## **Annexure-10 Mandatory Disclosures**

1 NAME AND ADDRE	SS	OF THE INST	F THE INSTITUTE			
Name of the Institution	:	TECHNOLOGY EDUCATION & RESEARCH INSTITUTE				
Institution Code	:	AICTE PID: 1-15892424 AISHE Code: C-10535				
Address of the Institution	:	9 <sup>тн</sup> MILESTO	ONE, KAIT	ГНАL ROAD, Ч	VPO – BARNA, KURUKSHETRA	
Village / Town	:	BARNA	BARNA			
District	:	KURUKSHETRA				
Pin code	:	136119				
Phone	:	STD Code:	01744	Phone No.:	274961	
Fax	:	STD Code:	01744	Fax No.:	274961	
Mobile	:	9996783008				
E-mail	:	registrar@terii.in				
Website	:	www.terii.in				

2. NAME AND ADDRESS OF	NAME AND ADDRESS OF THE TRUST / SOCIETY / COMPANY AND THE TRUSTEES					
Name of the Trust / Society / Company	:	GYANKUND	GYANKUND TRUST TO EDUCATE AND TO SERVE			
Address of the Trust / Society / Company	:	A-98, LGF, N	A-98, LGF, New Friends Colony, New, Delhi-110025			
Village / Town	:	DELHI	DELHI			
District	:	SOUTH DEL	SOUTH DELHI			
Pin code	:	110025				
Phone	:	STD Code: NA Phone No.: NA				
Fax	:	STD Code:	NA	Fax No.:	NA	

	DETAILS OF MEMBERS / TRUSTEES					
Sr. No.	Name of the Members of the Trust / Society / Company	Designation in the Trust / Society / Company	Qualification	Experience in running higher educational, technical or other professional institutions (in years)		
01.	Dr. Punit Goyal	President/Settler	BAMS	17 Years		
02.	Dr. Poonam Goyal	Secretary	BAMS	17 Years		
03.	Dr. Virander Pal Goyal	CFO/Trustee	Ph.D	1 Year		

Mobile	:	9416334574
E-mail	:	vpgoyalkkr@gmail.com

3.	PARTICULARS OF THE PRINCIPAL				
	Name	:	Dr. Rakesh Dhiman		
	Designation	:	Director		
	Qualification	:	B.Tech., M.Tech., Ph.D.		
	Date of Birth	:	18.07.1977		
	Date of Joining	:	01.07.2024		
	Mobile	:	90344-31998		
	Phone	:	STD: NA Phone No.: NA		
	Fax	:	STD: NA Fax No.: NA		
	E-mail	:	director@terii.in		

4.	NAME OF THE AFFILIATING UNIVERSITY/BOARD
Name	Kurukshetra University
Address	Kurukshetra, HARYANA
Website	www.kuk.ac.in

#### 5. Governance:

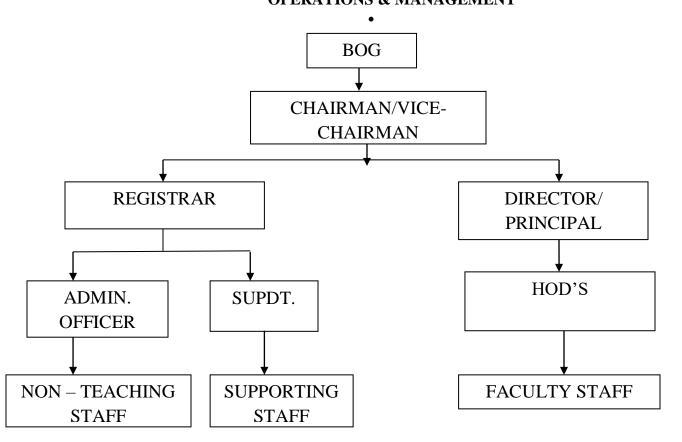
#### • Members of the Board and their brief background

8.	Er. Vimal S. Mehta	President FIFA
7.	Mr. Rajesh Gupta	Project Manager, Infosys, USA
6.	Nominee of State Government	Member
5.	Nominee of AICTE	Member
4.	Nominee of University	Member
3.	Dr. Virander Pal Goyal	CFO/Trustee
2.	Dr. Poonam Goyal	Secretary
1.	Dr. Punit Goyal	President/Settler

#### • Members of Academic Advisory Body

1.	Dr. Rakesh Dhiman	Director TERII	
2.	Dr. R.S. Chauhan	Professor ( retd. ) NIT Kurukshetra	
3.	Dr. Hari Singh	Professor NIT Kurukshetra	
4.	Dr. Sudhir Kumar	Asstt. Professor	
5.	Mr. Pardeep Kumar	HOD Mechanical	
Frequency of Meeting		Twice in a Year	

- Organizational Chart & Process
  - GYANKUND TRUSR TO EDUCATE AND TO SERVE
     ORGANIZATIONAL STRUCTURE & CHART FOR DAY-TO-DAY
     OPERATIONS & MANAGEMENT



• Nature and Extent of involvement of Faculty and students in academic affairs /improvements:

Very Much on Regular Basis

• Mechanism/ Norms and Procedure for democratic/ good Governance

Whatsapp Group Formed: Management, Director, Faculty and students are the members.

• Student Feedback on Institutional Governance/ Faculty performance

Regular Basis through the Feedback Form

• Grievance Redressal mechanism for Faculty, staff and students

College follows a proper hierarchical grievance redressal system. Students depending on the type of their grievance can forward it to student counselor, Head of the department. Faculty members can forward their grievance to the HOD, Director/Principal or the Management. Grievance committee & Appellate Committee have been constituted.

Grievance Redressal Committee formed vide office order TERI/25/186-II dated 08-03-2025 following are the members

Sr. No.	Name	Position	Telephone Number
1	Er. Pardeep Kumar	Head	9996783003
2	Er. Rajesh	Head	7988246082
3	Ms. Sonika	Assistant Professor	9728600836
4	Dr. R. S Chouhan	Professor NIT	8901251458
		Kurukshetra (Retd.)	

#### • Establishment of Anti Ragging Committee

Anti Ragging Committee formed vide office order TERI/25/186-I dated 08-03-2025 following are the members

S. No.	Name	Position	Telephone Number
1	Dr. Rakesh Dhiman	Head of Institution	9478396960
2	Sh. Mohinder Singh	In-Charge, Jyotisar Police Chowki	7056700125
3	Sh. Ram Pal Sharma	Media Representative	9215060291
4	Mrs. Kusum Singla	President, Vishwas Foundation, NGO	8950411143
5	Er. Pardeep Kumar	HOD	9996783003
6	Sh. Subhkaran	Parents Representative	9813452800
7	Prashant Singh	Student Representative	8539952397
8	Aman Singh	Senior Student's Representative	9416881049
9	Ms. Sonika	Assistant Professor	9728600836

#### • Establishment of Online Grievance Redressal Mechanism

Link Available on the website of the institute, www.terii.in

### • Establishment of Grievance Redressal Committee in the Institution and Appointment of OMBUDSMAN by the University

• Grievance Redressal Committee formed vide office order TERI/25/186-II dated 08-03-2025 following are the members

Sr. No.	Name	Position	Telephone Number
1	Er. Pardeep Kumar	Head	9996783003
2	Er. Rajesh	Head	7988246082
3	Ms. Sonika	Assistant Professor	9728600836
4	Dr. R. S Chouhan	Professor NIT	8901251458
		Kurukshetra (Retd.)	

#### • Establishment of Internal Complaint Committee (ICC)

Internal Complaint Committee (ICC) formed vide office order TERI/25/186-III dated 08-03-2025 following are the members

Sr. No.	Name	Position		Telephone Number
1	Ms. Payal Jaglan	Presiding	Officer,	9896387886
		Assistant Profes	sor	
2	Mr. Pardeep Kumar	Member,	Assistant	9996783004
	_	Professor		
3	Ms. Sonika	Member,	Assistant	9728600836
		Professor		
4	Ms. Preeti Choudhari	Member,	Assistant	7988440057
		Professor		
5	Mr. Chander Parkash	Member, Accou	Member, Accountant	
6	Ms. Aarti	Member,	Student	8571084510
		Representative		
7	Mr. Sahil	Member,	Student	7255674017
		Representative		
8	Ms. Senty Kath	Member,	Student	7641842277
	-	Representative		
9	Ms. Kusum Singla	Member,	NGO	8950411143
		Representative		

#### • Establishment of Committee for SC/ST

A Committee for grievances of SC/ST students formed vide office order TERI/25/186-IV dated 08-03-2025 following are the members

Sr. No.	Name	Position	Telephone Number
1	Mr. Rajpal	Assistant Professor, SC	9813493253
		Representative	
2	Mr. Santosh Paswan	Social Worker, SC	9467130609
		Representative	
3	Ms. Preeti Choudhari	Assistant Professor, Female	7988440057
		Representative	
4	Ms. Reena	Assistant Professor	7206388968
5	Ms. Bhawna	Assistant Professor	9896449074

#### • Internal Quality Assurance Cell:

Internal Quality Assurance Cell formed vide office order TERI/25/186-V dated 08-03-2025 following are the members

Dr. Rakesh Dhiman, Director, TERii

Ms. Payal, Assistant Professor

Er. Rajesh Kumar, Assistant Professor

#### 6. Programmes:

Name of Programmes approved by AICTE

B.Tech Civil Engineering-	30 intake
<b>B.Tech Electrical and Electronics Engineering-</b>	30 intake
<b>B.Tech Computer Science Engineering-</b>	30 intake
B.Tech Artificial Intelligence(AI) & Data Science-	30 intake
Master of Business Administration-	30 intake
BBA-	60 intake
BCA-CTIS-	60 intake

- Name of Programmes Accredited by AICTE Nil
- Status of Accreditation of the Courses Nil
- Total number of Courses- NIL
- No. of Courses for which applied for Accreditation- NIL
- Status of Accreditation Preliminary/ Applied for SAR and results awaited/ Applied for SAR and visits completed/ Results of the visits awaited/ Rejected/ Approved for ..... Courses- NIL

#### • For each Programme the following details are to be given:

Name of Programme	Number of Seats	Duration	Cut off marks/rank of admission during the last three years	FEE	Placement Facilities
Civil Engineering	30	4 Years	As per AICTE Norms	As per State Fee regulatory Authority	Good
Electrical and Electronics Engineering	30	4 Years	As per AICTE Norms	As per State Fee regulatory Authority	Good
Artificial Intelligence & Data Science	30	4 Years	As per AICTE Norms	As per State Fee regulatory Authority	Good

Computer Science Engineering	30	4 Years	As per AICTE Norms	As per State Fee regulatory Authority	Good
Master of Business Administration	30	2 Years	As per AICTE Norms	As per State Fee regulatory Authority	Good
BBA	60	3 Years	As Per Kurukshetra University Norms	As per State Fee regulatory Authority	Good
BCA-CTIS	30	3 Years	As Per Kurukshetra University Norms	As per State Fee regulatory Authority	Good

# Campus placement in last three years with minimum salary, maximum salary and average salary:

S.No.	Academic Year	Name of the Company	No of students recruited	Minimum salary(per year) Offered	Maximum salary(per year) offered	Average salary(per year) offered
1	2021-22	1. K.L.Sons, Ludhiana	1	120000	160000	140000
		2. GPP, Gaziabad	1	180000	240000	220000
		3. Ralson Tyres, khanna	04	120000	150000	135000
		4.Ryder Motors, Rai Sonipat	2	120000	150000	135000
		5.Pal Radiators, Rai Sonipat	1	132000	160000	146000
2	2022-23	1. K.L.Sons Ludhiana	3	150000	200000	175000
		2. Ralco Tyers Ludhiana	4	120000	150000	135000
		3 Pal Radiators, Rai	2	132000	160000	146000
		4 Pragati Paper Mill, Ambala	3	150000	200000	175000
3	2023-24	1. Pragati Paper Mill	4	108000	120000	114000
		2. Ralson Tyers	6	150000	300000	225000
		3. G.P.P	2	160000	250000	205000
		4. Hero Cycles	2	250000	300000	275000

4	5. Pal Radiators	3	240000	250000	245000
6	6. Bhagwati Pvt Ltd	2	180000	210000	195000
	7. Forech India Ltd	2	160000	260000	210000
8	8. Daga Group	5	150000	240000	150000
9	9. Metro Tyers	4	150000	216000	150000

- · Name and duration of programme(s) having Twinning and Collaboration with Foreign University(s) and being run in the same Campus along with status of their AICTE approval. If there is Foreign Collaboration, give the following details:
- **Details of the Foreign University:** Not Applicable
- · Name of the University: Not Applicable
- Address: Not ApplicableWebsite: Not Applicable
- Accreditation status of the University in its Home Country: Not Applicable
- Ranking of the University in the Home Country: Not Applicable
- Whether the degree offered is equivalent to an Indian Degree? If yes, the name of the agency which has approved equivalence. If no, implications for students in terms of pursuit of higher studies in India and abroad and job both within and outside the country: Not Applicable
- Nature of Collaboration: Not ApplicableConditions of Collaboration: Not Applicable
- Complete details of payment a student has to make to get the full benefit of Collaboration: Not Applicable
- For each Programme Collaborated provide the following:

Programme Focus Not Applicable Number of seats: Not Applicable Admission Procedure: Not Applicable

Fee: Not Applicable

Placement Facility: Not Applicable

Placement Records for last three years with minimum salary, maximum salary and average salary:

Not Applicable

Whether the Collaboration Programme is approved by AICTE? If not whether the Domestic/Foreign/University has applied to AICTE for approval: Not Applicable

# 7. FacultyBranch wise list Faculty members:Permanent Faculty

Sr. No.	Deptt. Sr. No.	Name & Full Address	Designation	Qualification	Date of Joining	Nature of Employm ent
			D	irector	1	
1	1	Dr. Rakesh Dhiman	Director	Ph.D (EE) M.Tech (EE), B.Tech (EE)	01.07.2024	Regular
		Con	mputer Science &	Engineering Depa	artment	
2	1	Mr. Vikas Goyal	Assistant Professor	B.Tech. , M.Tech.	19.02.2010	Regular
3	2	Ms. Payal Jaglan	Assistant Professor	B.Tech M.Tech	04.04.2022	Regular
4	3	Mr. Pawan Bishnoi	Assistant Professor	B.E. M.Tech.	01.07.2024	Regular
5	4	Mr. Bhupender Yadav	Assistant Professor	B.E M.Tech.	01.07.2024	Regular
6	5	Ms. Pooja Moun	Assistant Professor	M.Sc - Computer B.Tech	05.09.2024	Regular
7	6	Mr. Rajan Sharma	Assistant Professor	B.Tech	02.09.2024	Regular
			Artificial Intellig	gence & Data Scie	nce	
8	1	Ms. Rani Devi	Assistant Professor	B.Tech. M.Tech.	01.07.2024	Regular
9	2	Ms. Neha Rani	Assistant Professor	B.Tech. M.Tech.	01.07.2024	Regular
10	3	Mr. Mohit Yadav	Assistant Professor	B.Tech. M.Tech.	01.07.2024	Regular
11	4	Ms. Manesh	Assistant Professor	B.TECH M.Tech.	01.07.2024	Regular
			Civil Engine	ering Department	•	
12	1	Dr. Gurcharan Singh	Assistant Professor	Ph.D, M.Tech B.Tech	13.09.2013	Regular
13	2	Mr. Umesh	Assistant Professor	B.Tech. M.Tech.	01.07.2024	Regular
14	3	Mr. Manoj Kumar	Assistant Professor	B.Tech Diploma,	01.09.2023	Regular
15	4	Mr. Sanjiv	Assistant Professor	B.Tech Diploma	18.12.2024	Regular

		Elec	trical & Electronic	cs Engineering De	partment	
16	1	Mr. Rajesh Kumar	Assistant Professor	B.Tech M.Tech	03.06.2013	Regular
17	2	Mr. Deepak Kumar	Assistant Professor	B.Tech. M.Tech.	01.07.2024	Regular
18	3	Mr. Ghanshyam Kumar Jayswal	Assistant Professor (EEE)	B.Tech M.Tech.	06.07.2013	Regular
19	4	Mr. Jitender	Assistant Professor	B.Tech. M.Tech.	03.03.2025	Regular
			Mechanical Eng	ineering Departm	ent	
20	1	Dr. Sudhir Kumar	Assistant Professor	Ph.D M.Tech B.Tech	06.07.2013	Regular
21	2	Mr. Pardeep Kumar	Assistant Professor	Ph.D (Pursuing), M.Tech B.Tech	06.02.2014	Regular
		Н	umanities & Appl	ied Science Depar	tment	<u>'</u>
22	1	Dr. Pooja	Assistant Professor	PH.D (CHEMISTRY) M.Sc B.Sc	01.04.2025	Regular
23	2	Ms. Radhika Sharma	Assistant Professor (English)	M.A (English), B.A	01.07.2024	Regular
24	3	Ms. Reena Sharma	Assistant Professor (Math)	M.Sc - Math B.Ed B.A	02.09.2024	Regular
25	4	Ms. Rupali	Assistant Professor (Applied Science)	M.SC (Biotechnology) B.SC	26.11.2024	Regular
26	5	Ms. Preeti	Assistant Professor (Applied Science)	M.SC (Zoology) B.SC	21.02.2025	Regular
			Management	Department (MBA	)	
27	1	Ms. Sonika Mehta	Assistant Professor	*Ph.D (Mgt). Pursuing, B.Ed, MBA, M.Phil, MCA, M.Com, B.Com	05.11.2024	Regular
28	2	Ms. Sangeeta	Assistant Professor	B.Tech MBA	25.03.2021	Regular
29	3	Mr. Rajinder	Assistant Professor	B.Com MBA	01.07.2024	Regular
			Management	Department (BBA)		
30	1	DR. SEEMA GHANGHAS	Assistant Professor	Ph.D. M.Phil, MBA, B.A	01.04.2025	Regular
31	2	DR. JYOTI	Assistant Professor	Ph.D, MBA, B.A	01.04.2025	Regular

32	3	DR. MOHAMMAD QAIS	Assistant Professor	Ph.D, MBA, B.A	01.04.2025	Regular
33	4	DR. JYOTI	Assistant Professor	Ph.D (Agribusiness), MBA, B.SC	01.04.2025	Regular
			(BC	A - CTIS)		
34	1	DR. ANJU	Assistant Professor	Ph.D MCA, BCA	01.04.2025	Regular
35	2	DR. SANDEEP	Assistant Professor	Ph.D M.SC, B.TECH. DIPLOMA	01.04.2025	Regular
36	3	DR. PARVEEN SEHGAL	Assistant Professor	Ph.D M.TECH , B.E	01.04.2025	Regular
37	4	Ms. Bhawna	Assistant Professor	MCA	11.03.2025	Regular
38	5	Mr. Ramesh Kumar	Assistant Professor	MCA M.Sc	02.09.2024	Regular

### • Permanent Faculty: Student Ratio:

Permanent Faculty: Student Ratio is 1:20

#### Number of Faculty employed and left during the last three years

S.N	2022-2023	2023-2024	2024-2025
No. of Faculty Left	13	9	9
No. of Faculty Employed	14	13	12

#### 8. Profile of Vice Chancellor/ Director/ Principal/ Faculty

As per Annexure

#### 9. Fees:

Details of fee, as approved by State Fee Committee, for the Institution

S.N	Course	Annual Fees
1.	B.Tech	79500/-
2.	MBA	56500/-
3.	BBA	31200/-
4.	BCA-CTIS	31200/-

· Time schedule for payment of fee for the entire programme Twice in a Year ( May and November )

#### Number of scholarship offered by the Institution and amount:

Sr. No.	Roll No.	NAME OF STUDENT	BRANCH	Scholarship
1	3524101	AAKASH	AI	98910
2	3524102	DHEERAJ	AI	43310
3	3524103	TANISHQ	AI	28310
4	3524104	VANSHIKA	AI	38310
5	3524106	YASHODHA DEVI	AI	43310
6	3524202	CHETNA	CSE	46310
7	3524203	DEEPANSHU BHATT	CSE	23910
8	3524205	MANISH KUMAR	CSE	38310
9	3524206	NAMANPREET SINGH	CSE	98910
10	3524207	SURAJ KUMAR	CSE	62910
11	3524601	PUSHP SHEORAN	CIVIL	36310
12	3524209	YOGESH	CSE	36310
13	3523104	RITIK GUPTA	AI	73910
14	3523109	NITESH KUMAR	AI	73910
15	3523113	SHIVAM KUMAR	AI	73910
16	3523115	SRISHANT KUMAR	AI	73910
17	3523118	AMIT KUMAR	AI	73910
18	3523119	SAHIL RAJ	AI	73910
19	3523122	ANAND RAJ	AI	73910
20	3523124	PIYUSH RAJ	AI	73910
21	3523126	ANUBHAV KUMAR	AI	73910
22	3523128	KANHAIYA KUMAR	AI	73910
23	3523201	DAKSH	CSE	26310
24	3523202	ATUL TIWARI	CSE	11510
25	3523204	KANGNA SINGLA	CSE	26310
26	3523211	MD GUFRAN ANSARI	CSE	73910
27	3523215	KAJAL KUMARI	CSE	73910
28	3523218	AMEJAN BOHARA	CSE	73910
29	3523219	GANESH RAJ UPADHYAY	CSE	73910
30	3524671	ANSH	CIVIL	48910
31	3524672	ARYAN	CIVIL	43310
32	3524673	DURGA DASS	CIVIL	43310
33	3522201	AMIT KUMAR	CSE	78510
34	3522202	SACHIN	CSE	80910
35	3522203	DHEERAJ KAUSHIK	CSE	80910
36	3522204	SACHIN PANCHAL	CSE	80910
37	3522205	LOVELESH SHARMA	CSE	26510
38	3522206	ARUN KUMAR	CSE	37510
39	3522207	SAHIL RAJ	CSE	76510
40	3522208	VIKAS	CSE	46510
41	3522209	NIHARIKA	CSE	36510
42	3522211	KUMARI MONIKA SHANKHYAN	CSE	80910

43	3522212	MD GULAM JILANEE ANSARI	CSE	80910
44	3522215	PRIYANSHU	CSE	41510
45	3522216	AANAND RAM	CSE	80910
46	3522217	BHASKAR	CSE	80910
47	3522218	ANKIT YADAV	CSE	80910
48	3522219	LOKESH	CSE	80910
49	3522220	KHUSHAL	CSE	41510
50	3522221	VANSH	CSE	41510
51	3523371	MOHAMMAD RIZWAN	EEE	98910
52	3521201	AATIF RAZA SIDDIQUI	CSE	33910
53	3521202	DEVENDER SINGH	CSE	16260
54	3521204	MD SAJID	CSE	41910
55	3521206	SWATI	CSE	8910
56	3521207	MANISH KUMAR RANA	CSE	46260
57	3521208	KRISHNDEV KUMAR SAW	CSE	46260
58	3521210	ADITI SHARMA	CSE	34600
59	3521211	NEERAJ SINGH	CSE	48910
60	3521213	NAMAN	CSE	98910
61	3521214	AMRITPAL SINGH	CSE	38910
62	3521215	YASHIKA	CSE	17010
63	3522271	MAHESH KUMAR	CSE	76510
64	3521205	VISHAVJEET SINGH	EEE	46510
65	3521301	ASAD REYAZ	EEE	33910
66	3521302	SHIVAM GUPTA	EEE	36260
67	3521303	KESHAV MOHAN	EEE	33260
68	3521305	SAHIL KUMAR	EEE	98910
69	3522371	MAHAVIR SHARMA	EEE	51510
70	3521602	NAVENDU JANA	CIVIL	58260
71	3522671	ASHOK	CIVIL	98910
72	3522672	ANIKET	CIVIL	36510
73	3522675	RITHIK	CIVIL	61510
74	2401	AJAY	MBA	20160
75	2402	MANTHAN PAJNOO	MBA	25160
76	2403	RITIKA SINGH	MBA	25160
77	2301	BALKAR SINGH	MBA	22160
78	2305	VIJAY KUMAR	MBA	25160
79	2306	SUBHASH CHAND	MBA	72460
80	23201	ASHISH	BCA	12710
81	23205	SAHILPREET SINGH	BCA	7710
82	23207	JASKIRAT SINGH	BCA	7710
83	23208	DEVANSH MAUDGIL	BCA	17710
84	22201	KHUSHPREET	BCA	13710
85	22202	BHARAT WALIA	BCA	7710
86	22203	RIZWAN KHAN	BCA	30310

