II	Job shop- work allocation- Production scheduling- selection of products/models/parts/ Team table/ Timetable- Material flow- production line- feeding just in time inventory, Vendor management-	Conceptual
III	Inbound logistics- inventory management, importance, Value addition, stock counts, audits	Analytical
IV	Outbound logistics- Finished goods (FG)- tooling, binding, creating, input process, output- packaging, Kitting, fargoods (FH), Spare parts, Aftermarket process, schedule of transport, vendor coordination	Analytical
V	Timely supply- scheduling, vendor coordination quality control, pre-delivery inspection, Quality assurance, on time in full (OTIF)	Analytical

Text & Reference Books:

1. Course Material Prepared by LSC

EXPORT AND IMPORT DOCUMENTATIONSemester
VCourse Type
AlliedCode
L19A03BHours
45Credits
3Version
2019-20**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 eBusiness and eCommerce.
- Explain the security protocols and the issues in internet security.

Unit	Topics	Focus
I	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.	Conceptual
II	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.	Conceptual
III	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 Drawback	Analytical
IV	Quality Control and Clearance of Cargo 15 Hrs 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 Export Cargo.	Analytical of
V	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 law governing export contract.	Analytical

Text & Reference Books:

- RAMA, GOPAL C. (2008) Export Import Procedures Documentation and Logistics. New Age International Publishers: New Delhi.
- KHUSHPAT, S. J. (2013) Export Import Procedures and Documentation. Himalaya Publishing House: New Delhi.
- PAWAN, KUMAR (2001) Export of India's Major Products Problems and Prospects. New Century Publications: New Delhi.
- KAPOOR, D. C. (2002) Export Management. Vikas Publications: New Delhi.
- CHERUNILAM, F. (2004) International Trade and Export Management. Himalaya Publications: New Delhi.

Websites:

- 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)
- www.epckeny.org/ (Export Promotion Council)
- commerce.nic.in/MOC/index.asp (Ministry of Commerce and Industry)
- www.dgft.gov.in/ (Directorate General of Foreign Trade)

APPRENTICESHIP III

Semester
IVCourse Type
OJTCode
L19C30Hours
1035Credits
34Version
2019-20**COURSE OBJECTIVES:**

- To orient students in the practical field of Logistics
- To make Students perform E-Commerce, and Logistics terminal operations
- To develop competencies and Skills of students to become logistics professionals

LEARNING OUTCOMES:

- Students will be able to perform the activities of E-Commerce, and Logistics terminal operations in the real-life situation
- This On-the-job training will enable them to enhance their ability and professional skills in Logistics

Actual training will depend on the existing facilities available in the company. However, the company shall ensure that the broad skills defined against On-Job Training are imparted. In case of any deficiency in any in a single division/department, the company may impart the training in other divisions/departments.

Students in Apprenticeship would be assessed on the extent of skilling and aptitude gained by them during the Apprenticeship.

No.	Skill components to be covered during the Apprenticeship Training in Industry
I	<p>E- Commerce:</p> <p>Allocate resource and streamline operations in E-commerce-Process data and forecast demand-Maintain integrity and ethics in operations-Follow health, safety and security procedures-Perform order processing-Perform reverse logistics-Monitor inbound and outbound operations Business development and stakeholder relations-Execute category management Reading various MIS-OMS, WMS and TMS to check. Generating customer accounts and creating order requests in the MIS as well as updating the same- Coordinating with IT team, order request team, Account team, Inventory manager, vendors and delivery managers for different activities along the order processing-Carry out the basic checks on products like product match, quantity match, tampering check, physical damage check, etc. prior to order processing. Developing daily and weekly reports. Plan and organize assigned work-Coordinate with customers, carriers for timely pickup and ensuring high satisfaction of the customer. Carry out the basic checks on products returned via reverse logistics like product match, quantity match, tampering check, physical damage check, etc. Carry out the scheduling activities like identifying carrier, making pickup plan and schedule, collecting customer feedback. Develop daily and weekly reports-Classify and demarcate the products for re-use, re-manufacturing, recycling etc. based on product verification. Count the goods physically, accurately and track the reverse logistics shipments received daily</p>
II	<p>Port Terminals:</p> <p>Verify cargo and vessel information-Perform cargo valuation and certify-Survey containerized cargo and certify-Survey liquid bulk cargo and certify-Survey dry bulk cargo and certify-Verify EXIM documentation- Allocate resources and streamline operations in ports, ICD and CFS-Extract and analyse shipment information from IT system-Plan and ensure optimal utilization of yard space-Plan and coordinate for optimal utilization of containers-Plan and execute repair and maintenance of containers-Handle hazardous goods Yard planning and cargo handling-Collect vessel and cargo details and coordinate for smooth cargo movement-Perform stevedoring activities-Perform mooring activities-</p> <p>Perform signalman activities-Perform basic navigation-Perform mooring and rope work in vessel-Perform customs clearance field activities-Cargo Equipment Handler-Perform preventive and first-line maintenance of MHE at ports-Operate Rail mounted quay (RMQ) crane-Operate Grab ship unloader (GSU) crane-Operate Rubber tyre gantry (RTG) crane-Operate reach stacker -Operate Rail mounted quay (RMQ) crane-Operate Grab ship unloader (GSU) crane-Operate Rubber tyre gantry (RTG) crane-Operate reach stacker</p> <p>Operate and maintain conveyor belt-Operate and maintain pipeline-Operate port control systems and troubleshoot issues -Perform ship and yard planning</p>



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