

# UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR

## Lecture-wise Plan

Subject Name : PROJECT MANAGEMENT & ENTREPRENEURSHIP DEVELOPMENT

Subject Code: MB-401  
Semester: 4<sup>TH</sup>

Year: 2<sup>nd</sup> Year

Module Number	Topics	Number of Lectures
1	<p><b>Project Planning</b> : Project Management scenario; Project Asset – issues &amp; problems; Gantt Chart &amp; LOB; Network Analysis; PERT / CPM, Resource Monitoring &amp; Control.</p> <p><b>Project Buying</b> : Projects Procurement Process, Life – cycle Costing, Project Cost Reduction methods, Project Stores, Organization &amp; HRD issues, Computerization.</p>	2L
		5L
		3L
2	<p><b>Investment Feasibility Studies</b> : Managing Project Resources Flow; Project Cost – Capital &amp; Operating; Forecasting Income, Estimation of Investment &amp; ROI, Project Evaluation, Financial Sources, Appraisal Process.</p> <p><b>Issues in Project Management</b> : Project Audit, Project Monitoring &amp; MIS, Cost Control, Real Time Planning, Intangibles.</p> <p><b>Project Management</b> : Case Studies</p>	2L
		2L
		2L
3	<p><b>Entrepreneurship</b> : Meaning &amp; concept; psychological &amp; social factors; conditions needed for entrepreneurship; role of government; qualities of a prospective entrepreneur.</p> <p><b>Entrepreneurial Motivation</b> : McClelland's N-Ach theory; self – analysis, personal efficacy, culture &amp; values, risk- taking behaviour, technology backup.</p>	2L
		4L
4	<p><b>Entrepreneurial Skills</b> : Creativity , problem solving, decision making, communication, leadership quality.</p> <p><b>Information</b> : Assistance from different organizations in setting up a new venture; technology parks; industrial corporations; directorate of industries / cottage and small scale industries, SISI, Khadi &amp; Village Industries Commission, DGS &amp; DNSIC, DGFT, how to apply for assistance – procedure, forms, procedures for obtaining contract from Railways, Defence, P &amp; T etc., SIDBI.</p>	4L
		4L

5	<b>Entrepreneurial Skills</b> : Creativity , problem solving, decision making, communication, leadership quality.	<b>4L</b>
	<b>Information</b> : Assistance from different organizations in setting up a new venture; technology parks; industrial corporations; directorate of industries / cottage and small scale industries, SISI, Khadi & Village Industries Commission, DGS & DNSIC, DGFT, how to apply for assistance – procedure, forms, procedures for obtaining contract from Railways, Defence, P & T etc., SIDBI.	2L
	TOTAL NO. OF HOURS= 36L	

Faculty

Agniva Saha

Management Dept.

# **UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: Human Resources Development

Subject Code: HR406

Year: II

Semester: IV

<b>Module Number</b>	<b>Topics</b>	<b>Number of Lectures</b>
Module-I  20 hrs	<b>Chapter 1: Human Resource Development</b>	<b>6L</b>
	Meaning, Scope and Purpose	1L
	HRD Process	1L
	Techniques of Assessment of HRD Needs	1L
	Organizational Analysis	1L
	Task Analysis	1L
	Individual Analysis	1L
	<b>Chapter 2: Strategies of HRD</b>	<b>4L</b>
	Organizational Development	1L
	Individual Development	1L
	Team Development	1L
	Culture Building	1L
	<b>Chapter 2.Individual Development through Training</b>	<b>6L</b>
	Designing Training Programme	2L
	On-the-Job, Off-the-Job; Methods – Lecture, Case Analysis, Role Play, Games, Exercises; Role of Trainer, MDPs, Out-Bound Training.	4L
	<b>Chapter 3. Evaluation of Training</b>	<b>4L</b>
	Need, Principles, Criteria, Technique of Evaluation	2L
Impediments to Effective Training, Improving Effectiveness of Training	2L	
Module-II  20 hrs	<b>Chapter 4.Individual Development throughNon-Training</b>	<b>6L</b>
	Job Redesign Programme;	2L
	Job Enlargement, Job Enrichment,	2L
	Job Rotation, Suggestion Schemes, Career Planning, Counselling	2L
	<b>Chapter 5. Team Development Programmes</b>	<b>4L</b>
	Methods and Schemes : Role of Staff and Line Managers in HRD	2L
	Quality Circle, Kaizen, Autonomous Small Group Activities	2L
	<b>Chapter 6. Competency Management</b>	<b>4L</b>
	– Planning, Mapping,	2L
	– Mapping, Measurement	2L
	<b>Chapter 7. HRD Experiments and Cases</b>	<b>6L</b>
HRD Experiments and Cases – In India	3L	