87	22204	AKRAM KHAN	BCA	30310
88	22205	VANSHIKA	BCA	13710
89	22207	MOHD KAIF	BCA	30310
90	22209	AASHIF	BCA	30310
91	23117	AYUSHMAN	BBA	11210
92	23118	FAIZAN AHMAD	BBA	28210
93	22101	MEENU RANI	BBA	18210
94	22105	RITIK	BBA	13210
95	22107	GOLDY	BBA	45310
96	22110	SHREEYA KHANNA	BBA	13210
97	22112	VIKASH KUMAR	BBA	13210
98	22113	MD AZMAT HUSSAIN	BBA	30310
99	22114	MD MODASSIR ALAM	BBA	30310
100	22115	JAYA	BBA	18210

- Criteria for fee waivers/scholarship: Merit cum Means & Need Based
- Estimated cost of Boarding and Lodging in Hostels: 50000 per Year

#### 10. Admission:

#### Number of seats sanctioned with the year of approval

S. No.	Branch Name	2021-2022	2022-2023	2023-2024	2024-2025
1.	Civil Engg.	30	30	30	30
2.	Electrical & Electronics Engg.	30	30	30	30
3.	Artificial Intelligence & Data Science	-	-	30	30
5.	Computer Science & Engg.	30	30	30	30
6	MBA	30	30	30	30
7	BBA	60	60	60	-
9	BCA-CTIS	60	30	30	-
Total		240	210	240	150

#### Number of Students admitted under various categories each year in the last three years

S. No.	Branch Name	2022-2023	2023-2024	2024-2025
1.	Civil Engg.	0	0	4
2.	Electrical & Electronics Engg.	2	0	3
3.	Artificial Intelligence & Data Science	-	10	5
4.	Computer Science & Engg.	18	7	6
5.	MBA	10	4	4
6.	BBA	8	6	-
7.	BCA-CTIS	7	7	-

## $\cdot$ Number of applications received during last two years for admission under Management Quota and number admitted

S. No.	Branch Name	2023-24		2024-25	
		Application received	Application received	Application received	Admitted
1.	Civil Engg.	6	6	3	1
2.	Electrical & Electronics Engg.	6	6	2	0
3	Artificial Intelligence & Data Science	11	11	5	5
4	Computer Science Engg.	20	20	6	6
5	MBA	04	04	4	4
6	BBA	10	10	-	-
7	BCA-CTIS	7	7	-	-

#### 11. Admission Procedure:

- Mention the admission test being followed, name and address of the Test Agency and its URL (website): Admission on Merit basis of the receipt applications.
- Number of seats allotted to different Test Qualified candidate separately (AIEEE/CET (State conducted test/ University tests/ CMAT/ GPAT)/ Association conducted test): No Seat alloted
- · Calendar for admission against Management/vacant seats:
- Last date of request for applications: As per HSTES, Panchkula
- Last date of submission of applications: As per HSTES, Panchkula
- Dates for announcing final results: As per HSTES, Panchkula
- Release of admission list (main list and waiting list shall be announced on the same day): As per HSTES, Panchkula
- Date for acceptance by the candidate (time given shall in no case be less than 15 days): As per HSTES, Panchkula
- Last date for closing of admission: As per HSTES, Panchkula
- Starting of the Academic session: As per HSTES, Panchkula
- The waiting list shall be activated only on the expiry of date of main list: OK
- The policy of refund of the fee, in case of withdrawal, shall be clearly notified: Yes

#### 12. Criteria and Weightages for Admission

- Describe each criterian with its respective weightages i.e. Admission Test, marks in qualifying examination etc.: Marks in Qualifying Examination
- Mention the minimum level of acceptance, if any: As per KUK
- Mention the cut-off levels of percentage and percentile score of the candidates in the admission test for the last three years: No Admission Test
- Display marks scored in Test etc. and in aggregate for all candidates who were admitted: Not Applicable

#### 13. List of Applicants:

List of candidate whose applications have been received along with percentile/percentage score for each of the qualifying examination in separate categories for open seats. List of candidate who have applied along with percentage and percentile score for Management quota seats in 2024-25

Roll No.	Name	Father's Name	Category	Total Marks	Marks Obtained	%of Marks
3524101	AAKASH	RINKU	SC D	500	292	58.40
3524102	DHEERAJ	YOGESH SHARMA	GENERAL	600	545	90.83
3524103	TANISHQ	MEVA RAM	BC A	500	330	66.00
3524104	VANSHIKA	FAQIR CHAND	BC B	500	399	79.80
3524105	VILAS DABARIA	JAGDISH CHAND	BC A	500	401	80.20
3524106	YASHODHA DEVI	LABH SINGH	BC B	500	350	70.00
3524201	ABHAY	VIJAY KUMAR	BC A	600	405	67.50
3524202	CHETNA	SANJAY KUMAR PAL	BC A	500	397	79.40
3524203	DEEPANSHU BHATT	PRAKASH CHANDRA BHATT	RoHC	500	427	85.40
3524204	KAUSHAL BAGRI	KARNAIL SINGH	SC D	500	352	70.40
3524205	MANISH KUMAR	MAHESH KUMAR	RoHC	500	335	67.00
3524206	NAMANPREET SINGH	VINOD KUMAR	SC	500	398	79.60
3524207	SURAJ KUMAR	LAL BAHADUR	TFW	500	288	57.60

		MANJHI				
3524208	YASHDEEP	DAVID MASIH	SC D	500	432	86.40
3524209	YOGESH	BIR SINGH	BC A	500	376	75.20
3524601	PUSHP SHEORAN	KAMAL KANT	GEN	600	282	47.00
3524271	DIMCY	YASHPAL	GENERAL	5375	4109	76.45
3524272	SUBHASH MEHTO	RAM BILAS MANDAL	BC A	5975	3587	60.03
3524273	SUNNY	PARAMJEET	SC D	5375	4109	76.45
3524371	ADITYA	SANJEEV	BC A	5750	4086	71.06
3524671	ANSH	RAM DUTT SHARMA	GENERAL	6025	4591	76.20
3524672	ARYAN	KRISHAN KUMAR	GENERAL	4525	3214	71.03
3524673	DURGA DASS	RAJBIR	BC B	7025	4784	68.10
2401	AJAY	RAJENDER	GENERAL	3850	2693	69.95
2402	MANTHAN PAJNOO	AVTAR KRISHAN PAJNOO	GENERAL	10	6.35	63.50
2403	RITIKA SINGH	CHARAN SINGH	GENERAL	2400	1297	54.04
2404	AZATULLAH FAEEZ	ABDUL AZIZ	Islamic	5900	4239	71.85

#### 14. Results of Admission Under Management seats/Vacant seats:

Roll No.	Name	Father's Name	Category	Total Marks	Marks Obtained	%of Marks
3524101	AAKASH	RINKU	SC D	500	292	58.40
3524102	DHEERAJ	YOGESH SHARMA	GENERAL	600	545	90.83
3524103	TANISHQ	MEVA RAM	BC A	500	330	66.00
3524104	VANSHIKA	FAQIR CHAND	BC B	500	399	79.80
3524105	VILAS DABARIA	JAGDISH CHAND	BC A	500	401	80.20
3524106	YASHODHA DEVI	LABH SINGH	BC B	500	350	70.00
3524201	ABHAY	VIJAY KUMAR	BC A	600	405	67.50
3524202	CHETNA	SANJAY KUMAR PAL	BC A	500	397	79.40
3524203	DEEPANSHU BHATT	PRAKASH CHANDRA BHATT	RoHC	500	427	85.40
3524204	KAUSHAL BAGRI	KARNAIL SINGH	SC D	500	352	70.40
3524205	MANISH KUMAR	MAHESH KUMAR	RoHC	500	335	67.00
3524206	NAMANPREET SINGH	VINOD KUMAR	SC	500	398	79.60
3524207	SURAJ KUMAR	LAL BAHADUR MANJHI	TFW	500	288	57.60
3524208	YASHDEEP	DAVID MASIH	SC D	500	432	86.40
3524209	YOGESH	BIR SINGH	BC A	500	376	75.20
3524601	PUSHP SHEORAN	KAMAL KANT	GEN	600	282	47.00
3524271	DIMCY	YASHPAL	GENERAL	5375	4109	76.45
3524272	SUBHASH MEHTO	RAM BILAS MANDAL	BC A	5975	3587	60.03
3524273	SUNNY	PARAMJEET	SC D	5375	4109	76.45
3524371	ADITYA	SANJEEV	BC A	5750	4086	71.06
3524671	ANSH	RAM DUTT SHARMA	GENERAL	6025	4591	76.20
3524672	ARYAN	KRISHAN KUMAR	GENERAL	4525	3214	71.03

3524673	DURGA DASS	RAJBIR	BC B	7025	4784	68.10
2401	AJAY	RAJENDER	GENERAL	3850	2693	69.95
2402	MANTHAN PAJNOO	AVTAR KRISHAN PAJNOO	GENERAL	10	6.35	63.50
2403	RITIKA SINGH	CHARAN SINGH	GENERAL	2400	1297	54.04
2404	AZATULLAH FAEEZ	ABDUL AZIZ	Islamic	5900	4239	71.85

• Composition of selection team for admission under Management Quota with the brief profile of members (This information be made available in the public domain after the admission process is over):

A committee of following members were formed for the admission under management Quota

S.N	Name	Position	Designation
1.	Mr. Naveen Rai	Dean	Convener
2.	Ms. Payal	Assistant Professor	Member
3.	Ms. Vandana	Assistant Professor	Member
4.	Mr. Pardeep Kumar	Assistant Professor	Member

• Score of the individual candidate admitted arranged in order or merit:

Sr.NO.	Name	Father's Name	Category	%of Marks
1	AAKASH	RINKU	SC D	58.40
2	DHEERAJ	YOGESH SHARMA	GENERAL	90.83
3	TANISHQ	MEVA RAM	BC A	66.00
4	VANSHIKA	FAQIR CHAND	BC B	79.80
5	VILAS DABARIA	JAGDISH CHAND	BC A	80.20
6	YASHODHA DEVI	LABH SINGH	BC B	70.00
7	ABHAY	VIJAY KUMAR	BC A	67.50
8	CHETNA	SANJAY KUMAR PAL	BC A	79.40
9	DEEPANSHU BHATT	PRAKASH CHANDRA BHATT	RoHC	85.40
10	KAUSHAL BAGRI	KARNAIL SINGH	SC D	70.40
11	MANISH KUMAR	MAHESH KUMAR	RoHC	67.00
12	NAMANPREET SINGH	VINOD KUMAR	SC	79.60
13	SURAJ KUMAR	LAL BAHADUR MANJHI	TFW	57.60
14	YASHDEEP	DAVID MASIH	SC D	86.40
15	YOGESH	BIR SINGH	BC A	75.20
16	PUSHP SHEORAN	KAMAL KANT	GEN	47.00
17	DIMCY	YASHPAL	GENERAL	76.45

18	SUBHASH MEHTO	RAM BILAS MANDAL	BC A	60.03
19	SUNNY	PARAMJEET	SC D	76.45
20	ADITYA	SANJEEV	BC A	71.06
21	ANSH	RAM DUTT SHARMA	GENERAL	76.20
22	ARYAN	KRISHAN KUMAR	GENERAL	71.03
23	DURGA DASS	RAJBIR	BC B	68.10
24	AJAY	RAJENDER	GENERAL	69.95
25	MANTHAN PAJNOO	AVTAR KRISHAN PAJNOO	GENERAL	63.50
26	RITIKA SINGH	CHARAN SINGH	GENERAL	54.04
27	AZATULLAH FAEEZ	ABDUL AZIZ	Islamic	71.85

#### • List of candidate who have been offered admission

Sr. NO.	Name	Father's Name	Category	%of Marks
1	AAKASH	RINKU	SC D	58.40
2	DHEERAJ	YOGESH SHARMA	GENERAL	90.83
3	TANISHQ	MEVA RAM	BC A	66.00
4	VANSHIKA	FAQIR CHAND	BC B	79.80
5	VILAS DABARIA	JAGDISH CHAND	BC A	80.20
6	YASHODHA DEVI	LABH SINGH	BC B	70.00
7	ABHAY	VIJAY KUMAR	BC A	67.50
8	CHETNA	SANJAY KUMAR PAL	BC A	79.40
9	DEEPANSHU BHATT	PRAKASH CHANDRA BHATT	RoHC	85.40
10	KAUSHAL BAGRI	KARNAIL SINGH	SC D	70.40
11	MANISH KUMAR	MAHESH KUMAR	RoHC	67.00
12	NAMANPREET SINGH	VINOD KUMAR	SC	79.60
13	SURAJ KUMAR	LAL BAHADUR MANJHI	TFW	57.60
14	YASHDEEP	DAVID MASIH	SC D	86.40
15	YOGESH	BIR SINGH	BC A	75.20
16	PUSHP SHEORAN	KAMAL KANT	GEN	47.00
17	DIMCY	YASHPAL	GENERAL	76.45
18	SUBHASH MEHTO	RAM BILAS MANDAL	BC A	60.03
19	SUNNY	PARAMJEET	SC D	76.45
20	ADITYA	SANJEEV	BC A	71.06
21	ANSH	RAM DUTT SHARMA	GENERAL	76.20
22	ARYAN	KRISHAN KUMAR	GENERAL	71.03
23	DURGA DASS	RAJBIR	BC B	68.10
24	AJAY	RAJENDER	GENERAL	69.95
25	MANTHAN PAJNOO	AVTAR KRISHAN PAJNOO	GENERAL	63.50
26	RITIKA SINGH	CHARAN SINGH	GENERAL	54.04
27	AZATULLAH FAEEZ	ABDUL AZIZ	Islamic	71.85

- Waiting list of the candidate in order of merit to be operative from the last date of joining of the first list candidate: Not Applicable
- List of the candidate who joined within the date, vacancy position in each category before operation of waiting list: Not Applicable.

#### 15. Information of Infrastructure and Other Resources Available:

Instructional Area			
Room Type	Room Id/Name	Area of Room in sqm	Building Name
Classroom	A-101	82.8	A-BLOCK
Classroom	A-102	82.8	A-BLOCK
Computer Centre	A-104	153	A-Block
CAD Center	A-104A	153.1	A-BLOCK
Laboratory	A-107	146	A-BLOCK
Classroom	A-113	108.92	A-BLOCK
Language Laboratory	A-113A	88	A-Block
Laboratory	A-116	86.07	A-BLOCK
Laboratory	A-117	67.27	A-BLOCK
Laboratory	A-201	82.8	A-BLOCK
Classroom	A-202	82.8	A-BLOCK
Seminar Hall	A-202A	153	A-Block
Seminar Hall	A-203	157.4	A-BLOCK
Classroom	A-205	61.78	A-BLOCK
Laboratory	A-207	67.47	A-BLOCK
Laboratory	A-208	102.36	A-BLOCK
Classroom	A-210	95.35	A-BLOCK
Laboratory	A-211	98.85	A-BLOCK
Classroom	A-213	84	A-BLOCK
Laboratory	A-215	85.09	A-BLOCK
Laboratory	A-216	86	A-BLOCK
Classroom	A-301	92.8	A-BLOCK
Classroom	A-302	82.8	A-BLOCK
Seminar Hall	A-303	157.4	A-BLOCK
Laboratory	A-304	84	A-BLOCK
Laboratory	A-305	68	A-BLOCK
Laboratory	A-307	67.86	A-BLOCK
Laboratory	A-309	103.39	A-BLOCK
Classroom	A-310	82.68	A-BLOCK
Tutorial Room	A-311	56.73	A-BLOCK
Computer Laboratory	A-312	88.83	A-BLOCK
Tutorial Room	A-313	54.35	A-BLOCK
Classroom	A-314	81.08	A-BLOCK
Laboratory	A-315	103.82	A-BLOCK

Laboratory	A-317	67.57	A-BLOCK
Classroom	A-401	82.8	A-BLOCK
Laboratory	A-402	82.8	A-BLOCK
CAD Center	A-403	157.4	A-BLOCK
Laboratory	A-404	56.59	A-BLOCK
Laboratory	A-407	102.7	A-BLOCK
Laboratory	A-408	67.57	A-BLOCK
Laboratory	A-409	69	A-BLOCK
Laboratory	A-410	69	A-BLOCK
Laboratory	A-411	88.83	A-BLOCK
Tutorial Room	A-412	41.11	A-BLOCK
Laboratory	A-413	53.51	A-BLOCK
Tutorial Room	A-414	41.22	A-BLOCK
Laboratory	A-415	68.61	A-BLOCK
Laboratory	A-416	103.22	A-BLOCK
Computer Centre	C-108	172	C-BLOCK
Language Laboratory	C-110	69	C-BLOCK
Workshop	W-01	227.6	W/S BLOCK
Additional Workshop	W-02	232.07	W/S-BLOCK
	Administrativ	e Area	
Do and Tomas	Room	A	Duilding Name
Room Type	Id/Name	Area in sqm	Building Name
Reception Area	A-103	165	A-BLOCK
Office All Inclusive	A-106	17.89	A-BLOCK
Cabin for Head of Dept	A-109	30	A-BLOCK
Principal Directors Office	A-110	53.25	A-BLOCK
Office All Inclusive	A-111	54.11	A-BLOCK
Faculty Room		<u> </u>	A-BLUCK
. 20210 1100111	A-114	27	A-BLOCK
Maintenance	A-114 A-118	+	
•		27	A-BLOCK
Maintenance	A-118	27 10	A-BLOCK A-BLOCK
Maintenance Housekeeping	A-118 A-121	27 10 10	A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office	A-118 A-121 A-204	27 10 10 55.21	A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office	A-118 A-121 A-204 A-206	27 10 10 55.21 40.4	A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive	A-118 A-121 A-204 A-206 A-209	27 10 10 55.21 40.4 13.86	A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office	A-118 A-121 A-204 A-206 A-209 A-212	27 10 10 55.21 40.4 13.86 33.47	A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room	A-118 A-121 A-204 A-206 A-209 A-212 A-214	27 10 10 55.21 40.4 13.86 33.47 26.09	A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09	A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office Office All Inclusive	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405 A-417	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09 27.4	A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office Office All Inclusive Office All Inclusive	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405 A-417 B-101	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09 27.4 200	A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office Office All Inclusive Office All Inclusive Pantry for Staff	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405 A-417 B-101 B-103	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09 27.4 200 10	A-BLOCK B-BLOCK B-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office Office All Inclusive Office All Inclusive Pantry for Staff Placement Office	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405 A-417 B-101 B-103 B-106	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09 27.4 200 10 33	A-BLOCK B-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK A-BLOCK
Maintenance Housekeeping Exam Control Office Department Office Office All Inclusive Department Office Faculty Room Department Office Office All Inclusive Office All Inclusive Pantry for Staff Placement Office Board Room	A-118 A-121 A-204 A-206 A-209 A-212 A-214 A-405 A-417 B-101 B-103 B-106 B-109	27 10 10 55.21 40.4 13.86 33.47 26.09 68.09 27.4 200 10 33 33	A-BLOCK B-BLOCK B-BLOCK B-BLOCK

Faculty Room	C-212B	10	C-BLOCK
Security	G-01	10	GATE
Central Store	WL-07	30	LAB-BLOCK
Instru	actional Area - Co	mmon Facilit	ties
Room Type	Room Id/Name	Area of Room in sqm	Building Name
Computer Center	A-105	150	A-Block
Language Laboratory	A-112	88	A-BLOCK
Library&Reading Room	B-201	488.52	B-BLOCK
, ,	Amenities	Area	
Room Type	Room Id/Name	Area in sqm	Building Name
Toilet	A-100	20.5	A-BLOCK
Toilet	A-105	27.9	A-BLOCK
Stationery Store	A-119	10	A-BLOCK
Toilet	A-200	20.5	A-BLOCK
First aid cum Sick Room	A-212A	10	A-BLOCK
Toilet	A-217	27.9	A-BLOCK
Toilet	A-300	20.5	A-BLOCK
Toilet	A-306	27.9	A-BLOCK
Toilet	A-400	20.5	A-BLOCK
Toilet	A-406	27.9	A-BLOCK
Cafeteria	CF-01	150	CAFETERIA
Principal's Quarter	F-303	102.8	F
Guest House	Q-102	866.62	G
Girls Common Room	W-05	113	W/SHOP-BLOCK
Boys Common Room	W-06	113	W/SHOP-BLOCK

#### • Central Examination Facility, Number of rooms and capacity of each

S.N	Exam Center	Room No.	Area
1.	A-204	Exam Control Office	55.21

- Barrier Free Built Environment for disabled and elderly persons-Available
- •
- OccupancyCertificate
- Fire and Safety Certificate
- **Hostel Facilities:** Hostel of 40 Rooms of Capacity 160 is available in the institute.

#### Library

• Number of Library books/ Titles/ Journals available (program-wise)

S.N	Programme	No. of Titles	No. of Books
1.	Applied Science	520	2738
2.	B.TECH Civil Engg.	462	3082
3.	B.TECH Mechanical Engg.	535	4612
4.	B.TECH Electrical Engg.	260	2413
5.	B.TECH ECE	322	3023
6.	B.TECH CSE	479	4219
7.	BCA	254	1748
8.	MANAGEMENT(MBA)	155	977
9	MANAGEMENT(BBA)	313	1885
10	B.TECH AI & DS	86	501
	Total	3386	25247

- List of online National/ International Journals subscribed: NIL
- E- Library facilities:
- 1. National Digital Library Membership
- 2. DELNET Membership
- 3. Swayam NPTEL Membership
  - Laboratory and Workshop

#### List of Major Equipment/Facilities in each Laboratory/ Workshop

### LIST OF EQUIPMENT (SOM LAB)

SR. No.	NAME OF EQUIPMENT	QTY
1	ROCKWELL-BRINNEL HT MACHINE (RASN-B)	01
2.	VICKERS HT MACHINE(VM-50)	01
3.	WINCH CRAB DOUBLE PURCHASE	01
4.	SHEAR FORCE APPARATUS	01
5.	WORM &WORM WHEEL -TRIPPLE	01
6	BENDING MOMENT APPARATUS	01

7	MOMEMT OF INERTIA OF LYWHEEL	01
8	UNIVERSAL TESTING MACHINE	01
9	IZOD CHARPY IMPACT TESTING M/C	01
10	TORSION TESTING MACHINE	01
11	SPRING TESTING MACHINE	01
12	FATIGUE TESTING MACHINE	01

### LIST OF EQUIPMENT (KOM LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	BELL CRANK LEVER	01
2.	TORSION APPARATUS	01
3.	SINGLE STAGE HELICAL GEAR	01
4.	SINGLE STAGE SPIRAL GEAR	01
5.	HERRINGBONE GEARS	01
6.	DIFFERENTIAL GEAR	01
7.	CAM&FOLLOWER SET OF 5	01
8.	BOX&MUFF COUPLING	01
9.	CAM ANALYSIS APPARATUS	01
10.	COMBINED COIL,FLAT &V-BELT FRICTION APPARATUS	01
11.	COMBINED COMPRESSION & EXPANSION SPRING APPT.	01
12.	SCREW EFFICIENCY APPARATUS	01
13.	COMBINED INCLINED PLANE &FRICTION SLIDE APPARATUS	01
14	THREE STAGE SPUR GEAR	01
15	RACK &PINION	01
16	EPICYCLE GEAR	01
17	EPICYCLE GEAR (SUN &PLANET)	01
18	CYCLOIDAL GEAR	01
19	REVERSING GEAR	01
20	WORM GEAR	01
21	TRAIN OF GEAR WHEEL (COMP)	01
22	CRANK&CONNECTING ROD MD.	01
23	FOUR BAR LINK MECHANISM	01
24	SCOTCH YOKE MECHANISM	01
25	KINAMETICS PAIRS	01
26	CRANK SLOTTED LEVER APPT.	01
27	INVERSION OF SINGLE SLIDE CRANK MECHANISM	01
28	INVERSION OF DOUBLE SLIDE CRANK MECHANISM	01
29	SELLER COUPLING	01
30	UNIVERSAL COUPLING	01
31	HOOKS COUPLING	01
32	FLANGED COUPLING	01
33	OLDHAM COUPLING	01
34	FRICTION WHEEL DRIVE	01
35	CHAIN DRIVE	01

36	GENEVA DRIVE	01
37	PAWL & RATCHET ROD MODEL	01
38	ELLIPSE TRACER MODEL	01
39	PECULIER LINK DRIVE MODEL	01
40	CRANK SHAFT TO SLIDER MECH.	01
41	FLEXIBLE COUPLING	01
42.	SLIDE CRANK MECHANISM	
42(a)	RECIPROCATING ENGINE TYPE	1
42 (b)	WITHWORTH QUICKRETURN TYPE MECHANNISM	1
42 ©	OSCILLATING ENGINE TYPE	1
43	PENTOGRAPH MECHANISM	1
44	WATT MECHANNISM	1
45	GEAR BOX MODEL WITH CLUTCH	1

### LIST OF EQUIPMENT (THEMODYNAMICS LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	MODEL LANCASHIRE BOILER	01
2.	MODEL OF CORNISH BOILER	01
3.	MODEL BABCOCK &WILCOX BOILER	01
4.	MODEL OF COCHRAN BOILER	01
5.	SECTIONAL WORKING MODEL OF 2 STROKE PETROL ENGINE	01
6.	SECTIONAL WORKING MODEL OF4 STROKE PETROL ENGINE	01
7.	SECTIONAL WORKING MODEL OF 2 STROKE DIESEL ENGINE	01
8.	SECTIONAL WORKING MODEL OF4 STROKE DIESEL ENGINE	01
9.	LEVER SAFETY VALVE	01
10.	SPRING LOADED SAFETY VALVE	01
11.	DEAD WEIGHT SAFETY VALVE	01
12.	WATER GUAGE MODEL	01
13.	STOP VALVE HOPKINSON TYPE	01
14.	FEED CHECK VALVE	01
15.	PRESSURE GUAGE	01
16.	BLOW OFF COPCK	01
17.	FUSIBLE PLUG	01
18.	SUGDEN SUPER HEATER	01
19.	STEAM ENGINE MODEL WITH A BOILER	01
20	REDWOOD VISCOMETER NO. 1-ELECTRICALLY HEATED WITH VOLTAGE VARRIER COPPER COIL	01
21	CLEAVELAND FLASHPOINT &FIRE POINT APPARATUS –VOLTAGE VARRIER COPPER COIL COMBINE MODEL	01
22	AIR PREHEATER	01
23	SURFACE CONDENSER	01
24	EJECTOR CONDENSER	01
25	PURE REACTION & HERO'S STEAM TURBINE	01

26	NESTLER BOILER	01
27	4 STROKE 4 CYLINDER DIESEL ENGINE-MOTORISED	01
28	MODEL OF LOCOMOTIVE BOILER	01
29	MODEL OF BENSON BOILER	01
31.	MODEL OF LOEFFLER BOILER	01
32.	MODEL OF VALOX BOILER	01
33	MODEL OF STIRLING BOILER	01
34	STEAM INJECTOR	01
35	GREEN ECONOMISER	01
36	MODEL OF STEAM ENGINE	01
37	JET CONDENSER- PARALLEL FLOW	01
38	JET CONDENSER –COUNTER FLOW	01
39	EVAPORATIVE CONDENSER	01
40	DE-LEVEL TURBINE	01
41	PRESSURE &VELOCITY COMPOUNDED STEAM TURBINE	01
42	AIR OR STEAM PRESSURE TURBINE	01

### LIST OF EQUIPMENT (DOM LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	WHIRLING OF SHAFT &DIGITAL TECHOMETER	01
2.	MOTORISED GYROSCOPE & DIGITAL TECHOMETER	01
3.	STATIC&BALANCING DEMONSTRATOR	01
4.	EPICYCLIC GEAR TRAIN APPARATUS WITH DIGITAL RPM INDICATOR	01
5.	UNIVERSAL GOVERNOR APPARATUS & DIGITAL TECHOMETER	01
6.	COROLLI'S COMPONENT OF ACCELERATION APPARATUS WITH DIGITAL RPM INDICATOR	01

### LIST OF EQUIPMENT (FLUID MECHANICS LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	DISCHARGE THROUGH VENTURIMETER & ORIFICE	01
2.	IMPECT OF JET ON VANES	01
3.	DISCHARGE OVER NOTCHES	01
4.	LOSSES DUE FRICTION IN PIPELINES	01
5.	BERNOULLI'S THEOREM APPARATUS	01
6.	FLOW OVER ORIFICE &MOUTHPIECE	01
7.	METACENTRIC HEIGHT APPARATUS	01
8.	FORCED VERTEX APPARATUS	01
9.	LOSSES DUE TO PIPE FITTING, SUDDEN ENLARGEMENT	01

	&CONTRACTION	
10.	REYNOLDS APPARATUS	01

### LIST OF EQUIPMENT (FLUID MACHINES LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	RECIPROCATING PUMP TEST RIG	01
2.	GEAR PUMP TESTRIG	01
3.	CENTRIFUGAL PUMP TEST RIG	01
4.	FRANCIS TURBINE TEST RIG	01
5.	HYDRAULIC RAM TEST RIG	01
6.	PELTON TURBINE TEST RIG	01
7	KAPLAN TURBINE TEST RIG	01
8.	TORQUE CONVERTER	01

### LIST OF EQUIPMENT (HEAT TRANSFER LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	THERMAL CONDUCTIVITY OF INSULATING POWDER	01
2.	THERMAL CONDUCTIVITY OF LIQUIDS	01
3.	HEAT TRANSFER IN FORCED CONVECTION	01
4.	PARALLEL FLOW/ COUNTER FLOW HEAT EXCHANGER	01
5.	THERMAL CONDUCTIVITY OF METAL ROD	01
6.	HEAT TRANSFER THROUGH COMPOSITE WALL	01
7.	STEFAN BOLTZMANN'S APPAARATUS	01
8.	POOL BOILING APPARATUS	01
9.	PIN FIN APPARATUS	01

### LIST OF EQUIPMENT (THERMAL ENGG. LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	4 CYLINDER 4 STROKE <b>PETROL</b> ENGINE TEST RIG	01
2.	DOUBLE STAGE AAIR COMPRESSOR TEST RIG WITH KIRLOSKAR MAKE COMPRESSOR	01
3.	4 CYLINDER 4 STROKE WATER COOLED <b>DIESEL</b> ENGINE TEST RIG	01

4.	1 CYLINDER 4 STROKE WATER COOLED DIESEL ENGINE	01
5	CENTRIFUGAL BLOWER TEST RIG	01

### LIST OF EQUIPMENT (REFRIGERATION &AIR CONDITIONING LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	VAPOUR COMPRESSION REFRIGERATION TEST RIG	01
2.	WATER COOLER TEST RIG	01
3.	ELECTROLUX- VAPOUR ABSORPTION REFRIGERATION TEST RIG	01
4.	COOLING TOWER TEST RIG	01
5.	REFRIGERATION & AIR CONDITIONING CUT MODEL BOARD	01
6.	AIR CONDITIONING TEST RIG	01
7.	ICE PLANT TUTOR	01
8.	SECTIONAL CUT MOEDLS OF COMPRESSORS	03
9.	SLING PSYCHROMETER	01
10.	HYGROMETER	01
11	WET/DRY THERMOMETER	01
12	HYDROMETER	01
13	BAROMETER	01

### LIST OF EQUIPMENT (TRIB. & MECH. VIBRATION LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	UNIVERSAL VIBRATION APPARATUS	01
2.	JOURNAL BEARING APPARATUS	01

### LIST OF EQUIPMENT (MEASUREMENT & CONTROL LAB)

SR. NO.	NAME OF EQUIPMENT	QTY
1.	STRAIN GUAGE TRAINER KIT	01
2.	LVDT KIT TRAINER	01
3	INDUCTIVE PICKUP	01
4	LDR CHARACTERSTIC APPARATUS	01
5	CAPATIVE PICKUP	01

6	RTD TRAINER KIT	01
7	THERMOCOUPLE TRAINER KIT	01
8	PRESSURE MEASUREMENT USING STRAIN GAUGE	01
9	THERMISTER CHARACTERSTIC APPARATUS	01

### **List of Equipment for Electrical Technology Lab**

### LIST OF EQUIPMENT FOR ELECTRICAL WORKSHOP (EE-217N)

S. No	Name of Equipment	Qty.
1.	Wire Striper	1
2.	Nose Plier	1
3.	Plier	2
4.	Screw Driver 824	2
5.	Screw Driver 825	1
6.	Tester 814	1
7.	Hammer 200 Gm.	1
8.	Round file	1
9.	Smooth file	1
10.	Wooden file	1
11.	Hacksaw Iron	1
12.	Bench vice	1
13	Star Delta Starter	1
14.	Fluorescent Tube	2
15.	HPMV Lamp	1
16.	Sodium Lamp	1
17.	Press(Iron light weight)	1
18.	Lamp Holder	2
19.	Switch 16A,240V	2
20.	Socket 16A, 240V	1

21.	Stair case wiring kit(wooden board)	
22.	Batten, cleat ,casing-capping & Conduit wiring setup	
23.	Insulation tester	1
24.	Digital Earth Tester	1
25.	C.T: 30/5A	1
26.	3 Phase HPL Multifunction Meter	1
27.	Single phase Energy meter Digital 0-60A	1
28.	Electric Drill Machine, Size 1/2 inch	1
29.	Thimble Crimping Tool 50 mm <sup>2</sup>	1

#### LIST OF THE EQUIPMENTS FOR:

- A) ELECTRICAL MACHINES-I LAB (EE-213N)
- B) ELECTRICAL MACHINES-II LAB ( EE-218N)

Sr. no	Name of Equipment	Qty
1	MG Set Comprising DC Shunt Motor, DC Shunt	1
	Generator	
2	1Φ, Induction Motor Capacitor Start	1
3	AC Squirrel Cage Induction Motor 3Φ, 3HP, 140 RPM	1
4	1HP, 1500RPM, 230V, Induction Motor	1
5	1MG Set Comprising DC shunt Motor, DC Compound Generator	1
6	AC Squirrel cage 3Φ Induction motor 3HP,	1
7	DC Motor for Ward Leonard method	1
8	Synchronous Motor 3HP with Shunt Generator 2KW 1500RPM, 4A, 415V	1
9	Shunt Motor Alternator set 2KVA, 3HP 1500RPM Arm. 220V	1
10	M.I. Voltmeter 300-600V	2
11	M.I. Voltmeter 150-300V	2

12	Wattmeter 2.5/5A,150/300/600V	4
13	Wattmeter 5/10A,75-150-300V	4
14	AC Ammeter Digital 0-20A	4
15	DC Ammeter Digital 0-20A	2
16	AC Voltmeter Digital 0-600V	4
17	DC Voltmeter Digital 0-500V	2
18	100Ω,5A Rheostat	4
19	500Ω,1A Rheostat	2
20	3Ф 470V, 15A Variac	2
21	1Ф 270V,10A Variac	2
22	3 Point DC Starter	1
23	SCR Drive 415V, 3Φ Rectifier	1
24	M.I. Ammeter Meco make 0-10/20A	2
25	DC Ammeter 0-1/2A	1
26	Voltmeter Meco make 0-30/60V	1
27	PMC Ammeter 0-10/20A	2
28	MI Ammeter 0-1/2A	2
29	DC Voltmeter 0-150/300V	2
30	AC Voltmeter 0-300/600V	4
31	DC Digital Ammeter 0-1A	5
32	DC Digital Ammeter 0-25 V	2
33	3Φ Resistive Load	1
34	3Φ Inductive Load	1
35	3Ф Capacitive Load	1
36	3Ф Variac 0-470V	1
37	300Ω,1A Rheostat	2
38	10 Ω,10A Rheostat	2
39	50 Ω, 4A Rheostat	3
40	500 Ω, 2A Rheostat	3
41	1089 Ω, 0.6A Rheostat	1

42	Tachometer 09999	1
43	3Point DC Starter	1
44	Function Generator 1Mhz	1
45	500 Ω, 1A Rheostat	1
46	DC Analog Ammeter	1
47	Variac 3 phase 15A0-470V	1
48	Resistive load in 8 steps 2KW 250V	2
49	Variac 1 Phase 10Amp. 0-270V	2
50	Decade Inductance Box 4 dial 11.11mh	1
51	Digital Tachometer non contact type	1
52	Dynamometer type Wattmeter 1 phase LPF 75-150-300V,0.5A/1A	3
53	Dynamometer type wattmeter 1 phase UPF 150-300-600V 5A/10A	6
54	Decade resistance Box 11.11 K ohm	1
55	Decade capacitor box 4 dial 11.11mfd.	1
56	Portable M.I. Voltmeter0-150/300V	4
57	Portable M.I. Voltmeter 0-300-600V	2
58	Portable M.I. Voltmeter 0-30-60V	3
59	Portable M.I. Ammeter 0-1-2A	8
60	Single phase T/F 1KVA 230V	3
61	Single phase T/F 1KVA 230V, 50%,86%100%	2
62	Plier 200mm Taparia	1
63	Nose Plier 150mm Taparia	1
64	Wire Stepper Taparia W506	1
65	Screw driver set Taparia 821	1
66	Screw driver 827 no.	1
67	Hammer 765 pye	1
68	Hacksaw Iron 300mm	1
69	Drill bit set	1
70	Drill 10mm IT	1
71	File 250mm wood JK	1

72	Dile 300mm Barbernt JK	1
73	File Round 250mm	1
74	Screw Driver Taparia 824	1
75	Measuring tape 3m	1
76	Soldering iron 125W	1
77	Soldering Iron 35 W	1
78	Locks	4
79	Key set	1

### LIST OF EQUIPMENT FOR CONTROL SYSTEM LAB (EE-313N)

S. No	Name of Equipment	Qty.
1.	Kit to study DC Position Servo Machine Trainer	1
2.	Kit to study Liner System Simulator	1
3.	Kit to study Control of DC motor	1
4.	Kit to study Stepper Motor Characterstics	1
5.	Kit to study PID Controller Kit	1
6.	Kit to study Compensation Network	1
7.	Kit to study Light Intensity Control	1
8.	Kit to study CRO 20 MHz Dual Channel 2 Trace	3
9.	Function Generator 2 MHz With Frequency Counter	1

### LIST OF EQUIPMENT FOR POWER SYSTEM LAB (EEN-318N)

S. No	Name of Equipment	Qty.
1	Testing Panel for T/F Oil dielectric strength	1
2	Panel to draw characteristic of thermal over load relay	1
3	Panel to Perform experiment to draw operating characteristic of IDMT Relay	1

	Panel to Perform following Exp.	1
4	i) To Find ABCD Parameters	
	ii)To study Ferranti effect of transmission line	
	iii)To find zero sequence component of three phase line	
5	Panel to Perform exp. Testing of Current Transformer	1

### List of Equipments in Communication Lab

S. No.	Name of Equipments	Quantity
	BALANCED MODULATOR/DEMODULATOR	02
	FREQUENCY MODULATOR/DEMODULATOR	02
	PULSE AMPLITUDE	02
	MODULATOR/DEMODULATOR	
	PULSE WIDTH	02
	MODULATOR/DEMODULATOR	
	PULSE POSITION	02
	MODULATOR/DEMODULATOR	
	ACTIVE FILTERS	02
	AMPLITUDE	02
	MODULATOR/DEMODULATOR	
	SAMPLING THEOREM AND RECONSTRUCTION	02
	CUTTER	01
	PLIER	01
	NOSE-PLIER	01
	SOLDERING IRON	01
	SOLDERING IRON STAND	01
	SCREW DRIVER SET	01
	MULTIMETERS	02
	AM TRANSMITTER TRAINER	02

	AM RECEIVER TRAINER	02
	CATHODE RAY OSCILLOSCOPE	06
	FUNCTION GENERATORS	02
	FUNCTION GENERATORS	02
	VOLTAGE STABLIZER	01
	EXTENSION BOARDS	08
S. No.	Name of Equipments	Quantity
	DIGITAL IC TRAINER	02
	LOGIC GATES USING TTL	02
	MULTIPXER/DEMULTIPLEXER	02
	VOLTAGE COMPARATOR	02
	FLIP-FLOP TRAINER	02
_	4-BIT SHIFT REGISTER	02
	4-BIT COUNTER (SYNC. & ASYNC)	03
	ENCODER-DECODER CIRCUITS KIT	03

# List of Equipments of Semiconductor Devices & Circuits Lab

S. No.	Name of Equipments	Quantity
1.	SOLDERING IRON	07
2.	SOLDERING IRON STAND	04
3.	PLIER	01
4.	CUTTER/WIRE STRIPPER	03
5.	NOSE-PLIER	02
6.	SCREW DRIVER SET	01
7.	VOLTAGE STABLIZER	01
8.	DIGITAL MULTIMETERS	10
9.	DIGITAL MULTIMETERS	04
10.	EXTENSION BOARDS	03
11.	EXTENSION BOARDS	05

12.	CATHODE RAY OSCILLOSCOPE	05
13.	FUNCTION GENERATORS	05
14.	BREAD BOARDS (with variable PS)	06
15.	SOLAR CELL CHAR. KIT	02
16.	ACTIVE FILTERS	02
17.	SCR CHAR.	02
18.	MOSFET CHAR.	02
19.	TRANSISTOR PUSH-PULL AMPL.	02
20.	P-N JUNCTION CHARAC. KIT	01
21.	P-N JUNCTION CHARAC. KIT	01
22.	RECTIFIER KIT(HALF& FULL WAVE)	01
23.	CLIPPING & CLAMPING KIT	01
24.	ZENER DIODE STABLIZER CHARAC. KIT	01
25.	TRANSISTOR CHARACTERISTICS KIT	01
26.	TRANSISTOR CE CHARAC. KIT	01
27.	TWO STAGE RC COUPLED AMP. KIT	01
28.	FET CHARACTERISTICS	01
29.	MOSFET CHAR.	01
30.	UJT CHARACTERISTICS	01
31.	UJT CHARACTERISTICS	01
32.	LOGIC GATES USING SIX TTL GATES	01
33.	PNP TRANSISTORS KIT	01

# List of Equipments of Digital Electronics Lab

Sr. No	Name of Equipments	Quantity

1	DIGITAL IC TRAINER		02	
2	LOGIC GATES USING TTL		02	
S. No.	Name of Equipments		Quantity	
3	MULTIPXER/DEMULTIPLEXER		02	
1.	Max Well Inductance Bridge		01	
4	VOLTAGE COMPARATOR		02	
2.	SCHERING BRIDGE		01	
5	FLIP-FLOP TRAINER		02	
3.	DE-SAUTY'S BRIDGE		01	
6	4-BIT SHIFT REGISTER		02	
4.	WEIN FREQUENCY BRIDGE		01	
7	4-BIT COUNTER (SYNC. & ASYNC)		03	
5.	KELVIN DOUBLE BRIDGE		01	
8	ENCODER-DECODER CIRCUITS KIT		03	
6.	CROMPTON POTENTIOMETER		01	
7.	HEY'S BRIDGE		01	
8.	B-H CURVE KIT		01	
Q	DIGITAL INSULATION TESTER		01	-
).	DIGITAL INSOLATION TESTER		V1	
	S. No.  3  1. 4  2. 5  3. 6  4. 7  5. 8  6.	2 LOGIC GATES USING TTL S. No. Name of Equipments 3 MULTIPXER/DEMULTIPLEXER 1. Max Well Inductance Bridge 4 VOLTAGE COMPARATOR 2. SCHERING BRIDGE 5 FLIP-FLOP TRAINER 3. DE-SAUTY'S BRIDGE 6 4-BIT SHIFT REGISTER 4. WEIN FREQUENCY BRIDGE 7 4-BIT COUNTER (SYNC. & ASYNC) 5. KELVIN DOUBLE BRIDGE 8 ENCODER-DECODER CIRCUITS KIT 6. CROMPTON POTENTIOMETER 7. HEY'S BRIDGE 8. B-H CURVE KIT	2 LOGIC GATES USING TTL S. No. Name of Equipments 3 MULTIPXER/DEMULTIPLEXER 1. Max Well Inductance Bridge 4 VOLTAGE COMPARATOR 2. SCHERING BRIDGE 5 FLIP-FLOP TRAINER 3. DE-SAUTY'S BRIDGE 6 4-BIT SHIFT REGISTER 4. WEIN FREQUENCY BRIDGE 7 4-BIT COUNTER (SYNC. & ASYNC) 5. KELVIN DOUBLE BRIDGE 8 ENCODER-DECODER CIRCUITS KIT 6. CROMPTON POTENTIOMETER 7. HEY'S BRIDGE 8. B-H CURVE KIT	2         LOGIC GATES USING TTL         02           S. No.         Name of Equipments         Quantity           3         MULTIPXER/DEMULTIPLEXER         02           1.         Max Well Inductance Bridge         01           4         VOLTAGE COMPARATOR         02           2.         SCHERING BRIDGE         01           5         FLIP-FLOP TRAINER         02           3.         DE-SAUTY'S BRIDGE         01           6         4-BIT SHIFT REGISTER         02           4.         WEIN FREQUENCY BRIDGE         01           7         4-BIT COUNTER (SYNC. & ASYNC)         03           5.         KELVIN DOUBLE BRIDGE         01           8         ENCODER-DECODER CIRCUITS KIT         03           6.         CROMPTON POTENTIOMETER         01           7.         HEY'S BRIDGE         01           8.         B-H CURVE KIT         01

List of

**Equipment in Electrical Measurement & Instrumentation Lab** 

## List of equipment in Signal & System Lab

	LIST OF EQUIPMENTS		
	SURVEY LAB		
SR.NO.	NAME OF INSTRUMENT	QUA	NTITY
1	DUMPY LEVEL WITH ALL ACCESSORIES		2
2	AUTO LEVEL		1
3	RANGING ROD		15
4	METRIC CHAIN		3
5	PRISMATIC COMPAS		3
6	LEVELING STAFF		2

Name of Equipments	Quantity
HARDWARE ITEM FOR VHDL LAB	04
SOFTWARE ITEM FOR VHDL LAB	01
DSP TRAINER KIT	01
	HARDWARE ITEM FOR VHDL LAB  SOFTWARE ITEM FOR VHDL LAB

1.		8085 MICROPROCESSOR TRAINER KIT with Key Boards	08
2.		8086 MICROPROCESSOR TRAINER KIT with Key Boards	08
3.		8255-PPI STUDY/INTERFACING CARD	03
4.		STEPPER MOTOR INTERFACING CARD	01
5.		KEY BOARDS	05
7 PL.		ANE TABLE	2
8 THEODOLITE		2	
9 AROW		10	