# **UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: Human Resources Development

Subject Code: HR406

Year: II

Semester: IV

	HRD Experiments and Cases – In Other Countries	3L
<b>Total Number Of Hours = 40L</b>		

### **Assignments:**

Module I : Career and cultural building in respect of service Industry.

Module II : Presentation power point on experiments and cases on HRD

# **UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: **Strategic Management**  
Year: **2<sup>nd</sup> Year**

Subject Code: **MB402**  
Semester: **IV**

<b>Units</b>	<b>Topics</b>	<b>Number of Lectures</b>
1	<b>Strategic Management</b> : Objectives, policies, Tools – Balanced Score Card, Strategic Management process.  <b>Environmental Scanning</b> : SWOT Analysis, External Environment Analysis (Economic, Legal, Govt, Political, Social, Geographic, Technical); Internal Environment Analysis - Strategic Advantage Factors (Finance, Market Production, HR, R & D, etc.)	9L
2	<b>Strategic Planning</b> :Corporate; Functional and Managerial Goal Setting; Positioning Organization, Models for Resource Allocation, Environmental Turbulence Strategic Investment, Strategic Entry	5L
3	<b>Formulating Strategies</b> : Corporate, Administrative/Executive and Operating Levels, Developing Functional Strategies – Production/Operations, Finance, Marketing, HR, Materials, R & D; BCG Matrix, Portfolio analysis.	9L
4	<b>Implementation of Strategies</b> : Role of Managers, Leadership, Strategic Control System and Measurement, Structural Implementation, Functional Implementation. <b>Strategic Actions</b> : Mergers, Acquisitions, Diversification, Joint Ventures, De-Merger	12L
5	<b>Evaluation of Strategy</b> : Need, Problems, Criteria for Evaluation (Qualitative/Quantitative), Process of Evaluation	6L
<b>Total Number Of Hours = 42 L</b>		

**Prof DR Preeti Sharma**

**Prof DR Preeti Sharma**

Faculty In-Charge

HOD, Management Dept

# **UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: Industrial Relations

Subject Code: HR404

Year: II

Semester: IV

<b>Module Number</b>	<b>Topics</b>	<b>Number of Lectures</b>
Module-I  (20 hrs)	<b>Chapter 1: Industrial Relations</b>	<b>4L</b>
	- Concept, to IR	1L
	- Approaches	1L
	- Parties to IR	1L
	- System Model of IR	1L
	<b>Chapter 2 : Industrial Workers in India</b>	<b>2L</b>
	- Rise of Industrial Workers,	1L
	- Problems of Industrial Workers (absenteeism, commitment, Work Ethics)Profile of Industrial Workers in India,	1L
	<b>Chapter 3: Trade Unionism in India</b>	<b>4L</b>
	- Origin, Growth, Structure and Management of Trade Unions, Recognitions, Leadership,	2L
	- Trade Unionisms, Employers' Organisations in India, Managerial Associations.	2L
	<b>Chapter 4. Industrial Relations in India</b>	<b>6L</b>
	- Labour Policy in Five Year Plans, Tripartism,	2L
	- Role of Government and State,	2L
	- Role of Trade Unions.	2L
	<b>Chapter 5. Industrial Disputes</b>	<b>4L</b>
	- Causes, Types, Trends and Settlement of Disputes	2L
- Settlement of Disputes (Internal Options, Third Party Machinery	2L	
Module-II  (20 Hrs)	<b>Chapter 6. Collective Bargaining</b>	<b>4L</b>
	- Theories, Prerequisites, Process, Negotiating Skills and Strategies,	2L
	- Agreement –content, Validity, Implementation, Productivity Bargaining, Growth of Collective Bargaining in India.	2L
	<b>Chapter 7. Workers' Participation in Management</b>	<b>4L</b>
	- Concept, Purpose and Practices in other countries;	1L
	- Workers' Participation Schemes in India – Works Committee, Joint Management Council, Worker – Director, Shop Council and Joint Council, WPM, EPM;	2L
	- Problems and Prospects in India; Quality Circles – Concept and Practices in India.	1L
	<b>Chapter 8. Labour Welfare and Industrial Relations</b>	<b>4L</b>
	- Concept, Purpose, Statutory and Non-Statutory Provisions, ILO Conventions and its application in India,	3L
- Workers' Education Programmes in India.	1L	