	TRANSPORTION LAB	
1	AGREGATE IMPACT TEST	1
2	CRUSHING STRENGTH TEST ON AGGREGATES	1
3	PENETRATION TEST ON BITUMEN	1
4	VISCOSITY TEST BITUMENOUS MATERIAL	1
5	SPECIFIC GRAVITY OF BITUMEN 1	
6	STRIPPING TEST ON AGGREGATE	1
	SPECIFIC GRAVITY AND WATER ABSORPTION TEST ON	
7	AGGREGATE	1
8	ELONGATION AND FLAKINESS INDEX OF AGGREGATE	1

	STRUCTURE LAB	
1	ELASTIC PROPERTIES OF DEFLECTED BEAM	1
2	EXPERIMENTAL BEHAVOUR OF STRUTS	1
3	(3)THREE HINGED ARCH	1
4	DISPLACEMENT OF CURVED MEMBERS	1
5	HORIZONTAL AND VERTICAL DEFLECTION(TRUSS)	1
6	VARIFICATION OF MAXWELL RECIPROCAL THEORAM BEAM	1
7	(2)TWO HINGED ARCH	1
8	CANTILEVER BEAM	1
9	ELASTICALLY COUPLED BEAM	1
10	SWAY IN PORTAL FRAME	1
11	3 BAR PIN JONTED TRUSS 1	
	CONCRETE	
1	VICAT,S APPARATUS	1
2	SIEVE SET FINE AGGREGATE	1
3	SIEVE SET COARSE AGGREGATE	1
4	LE-CHATELIER,S APPARATUS	1
5	COMPACTION FACTOR	1
6	VEE-BEE APPARATUS	1
7	SIEVE SHAKER	1
8	ELECTRIC HEATED OVEN	1
9	WT.BELENCE	1
	GEO.TECH LAB	
1	SIEVE IN SET	1
2	PLASTIC LIMIT	1

3	SAND REPLACEMENT APPARATUS	1		
4	GRAIN SIZE ANALYSIS HYDROMETER METHOD	1		
5	SHRINKAGE LIMIT			
6	CONSOLIDATION TEST APPARATUS	1		
7	DYNAMIC CONE PENETRATION APPARATUS	1		
8	MOULD	5		
9	CTM	1		

I	LAB NO. 300 (LAPTOP LAB)(NEURAL NETWORK+ULP LAB)			
SR. No.	NAME OF EQUIPMENT	QTY		
1	COMPAQ 510 LAPTOPS	24		
2	ADAPTOR	24		
3	PRINTER	1		
4	LOCKS	24		

LAB NO. 301 (LAPTOP LAB)(WEBTECHNOLOGY+WEB ENGINEERING)		
SR. No.	NAME OF EQUIPMENT	QTY
1	COMPAQ 510 LAPTOPS	24
2	ADAPTOR	24
3	PRINTER	1
4	LOCKS	24

LAB NO. 302(DBMS+CN+JAVA)			
SR. No.	NAME OF EQUIPMENT	QTY	
1	COMPAQ 510 LAPTOPS	24	
2	ADAPTOR	24	
3	PRINTER	1	
4	LOCKS	24	

LAB NO. A-104 (COMPUTER CENTRE)(FOCP LAB+DATA STRUCTURE)		
SR. No.	NAME OF EQUIPMENT	QTY
1	DESKTOP	49
2	MOUSE	49
3	KEYBOARD	49
4	PRINTER	1

LAB NOA-201(SIMULATION AND SOFTWARE ENGG. LAB)		
SR. No.	SR. No. NAME OF EQUIPMENT QTY	
1	DESKTOP	18
2	MOUSE	18

3	KEYBOARD	18
4	PRINTER	1

LAB NOA-411(IF+DAA)		
SR. No.	NAME OF EQUIPMENT	QTY
1	DESKTOP	15
2	MOUSE	15
3	KEYBOARD	15
4	PRINTER	1

LAB NOA-411(MBA LAB)			
SR. No.	NAME OF EQUIPMENT	QTY	
1	DESKTOP	25	
2	MOUSE	25	
3	KEYBOARD	25	
4	PRINTER	1	

LAB NOA-312(PROJECT LAB)			
SR. No.	NAME OF EQUIPMENT	QTY	
1	DESKTOP	20	
2	MOUSE	20	
3	KEYBOARD	20	
4	PRINTER	1	

LIST OF PHYSICS LAB EQUIPMENT			
S.NO	NAME OF APPARATUS	QUANTITY	
1	NEWTON RING SETUP	2	
2	OPTICAL BENCH	2	
3	OPTICAL NEEDLES	4	
4	PRISM AND GLASS SLAB	20	
5	PLANE MIRRORS	10	
6	SODIUM LAMP	10	
7	CONVEX LENSES	10	
8	BI QUARTZ POLARIMETER	2	
9	MERCURY LAMP WITH WOODEN BOX	3	
10	SONOMETER	9	
11	STEPDOWN TRANSFORMER	4	
12	ELECTROMAGNET	2	
13	EXTENSION	1	
14	SLOTTED WIGHT	9	
15	GALVANOMETR	13	

16	VOLTMETER	5
17	PHYSICAL WEIGHT BOX	8
18	1 WAY KEY	4
19	2 WAY KEY	4
20	RESISTANCE BOX	20
21	PO BOX	2
22	HIGH RESISTANCE SET UP(0.5 MOHM)	2
23	BATTERY ELIMINATOR (12V, 2 AMP)	5
24	POTRAITS	4
25	GALVANOMETR TO AMMETER	1
26	CARRY FOSTER SETUP	2
27	DESAUTY BRIDGE	3
28	PLATINUM RESISTANCE THERMOMETER	2
29	IONISATION POT TUBE	2
30	CIRCULAR PLANE MIRROR	5
31	HEATER	1
32	POLARIMETER TUBE	4
33	PLANO CONVEX LENS	4
34	THERMOMETER	3
35	AUDIO OSCILLATOR	3
36	MAGNIFYING GLASS STEEL FRAME	1
37	LEAD ACCUMULATED BATTERY	4
38	HORSE SHOE MAGNET	3
39	BATTERY CHARGER	1
40	B-H CURVE KIT	1
41	FOUR PROBE METHOD	1
42	BALLASTIC GALVANOMETER	1
43	GALVANOMETER TO VOLTMETER	1
44	CRO	1
45	DIGITAL MULTIMETER	2
46	DC REGULATED POWER SUPPLY	5
47	DC BATTERY	3
48	DC SUPPLY	
49	DIFFRACTION GRATING & GRATING	3
50	FLASHING AND QUENCHING APPARATUS	3
51	IONISATION POTENTIAL OF MERCURY KIT	2
52	JOKEY	4
53	MILIAMMETER	2
54	AMMETER	2
55	MICROAMMETER	2
56	METER SCALE	1
57	PN JUNCTION APPARATUS	3
58	PLANKS CONSTANT KIT	1

59	PLATINUM RESISTANCE APPARATUS	2
60	VERNIER CALLIPER	25
61	RESISTANCE COIL	4
62	RHEOSTAT	3
63	STOP WATCH	2
64	SCREW DRIVER SET	1
65	SPECTRO METER	
66	STEURARTGEIR APPARATUS	1
67	SODIUM LAMP TRANSFORMER	7
68	ULTRASONIC SPECTROMETER	1
69	SONOMETER WEIGHT BOX	9
70	PHYSICAL BALNCE BOX	1
71	TRAVELLING MICROSCOPE	2
72	ZENER DIODE APPARATUS	2
73	GRIFFTH CUM CARREY FOSTER BRIDGE	1
74	ANALOG MULTIMETER	2

List of equipments of chemistry lab

S.No.	Name of equipment	Quantity
1	Conductivity Meter	3
2	Chemical Balance	1
3	Muffle Furness	1
4	Redwood Viscometer	2
5	Dessicator	2
6	Abbe Refracto Meter	1
7	Pensky marten Appratus	1
8	Electrical Water Bath	2
9	Ph Meter	3
10	Oven	1
11	Burette stand	30
12	Tripod stand	30
13	Test tube stand	10
14	Pipette stand	2
15	Ostwald Viscometer	25
16	Stalagmometer	25

## • List of Experimental Setup in each Laboratory/ Workshop

- Computing Facilities:
- Internet Bandwidth: 32 MBPS
- Number and configuration of System: 140
- Total number of system connected by LAN: 140

- Total number of system connected by WAN: 02 Major software packages available:

S.N	Software
1.	Apache Tomcat, User interface for running JAVA
2.	Adobe Reader Version 9.1 for reading PDF files.
3.	Oracle Software
4.	Library Management Software
5.	Bar Code generating Software
6.	PRO Engineering Wildfire 5.0
7.	Mata Cad
8.	Auto Cad
9.	Share X, Screen Shot Tool
10.	Two Code Editing Application
11.	PhotoScape
12.	Hadoop and Matlab
13.	Google Chrome
14.	Core FTP
15.	Bit Torrent
16.	Kaspersky/DSS Killer/Avira Antivirus
17.	Internet Download Manager
18.	Mailbird Email Client Application Software
19.	Instant Messaging Application
20.	Note Making Application Software Google Keep
21.	Installed Web Browser called Microsoft Edge
22.	Purchased/Installed 2 Office suits, Libre Office, Google Docs

## • Special purpose facilities available

S.N	Software
1.	Wordpress
2.	Android Studio
3.	Internet Download Manager

#### • Innovation Cell:

1. Dr. Rakesh Dhiman Head

2. Er. Pardeep Kumar Member

3. Er. Rajesh Kumar Member

• Social Media Cell: Social media cell of following members is active on various social media platforms such as Facebook, Whatsapp, Instagram, Linkedin etc.

Er. Pardeep Kumar
 Ms. Payal Jaglan
 Head
 Member

• Compliance of the National Academic Depository (NAD), applicable to PGCM/ PGDM Institutions and University Departments: **Not Applicable** 

#### • List of facilities available

## • Games and Sports Facilities

Both Indoor and Outdoor Games/Sports Facilities includes

S.N	Facilities
1.	Cricket ( Ground and Kits Available)
2.	Football( Ground and Kits Available)
3.	Snookers
4.	Badminton
5.	Volleyball
6.	Chess

## • Extra-Curricular Activities

Lecture	Lectures with Industry partnership organised till Date in session 2018-19							
Sr.No	Date	Guest's Name Topic Place						
1	21.09.2018	Mr. Navdeep Vishnuvanshi(MD, Tech Mahindra)	60 Years of NASA'	Seminar Hall				
2	05.10.2018	Dr.A.S.Choudhary(Retired Professor, Management Dept., KUK)	How to become a Good Manager	Seminar Hall				
3	28.9.2018	Orion Edutech (Skill Development )	Pradhan Mantri Kaushal Vikas Yojna(PMKVV)	B-Block				
4	26.10.2018	Crosslink Consultanting(New Delhi)	Career Counselling & Language Skills	Seminar Hall				
5	28.01.2019	Mr. Rajesh Gupta (Former Head & GM Infosys, Washington)	IoT & Analytics	Seminar Hall				

Industry Visit organised till Date in session 2018-19

Sr.No	Date	Branch	Industry's Name	Place
1	02.11.2018	Civil	Brick Kiln	Kirmuch Kurukshetra
2	02.02.2019	Electrcal	Indo Asian Electric Pvt. Ltd.	Sonipat
3	02.02.2019	Mechanical	Rider Motors Pvt. Ltd	Sonipat

Extension Lectures organised till Date in session 2018-19

Sr.No Date	Guest's Name	Topic	Place

1	13.6.2018	Swami Hari Om Parivrajak(Vatsalya Vatika, Kurukshetra)	Education, Values & Life Mantra	Seminar Hall		
2	21.6.2018	Dr. Dinesh Dadhchi(Professor, Deptt. of English, KUK)	English and Communiction Skills	Seminar Hall		
3	22.6.2019	Sh. Vimal S. Mehta (Film Maker & Career Guide, New Delhi)	Careers after B.Tech	Seminar Hall		
4	26.7.2018	Sh. R. K. Deswal (Prof & Head Dept. of Philosophy, KUK)	Yoga, Meditation and Motivation	Seminar Hall		
5	28.7.2018	Prof. (Dr.) Pankaj Chandna(Professor, NIT Kurukshetra)	Computer Aided Engineering and Careers	Seminar Hall		
6	15.9.2018	Prof.Ganeshi Lal Ji(Governer of Odisha), Sh. Jagdish Mittal(President, Rashtriya Kavi Sangam), PadamShri Dr. Satish Kumar(Director NIT,Kurukshetra), Sh. Subash Sudha(MLA Thanesar)	"Digital Transformation: A New Industrial Revolution"	Multi Art Cultural Center(MACC), Kurukshetra		
7	12.1.2019	Dr. Neeta Khanna ( Registrar KUK)	Release of Half Yearly Newsletter	Seminar Hall		
8	29.01.2019	Sh. D.P.Vats(Member of Parliament, Rajya Sabha)	TERii Talk - V	Seminar Hall		

## Excursion Tours organised till Date in session 2018-19

Sr.No	Date	Branch	Visit Places	Place
1	23.09.2018	B.Tech	Rock Garden, Sukna Lake, Chattbir Zoo	Chandigarh
2	23.09.2018	B.Tech	Rock Garden, Sukna Lake, Chattbir Zoo	Chandigarh

## Self Organized Program Date in session 2018-19

Sr.No	Date	Branch	Program Name	Place
1	30.12.2018	B.Tech	Open Air Musical Event	Divine Mall, Kurukshetra
2	29.01.2019	B.Tech	Rozgar Mela	B-Block
3	02.02.2019	B.Tech	International Youth Cultural Exchange Program	Seminar Hall

- **Soft Skill Development Facilities:** Special Classes to the students through professional and latest equipmential aids.
- Teaching Learning Process
- Curricula and syllabus for each of the programmes as approved by the University/Board
- For each Post Graduate Courses give the following:
- Title of the Course: Master of Business Administration
- Curricula and Syllabi:

MBA PROGRAMME
The Master of Business Administration (MBA) is a Two Year Full Time Program. The course structure of the program is given hereunder w.e.f. 2015-16
FIRST YEAR
SEMESTER-I

Course	Course Title	Division of Marks			Duration of Exams
Code					
		Ext.	Int.	Total	
CP-101	Principles and Practices of Management	70	30	100	3 Hrs.
CP-102	Business Statistics	70	30	100	3 Hrs.
CP-103	Managerial Economics	70	30	100	3 Hrs.
CP-104	Business Environment	70	30	100	3 Hrs.
CP-105	Business Communication	70	30	100	3 Hrs.
CP-106	Financial Accounting	70	30	100	3 Hrs.
CP-107	Fundamentals of Computer and E-Commerce	70	30*	100	3 Hrs.
CP-108	Seminar		50*	50	

T= Theory, P= Practical

#### **DETAILED SYLLABUS FOLLOWS:**

<sup>\*</sup> The Internal Assessment must be based on practical related to the subject.

<sup>\*\*</sup>Topic for seminar relating to the contemporary business issues/practices comprising Indian ethos, values, current socio-economic and business context would be assigned by the teacher in advance. Evaluation of such seminar would be based on written assignment submitted and presentation given by the candidate

Max. Marks: 100

External: 70 Internal: 30

Time: 3 Hours

**Note:-** The examiner will set eight questions in all. Question No. 1, comprising of seven short answer typequestions, shall be compulsory. There would be one question in the form of case study. In all, the students would be required to attempt five questions. All questions will carry equal marks.

#### **Objectives**

The objectives of the paper are to familiarize the students with basic management concepts and behavioural processes in the organization.

#### **Course Contents**

Evolution of management thought: Systems and contingency approach for understanding organizations; Managia1 processes, functions, skills and roles in an organization; Social Responsibility of Business; Understanding and Managing individual behaviour; Personality; Perceptions; Attitudes; Learning; Decision-making; Management by Objectives; Understanding and managing group processes- interpersonal and group dynamics; Applications of Emotional Intelligence in organizations. Leadership and influence process; Work Motivation. Understanding arid Managing organizational system—Organizational design and structure, Work stress, Organizational Change and development; Conflict Management; Stress Management.

#### **Suggested Reading:**

- 1. Koontz, H. arid Wechrich, H.: Management, 10th ed., New York, McGraw Hill, 1995.
- 2. Luthans, F.: Organizational Behaviour, 7th ed., New York, McGraw Hill, 1995.
- 3. Robbins, S.P,: Management, 5th ed., New Jersey, Englewood Cliffs, Prentice Hall Inc., 19%.
- 4. Robbins, SP.: Organizational Behaviour, 7th ed., New Delhi, Prentice Hall of India, 1996.
- 5. Staw, B.M. Psychological Dimensions of Organizational Behaviour, hi ed., Englewood Cliffs, New Jersey, Prentice Nail Inc., 1995.
- 6. Stoner, 3 etc.: Management, 6th ed., New Delhi, Prentice Hall of India, 1996.
- 7. Singh, Dalip: Emotional Intelligence at Work, Response Books, Sage Publications, Dclii, 2001.

## M.B.A. Syllabus 11

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

**CP—102**: Business Statistics

Max. Marks: 100

External: 70 Internal: 30

Time: 3 Hours

Note:—The examiner will s eight questions in all. Question No.1, comprising of seven short answer type questions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objective** 

The objectives of this course is to make the students learn about the application of statistical tools

and techniques for decision- making.

**Course Contents** 

Univariate Analysis: An overview of central tendency, dispersion, aid skewness.

probability Theory; Classical, relative and subjective probability,

- Addition and multiplication probability models; Conditional probability and Baye's Theorem.

Probability Distributions: Binomial, Poisson, and normal distributions; Their characteristics and

applications. Sampling and sampling methods; Sampling and non-s Sampling erros's; Law of

Large Number and Central Limit Theorem; Sampling distributions and their characteristics.

Statistical Estimation and Testing; Point and interval estimation of population mean, proportion,

and variance; Statistical testing of hypothesis and errors; Large and small sampling tests—Z, t

and F tests.

Non—Parametric Tests: Chi-square tests; Sign tests; Wilcoxon Signed— Rank tests; Kruskal—

Wallis test.

Correlation and Regression Analysis: Two variables case.

Index Numbers: Meaning and types; Weighted aggregative indices-Laspeyre's and Paasch's

indices; Laspeyre's and Paasth's indices compared, indices of weighted average of (price and

quantity) relatives; Tests of adequacy Special problems—shifting the base; splicing, overlapping

index series; Uses and problems of Index number; Time Series Analysis; Trend Analysis.

Statistical Quality Control: Causes of variations in quality characteristics, Quality control charts,

- purpose and. logic; Constructing a control chart computing the control limits (X and R charts);

Process under control and out of control, Warning limits; Control charts for attributes -fraction defectives and number of defects Acceptance sampling.

#### **Suggested Readings:**

- 1. Hooda, R.P.: Statistics for Business and Economics, Macmillan, New Delhi.
- 2. Heinz; Kohler: Statistics for Business & Economics,. Harper Collins; New York.
- 3. Heinz, LW: Quantitative Approach to Managerial Decisions, Prentice Hall, NJ.
- 4. Lawrence, B. Morse: Statistics for Business & Economics, Harper Collins, NY.
- 5. Levin, Richard I and David S Rubin: Statistics for Management Prentice Hail, Delhi.
- 6. Watsnam Terry J. and Keith Parramor: Quantitative Methods in Finance international, Thompson Business Press, London.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

Max. Marks 100 External: 70 Internal: 30

Time: 3 Hours

Note:- The examiner will set eight questions in all Question No.1, comprising of seven short answer two questions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

**Objectives** 

The objectives of this course is to acquaint the students with concepts and techniques used in Micro— Economic Theory and to enable them to apply this knowledge in business decision-making. Emphasis is given to changes in the nature of business firms in the context of globalization.

**Course Contents** 

Nature and scope of Managerial Economics. Importance of Managerial decision—making; Marginal analysis; Objective of a finn, Demand function, Elasticity of demand and its significance in Managerial decision-making; Consumer equilibrium-utility and indifference curve approach; Price, income and substitution effects; Fundamentals of demand estimation and forecasting; Short-run and long-run production functions; Cost curves and economics of scale; Price and output determination under perfect competition, monopoly, monopolistic, competition, and oligopoly; Pricing strategies and tactics; National Income— alternative concepts aid measurement of National income; Inflation—types, measurement and control; Balance of Payments; Monetary and Fiscal Policies.

**Suggested Readings:** 

- 1) Peterson, Lewis, Managerial Economics, Prentice Hall of India, N. Delhi.
- 2) Salvatore, Managerial Economics in Global Economy; Thomson learning; Bombay.
- 3) EF. Brigham And J,L. Pappas, Managerial Economics, Dryden Press, illinois.
- 4) Dwivedi, D.N. Managerial Economics, Vikas Publishing House, New Delhi.
- 5) Mebta, P.L. Managerial Economics, Sultan Chand, New Delhi.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

**CP-104 Business Environment** 

Max. Marks: 100

External: 70 Internal: 30

Time: 3 hours

Note: — The examiner will set eight questions in all, Question No.1, comprising of seven short answer types questions, shall be compulsory. In all, the students would be required to attempt

five questions. All Questions will carry equal marks.

**Objectives** 

The primary objectives of this course are to acquaint the students emerging global trends in

business environment.

**Course Contents** 

Nature, components and determinants of business environment, dynamics of business

environment, key indicators; Risk in business environment, Assessing business environment —

country risk and political risk.

Current stale of business environment in India Economic reforms — Liberalisation, privatisation,

globalisation, industrial policy and industrialisation trends, public enterprise reforms and

disinvestment programmes; competitive environment; financial environment

Indi's current balance of payment position, globalisation trends, Trade reforms & trends, FIJI

poky & trends, India's share iii world economy.

Trends in global trade & investment; Nature & operations of multilateral economic institutions-

World Bank, WTO IMP and their impact on Indian business environment. Factors of global

competitiveness.

**Suggested Reading:** 

1) Daniel, John D and Radebangh, Lee H: Internatinal Business, 5th ed., New York, Addison Weley,

1989.

2) Charles W. Hill, International Business, fourth edition, Tata MCGraW Hill Publications Companies

3) AK. Sundaram J. Stemart Block: The International Business Environment PHI

The list of cases and specific references including recent articles will be announced in the class at

the time of lunching of the course.

Max. Marks: 100

External: 70 Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typeQuestion shall be compulsory. In all, the students w1d be required to attempt five question All Questions will carry equal marks.

**Objectives** 

The course is aimed at equipping the students with the necessary techniques and skills of commUfli0hl to inform others inspire them and enlist their activity and willing cooperation in the performance of their jobs.

**Course Contents** 

Importance and nature of business communication, Effective communication skills; Process of communication Oral and Non-Verbal communication, Barriers and gateways in communication and Do's and Don't of business writing, Commercial letters; Writing business and academic reports; Presentation of reports; Public speaking, listening and Negotiations; conducting and attending interview and meetings.

**Suggested Readings:** 

1. Petett & Lesikar: Business Communication.

2. Petett & Lesikar: Essential of Business Communication.

3. Bowman, Joel and Branchaw, Bernadine P.: "Business Communication: From Process to Product", 1987, Dryden Press, Chicago.

4. Hatch, Richard: "Communication in Business", 1977, Science Research Associates, Chicago.

- 5. Murphy, Herta A and Peck, Charrles E.: "Effective Business Communications", 2nd ed., 1976, Tata McGraw Hill, New Delhi.
- 6. Pearce, C Glenn etc.: "Business Communications Principles and Applications", 2nd ed., 1988, John Wiley, New York.
- 7. Treece, Maira, "Successful Business Communications", 3rd ed., 1987, Allyn and Bacon, Boston. The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

#### **CP—106:** Accounting for Managers

Max. Marks: 100 External 70 Internal :30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestion, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

#### **Objectives**

The basic purpose of this course is to develop an insight of postulates, principles and techniques of accounting and application of financial and accounting information for planning decision—making and control.

#### **Course Contents**

Financial Accounting - Meaning, scope and importance; Accounting concepts and conventions; Formation and importance of accounting Standards; Accounting process; Depreciation accounting and policy, Preparation of final accounts of non—corporate entities, Proforma of Balance Sheet of Joint—stock Companies, Cost-accounting: nature and scope of costing; Cost concepts and Classifications; Usefulness of Costing to Managers; Preparation of Cost-Sheet.

Management Accounting: Nature, scope and tools of Management Accounting; Management Accounting vs. Financial accounting; Financial analysis, Ratio analysis, Funds-Flow Statement, Cash-flow Statement Budgeting: Types of budgets and their preparation, Performance budgeting and Zero-base budgeting. Marginal costing: Break—even analysis. Decision involving alternative choices. Standard Costing: An Overview

#### **Suggested Readings:**

- 1. Anthony, RN. and Reece, J.S. Accounting Principles, 6th ed, Homewood, illinois, Richard D. irwin, 1995.
- 2. Bhattachaiya: 5.K. and Dearden J.: Accounting for Management, Text and Cases, New Delhi, Vikas, 1996.
- 3. Gupta, RI. and Raxnaswamy: Advanced Accountancy, Volume I & II, Sultan Chanc & Sons.
- 4. Hingorani, N.L. and Rairanathan, A.R.: Management Accounting, Sthed., New Delhi, Sultan Chand, 1992.
- 5. Jawahar La!: Cost Accounting, Vikas Publishing House, New Delhi.
- 6. Maheshwari, S.N.: Advanced Accounting, Vikas Publishing House, New Delhi.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

#### **CP-107:** Fundamentals of Computer and E-Commerce

Max. Marks: 100

External: 70

Practical Based Internal Assessment: 30

Time 3 Hours

**Note:** The Examiner will set the question paper in two parts encompassing the entire syllabus. Part A will comprise 10 short answer type questions of 5 marks each. Part B will comprise of 5 questions of 10 marks each. A student is required to attempt any eight questions from the part A and any 3 questions from part B.

**Objectives:** The objective of the course is to acquaint the students with computers and concepts of E—Commerce.

#### **Course Contents**

Computer fundamentals: An introduction; Elements of Computer system; Generations of Computers, Computer languages; Compiler, Interpreter and Assembler, Number system, Components of systems: - Input-Output devices, Types of Memory. An Introduction to Operating System, Hardware and software, Computer Network: Analog and Digital Signals, Band width, Network Topology, Network Applications. Introduction to MS-Office: - MS-Word, MS-Excel, MS-Power Point and MS-Access.

Introduction to E-Commerce. Benefits, **Impact** of E-Commerce. Classification E-Commerce, Application of E-Commerce Technology, of Business Models. Framework of E-Commerce., **Business** to Business, Business to Customer, Customer to Customer.

Electronic Payment Systems: Online Electronic Payment Systems, Prepaid and Post Paid Electronic Payment Systems. Inter-organizational commerce & intra—organizational commerce, EDI, value-added network, digital library.

#### **Suggested Readings:**

- I. Kienam: Managing Your E-Commerce Business, Prentice Hall of India, N. Delhi.
- 2. Kosiur: Understanding E—Commerce, Prentice Hall of India, N. Delhi.

- 3. Kalakota, Whinston, Frontiers of Electronic Commerce, Addison Wesley.
- 4. Schneider P. Grey, Perry T. James: E—Commerce, Thomson Learning, Bombay.
- 5. Shurety: E-business with Net Commerce (with CD), Addison Wesley.
- 6. Napier: Creating a Winning E-business, Vikas Publishing House, New Delhi.
- 7. Didar Singh: E-Commerce for Manager, Vikas Publishing House, New Delhi.
- 8. Whitely David: Electronic Commerce, TMH, N Delhi.
- 9. Electronic Commerce -Framework, technologies and Applications Bharat Bhasker TMH Publications.

The list of cases and specific references including recent articles will be announced in the class.

**CP-108: Seminar** 

Max. Marks 50



## **SEMESTER-II**

Paper Code	Title of Course	Total	Ext.	Int.	Hrs	Credits
MBA -201	Optimization Models for Business	100	70	30	5	4
	Decisions					
MBA -202	Business Research Methodology	100	70	30	5	4
MBA -203	Production and Operations Management	100	70	30	5	4
MBA -204	Marketing Management	100	70	30	5	4
MBA -205	Corporate Finance	100	70	30	5	4
MBA -206	Human Resource Management	100	70	30	5	4
MBA -207	Legal Environment	100	70	30	5	4
MBA -208	Comprehensive Viva-Voce	50	50	-	-	2
	Total Marks	750	-	-	-	30

**MBA-201: Optimization Models for Business Decisions** 

Max. Marks: 100

External: 70

Internal: 30

Time 3 Hours

**Note:** The examiner will set nine questions in all. Question No. 1, comprising of 5 shortanswer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5 questions.

**Objectives:** The objective of this course is to develop an understanding of basic managementscience techniques and their role in managerial decision—making.

#### **Course Contents:**

Management Science - Basic concepts and its role in decision- making. Linear programming, meaning, scope & assumptions. Formulation of linear programming problem and its solution by graphical and Simplex methods.

THEORY OF GAMES: Introduction – Minimax (maximin) – Criterion and optimal strategy

Solution of games with saddle points – Rectangular games without saddle points – 2 X 2
 games – dominance principle – m X 2 & 2 X n games.

INVENTORY: Introduction – Single item – Deterministic models – Purchase inventory models with one price break and multiple price breaks – Stochastic models – Instantaneous production. Instantaneous demand and continuous demand and no set up cost.

Sensitivity analysis. Integer programming, goal programming, and non-linear Programming. Transportation and Assignment models including trans-shipment and routing problems

Application of Inventory management techniques in business; Role and importance of PERT/CPM in business decision making; Decision theory and decision trees. SIMULATION: simulation models – phases of simulation– applications of simulation – Inventory and Queuing problems – Advantages and Disadvantages. WAITING LINES: Introduction – Single Channel – Poisson arrivals – exponential service times, Multichannel –

Poisson arrivals – exponential service times with infinite population single channel Poisson arrivals.

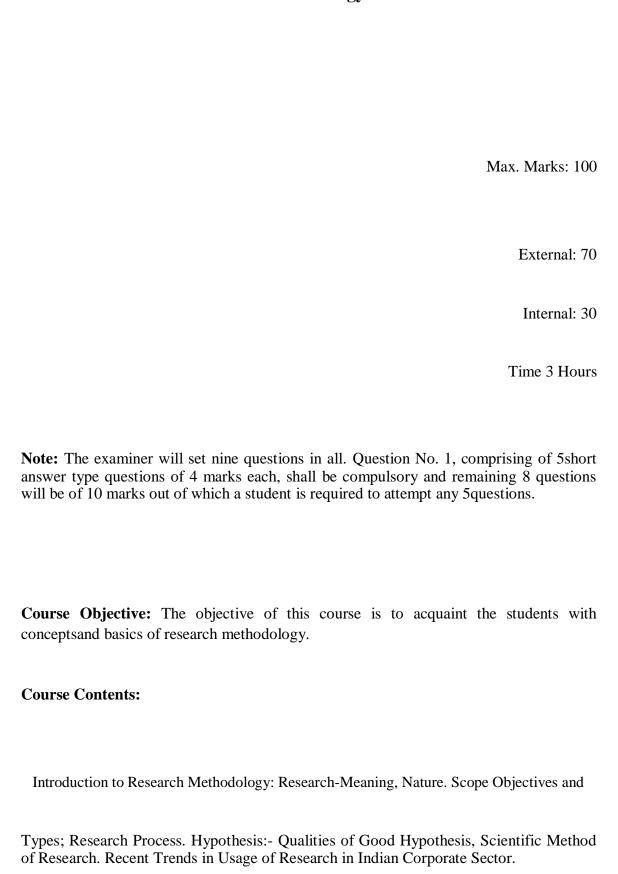
#### **Suggested Reading:**

- 7. Budnik, Frank S. Dennis Meleavey, Reichard : Principles of Operations Research, 2<sup>nd</sup> ed., Richard Irwin, Illinois All India Traveller Bookseller, New Delhi, 1995.
- 8. Gould, F.J. etc.: Introduction to Management Science, Englwood Cliffs, New Jersey, Prentice Hall Inc., 1993.
- 9. Mathur, K and Solow, D.: Management Science, Englewood, New Jersey, Prentice Hall Inc. 1994.
- Narang A.S.: Linear Programming Decision-Making. New Delhi, Sultan Chand, 1995.
- 11. Sharma, J.K.: Operations Research: Theory and Applications, New Delhi, Macmillian India Ltd., 1997.

- 12. Taha, H.A.: Operations Research An Introduction, New York, Macmillan, 1989.
- 13. Theirouf, R.J. and Klekamp, RC.: Decision-Making Through Operations Research, New York, John Wiley, 1989.
- 14. N.D. Vohra: Quantitative Techniques in Management, Tata McGraw Hill, 2001.

The list of cases and specific references including recent articles will be announced in the class.

## **MBA-202: Business Research Methodology**



Research Design- Meaning and Need of a Research Design, Exploratory, Descriptive, Experimental Research Design, Qualitative Research, Observation Studies, Surveys, Experiments & Test Markets.

Sources of Data- Nature and Types, Sampling Techniques-Nature and Types, Sampling Errors. Scaling & Measurement Techniques

Data Editing, Coding and Tabulation, Analysis & Interpretation of Data Business Research Reports-Format, Criterion for Judgment of good research report

Advance Techniques of Data Analysis: Factor analysis. Conjoint Analysis, Cluster Analysis & Multidimensional Scaling. Use of SPSS & Other Software's in Research. Use of Statistical Tools such as Correlation, Regression.

#### **Suggested Readings:**

- 6) Malhotra, Naresh K.: Marketing Research an Applied Orientation, 5<sup>th</sup> edition, Pearson.
- 7) Cooper, Business Research Methods, 11 th edn McGraw Hill Education.
- 8) Boyd & Westfall: Marketing Research, Prentice Hall.
- 9) Kothari, C. R.: Research Methodology, New Age International Publishers.
- 10) Shekharan& Uma: Business Research Methods-A Skill- Building Approach, 7<sup>th</sup> ed., New York, John Willy, 2002.
- 11) Creswell, John W.: Research Design-Qualitative & Quantitative Methods, New York, John Willy, 2002

12) Sandhi and Chawla: Research Methodology-Concepts and cases, 1st Edition, Vikas
13) Nargundkar, Marketing Research - Text and Cases 3 rd edn, McGraw Hill Education
The list of cases and specific references including recent articles will be announced in the class.

## **MBA -203: Production and Operations Management**

Max. Marks: 100

External: 70

Internal: 30

Time 3 Hours

**Note:** The examiner will set nine questions in all. Question No. 1, comprising of 5short answer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5questions.

**Objective:** The Course is designed to acquaint the students with decision making in :Planning, scheduling and control of Production and Operation functions in both manufacturing and services; Productivity improvement in operation through layout engineering and quality management etc.: Effective and effective and efficient flow, replenishment and control of materials with reference to both manufacturing and services organization.

#### **Course Contents:**

Operations as a source of competitive advantage; Trade-offs and combinations, Process Analysis, Difference between Manufacturing and Service Operations Product Process Matrix, capacity planning- Process Selection and Facility layout: Designing product and process layouts and line balancing, Forecasting and its types, Inventory Management: Deterministic demand model—EOQ-

Continuous and Periodic review Inventory models; Supply chain management; Lean vs Agile supply chains; Aggregate Production Planning; Master Production Schedule and MRP, Project Management, Quality management and Sustainable Operations Management

## **Suggested Readings:**

- 4) Admn, E. E. & Ebert, RJ.: Production and Operations Management, 6<sup>th</sup> ed., New Delhi, Prentice Hall of India 1995.
- 5) Chary, S.N.: Production and Operations Management, New Delhi, Tata McGraw Hill, 2ndEdition.

- 8. Ashwathapa: Production and Operations Management, Himalaya Publishing House.
- 9. Dobler, Conald W and Lee, Lamar :Pruchasing and Materials Management, New York, McGraw Hill, 1984.
- 10. Chunawalla &Patel : Production and Operations Management, Himalaya Publishing House, Nair: Production and Operations Management, TMH
- 7. Chary, Production and Operations Management 5 th edn, McGraw Hill Education
- 8. Stevenson, Operations Management, 12 edn McGraw Hill Education

The list of cases and specific references including recent articles will be announced in the class.

# **MBA-204: Marketing Management**

Max. Marks: 100

External: 70

Internal: 30

Time 3 Hours

**Note:** The examiner will set nine questions in all. Question No. 1, comprising of 5short answer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5questions.

**Objectives:** The purpose of this course is to develop an understanding of the underlyingconcepts, strategies and issues involved in the marketing of products and services.

# **Course Contents:**

Marketing: Meaning, Nature, Scope, Evolution and Importance. Modern concept of marketing. Holistic Marketing, Ethics in marketing. Role of Information Technology in marketing. The dynamic marketing Environment. Marketing Mix and STP (Segmentation, Targeting and Positioning) Marketing Information System: Concept and Components of a marketing information system. Marketing Research: meaning, scope and techniques. Consumer Behaviour: meaning and importance, buying motives, buying process, factors influencing consumer behaviour. Product decisions: concept, classification, product -line decisions. New product development process, product life cycle, Packaging and Branding decisions. Pricing Concepts: objectives, policies and procedures, factors affecting pricing, pricing strategy and product life cycle, price

changes and organizational strategies, product line pricing. Integrated Marketing Communication: Promotion-Mix; Advertising, sales promotion, public relations, personal selling and direct marketing. Channels of distributions: Concept, types and factors affecting channel selection. Recent developments in marketing.

# **Suggested Readings:**

1 Michael J. Etzel : Marketing Concepts and Cases, Tata

Bruce J. Walker McGraw-Hill Publishing Company Limited.

William J. Stanton

Ajay Pandit

2 Michael R.Czinkota :Marketing Management, Thomson, South

Masaaki Kotabe Western. 3 Philip Kotler : Marketing Management, Pearson Prentice-Hall. Kevin lane Keller DhruGreqal : Marketing, Tata McGraw Hill Publishing 4 Michael Levy Company Limited. 5. V.S. Ramaswamy : Marketing Management, Macmillan Publisher S. NamaKumari India Ltd.

6. Rajan Sexena : Marketing Management, Tata McGraw Hill

Publishing Company Limited.

7. Nargundkar, Marketing Research - Text and Cases 3 rd edn,

McGraw Hill Education

The list of cases and specific references including recent articles will be announced in the class

**MBA-205: Corporate Finance** 

Max. Marks: 100

External: 70

Internal: 30

Time 3 Hours

**Note:** The examiner will set nine questions in all. Question No. 1, comprising of 5short answer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5questions.

**Objectives:** The purpose of this course is to acquaint the students with the broadframework of financial decision—making in a business unit.

# **Course Contents**

Introduction to financial management Objectives of financial management; Time value of money, sources of finance, Investment decisions: Importance, Difficulties determining cash flows, methods of capital budgeting Risk analysis: Cost of capital; Concept and

importance, Computations of cost of various sources of finance; Weighted Average Cost of Capital; Capital Structure decisions; Theories of capital structure, Factors determining capital structure. Optimum capital structure; Management of working capital - Cash, Receivables and Inventory Management, Internal Financing and Dividend Policy. Financial Modelling, essentials and financial modeling framework.

# **Suggested Readings:**

- 1) Hamton, John; Financial Decision-Making, Englewood Cliffs, New Jersey, Prentice Hall Inc., 1997.
- 2) Khan, M.Y. and Jam, P.K.: Financial Management, McGraw Hill, 2001.

- 1) Pandey, IM.: Financial Management, Vikas Publication House, 2000.
- 2) Van Home, James C.: Financial Management and Policy, 10th ed., New Delhi, Prentice Hall of India, 1997.
- 3) Winger, Bemard and Mohan, Nancy: Principles of Financial Management, New York, Macmillan Publishing
- 4) Company, 1991.
- 5) Kishore, Ravi M.: Financial Management, Taxmann Publishers, New Delhi.
- 6) Chandra, Financial Management 9th edn McGraw Hill Education.
- 7) Ross, Corporate Finance 11 th edn McGraw Hill Education

The list of cases and specific references including recent articles will be announced in the class.

<b>MBA-206</b> :	<b>Human Resource Management</b>

Max. Marks: 100
External: 70
Internal: 30
Time 3 Hours
<b>Note:</b> The examiner will set nine questions in all. Question No. 1, comprising of 5short answer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5questions.
<b>Objective:</b> The content of the course aims at increasing acquaintance of the students withbasic as well as advanced HR concepts. In addition to this the course attempts to raise their level of understanding with respect to people dynamics in modern organisations and their subsequent significant impact on Organisational effectiveness and efficiency.
Course Contents:
Human Resource Management- Concept, Scope and Functions of HRM; Evolution of

HRM: HR Philosophy, HR Policies.; Theoretical Perspectives; HR Models; HR Challenges in a changing business environment. Human Resource Planning and Forecasting; Job Analysis; Recruitment, Selection and Retention of human resources; Placement, Induction Socialisation; Learning, Training and and Development, Performance Appraisal, Performance Management and Potential Appraisal; Career Management; Job Evaluation; Compensation Management, Rewards and Recognition

Programs; Employee Separations Practices; Industrial Relations and Trade Unions;



and Health; HR Ethics;

Recent advance concepts and Contemporary Trends in HRM: Employee Engagement; Social Media and HR; HR Analytics; Competency Based HRM; Six Sigma in HR etc.

# Suggesting Readings

- 1. Dessler&Varakkey, Human Resource Management, Pearson Education
- 2. K.Aswathapa, Human Resource Management: Text and Cases, 8th Ed., Tata McGraw Hill, New Delhi.
- 3. SeemaSanghi , Human Resource Management, Macmillan India Publication. 2012
- 4. Aggarwala, Tanuja ,Strategic HRM, Oxford University Press.2010
- 5. Armstrong, Michael Handbook of HRM Practice, Kogan Page,
- 6. P. Jyothi, Human Resource Management, Oxford University Press. 2012
- 7. Lepak&Gowan, Human Resource Management, Pearson Education. 2011
- 8. V.S.P.Rao, Human Resource Management, Himalaya Publication House.
- 9. Ivancevich, Human Resource Management 11 th edn McGraw Hill Education

**MBA-207: Legal Environment** 

Max. Marks: 100

External: 70

Internal: 30

Time 3 Hours

**Note:** The examiner will set nine questions in all. Question No. 1, comprising of 5short answer type questions of 4 marks each, shall be compulsory and remaining 8 questions will be of 10 marks out of which a student is required to attempt any 5questions.

# **Course Contents:**

Legal Aspect of Business: Introduction to Business Laws- Business Management and Jurisprudence; structure of the Indian Legal Systems: sources of Law; Manager and Legal System; Fundamentals of contract laws-Formation of Contracts; Principles of Contract Laws-Legality of Object Consideration; Performance of contract-Discharge of contract-breach of contract-Quasi contracts-Contract Management-Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity-Sales of Goods- Principles of Sales of Goods- Transfer of Ownership& Property-Performance of contract-Consumer Protection Laws-Law relating to Business Organizations-Partnership

Trusts-	Company	form (	of organization-	Protecting th	he property	of Business-C	opyright
Tradem	ark, secret	, Geog	raphical Indicati	ons-Alternate	e Dispute res	olutions	

# **Suggested Readings:**

- 1. Pathak-Legal Aspects of Business 6th edn McGraw Hill Education
- 2. Tulsian, Business Law 3rd edn McGraw Hill Education

# MBA-208: Comprehensive Viva-Voce

Max. Marks: 50

Course	Course Title		ion of I	Marks	Duration of Exams
Code					
		Ext.	Int.	Total	
CP-301	Business Policy and Strategic Management	70	30	100	3Hrs.
CP-302	Business Legislation	70	30	100	3Hrs.
CP-303	Summer Training Report	50	50*	100	

(Plus 6 Optional Papers by selection 3 Papers each from two areas)

# **SEMESTER-IV**

Course	Course Title	Divis	ion of	Marks	Duration	of
Code					Exams	
		Ext.	Int.	Total		
CP-401	Entrepreneurship Development	70	30	100	3Hrs.	
CP-402	Research Project	100		100		
CP-402	Research Floject	100		100		
CP-403	Comprehensive Viva Voce (including viva-	50	-	50		
	voce on research project)					

(Plus 6 Optional Papers by selecting 3 papers each from two areas)

List of Optional Pipers of various specializations

<sup>\*</sup>Internal evaluation will be based on seminar presentation.

# **FINANCE**

# **3rd Semester**

FM—301	Financial Decisions Analysis
FM—302	Foreign Exchange Management
FM—303	International Accounting
FM—304	Corporate Taxation
FM—305	Working Capital Management
FM—306	Management of Financial Institutions
FM—307	Security Analysis and Investment Management

# 4th Semester

4th Semester	
FM-401	Principles of Insurance and Banking
FM-402	International Financial Management
FM-403	Management Control System
FM-404	Financial Derivatives
FM-405	Management of Financial Services
FM-406	Project Management
FM-407	Portfolio Management
MARKETIN G	
3rd Semester	
MM-301	Advertising Management
MM-302	Sales Management
MM-303	Product and Brand Management
MM-304	Consumer Behaviour
MM-305	Distribution and Logistics Management
MM-306	Retailing
MM-307	Marketing Research
4th Semester	
MM-401	International Marketing
MM-402	Industrial Marketing
MM-403	Service Marketing
MM-404	Direct Marketing
MM-405	Rural and Agricultural Marketing
MM-406	Marketing Communication Strategy
HRM	
3rd Semester	
HRM-301	Management of industrial Relations
HRM-302	Management of Comparative Industrial Relations
HRM-303	Manpower Development for Technological Change

HRM-304	Compensation Management
HRM-305	Managing Interpersonal and Group Processes
HRM-306	Human Resource Planning and Development
4th Semester	
HRM-401	Counselling Skills for Managers
HRM-402	Legal Framework Governing Human Relations
HRM-403	Management Training and Development
HRM-404	Organisational Change and Intervention Strategies
HRM-405	Human Resource Management : Strategies and Systems

Global Human Resource Management

HRM-406

# **CP-301: Business Policy and Strategic Management**

Max. Marks: 100

External: 70

Internal: 30

Time: 3Hours

**Note :-**The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. There would be one question in the form of case study. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

## **Objectives**

The course aims at imparting knowledge of formulation. implementation and evaluation of Business Strategies.

#### **Course Contents**

An Introduction to business policy — Nature, Objective and importance of business policy; An overview of strategic management; Strategic decision making; Process of strategic 4ecision making.

Types of planning systems - corporate planning, strategic planning and long range planning; Strategy Formulation, Company's mission, purpose and objectives; Corporate strategy - concept, significance and objectives; types of strategies; Environmental and organizational appraisal (Internal & external) techniques of business environment analysis. Strategic alternatives and choice; Business ethics and corporate strategy Concept of value chair and competitive advantage.

Strategy implementation - Designing organisational structure and activating strategies; Matching structure and activating strategy, Structural, Behavioural and Functional implementation. concept of synergy. Strategy Evaluation - Strategic evaluation and Control, Strategic and Operational Control; techniques of evaluation and control, Role of organisational system in evaluation.

#### **Suggested Readings:**

(b) Jauch & Glueek: Business Policy and

Strategic Management.

(c) Thampson LA. and Stickland A.J.: Strategic

Management - Concept and cases.

- (d) Michael Potter: Competitive Advantage of Nations.
- (e) Azhar Kazmi: Business Policy and Strategic Management.
- (f) Kennth, A. Andrews: Concepts of corporate Strategy.

(g) Melvin J. Stanford: Management Policy(h) John A. Pearce Hand R.B. Robinson StrategicManagement Strategy Formulation and Implementation.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

**CP-302: Business Legislation** 

Max. Marks: 100

External: 70

Internal:30

Tirne:3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, comprising of sewn short answer typequestions shall be compulsory. In all, the students would be required to attempt five

answer typequestions shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The course is designed to assist the students in understanding basic laws affecting the operations

of a business enterprise.

**Course Contents** 

The Indian Contract Act, 1872: Essentials of a Valid Contract, Void Agreements Performance of

Contracts, Breach of Contract and its Remedies, Quasi-Contracts, The Sale of Goods Act, 1930:

Formation of a Contract, Rights of an Unpaid Seller; The Negotiable Instrument Act, 1881:

Nature and Types, Negotiation and Assignment, Holder-in-Due Course, Dishonour and Discharge

of a Negotiable Instrument, Arbitration; The Companies Act, 1956: Nature and types of

Companies, Formation, Memorandum and Articles of Association, prospectus Allotment of

Shares, Share and Share Capital, Membership, Borrowing Powers, Management and Meetings,

Accounts and Audit, Prevention of Oppression and Mismanagement, Winding up.; An Overview

of Consumer Protection Act and Cyber Laws.

**Suggested Readings:** 

1. Avtar Singh: Company Law, 11th ed., Lucknow,

Eastern, 1996.

2. Khergamwala, JS: The Negotiable Instrument Acts, Bombay, N.M. Tripathi, 1980.

3. Ramaiya, A.: Guide to the Companies Act, Nagpur, Wadhwa, 1992.

- 4. Shah, S M.: Lectures on Company Law, Bombay, N.M. Tripathi, 1990.
- $5.\,\mathrm{Tuteja},\,\mathrm{S}\,\,\mathrm{K}:\mathrm{Business}\,\,\mathrm{Law}$  for Managers, New Delhi, Sultan Chand, 1998 The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

# **CP-303: Summer Training Project**

Max. Marks: 50

At the end of second semester, all students will have to undergo Summer training of 6-8 weeks with industrial, business or service organization.

#### **CP – 401 : ENTREPRENEURSHIP DEVELOPMENT**

Max Marks, 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

## **Objectives**

The objective of this course is to expose the students to the growth of entrepreneurship in developing countries with special reference to India.

#### **Course Contents**

Significance of Entrepreneur in Economic Development; Economic, Social and psychological need for entrepreneurship; Characteristics, qualities and pre – requisites of entrepreneur; The function of the entrepreneur in economic development of a Country; Methods and procedures to start and expand one's own business; Life cycle of new business and relationship with large enterprises; Achievement motivation; Environmental Factors affecting success of a new business; Reasons for the failure and visible problems for business.

Feasibility Study – Preparation of Feasibility Reports: Selection of factory location, Demand Analysis, Market potential measurement, Capital saving and project costing, Working capital requirements, profit and tax planning; Economic, Technical, Financial and Managerial Feasibility of Project.

Govt. support to new enterprise; Incentives; source of Finance; Role of Govt. and Promotional agencies in entrepreneurship development.

Enterpreneurship Development Programmes; Role of various institutions in developing entrepreneurship in India (A brief description only).

# **Suggested Reading:**

- 1. Cliffton, Davis S and Fyfie, David E.: "Project Feasibility Analysis". 1977 John Wiley, New York.
- 2. Desai, A.N.: "Entrepreneur & Environment". 1990. Ashish, New Delhi.

- 3. Drucker, Peter: "Innovation and Enterpreneurship", 1985 Heinemann, London.
- 4. Jain Rajiv.: "Planning a Small Scale Industry: A Guide to Entrepreneurs". 1984. S.S. Books, Delhi.
- 5. Kumar, S.A.: "Entrepreneurship in Small Industry". 1990, Discovery, New Delhi.
- 6. McClelland, DC and Winter, WG.: "Motivating Econimic Achievement". 1969. Free Press, New York.
- 7. Pareek, Udai and Venkateswara Rao, T.: "Developing Enterpreneurship A Handbook on Learning Systems", 1978, Learning Systems, Delhi.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

# **CP – 402 Research Project**

Max. Marks: 100

The final project will be evaluated at the end of the fourth semester by the external examiner. This would be equivalent to the marks of the one paper.

**CP – 403 Comprehensive Viva – Voce** 

Max. Marks: 50

#### LIST OF OPTIONAL PAPERS OF VARIOUS SPECILISATIONS

#### **FINANCE**

# FM—301 Financial Decisions Analysis

Max. Marks: 100

External: 70

Internal:30

Time:3 Hours

**Note :-.**The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. There would be one question in form of case study. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives**

The basic objective of this course is to impart an intensive, knowledge about the use of quantitative techniques in specified financial decision—making areas.

#### **Course Contents**

Application of Linear Programming; Goal Programming; Regression analysis and Simulation Technique in Financial Decisions Making Areas; Corporate Debt Capacity Management Decisions; Business Failure and Reorganisation—Application of Multiple Discriminant analysis; Decision Tree Analysis; Capital Expenditure Decision Under Conditions of Risk and Uncertainly; Cost-Volume-Profit Analysis under conditions of Uncertainly; Sequencing of Decisions; Replacement Decisions; Mergers and Acquisitions; Takeover code; Dividend Valuation Model; Determination of the Exchange ratio; Legal and Procedural aspects of Merger Decision; Estimation and Projection of Working Capital Decisions,

# **Suggested Readings:**

1Bierman, Harold. Lease Vs.: Buy Decision. Englewood Cliffs, New Jersey, Prentice Hall Ins., 1982.

- 1. Fogler, H and Ganpathy : Financial Econometrics Englewood Cliffs, New Jersey, Prentice Hall Inc., 1982.
- 2. Ievy, H. and Sarnat H. Capital Investment and Financial Decision, Englewood Cliffs New Jersey, Prentice Hall Inc., 1982.
- 3. Van Home, James C. : Financial Management and Policy, Englewood Cliffs, New Jersey. Prentice Hall of India, i990
- 4. Sapirio, Edverd, Financial Decision Analysis.

The List of cases and specific references including recent articles will be announced in the class at the time of announced of the course.

FM – 302 : Foreign Exchange Management

Max. Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :—** The examiner will set eight questions in all. Question No.1, comprising of seven short answertype questions, shall be compulsory hi all, the students would be required 10 attempt five

answertype questions, snail be compulsory in an, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

To acquaint the students with the mechanism of the foreign exchange markets, measurement of

the foreign exchange exposure, and hedging against exposure risk.

**Course Contents** 

Types of Foreign Exchange Markets and Transactions, Quoting Foreign Exchange Rates, Spread,

Official and Free Market Rates, Cross Currency Rates, Forward Rates, Quoting Forward Rates;

Organisation of the foreign Exchange Markets; Currency Futures; Currency Options; Currency

Swaps; Corporate Exposure management: Foreign Exchange Risk, Alternative Strategies for

Exposure Management, Exposure Management Techniques, Organisation of the Exposure

Management Function; Parameters aid constraints on Exposure Management: Forecasting

Exchange Rates: Economic Fundamentals, Financial and Socio-Political Factors, Technical

Analysis; Tax Treatment of Foreign Exchange Gains and Losses.

**Suggested Readings:** 

I Sharan: International Financial Management, Prentice Hall of India, N. Delhi.

1. Shapiro: Multinational Financial Management, Prentice Hall of India, N. Delhi.

2. Paul Einzip: A Textbook on Foreign Exchange.

3. Maurice D. Levi: International Finance, McGraw Hall, N.Y.

4. A. Buckley: Multinational Financial, Prentice Hall of India, New Delhi.

5. Paul Roth: Mastering Foreign Exchange and Money Markets, Pitman, London.

The list of cases and specific reference including recent articles will be announced in the class at

the time of launching of the course.

FM—303: International Accounting

Max. Marks: 100

External; 70

Internal: 30

Time: 3 Hours

**Note:-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory In all, the students would be required to attempt five

questions. All questions will carry equal marks.

**Objectives** 

The objective of this course is to acquaint the students with the accounting needs of international financial Markets and to analysis the accounting measurement and reporting issues unique to

multinational business transactions

**Course Contents** 

International dimensions of accounting; conceptual development and comparative development

patterns; foreign currency translation; international audit environment international accounting

standards; concept and mechanism of setting international standards disclosure requirements of

international accounting standards. Managing international information systems; international

perspective on inflation accounting; international dimensions of financial reporting;

harmonization of accounting practices. Analyzing foreign financial statements; accounting for

environmental protection measures.

Transfer pricing and international accounting: performance evaluation; foreign exchange risk

management

**Suggested Readings:** 

1. Arpon, Jeffrey S and Radebaugh, Lee H.: International Accounting and Multinational

Enterprises, New York, John Wiley, 1985.

2. Cboi, Frederick D S and Mueller Gerhard G.: International Accounting. Englewood Cliffs,

New Jersey, Prentice Hall Inc., J9g4.

3. Evans, Thomas G.: International Accounting & Reporting London. MacMillan, 1985.

4. Gray, Si.: International Accounting and Transnational Decisions, London, Butterworth, 193.

5. Holzer, H Peter: International Accounting, New York, Harper& Row, 1984.

- 6. Prodhan, Bimal.: Multinational Accounting, London, Croom-HeIm, 1986.
- 7. Rathore, Shirin.: International Accounting, Englewood Cliffs, New Jersey, Prentice Hail Inc., 1996.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

FM—304: Corporate Taxation

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note: -** The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

**Objectives** 

The objective of the course is to acquaint the participant with the implications of tax structure and corporate tax Planning in operational as well as strategic terms.

**Course Contents** 

Basic Concepts of Income Tax; Residential status of a Company Computation of Income under Different Heads of Income, Set off and Carry forward of Losses, Deductions and Exemptions; Additional Tax on Undistributed Profits; Companies Profit Surtax Act; Computation of Tax Liability; Meaning and Scope of Tax Planning and Location of Undertaking, Tax Planning regarding Dividends Policy, Inter Corporate Dividends and Transfers; Tax Considerations in Respect of Specific Managerial Decision like Make of &my, Own or Lease, Clone or Continue, Sale in Domestic Markets or Exports; Replacements aid Capital Budgeting Decisions, etc; Tax Planning in respect of Managerial Remuneration.

**Suggested Readings:** 

1. Ahuja, G.K. & Gupta Ravi : Systematic Approach to Income Tax, Allahabad, Bharat Law House, 1999.

- 2. lyengar, A C.: Sampat Law of Income Tax, Allahabad, Bharat House, 1981.
- 3. Kanga, 3 B and Palkhivala, N A.: Income Tax Bombay, Vol. 1-3, N.M. Tripathi.
- 4. Ranina, HP.: Corporate Taxation: A Handbook 2nd New Delhi, Onental Law I-louse, 1985
- 5. Singhania, V K.: Direct Taxes: Law and PractIce, Delhi, Taxman, 1991.
- 6. Srinivas, E A.: Handbook of Corporate Tax Planning, New Delhi, Tata McGraw Hill, 1986.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course				

FM – 305: Working Capital Management.

Max Marks: 100

External:70

Internal: 30

Time: 3 Hours

**Note :**—The examiner will set eight questions in all. Question No.1, comprising of seven short answertype questions, shall be compulsory. In all, the students would be required to attempt five questions. All uestions will carry equal marks.

**Objectives** 

The objective of the course is to acquaint the students with the importance of the working capital and the techniques used for effective working capital management.

**Course Contents** 

Concept of Working Capital Management, Importance of Working Capital, Kinds of Working Capital, Factors Determining Working Capital, Estimating Working Capital Requirements; Management of Cash -Motives for Holding Cash and marketable securities; Cash System, Managing the Cash Flows. Tupes of Collection Systems. Cash Concentration Strategies, Disbursement tools, Investment in Marketable Securities; Forecasting Cash Flows; Managing Corporate Liquidity and Financial Flexibility; Measures of Liquidity, Determining the Optimum Level of Cash Balances – Baumol Model, Beranek Model, Miller— Or Model, Stone Model; Receivable Management- Determining the appropriate Receivable Policy, Marginal Analysis, Credit Analysis and Decision, Heuristic Approach, Discrminant Analysis, Sequential Decision of analysis, Inventory Management-kinds of Inventories, Benefits and Costs of Holding Inventories, Inventory Management and Valuation. Inventory Control Models, Short-term financing; Programming Working Capital Management; Integrating Working Capital and Capital Investment Processes.

**Suggested Readings:** 

1. Bhalla, IVK,: Working Capital Management, Text and Cases, 4th ed. Delhi, Anmol, 2001.

2. Hampton J. J. and C. L: Wagner Working Capital Management, John Wiley & Sons, 1989.

- 3. Mannes, T.S. and J.T. Zietlow: Short-tens Financial' Management, West Pub. Co., 1993.
- 4. Scherr, F.C. Modern Working Capital Management, Prentice Hall, 1989.
- 5. Smith, Keith V. and G. W. Gallinger: Readings on Short-term Financial Management 3rd ed., West Pub. Co., 1988.

The List of cases and specific references including recent articles will be announced in the class at the tune of launching of the course.

FM-306: Management of Financial Institutions

Max, Marks 100

External: 70

Internal: 30

Time:3 Hours

**Note:-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestion, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will Carry equal marks.

Objectives

The objective of this course is to discuss the specific financial management problems of financial

institutions including a detailed study of the working of the leading financial institutions in India.

**Course Contents:-**

The Nature and Role of Financial System; Evaluating Risks and Returns of Assets and Liabilities

of Financial Institutions; Interest Rite Analysis; Interest Rates in the Financial System; Yield

Curve; Risk and Inflation; Provisions of RBI's Operations; Credit and Monetary Planning;

Insurance Companies; Thrift institutions Capital Adequacy and Capital Planning; Strategy of

Growth; Problems of Time and Cost Over Runs; Financial

Planning of Financial Institutions; Financial Goals and Performa Statements Development Banks;

Role of Development Banks in Industrial Financing in India; Objectives and Functions of

Different Financial Institutions in India Like IFCI, ICICI, IDBI, UTI, LIC, Mutual Funds,

international Aspects of Financial Institutions.

**Suggested Readings:** 

1. Rose, Peter S. And Fraser, Donald R.: Financial Institutions. Ontario, Irwin Dorsey. 1985

2. Vij Madhu.: Management of Financial Institutions in India, New Delhi. Anmol, 1991.

3. Yeager, Fred C. and Seitz, Nail E.: Financial Institution Management: Test and Cases. 3rd ed., Englewood Cliffs, New Jersey, Prentice Hall Inc., 1989.

4. Bhole L.M.: Management of Financial Institutions. Tata McGraw Hill, 2001.

5. Khan MY. Indian Financial System; Tata McGraw Hill,2000.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

FM-307: Security Analysis and Investment Management

Max. Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The objective of this course is to impart knowledge to students regarding the theory and practice

of Security Analysis and Portfolio Management.

**Course Contents** 

Investment-return and risk; Operations of Indian Stock Market; New Issue Market; Listing of

Securities, OTCEI. Cost of investing in securities; mechanics of investing; markets and brokers;

investment companies; market indices and return.

Objectives of security analysis; investment alternatives, valuation theories of fixed and variable

income securities, government securities; non - security forms of investment; real estate

investment; investment instruments of the money market; Fundamental and technical approach,

efficient market theory, recent developments in the Indian stock market.

**Suggested Readings:** 

1. Pandian: Security Analysis and Portfolio Management, Vikas Publishing House, New Delhi.

2. Raman Investment; Principles and Tehcniques, Vikas Publishing House, New Delhi.

3. Fischer, Donald E. And Jordan, Ronald J.: Security Analysis and Portfolio

Management. Prentice Hall of

4. India, New Delhi.

5. Fuller, Russell J. and Farrell, James L: Modern Investment and Security Analysis.

New York, McGraw Hill.

6. Alexander, Gorden J. and Bailey, Jeffery V.: Investment Analysis and Portfolio

Management, Dryden Press, Thomson Learning, Bmbay.

7. Machiraju, H.R.: Indian Financial System. Vikas Publishing House, New Delhi.

FM-401 Principles of Insurance and Banking

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The basic objective of this course is to apprise the students with the banking law and practice and

develop and understanding of various laws affecting banks.

**Course Contents** 

Introduction to insurance; Various types of insurance; principles of insurance; important

insurance policies in life and non-life insurance; IRDA and its role in insurance sector in India;

privatization of insurance industry in India; insurance business operations; recent trends in

insurance and universal banking in India.

Insurance Environment: Internal, External, Legal and Commercial. Comparative Environment of

Insurance business, Insurance procedure – Settlement of Claims under life and non life insurance.

Evolution of Banking Law; Main provisions of Banking Regulation Act, 1949; and RBI Act,

1934 and Negotiable Instruments Act, 1881.

Securities for Bank Advances: Forms of securities and precautions taken by Banks in accepting

these securities.

Guarantees: Contract of Guarantee and contract of indemnity, Guarantee as Banker's Security.

Writing Reports in Bank visits; Prevailing practices in Banking – Case Studies. Banker Customer

Relationship; Contemporary Issues in Banking: NPA and Capital Adequacy in Indian Banks.

# **Suggested Reading:**

- 1. Gulshan, S.S.: Law and Practices of Banking in India.
- 2. Davr, S.R.: Law and Practice of Banking.
- 3. Tandon, H.L.: Banking Law & Practice in India.
- 4. Varshney, P.N.: Banking Law and Practice.
- 5. Cox, David: Elements of Banking; John Murray, London.
- 6. Bodla, B.S. Garg, Mahesh and Karam Pal: Insurance Fundamentals, Procedures and environment.
- 7. Mehta, R.R.S.: Fundamental of Banking; Himalaya Publishing House Co., New Delhi.
- 8. Nigam, B.M.L.: Banking Law and Practive, Konark Publishers, Delhi.

FM- 402: International Financial Management.

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

Note: - The examiner will set eight questions in all. Question No.1, Comprising of seven short

answer typequestions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The objective of this paper is to give students an overall view of the international financial

system and how multinational corporations operate.

**Course Contents** 

Finance function in multinational firm; Institutional structure of international financial markets;

cost and availability of international financial flows; international financial instruments.

International Working capital Management; Aspects of international cash management;

international receivables management; securitization of receivables.

International investment: factors and benefits; direct and portfolio investment; international

CAPM; Capital budgeting for foreign direct investment; assessing and managing political risk.

International aspects of raising capital; determining financial structure of foreign subsidiaries of

MNCs; financial choices for an MNC and its foreign affiliates; cost and risks of financing.

**Suggested Reading:** 

1. Maurice D. Levi: International Finance, McGraw Hill, NY.

2. A Buckley: Multinational Finance, Prentice – Hall, N. Delhi.

3. P.G. Apte: International Financial Management, TATA McGrraw Hills, New Delhi

4. A.C. Shapro: Multinational Financial Managemeent Prentice Hall, N. Delhi.

The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.						

FM – 403 : Management Control System

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives:** 

The Main objective of the course is to appraise the students the about the concept of management

control system as well as its role in efficient management of public system organizations.

**Course Contents:** 

Management Control - Concept, Nature and Scope; Organisation Goals, Strategic Planning and

Implementations, Organisation Structure, Contingency Theory, Organizational Climate, Position

of Controller in the Organisation Structure of an Organisation; Management Control Process;

Programming, Budgetary Planning and Procedures. Budgetary Control; Flexible Budgeting, Zero

- base Budgetting, Performance Budgeting, Accounting Aspects of Control including Internal

Audit and Control, Analysis and Reporting, Variance Reporting Management Control Structure;

Responsibility Centre, Responsibility Accounting, Costs Centre, Profit Centre, Inter – divisional

Transfer Pricing, Measurement of Divisional Performance including Performance Evaluation –

Qualitative and Quantitative, Investment Centre; Behavioural Aspects of Management Control;

Motivation and Morale, Goal Congruence, Management Control in Specialised Organization:

Selected Case studies on Non-profit and Public Service Organisations.

**Suggested Readings:** 

1. Suggested, R.N. and Govindrajan V: Management Control Systems,  $8_{th}$  ed.,

Taraporevala, Chicago, Irwin, 1995.

2. Emmanuel, C and otley, D.: Accounting for Management Control, London, Nostrand

Rienhold, 1985.

- 3. Ghosh, P.K. and Gupta, g.S.: Cost Analysis and Control New Delhi, Vision 1985.
- 4. Glynn, JJ.: Value for Money, Auditing in Public Sector. London, Prentice Hall Inc., 1985.
- 5. Horsey, P and Blanchard, H.B.: Management of Organisation Behaviour: Utilising Human Resources, New Delhi, Prentice Hall of India. 1998.
- 6. Maciariello J. A. and Kirby C.J.: Management Control System. Englewood Cliffs, New Jersey, Prentice Hall Inc. 1994.

FM-404: Financial Derivatives

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

**Objectives** 

The objective of this course is to give an in depth knowledge of the functioning of derivative securities market.

**Course Contents:** 

Financial Derivatives – An Introduction. Forward Contracts; Future Contracts; Other Derivative Securities; types of Traders; Futures Markets and the use of Futures for Hedging; forward and future prices; Interest Rate Futures; Swaps; Options Markets; Properties of Stock Option Prices; Trading Strategies Involving Options; Black – Scholes Option Model; Binomial Model; Options on Stock indices; Currencies Futures Contracts; General Approach to Pricing Derivatives Securities: Derivatives Market in India.

Suggested Reading:

1. Bhalla, V. K.: Investment Management; Security Analysis and Portfolio Management, New Delhi, S. Chand, 2001.

2. Financial Derivatives: Delhi, S. Chand, 2001.

3. Brennet, M.: Option Pricing: Theory & Applications, Toronto, Lexington Books, 1993.

4. Cox, John C and Rubinstein: Mark Options Markets, Englewood Cliffs, New Jersey, Prentice Hall Inc., 1985.

5. Huang, Stanley S.C. and Randall, Maury R.: Investment analysis and Management, London, Allyn and Bacon, 1987.

- 6. Hull, John C.: Options, Futures and Other Derivative Securities 2nd ed., New Delhi, Prentice Hall of India, 1996.
- 7. Sharpe, William F. etc.: Investment, New Delhi, Prentice Hall of India, 1997.

## FM- 405: Management of Financial Services

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives:**

The main objective of this course is to help students to learn the various financial services and their role in the overall financial system.

#### **Course Contents**

Financial Services: Meaning, Nature and Types.

Leasing: Concept, Classification, Accounting, Legal and Tax Aspects of Leasing; Financial Evaluation of leasing.

Factoring: Meaning, Characteristics and Types of Factoring arrangements, Factoring in India, Factoring vs.

Forfeiting. Hire Purchase Finance and Consumer Credit: Conceptual FrameWork; Legal Aspects; Taxation; Accounting and Reporting; Financial Evaluation of Hire Purchase Finance, Features of Consumer Credit.

Housing Finance: Introduction, NHB's Housing Finance Companies Directions, Prudential Norms, Housing Finance Schemes.

Credit Rating: Meaning and Types; Benefits of Credit rating to investors and companies. Credit Rating Agencies; Objectives and Functions.

Credit Cards: Concept and Significance; Types of Credit Cards, Credit Card Business in India.

Book Building: Concept and Mechanism of Book Building; Significance and Benefits of Book Building.

Bought Out Deals: Meaning and Nature; Mechanisms of Bought out Deals; Advantages; The Present Scenario.

Securitisation: Concept, Mode, Mechanism and Beneficiaries of Securitisation; Securitisation in India.

Depository system; Benefits of depository; Depository system in India.

Venture Capital: Meaning, Modes of Financing.

Role and Functions of Merchant Bankers.

# **Suggested Reading:**

- 1. Khan, M.Y.: Management of Financial Services, McGraw Hill, 2001.
- 2. Gordan, E and K. Natrajan: Emerging Scenario of Financial Services. Himalaya Publishing House, 1997.
- 3. Meidan, Arthur Brennet, M.: Option Pricing: Theory & Applications, Toronto, Lexington Books, 1983.
- 4. Kim, Suk and Kim, Seung: Global Corporate Finance: Text and cases, 2nd ed., Miami Florida, Kotb, 1993.

FM- 406: Project Management

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The basic purpose of this course is to understand the framework for evaluating capital

expenditure proposals, their planning and management in the review of the projects undertaken.

**Course Contents** 

Generation and Screening of Project Idea; Capital Expenditure; Importance and Difficulties;

Market Demand and Situational Analysis; Technical Analysis; Financial Analysis; Analysis of

Project Risks; Firm Risk and Market Risk; Social Cost and Benefit Analysis; Multiple Projects

and Constraints; Network Techniques for Project Management; Project Review and

Administrative Aspects; Project Financing in India; Problem of Tiem and Cost Overrun in Pubic

Sector Enterprises in India; Assessment of the Tax Burden; Environment Appraisal of Projects.

Suggested Reading

1. w. Ahuja, G.K. & Gupta, Ravi : Systematic Approach to Income Tax, Allahabd, Bharat

Law Hose, 1997.

2. Bhalla, V.K.: Financial Management and Policy, 2nd ed., New Delhi, Anmol, 1998.

3. Chandra, Prasanna: Projects: Preparation, Appraisal, Budgeting and Implementation, 3rd

ed., New Delhi, Tata McGraw Hill, 1987.

4. Dhankar, Raj S.: Financial Management of Public Sector Undertakings. New Delhi,

Westville, 1995.

The list of case and specific references including recent articles will be announced in the class at

the time of launching of the course.

FM- 407: Portfolio Management

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five

answer typequestions, snall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Course Contents** 

Introduction – Meaning, Need, risk & return determination of a portfolio, Markowitz portfolio

theory, Sharp simple index model and APT; Optimal portfolio: selection & problems; Efficient

Frontier; Meaning

& Construction ad investors utility; Efficient frontier (i) risk - free and (ii) risky lending and

borrowing, leveraged portfolio; market portfolio; capital market line; CAPM; security market

line; characteristic line; Portfolio revision - Meaning, need and constraints; formula plan;

constant - dollar - value plan, constant ratio plan, variable ratio plan. Bond portfolio management

strategies - passive portfolio strategies, active portfolio strategies; portfolio performance

evaluation, risk adjusted performance measures.

**Suggested Reading:** 

1. Alexander, Gordon J. and Sharpe, William F.: Fundamentals of Investment, Englewood

Cliffs, New Jersey, Prentice Hall Inc.

2. Kevin : Portfolio Management, Prentice Hall of India, New Delhi.

3. Sharpe: Investments, Prentice Hall of India, New Delhi.

4. Strong: Portfolio Management, Thomson Learning, Bombay.

5. Elton, Edwin J. and Gruber, Martin J.: Modern Portfolio Theory and Investment

Analysis, New York, John-Wiley.

6. Reily, Frank K.: Investment Analysis and Portfolio Management, Dryden Press.

7. Fischer Donald E. and Jordan, Renold J.: Security Analysis and Portfolio Management.

the time of launching of the course.							

The list of case and specific references including recent articles will be announced in the class at

**MARKETING** 

**MM-301: Advertising Management** 

Max. Marks: 100

External: 70

Internal: 30

Time: 3 House

**Note:-** the examiner will set eight questions in all. Question no. 1, comprising of seven short answer typequestions, shall be compulsory. There would be one question in the form of case study. In all, the students would be required to attempt five questions. All questions will carry

equal marks.

**Objective:** 

The aim of the paper is to acquaint the students with concepts, techniques and give experience in

the application of concepts for developing an effective advertising programme.

**Course Contents:** 

Advertising: Concepts, Types, forms and Importance. Role of advertising in the Marketing

Process: legal, Ethical and Social Aspects of Advertising; Process of Communication – Wilbur

Schramm's Model, Two - Step Flow of Communication, theory of Cognitive Dissonance and

Clues for Advertising Strategist; Stimulation of Primary and Selective Demand - Advertising,

Planning and Objective Setting: Dagmar Approach. Determination of Target Audience; Building

of Advertising Programme - Message, Headlines, Copy, Logo, IIIustration, Appeal, Layout;

Campaign Planning; Media Planning; Budgeting; Evaluation – Rationale of Testing Opinion and

Aptitude Tests, Measurement of Advertising Effectiveness; Advertising of an Agency; Electronic

Media Buying. Advertising and Consumer Behaviour: Role of Creativity in Advertising.

**Suggested Readings:** 

1. Belch, George E and Belch, Michael A.: Introduction to Advertising and Promotion, 3rd

ed, Chicago, Irwin, 2002.

- 2. Arens and Bovee: Contemporary Advertising, Irwin, 1995.
- 3. Sandage and Fryberger: Advertising, AITBS, Delhi, 2000.
- 4. Batra, Rajeev, Myers, johan G. and Aaker, David A. Advertising Management, 4th ed., New Delhi, prentice Hall of India, 2002.
- 5. O, Guinn: Advertising & Integrated Brand Production, Vikas Publishing House, New Delhi.
- 6. Kleppner, Otto: Advertising Procedure, Englewood Cliffs, New Jersey, Prentice Hall Inc., 1986.
- 7. Wells, William, Burnett, Johan & Moriarty Sandara, PHI, 2002.

MM-302: Sales Management

Max. Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five

questions. All Questions will carry equal marks.

Objective

The purpose of this paper is to acquaint the students with the concepts which are helpful in

developing a sound sales and distribution policy and in organizing and managing sales force and

marketing channels.

**Course Contents** 

Nature, Scope and Objectives of Sales Management; Theories of selling; Functions of Sales

Manger; Selling Operations; Personal selling, Salesmanship; Sales forecasting; Determination of

size of sales force; Sales organization: Recruitment and conducting sales training programmes;

Designing and Administering Compensation plan; Motivating and supervising sales personnel;

Sales Meetings and Contests; Designing Territories and allocating sales budgeting and Control;

International Sales Management.

**Suggested Readings:** 

1. Anderson, R. & Hair: Professional Sales Management, Tata McGraw Hill, New Delhi, 2000.

2. Manning & Reece : Selling Today, Pearson Education Asia, 8th Edition.

3. Dalrymple, D.J.: Sales Management: Concepts and Cases. New York, John-Wiley, 1989.

4. Still, R & Govoni: Sales Management, Prentice Hall Inc., 1988.

5. Lancaster & Jobber: Selling and Sales Management, Macmillan India, 3rd edition.

6. Calvin: Sales Management. Tata McGraw Hill, New Delhi.

7. Futrell, Charles: Sales Management. Thomson Learing Mumbai.

MM-303: Product and Brand Management

Max. Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The objective of this course is to impart in – depth knowledge to the students regarding the

theory and practice life cycle and Product and Brand Management.

**Course Contents** 

Product Planning and Management: Product concepts and levels; Product line and mix decisions;

Product life cycle and marketing strategy implications. New Product Development Process:

Developing Product Strategy; Financial Analysis of Product Management. Branding Strategies;

Importance of branding; Branding terminology; Basic branding concepts- Brand awareness,

brand personality, brand image, brand identity, brand loyalty, brand equity; Product versus

Corporate Branding.

Major Branding Decisions: Selecting a brand name; Brand extension decision; Family versus

individual brand names, Multiple branding; Private versus national branding, Handing brand

name changes. Brand Positioning and Re-launch: Brand building and communication.

Branding in Specific Sectors: Customer, industrial, retail, service brands, E-branding, Branding

for international marketing.

Programme to built Brand Equity, Measurement of Brand Equity.

**Suggested Readings:** 

- 1. Lehmann, Donald R. and Winer, Russel S.: Product Management, Tata McGraw Hill, 3rd edition, 2002.
- 2. Aaker, David, A.: Managing Brand Equity, New York, Free Press, 1991.
- 3. Cpwley, Don.: Understanding Brands, London, Kogan Page, 1991.
- 4. Czemiawskd, Richard D. & Michael W. Maloney: Creating Brand Loyalty, AMACOM, NY, 1999.
- 5. Kapferer, J N.: Strategic Brand Management, New York, Free Press, 1992.
- 6. Up shaw, Lyhh B.: Building Brand Identity: A Strategy for Success in a Hostile Market place, New York, John Wiley, 1995.
- 7. Keller, Kevin Lana: Strategic Brand Management, Prentice Hall, 1998.

MM-304: Consumer Behaviour

Max. Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The basic objective of this course is to develop an understanding about the consumer decision –

making process and its applications in marketing function of firms.

**Course Contents** 

Introduction to Consumer Behaviour, Consumer Behaviour and Marketing Strategy; Consumer

Involvement and Decision-Making; Information

Search Process; Evaluative Criteria and Decision Rules; Consumer Motivation, Information

Processing and Consumer Perception; Consumer Attitudes and Attitudes Change; Influence of

Personality and Self-Concept on Buying Behaviour; Psycho-graphics and Lifestyle; Influence of

Culture, Subculture and social class; Reference Group Influence, Diffusion of Innovation and

Opinion Leadership; Family Decision - Making; Industrial Buying Behaviour; Models of

Consumer Behaviour; Consumer Behaviour Audit.

**Suggested Readings:** 

1. Assael, H.: Consumer Behaviour and Marketing Action, Asian Books Pvt.Ltd., New Delhi,

2001.

2. Engle, J. E. etc.: Consumer Behaviour: Chicago, Dryden Press, 1993.

3. Hawkings, D. I. etc.: Consumer Behaviour: Implications for Marketing Strategy, TMH,

2002.

- 4. Schiffman, LG and Kanuk, L. L.: Consumer Behaviour. New Delhi, PrenticeHall of India, 1994.
- 5. Loudon & Loudon: Consumer Behaviour, TMH, New Delhi.
- 6. Soloman, Michael E. Consumer Behaviour, Buying; Having, Being, PHI/Prearson Edu., New Delhi.

**MM-305**: Distribution and Logistics Management

Max.Marks: 100

External: 70

Internal: 30

Time: 3 Hours

Note: The examiner will set eight questions in all. Questions No.1, comprising of seven short

answer typequestions, shall be compulsory. In all the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

The objective of this course is to enable students understand the importance and dynamics of a

firm's physical distribution functions and management of its supply chain.

**Course Contents** 

Distribution Channels: Role of Marketing Channels, Channel Structure, Factors affecting choice

of Distribution; Channels behaviour and Organisation; Channels Cooperation and Channels

Conflict; Distribution Intensity. Introduction to Distribution Logistics: Nature importance and

scope of logistic decisions; Integrated logistics; Total cost concept; Supply chain management –

nature importance and interface with logistics; Concept of Customer service.

Transportation and Physical Distribution; Importance and modes of transportation; Selection of

transportation modes; Multi – modal transportation; Documentation and carrier liabilities; Inter –

state good movement and problems; Transportation management. Inventory Control: Economic

order quantity under conditions of certainty and uncertainty; Inventory requirements as function

of number of stock locations: Techniques of inventory control.

Warehousing: Role and modem concept of warehousing; Private V/s public warehousing;

Planning warehousing operations; Site selection, warehouse layout, material handling;

Management of receipts and issues; computers and warehouses management Order Processing:

Importance to customers service; Packaging and utilization. Distribution Control and

Performance Evaluation.

## **Suggested Readings:**

- 1. Bowersox and Others: Physical Distribution Management, Tata McGraw Hill, New Delhi.
- 2. Stern, Louis W. Adel, I.E.L. Ansary, Anne T. Coughlan: Marketing Channels, Prentice Hall, New Delhi.
- 3. Glaskowsky, N.A.: Business Logistics, Dryden Press, Ohio.
- 4. Khanna, K.K.: Physical Distribution Management, Himalaya Publishing House, New Delhi.
- 5. Lambert, D. et. Al.: Strategic Logistics Management, Tata McGraw Hill, New Delhi.
- 6. Ballu, Ronald H.: Business Logistics Management, Englewood Cliffs, New York, Prentice Hall Inc., 1999.
- 7. Martin, Christopher and Gordon Wills: Marketing Logistics and Distribution Management.

MM – 306: Retailing

Max .Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note:** - The examiner will set eight questions in all. Questions No.1, comprising of seven short answertype questions, shall be compulsory. In all the students would be required to attempt five questions. All Questions will carry equal marks.

**Objectives:** The course will focus on manufactures, perspective on retailers and understanding of theretail business.

**Course Contents** 

An Introduction to the Retailing System. Retailing mix — Social forces, Economic forces, Technological forces, Competitive force; Retailing definition, Structure, Different formats; marketing Concepts in Retailing — Consumer purchase behaviour, Cultural and Social group influence on consumer Purchase Behaviour; Retail Store location — Traffic flow and analysis, population and its mobility, exteriors and layout, Customer traffic flows and pattern, Creative display; Merchandise planning — Stock turns, Credit Management, Retail Pricing, Return on per sq. feet of space; Retail promotions — Staying ahead of competition; Supply Chain Management; Franchising, Dircet Marketing/Direct Selling, Exclusive Shops, Destination Stores, Chain Stores, Discount Stores and other current and emerging formats — Issuse and Options; Retail Equity; Technology in Retailing; Retailing through the Internet.

**Suggested Readings:** 

1. Berman, Berry & Evans, Joel & R.: Retail Management: A Strategic Approach, PHI/Pearson Education, New Delhi.

- 2. Levy Michael & Weitz Barten W.: Retailing Management, Tata McGraw Hill, New Delhi.
- 3. Newiman, Andrew J. & Cullen, Peter: Retailing Environment & Operations; Vikas Publishing House, New Delhi.
- 4. Duane: Retailing Thomson Learning, Mumbai.

- 5. Gilber, David: Retail Marketing Management, Paerson Education, New Delhi.
- 6. Diamond, Jay and Gerald Pintel: Retailing, Prentice-Hall, NJ, 1996.
- 7. Morgenstein, Melvin and Harriat: Strong in Modern Retailing, Prentice-Hall, NJ,1992.

**MM-307: Marketing Research** 

Max.Marks: 100

External: 70

Internal: 30

Time: 3 Hours

Note: The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five questions. All Questions will carry equal marks.

**Objectives** 

The purpose of this course is to enable students learn the process, tools and techniques of marketing research.

**Course Contents** 

Introduction to Marketing Research, Importance, nature and scope of marketing research; marketing information system and marketing research; Marketing research process, Organization of MR Department, Ethical issues in MR, MR in India, Role of MR Agencies.

Problem Identification and Research Design:

Problem

identification and definition:

Development of a

research proposal: Types of research designs.

Data Resource: Secondary data sources and usage; Online data sources; Primary data collection methods - questioning techniques, online surveys, observation method; Questionnaire preparation.

Aptitude measurement and scaling techniques – elementary introduction to measurement scales.

Sampling Plan: Universe, sample frame and sampling unit; Sampling techniques; Sample size

determination. Data Collection : Organisation of field work and survey errors – Sampling and non – sampling errors.

Data Analysis: Hypothesis testing, tests of significance (Parametric & non –parametric) Univariate, bivariate and multivariate data analysis; Report preparation and presentation. Marketing Research Applications: Product research; Advertising research; Sales and Market research; International marketing research.

### **Suggested Reading:**

- 1. Boyd. H.W. Ralph Westfall and S.F. Starsh: Marketing Research: Text and Cases, Richard D. Irwin, Boston.
- 2. Chisnall, peter M: The Essence of Marketing Research, Prentice Hall, New Delhi.
- 3. Churchill, Gilbert. A: Basic Marketing Research, Dryden Press, Boston.
- 4. Green Paul E. Donald S. Tull and Gerald Albaum: Research for Marketing Decision, Prentice Hall, New Delhi.
- 5. Luck, D.J.: Marketing Research, Prentice Hall, New Delhi.
- 6. Tull, Donald and Hawkin, Del: Marketing Research: Measurement and Method, Prentice Hall. New Delhi.
- 7. Beri, G.C.: Marketing Research, Tata McGraw Hill, New Delhi.

#### **MARKETING**

#### **MM-401: International Marketing**

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives:**

The basic objective of this course is to acquaint the students with environmental, procedural, institutional and decisional aspects of international marketing.

#### Course Contents

International Marketing: Definitions, nature, scope and benefits; reasons and motivations underlying International Trade and International Business; basic modes for entry; process of International Marketing; Domestic Marketing versus International Marketing.

International Marketing Environment, WTO Framework and International Marketing; Factors influencing International Market selection and segmentation, Selection strategies. International Marketing Planning and Control.

International Marketing Mix: International product policy and planning International product mix, Branding, labeling, packaging and organization of product warranties and services. International pricing policies strategies, the process of price setting, pricing decisions, information for pricing decisions. International Advertising: International advertising strategy, elements of advertising strategy, media strategy. International Distribution Management: International Distribution Channels, International distribution policy, selecting distribution channels.

### Suggested Reading

1. Vern Terpestra and Ravi Sarthy: International Marketing, Thosmson.

- 2. Simon Majaro: International Marketing.
- 3. John, Fayerweather: International Marketing.
- 4. R. L. Varshney and B. Bhattacharya: International Marketing; Sultan Chand Publication, N. Delhi.
- 5. Sak Onkvisit and John Shaw : International Marketing ( Analysis and Strategy), PHI, N. Delhi.

#### **MM-402**: Industrial Marketing

Max Marks. 100

External: 70

Internal: 30

Time: 3Hours

**Note:** - The examiner will set eight questions in all. Question No.1, Comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

## **Objectives**

The objective of this course is to lay a foundation for an understanding of the complex dimension of the Industrial Marketing

#### **Course contents**

Nature and scope of International Marketing: Differences between Industrial Marketing and consumer marketing; understanding Industrial Markets; Organizational Customers; Classifying Industrial products; nature of demand in Industrial Markets; Industrial Buyer Behavior; Industrial Purchasing System: Industrial Marketing Research: Industrial Marketing Strategy: Strategic planning. Assessing Marketing Opportunities, segmentation of Industrial Markets, Product Positioning: Product Decision and Strategies; Industrial Services; Industrial Pricing: Price Determinants, Pricing Policies, Pricing Decisions, Formulating Channel Strategy; Logistics Management; Industrial Marketing Communication: Sales force Management, Advertising and sales promotion.

# Suggested readings

- 1. Reader Robert R. Industrial Marketing Analysis, Planning and control Englewood Cliffs, New Jersey, Prentice Hal Inc. 1991.
- 2. Vitale; Business to Business Marketing; Thomson Learning, Mumbai.
- 3. Havalder Krishna K, Industrial Marketing, TMH, New Delhi.
- 4. Corey E Raymond, Industrial Marketing: Cases and concepts, 3rd ed. Englewood cliffs, New Jersey Prentice Hall Inc. 1983.
- 5. Gross AC Business Marketing Boston, Houghton Mifflin, 1993.

- 6. Hill, Richard etc. Industrial Marketing. Homewood Illinois, Richard D. Irwin, 1975.
- 7. Webster, FE. Industrial Marketing Strategy, 2nd ed. New York John Wiley, 1979.
- 8. Alexender S. Ralph cross Industrial Marketing.
- 9. Reeder Robert R., "Industrial Marketing" PHI.

#### MM 403: SERVICE MARKETING

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

The objective of this course is to develop insights into emerging trends in the service in a developing economy and tackle issues involved in the management of services on national basis.

#### **Course contents**

The Emergence of Service Economy, Nature of Services, Difference in Goods and Services Marketing, Marketing Challenges in Service Businesses; Marketing Framework for Service Businesses; The Service Classification; Service Product Development; The Service Consumer Behaviour; Service Management Trinity; Service Vision and Service Strategy; Quality Issues and Quality Models; Managing Productivity and Differentiation in Service Organizations; Demand-supply Management; Advertising; Branding and Packaging of Services; Recovery Management; Relationship Marketing; Employee Empowerment. Customer Involvement in service.

## **Suggested readings**

- 1. Zeithaml V A and Bitner, M J. Services Marketing 3<sub>rd</sub> edition; McGraw Hill, New Delhi, 2002.
- 2. Lovelock, Christopher H. Service Marketing: People, Technology Strategy; 4th edition Pearson Education, New Delhi.
- 3. Hoffman & Bateson, Essentials of Service Marketing; Thomson Learning; Mumbai.
- 4. Shankar, Ravi, Service Marketing, Excel, 2002.
- 5. Rampal M.K. & Gupta SC; Service Marketing; Galgotia Publishing Company, New Delhi.
- 6. Rust, Zahorik and Kenningham, Services Marketing.

- 7. Medonald, Malcom and Payne, A Marketing Planning for services. Butterworth Heinemann, 1996.
- 8. Rampal & Gupta, "Service Marketing"
- 9. SN Jha, "Service Marketing" HPH.
- 10. Sarinivasan R., "Service Marketing" PHI.
- 11. Chaudhary Nimit & Monika Chaudhary, "A text book of Marketing & Services" McMillan.
- 12. Rama K., Rao Mohana, "Service Marketing" Pearson.

**MM-404: Direct Marketing** 

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

Note: The examiner will set eight questions in all. Question No.1, comprising of seven short

answer typequestions, shall be compulsory. In all, the students would be required to attempt five

questions. All Questions will carry equal marks.

**Objectives** 

This course acquaints students with the need, significance, and operation of direct marketing.

**Course Contents** 

Direct Marketing: Definition, scope and importance of direct marketing; Direct Marketing

Modes - Tele Marketing, Catalogue Marketing Network Marketing, Data-base Marketing,

Changing face of Direct Marketing.

Elements of Direct Marketing: Planning a direct marketing programme; Direct Marketing and

developing new business; Guidelines for effective direct marketing - likely pitfalls, rules for

success.

Institutional Direct Marketing: Industrial Direct Marketing; Retail Direct Marketing; Dealer –

identified direct marketing. Segmentation and Target Marketing; Marketing Mix for Direct

Marketing; Product, price, place and promotion strategies.

Direct Marketing Operations: Planning direct marketing campaign; Communication for direct

marketing; Media planning; Fulfilment and customer service - receiving and processing orders,

inventory and warehousing decision, and customer service.

Tools and Techniques: Role of information technology in direct marketing; Developing

customer data base; cost analysis and cost control of direct marketing; Evaluation effectiveness of Direct marketing. Application of Direct Marketing: Financial services marketing, Fund raising;

Customer loyalty programmes.

**Suggested Reading** 

- 1. McDonald, William J.: Direct Marketing, TMH, New Delhi, 1998.
- 2. Bird Dryayton: Common Sense Direct Marketing, Kogan Page, London.
- 3. Bob Stone: Successful Direct Marketing Methods, NTC, Chicage.
- 4. Edward, Nash: The Direct Marketing Handbook, Tata McGraw Hill, New Delhi.
- 5. Edward, Nash: Direct Marketing, TMH, New Delhi, 1992.
- 6. Roberts, M.L. and P.D. Berger: Direct Marketing Management, Prentice Hall, New Jersey.
- 7. Stone, Martin, Derek Davies and Alison Bond : Direct Hit, Macmilian, New Delhi.

#### MM 405: RURAL AND AGRICULTURAL MARKETING

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

The objective of the course is to express the students to the rural market environment and the emerging challenges in the globalization of the economies.

#### **Course contents**

Nature, characteristics and the potential of Rural Markets in India, Socia-cultural, economic & other environmental factors affecting rural marketing: attitudes and behaviour of the rural consumers and farmers; Marketing of consumer durables and non-durable goods and services in the rural markets with special reference to product planning; media planning: planning of distribution channels and organizing personal selling in rural markets in India. Marketing of agricultural inputs with special reference to fertilizers, seeds, Farm input & pesticides: Organization and function of agricultural marketing in India. Classification of agriculture product with particular reference to seasonality and perishability; Marketing structure and performance; Processing facilities for different agricultural products. Role of warehousing; Determination of agricultural prices and marketing margins; Role of agricultural price commission. Role of Central and state Governments. Institutions and organization in agricultural marketing; Unique features of commodity market in India; Problems of agricultural marketing; Nature, scope and role of cooperative marketing in India.

# **Suggested readings**

- 1. Arora RC Integrated Rural Development, 1979, Scharnd, New Delhi.
- 2. Desao. Vasat. Rural Development 1988, Himalaya Bombay.
- 3. Mishar, SN Politics and Society in Rural India. 1980, Inter India, Delhi.

- 4. Porter, Michaei, E. Competitive Strategy. 1980 Free Press, New York.
- 5. Rudra Ashok. Indian Agricultural Economics. Myths and realities, 1982 Allied New Delhi.
- 6. Stalk, George, Competing Against Time 1990, Free Press New Delhi.
- 7. Gopalaswamy T.P. Rural Marketing, Wheeler Pub., New Delhi.
- 8. Sukhpal Singh, "Rural Marketing- Focus on Agricultural Inputs" Vikas Publication.
- 9. Ramakeshary Y., "Rural Marketing- Focus on Agricultural Inputs" Jaicob Publication.
- 10. S.H. Acharya & NL Aggarwal, "Agricultural Marketing in India" IBH.
- 11. Ramakrishanayn, "Rural Marketing" Pearson.
- 12. SL Gupta, "Rural Marketing Text & Cases" WP.
- 13. Awadesh Kumar Singh, Satya Prakash Pandey, "Rural Marketing Indian Perspective" New age.

### **MM-406**: Marketing Communication Strategy

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives**

The objective of this course is to make the students understand the intricate process of marketing communication, and how each tool of communication contribute to the overall communication strategy.

#### Course Contents

The Communication Process – The nature of communication. A Basic Model of Communication – source Encoding, Message, Channel, Receiver/Decoding, noise, Response/Feedback. Analysing the Receiver, the Response Process, Cognitive Processing of Communications –the cognitive Response Approach, the Elaboration Likelihood Model.

Establishing objectives for integrated Marketing communication programs – The value of objectives – communications, planning & decision making, determining Promotional Objectives – Marketing versus communication objectives, Sales versus Communication Objectives – sales-oriented objective, communication objectives.

Creative Strategy, Planning and Development, The importance of Creativity in Advertising, Advertising Creativity, Planning Creative Strategy – The creative challenge, Taking Creative Risks, creative Personnel, the Creative Process, Creative Strategy Development.

Creative Strategy: Implementation and Evaluation: Appeals and Execution Styles, Creative Tactics – Creative Tactics for print advertising, Creative Tactics for Television.

The Internet and integrated marketing communications Advertising, Sales Promotion on the Internet, Personal Selling on the Internet, Public Relations on the Internet, Direct Marketing on the Internet. The Process of Public Relations-Developing & Executing the PR Programme, Publicity.

Suggested Reading

- 1. George E. Belch & Michael A. Belch: Advertising & Promotion An Integrated Marketing Communications Perspective.
- 2. Kotler Philip: Analysis, Planning, Implementation & Control, Pearson Education, Delhi.
- 3. Blythe: Marketing Communication, Pearson Education, New Delhi.
- 4. Tom Duncan: Integrated Marketing Communication, TMH, New Delhi.
- 5. O'Guinn, : Advertising, Vikas Publishing House, New Delhi.

#### **HUMAN RESOURCE**

# **MANAGEMENT HRM-301: Management of Industrial Relations**

Max Marks:100

External:70

Internal: 30

Time: 3 Hours

**Note:-** The examiner will set eight questions in all. Question, No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks

# **Objectives**

Organisational efficiency and performance are intricately interlinked with industrial relations. This course is an attempt to appreciate the conceptual aspects of industrial relations at the macro and micro levels.

### **Course Contents**

Industrial relations Perspectives; Industrial Relations and the emerging socio-economic scenario; Industrial Relations and the State; Legal Framework of Industrial Relations; Role of trade unions; Trade union and the employees; Trade union and the management; Discipline and grievance management; Negotiation and collective settlements; Participative management and co-ownership; Productive bargaining; Employee empowerment and quality management; Industrial relations and technological change; ILO and industrial relations.

### **Suggested Readings:**

- 1. Kochan. T.A. & Katz Henry: Collective Bargaining and Industrial Relations, 2nd ed., Homewood, Illinois, Richard D Irwin, 1988.
- Mamkoottam, K: Trade Unionism, Myth and Reality, Oxford University Press, New Delhi, 1982
- 3. Niland, J.R. etc.: The Futute of Industrial Relations Sage New Delhi, 1994.
- 4. Papola, T S & Roger, G.: Labour Institutions and Economic Development in India, ILO, Geneva, 1992.
- 5. Ramaswamy, E. A. The Rayon Spinners: The Strategic Management of Industrial Relations, Oxford University Press, New Delhi, 1994.

6. Virmani, B.R.: Participative Management vs. Collective Bargaining, New Delhi, Vision Books, 1988. Webb, Sidney & Webb, Beatrice. Industrial Democracy, Lognman, Melbourne 1987.

### **HRM-302: Management of Comparative Industrial Relations**

Max.Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

Recent years have witnessed an increasing degree of globalization of economies. Appreciation of industrial relations policies and practices of major economies would be necessary to perform efficiently in the liberalized environment. This course aims to familiarize students in the major industrial relations systems operating in different economic, political and cultural contexts.

### **Course Contents**

Industrial relations globalization; Emerging Trends in industrial relations; Trade union strategies towards liberalization and technological change; Employee response to industrial restructuring and organizational re-engineering; Emerging trends in collective bargaining and negotiations; Productivity bargaining and wage negotiations; Employee empowerment and participative decision-making; Changing role of the State and industrial relations in the developed newly developed and developing economies.

# **Suggested Readings**

- 1. Adams, R.J. & Meltz N. M. ed.: Industrial Relations Theory, Its Nature, Scope & Pedagogy, LMR Press/Rutgers University, 1993.
- 2. Bamber, G. J. & Lansbury R.D. ed.: International and Comparative Industrialized Market Economies, Routlege, London, 1993
- 3. Davis, E. M. & Lansbury, R.D. ed.: Managing Rogether Consultation and Participation in the Workplace, Longman, Melbourne, 1996.
- 4. Frankel, S. & Harrod, J.: Industrialization and Labour Relations: Contemporary Research in Seven Countries, ILR Press, Ithaca, 1995.
- 5. Gardner, M & Harrod, J.: Industrialization and Labour Relations: Contemporary Research in Seven Countries, ILR Press, Ithaca, 1995.
- 6. Jacoby, S. M: The Workers of Nations: Industrial Relations in Globalized Economy, Oxford University Press, Oxford, 1994.
- 7. Locke, R. etc.: Employment Relations in a Changing World Economy, MIT Press, Cambridge, 1995.

### HRM-303: Manpower Development for Technological Change.

Max.Marks: 100

External: 70

Internal: 30

Time: 3 Hours

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, required to attempt five questions. All Questions will carry equal marks.

### **Objectives:**

Recent years have withnessed rapid technological changes affecting industry and business in different ways. This course aims to discuss the major aspects of technological change and the kind of human resource management strategies and steps which may equip the organization and its human resources to adequately cope with such change.

### **Course Contents**

Manpower management in the 21st Century; Environmental context of human resource management; the emerging profile of human resources; Changing technology; Concept and process of technological innovation; Organisational implications of technological change; Transformation; Human resources implications of technological change; Performance/potential evaluation in the context of new technology; Technology transfer with human face; New issues in manpower training and career development.

# **Suggested Reading:**

- 1. Clark, Jon: Managing Innovation and Change, University of Southampton, 1995.
- 2. Clark, Jon: Human Resource Management and Technology Change, Sage, London, 1993.
- 3. Gampbell, A and Warner, M.: New Technology, Skills, and Management, Routledge, London, 1992.
- 4. Rastogi, P.N.: Management of Technology and Innovation, Sage, New Delhi, 1995.
- 5. Warner, M.: New Technology and Manugacturing Management, Wiley, London, 1990.
- 6. Womack, J.P. etc.: The Machine That Changed the World, Maxwell Macmillan, New York, 1990.
- 7. Shittaker, D. H.: Managing Innovation, Cambridge University Press, Cambridge, 1990.

### **HRM-304:** Compensation Management.

Max.Marks: 100

External: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives:**

The course is designed to promote understanding of issues related to the compensation or rewarding human resources in the corporate sector, public services and other forms of organizations and to impart skills in designing, analyzing and restructuring reward management systems, policies and strategies.

### **Course Contents**

Understanding of economic theory related to reward management; Competitive imperatives; productivity, quality, service, speed, learning; Planning for improved competitiveness; Determination of inter and intra-industry compensation differentials; Internal and external equity in compensation systems; Understanding and compensation packages; compensation of chief executives, senior managers, R & D Staff, etc.; Understanding different components of compensation packages; compensation practices of multinational corporatins and tragegic compensation systems; Statutory provisions governing different components of reward systems; Working of different institutions related to reward system like wage boards, pay commissions.

### **Suggest Reading:**

- 1. Armstrong, Michel and Murlis, Helen: Reward Management: A Handbook of Salary Administratin, London, Kegan Paul, 1988.
- 2. Bergess, Lenard R.: Wage and Salary Administration, London, Charles E-Merril, 1984.
- 3. Capeman, George: Employees Share Ownership, New York, Kogan Page, 1991.
- 4. Hart, Robert A: Economics of Non-Wage Labour Costs, London, George Alen and Unwin, 1984.
- 5. Henderson, Richard I: Compensation Management: Rewarding Performance, 6th ed., Englewood Cliffs. Prentice Hall Inc., 1994.
- 6. Micton, Rock.: Handbook of Wage and Salary Administration, 1984.

# **HAM-305**: Managing Interpersonal and Group Processes

Max.Marks: 100

External

: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

The purpose of this course is to advance understanding regarding interpersonal and group processes and help the student to examine and develop process facilitation skills mainly through laboratory and other experience-based methods of learning.

### **Course Contents**

Group as a medium of learning: Developing and charge; Group cohesiveness; Influence processes; communication; Interpersonal awareness and feedback process; Interpersonal trust; Group decision-making; Group synergy; Team building; Fundamental interpersonal relations orientation (**FIRO-B**); Career roles and identity; Competition and cooperation.

### **Suggested Readings:**

- 1. Bennis, W.G.: Essay in Interpersonal Dynamics, U.S.A., Dorsey Press, 1979.
- 2. Kolb, D. etc: Organizational Behaviour: An Experiential Approach 5th ed., Englewood Cliffs, New Jersey, Hall Inc., 1991.
- 3. Kolb, D. etc: Organizational Behaviour: Practical Readings for Management, 5th ed., Englewood Cliffs, New Jersey Prentice Hall Inc.,1991.
- 4. Mainiero, L.A. & Tromley C.L.: Developing Managerial Dkills in OB, New Delhi, Prentice Hall of India, 1985.

5.	. Moore, M.D. etc.: Inside Organizations: Understanding the Human dimensions, London, Sag		
	1988.		

## HRM-306: Human Resource Planning and Development

Max. Marks: 100

External

: 70

Internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Questions No.1, comprising of seven short answer typequestions, shall be compulsory. In all the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

The objective of this paper is to develop a conceptual as well as a practical understanding of Human Resource Planning, Deployment and Development in organizations.

### **Course Contents**

Micro level manpower planning and labour market analysis; Organisational human resource planning; Workforce flow mapping; Age and grade distribution mapping; Models and techniques of manpower demand and supply forecasting; Behavioural factors in human resource planning – Wastage analysis; Retention; Redeployment and exit strategies; Career Management and career planning; Perforemance planning; Potentials appraisal and career development: HRD Climate; Culture; QWL; HRD strategies; HRD in strategic organizations; Human resource information system; Human resource valuation and accounting.

# **Suggested Readings:**

- 1. Arthur, M.: Career Theory Handbook, Englewood Cliffs, Prentice Hall Inc., 1991
- 2. Belkaoui, A. R. and Belkaoui, J.M.: Human Resource Valuation: A Guide to Strategies and Techniques, Greenwood, Quorum Books, 1995.
- 3. Dale, B.: Total Quality and Human Resources: An Executivew Guide, Oxford, Blackwell, 1992.
- 4. Greenhaus, J.H.: Career Management, New York, Dryden, 1987.

- 5. Kavanagh, M. J. etc.: Human Resource Information System: Development and Applications, Boston, PWS-Kent, 1993.
- 6. Mabey, C and Salama, G.: Strategic Human Resource Management, Oxfor, Blackwell, 1995.
- 7. Thomson, R and Mabey, C.: Developing Human Resource Oxford, Butterworth-Heinemann, 1994. The list of cases and specific references including recent articles will be announced in the class at the time of launching of the course.

# HRM – 401: Counselling Skills for Managers

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# Objectives:

To develop basic skills among students to independently handle a wide range of employee counseling and performance counseling.

### Course Contents

Emergence and growth of counseling services: Approaches to counselling; Counselling process – beginning, developing and terminating a counseling relationship and follow up counselor's attitude and skills of counseling; cooping with occupational stress in the organizations; Assessing client's problems; Selection counseling strategies and interventions – changing behaviour through counseling; Special problems in counseling; Application of counseling to organizational situations with a focus on performance counseling.

# Suggested Reading

- 1. Cormenr, L.S. and Hackney, H.: The Professional Counsellor's Process Guide Helping, Englewood Cliffs, New Jersey, Prentice Hall Inc., 1987.
- 2. Maclennan, Nigel: Counselling for Managers, Aldershot, Grover, 1996.
- 3. Moursund, J.: The Process of Counselling and Therapy, 2nd ed., Englewood Cliffs, Prentice Hall Inc., New Jersey, 1990.
- 4. Munro, C. A., etc.: Counselling: A Skills Approach, Methuen, 1980.
- 5. Reddy, Michael: Counselling at Work British Psychological Society and Methuen, London and New York, 1987.

### HRM 402: LEGAL FRAMEWORK GOVERNING HUMAN RELATIONS

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives**

Understanding of the legal framework is important for the efficient decision making relating to human resource management and industrial relations. The course aims to provide an understanding, application and interpretation of the various labour laws and their implications for industrial relations and labour issues.

#### **Course contents**

Emergence and objective of labour laws and their socio-economic environment; laws relating to industrial disputes, trade unions; social security laws- laws relating to workmen's compensation, employees state insurance, wages and bonus laws – the law of minimum wages, payment of wages, laws relating to working conditions – the laws relating to factories, interpretations of labour laws, their working and implications for management, union workmen; The economy and the industry.

# **Suggested readings**

- 1. Ghaiye BR Law and Procedure of Department Enquiry in Private and Public Sector, Eastern Law Company, Lucknow, 1994.
- 2. Malhotra, O.P. the Law of Industrial Disputes, Vol. 1 and 2 NM Tripathi, Bombay 1985.
- 3. Malik P.L. Handbook of Industrial Law, Eastern Book Lucknow, 1995.
- 4. Saini, Debi S. Labour Judiciary, Adjudication and Industrial Justice. Oxford, University Press New Delhi, 1994.
- 5. Saini Debi. S. Redressal of Labour Grievances, Claims and disputes. Oxford & IBH New Delhi. 1995.

- 6. Seth D. D. Industrial Dispute Act 1947 Vol. I & II NM Tripathi, Bombay, 1995.
- 7. Srivastava SC "Industrial Relations and labour Law", Vikas, New Delhi, 1994.
- 8. Kapoor ND., Chand and Sons Sultan, "Mercantile Law" New Delhi, 2001.
- 9. Chhabra TN, Suri RK, "Industrial Relation" Dhanpat Rai.

#### HRM 403: MANAGEMENT TRAINING AND DEVELOPMENT

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives**

The purpose of this paper is to provide and in-depth understanding the role of Training in the HRD, and to enable the course students to manage the Training systems and processes.

#### **Course contents**

Training Process – an overview; role responsibilities and challenges to training manager organization and management of training function; Training needs assessment and action research; Instructional objectives and lesson planning; learning process; Training climate and pedagogy; Training methods and techniques; Training aids; Training communication: Training evaluation; Training and development in India.

### **Suggested readings**

- 1. Beunet, Roger ed. Improving Training Effectiveness. Aldershot, 1988.
- 2. Buckley R & Caple, Jim. The Theory & Practice of Training, London, Kogan & Page. 1995
- 3. Lynton, R. Pareek, U. Training for Development. 2nd ed. Vol. I, Vol-II, Vistaar, New Delhi, 1990.
- 4. Pepper, Allan D. Managing the Training and Development Function. Aldershot, Gower, 1984.
- 5. Rae, L. How to measure Training Effectiveness. Aldershot Gorwer, 1986.
- 6. Reid, M A etc. training Interventions: Managing Employee Development. 3rd ed. IPM, London, 1992.
- 7. Senge, P. The Fifth Discipline; The art and practice of the learning organization, Century London. 1992.

8. Sahu RK, "Management Training for Development" Excel Publication.

### HRM 404: ORGANIZATIONAL CHANGE AND INTERVENTION STRATEGIES

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

### **Objectives**

The objective of this paper is to make the students learn about the organizational change and prepare them as change facilitators using the knowledge and techniques of behavioral science.

#### **Course contents**

Organizational change- and overview, approaches to problem diagnosis; some major Techniques of planned change; Steps in OD, General OD competencies, OD skills, designing interventions-interpersonal, team, intergroup and system; Evaluation of OD; Ethics of OD professional; Future of OD; Internal and External Consultant; Excellence of management by chief executives.

### **Suggested readings**

- 1. Abad, Ahmad etc. Developing Effective organization. Shri Ram Center for Industrial Relations. New Delhi. 1980.
- 2. De Nitish, Alternative designs of Human Organizations. Sage, London, 1988.
- 3. French, W H. and Bell, Ch. Organizations Development. Prentice hall of India. New Delhi, 1991.
- 4. French, W L. etc. organization Development theory, Practice and research 3rd ed. Unive Book Stall, New Delhi, 1990.
- 5. Harvey, D F. and Brown, D R. An Experiential Approach to Organization Development. Prentice Hall Inc., Jersey, 1990.
- 6. Huse, F E. and cummings, T G. Organizations, Development and Change. 3rd ed. New York, West, 1985.
- 7. Dharani Sinha, P. etc. consultants and Consulting styles. Vision, New Delhi. 1992.
- 8. Singh Kavita, "Organizational change & Development" EB.

# HRM 405: HUMAN RESOURCE DEVELOPMENT: STRATEGIES AND SYSTEMS

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# **Objectives**

The purpose of this paper is to facilitate and understanding of the concepts methods and strategies for HRD

### **Course contents**

Field of HRD - Concepts, goals, challenges, HRD climate and practices in India; Staffing HRD function;

Developing HR strategies; HRD system design principles; Design & administration of select HRD systems;

HRD for workers; HRD intervention; HRD approaches for coping with organizational changes.

# Suggested readings

- 1. Dayal, Ishwar. Successful Application of HRD. New concepts, New Delhi. 1996.
- 2. Dayal Ishwar. Designing HRD Systems. Concept, New Delhi, 1993.
- 3. Kohli, Uddesh & Sinha, Dharni P. HRD Global Challanges & Strategies in 2000 AD ISTD, New Delhi. 1995.
- 4. Maheshwari, B L. & Sinha Dharni P. Management of Change Through HRD. TATA McGraw Hill, New Delhi, 1991.
- 5. Pareek, U. etc. Managing Transactions: The HRD Response. Tata McGraw hill. New Delhi, 1992.
- 6. Rao, TV etc. alternative Approaches & Strategies of Human Resource Development. Rawat, Jaipur, 1988.
- 7. Silver, DN HRD: The Indian Experience. India, New Delhi, 1991.

- 8. Tripathi RC, "HRD" Sultan Publication.
- 9. Gupta Santosh & Deep Sachin Gupta, "Human Resource Development" Publications.
- 10. Subbarao P., "Human Resource Development" HPH.
- 11. Kaushal H., "Human Resource Development" McMillan.
- 12. Kundala Sarinivas R., "Human Resource Development & Management" PHI.

### HRM – 406: Global Human Resource Management

Max. Marks: 100

External: 70

internal: 30

Time: 3 Hours

**Note :-** The examiner will set eight questions in all. Question No.1, comprising of seven short answer typequestions, shall be compulsory. In all, the students would be required to attempt five questions. All Questions will carry equal marks.

# Objectives:

The objective of this course is to develop a diagnostic and conceptual undertaking of the cultural and related bheavioural variables in the Human Resource Management of global organisations.

#### Course Contents

Human and cultural variables in global organizations; Cultures in organisatiosn and Hofstede's study; Structural evolution of global organizations; Cross cultural leadership; motivation and decision making; Cross cultural communication and negotiation; Human Resource management in global organizations; selection, source criteria for international assignment; Compensation and appraisal system.

### Suggested Reading

- 1. Adler, N. J.: International Dimensions of Organizational Behaviour, Kent pub., Boston, 1991
- 2. Bartlett, C and Ghoshal, S.: Transnational Management: Text, Cases and Readings in Cross Border Management, Irwin, Chicago, 1995.
- 3. Dowling, P. J. etc,.: International Dimensions of Human Resource Management, 2nd ed., Wadsworth, California, 1994.
- 4. Hofstede, G.: Cultures Consequence: International Difference in Work Related Values. 2nd edition, Sage, London, 2001.
- 5. Marcis, D and Puffer, S. M.: Management International: Cases, Exercises and Readings, West Publishing, St. Paul, 1994.
- 6. Mead, R.: International Management: Cross Cultural Dimensions, Blackwell, Cambridge, 1994.

7. Ronen, S.: Comparative and Multinational Managements, John Wiley, New York, 1986.

- Laboratory facilities exclusive to the Post Graduate Course: Not Applicable
- Special Purpose: Not Applicable
- Software, all design tools in case: Not Applicable
- Academic Calendar and frame work:

- List of Research Projects/ Consultancy Works:
- Number of Projects carried out, funding agency, Grant received

S.N	Project Name	Funding Agency	Grant Received
1.	Lathe Milling Attachment	NIL	NIL
2.	Bicycle Operated Spray Pump	NIL	NIL
3.	Harvesting Machine Model	NIL	NIL
4.	Building Estimation	NIL	NIL
5.	Suspension Bridge Model	NIL	NIL
6.	Rotating Bridge over a River	NIL	NIL

- Publications (if any) out of research in last three years out of masters projects: NIL
- **Industry Linkage:** Strong Industry Linkage, Recently, in compliance of AICTE, institute signed MOU with 05 industries for better teaching learning, internships, expert talks and placements.

MoUs with Industries (minimum 3): The MOUs with the following 05 companies has been signed or better teaching learning, internships, expert talks and placements.

S.N	Name of Company	Area of Production
1.	Rider Auto Industries, Rai Sonipat, Haryana	Mfg. of Auto Parts
2.	Tulip Enterprises, Haridwar, Uttrakhand	Mfg. of Seat Covers & Accessories

3.	Pal Radiators & Oil Coolers, Rai Sonipat, Haryana	Radiators & Sheet Metal Products
4.	Choudhary Enterprises, Rai Sonipat	Mfg. of Car Accessories
5.	Tulip International, Rai Sonipat	Mfg. of Car Accessories

# 19. Best Practices adopted, if any

S.N	Best Practices
1.	NPTEL Online Courses
2.	Virtual Labs
3.	Celebration of all Festivals
4.	Industrial Visits in Every Semesters
5.	Industrial based Expert Talks
6.	On Hand Practical Environment