	<b>Chapter 9. Employee Discipline</b>	<b>4L</b>
	- Meaning Types, Misconduct,	1L
	- Domestic Enquiry, Grievance Handling.	1L
	- Disciplinary Action,	1L
	- Grievance Handling.	1L
	<b>Chapter 10. Case Studies</b>	<b>4L</b>
	- Wage Negotiation, Disciplinary Action, Industrial Disputes	2L
	- Wage Negotiation, Disciplinary Action, Industrial Disputes	2L
<b>Total Number Of Hours = 40L</b>		

**Assignments:**

Module-I: Case Study on trade Union

Module-II: Case Study on Domestic Enquiry on sexual harassment of women worker

# UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR

## Lecture-wise Plan

Subject Name: **INTERNATIONAL MARKETING**  
Year: **2<sup>nd</sup> Year**

Subject Code: **MM404**  
Semester: **4<sup>TH</sup>**

UNITS	TOPICS	HRS
1	<b>Introduction:</b> Definition of international marketing, Domestic vs. international marketing, Benefits of international marketing, Process of internationalization, Marketing orientation of a firm <b>Trade Theories:</b> Basis of international trade, Principles of absolute and relative advantage, Factor endowment theory	<b>6L</b>
2	<b>Dynamics of World Market:</b> Identifying and satisfying global needs, Coordinating activities and recognizing constraints <b>Environment of International Marketing: Economic-cultural</b> – culture and its characteristics, influence of culture on consumption decisions, cultural universals, <b>Politico- Legal</b> – concept of multiplicity of political and legal environment, different political and legal systems	<b>8L</b>
3	<b>International Institutions:</b> (only the objectives) – WTO, World Bank, IMF, ADB, UNCTAD, EEC, SAPTA, NAFTA etc. <b>International Product Policy:</b> New product policy, International product life cycle, Product line policies, Branding, packaging and labeling	<b>7L</b>
4	<b>International Pricing Strategies:</b> Factors in pricing, Alternative strategies, Forfeiting, Transfer pricing, Dumping, Counter trade <b>Distribution:</b> Methods of entry into foreign markets, Foreign market channels, Global logistics	<b>7L</b>
5	<b>Promotion:</b> Global promotion mix, Standardized global communication <b>Foreign Exchange:</b> Concepts of spot rate, forward rate, arbitrage, translation; FEMA <b>Procedure of Foreign Trade and Documentation:</b> Process of importing and exporting, Documentation (only the purpose) – certificate of origin, bill of lading, mates receipt, letter of credit, line of credit	<b>12L</b>
		<b>4L</b>



# UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR

## Lecture-wise Plan

Subject Name: **Consumer Behaviour**  
Year: **2<sup>nd</sup> Year**

Subject Code: **MM405**  
Semester: **4<sup>th</sup>**

UNITS	TOPICS	HRS
1	<p><b>Service Marketing:</b> Introduction, Need and scope of service marketing, Reasons for growth of services, Contribution to economy, Different types of service sectors – traditional and new, Trends in service sector, Impact of technology on different service sectors</p> <p><b>Service Concept:</b> Definition, Characteristics of services, Tangibility continuum, Marketing mix for services - product, price, place, promotion, physical evidence, people &amp; process</p> <p><b>Consumer Behaviour in Service Marketing:</b> Service Experience-moments of truth, customer needs, expectations, perceptions, zone of tolerance, customer satisfaction, understanding the differences among customers</p>	<b>12 L</b>
2	<p><b>Service Strategy Planning:</b> Understanding the customer and competition, Positioning services, Service triangle concept</p> <p><b>Creating the Service Product:</b> Creating service product, Customer value hierarchy, Flower of service, Service product mix, Branding service products</p> <p><b>Service Marketing Communications:</b> Elements of promotional mix for services</p>	<b>5L</b>
3	<p><b>Pricing of Services:</b> Foundations of pricing, How service prices are different, Approaches to pricing</p> <p><b>Distributing Services:</b> Distribution in service context, Direct channels, franchising, agents and brokers, electronic channels, Strategies for effective delivery</p> <p><b>Designing and Managing Services:</b> Designing service delivery system, Service blue printing, Quality function deployment, Customer as co-producer</p>	<b>6L</b>
4	<p><b>Managing Demand and Capacity:</b> Capacity constraints, Demand patterns, Strategies for matching capacity and demand, Wait lines and reservations</p> <p><b>Planning the Service Environment:</b> Physical evidence, Servicescapes - types and role, customer response to environment, guidelines for servicescape strategies</p> <p><b>Managing People:</b> Critical importance of service employees, Problems and difficulties of boundary-spanning roles, Strategies for delivering service quality through people, Service leadership and culture</p>	<b>5L</b>
5	<p><b>Service Quality:</b> Service quality, Integrated Gap model - to identify and correct quality problems, Measuring and improving service quality</p> <p><b>Different Services:</b> Nature and characteristics of financial, hospitality, health-care, educational &amp; professional, logistics, entertainment services and their respective marketing-mix analysis</p> <p><b>Building Customer Relationships:</b> Goals of relationship marketing, Understanding customer-firm relationships, Relationship value of customers, Customer profitability</p> <p>segment, Targeting right customers, Relationship development</p>	<b>8L</b>
		<b>4L</b>

# **UNIVERSITY OF ENGINEERING AND MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: **Consumer Behaviour**  
Year: **2<sup>nd</sup> Year**

Subject Code: **CS-303**  
Semester: **3rd**

<b>Module Number</b>	<b>Topics</b>	<b>Number of Lectures</b>
1	<b>1.Introduction to Consumer Behaviour:</b> Defining consumer behaviour, Impact on marketing strategies, Current trends in consumer behavior	<b>2L</b>
	<b>2. Consumer Decision Process:</b> Need recognition, information search, evaluation of alternatives, purchase decision, consumption and post-purchase evaluation, Variables that shape decision process- individual differences, psychological processes, environmental influences, Types of decision process – complex decision making, variety seeking, impulse buying, loyalty, degree of involvement in buying	<b>5L</b>
	<b>3.Individual Characteristics:</b> Demographic and psychographic characteristics and market segmentation, Personality, personal values, lifestyle concepts and measurements	<b>3L</b>
2	<b>4.Consumer Perception:</b> Marketing stimuli and perception, Perceptual selection - organization, interpretation, selective perception process	<b>2L</b>
	<b>5.Learning and Memory:</b> Information acquisition and processing, Learning elements, Theories, Memory processes	<b>2L</b>
	<b>6. Consumer Motivation:</b> Nature and role of motives, Classifying motives, Motive arousal, Motivation and involvement	<b>2L</b>
3	<b>7.Self Concept:</b> Perspective of self, Consumption and self concept, Gender roles	<b>2L</b>
	<b>8.Attitude:</b> Characteristics and functions of attitude, Attitude development, Attitude theories and models, Role of belief in attitude formation, Relationship of attitude and behaviour, Attitude reinforcement and change	<b>4L</b>
4	<b>9. Culture Subculture and Social Class:</b> Nature of culture, Cultural values, Changing values, Cross-cultural understanding of consumer behaviour, Types of subculture and their influence on behaviour, Nature of social class, Social stratification	<b>4L</b>
	<b>10. Reference Group Influence:</b> Nature and types of reference groups, How groups influence individuals, Opinion leadership, Word-of-mouth, Innovation and diffusion	<b>4L</b>

5	<b>11. Family and Household:</b> Structural and sociological variables affecting families and households, Family life cycles, Role behaviour, Conflict resolution, Changing role of women, Children and household consumer behaviour	<b>4L</b>
	<b>12. Organizational Buying Behaviour:</b> Organizational buyers versus consumers, Factors influencing business buying, Types of buying situations, Organizational buying process	<b>2L</b>
	TOTAL NO. OF HOURS= 36L	

Faculty

Agniva Saha

Management Dept.

# UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR

## Lecture-wise Plan

Subject Name: Software Management  
Year: 2<sup>nd</sup> Year

Subject Code-SM404  
Semester: Fourth

Module No	Topics	Number of Lectures
1	<b>Module 1</b>	
	<b>Project Management Concept</b>	2
	Description of software project & software project management	1
	4P Management Spectrum-Scope & composition.	1
2	<b>Module 2</b>	
	<b>System Development Life Cycle</b>	4
	Process model, Waterfall Model,	1
	Iterative Waterfall Model, Prototyping Model	1
	Evolutionary Model, Spiral Model	2
3	<b>Module 3</b>	
	<b>Project Scheduling- PERT, CPM. Gantt</b>	5
	Feasibility study, Work Breakdown Structure	1
	Gantt Chart	1
	Critical Path Method	1
	Program Evaluation & Review Technique-Detail study with problem solving	2
4	<b>Module 4</b>	4
	<b>Project Plan</b>	2
	Structure of Project Plan, Project organization	1
	Managerial process, Technical Process	1
5	<b>Module 5</b>	
	<b>Formal Technical Review</b>	4
	FTR- Software review	1
	role of people, Formal & informal review	1
	classification of software review	2
6	<b>Module 6</b>	
	<b>Cost estimation and COCOMO Model</b>	4
	Software cost estimation, Measuring software	1
	Function point Metric	1
	Basic-Intermediate-Advanced COCOMO Model,	1
	COCOMO II	1
7	<b>Module 7</b>	
	<b>Software Testing Methodology</b>	5
	Testing-Introduction, Testing types- Black box	1
	Testing type: White box & its classification, Unit Testing	2
	Testing Type: Integration testing, System testing & its classification	1

	Testing Type: Acceptance, Regression.	1
8	<b>Module 8</b>	
	<b>Quality Management</b>	4
	Total Quality Management, Quality Assurance	1
	McCall's Quality Factor, Quality standards- ISO 9000,	1
	ISO 9001, ISO 90003, ISO 27001,ISO 10002	1
	CMM, Six Sigma	1
9	<b>Module 9</b>	
	<b>Risk Management</b>	2
	Introduction to Project Risk, Risk Management Process	1
	Risk Assessment, Risk Control	1
10	<b>Module 10</b>	
	<b>Configuration Management</b>	3
	Software versions, Why configuration management	1
	Configuration Identification, Configuration Control	1
	Configuration Accounting	1
11	<b>Module 11</b>	
	<b>Project Management Software</b>	2
	Introduction to Project Management software, tasks, categories, issues	1
	Comparisons of Project Management software's, working with MS Office EPM	1
<b>Total=39</b>		

Faculty In-Charge

HOD, CSE Dept.

**Assignment:**

1. Identify the key aspects in which modern software project management practices differs from those of traditional software project management.
2. Explain the major activities carried out by a software project manager and the order in which these are carried out.
3. What are various cost-benefit evaluation techniques used to evaluate a project.
4. List the products created by the stepwise planning projects.
5. Describe the overview of stepwise planning carried out in a project.
6. What are the major short comings of the water fall model? How can those shot comings be overcome by the agile model.
7. Explain which model is suitable for development small game program, justify your answer?
8. What is caper jones rule of thumb and explain it in detail?
9. Suppose that off-the-shelf price of a certain management information system(MIS) software product is Rs-50,000/- and it's size is kdsi. Assuming that in-house developers cost

# **UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Rs-2,000/- per programmer-month (including overheads); would it be more cost effective to buy the product or build it. Which elements of the cost are not included in cocomo estimation model. what additional factors should be considered while making the decision to buy or build the product.

10. What is risk of a project and how it can be identified and assessed?

# **UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: Fundamentals of Networking  
Year: 2<sup>nd</sup> Year

Subject Code-SM406  
Semester: Fourth

<b>Module Number</b>	<b>Topics</b>	<b>Number of Lectures</b>
1	<b>Data Communication Fundamentals:</b>	<b>10L</b>
	1. Layered Network Architecture; Data and Signal; Guided Transmission Media; Unguided Transmission Media; Transmission Impairments and Channel Capacity; Transmission of Digital Signal; Analog Data to Analog Signal; Digital Data to Analog Signal; Multiplexing of Signals: The telephone system and DSL technology; Cable MODEM and SONET	10
2	<b>Data Link control:</b>	<b>6L</b>
	1. Interfacing to the media and synchronization; Error Detection and Correction; Flow and Error control; Data Link Control.	10
3	<b>Switching Communication Networks:</b>	<b>8L</b>
	1. Circuit switching; Packet switching; Routing in packet switched networks; Congestion control in packet switched networks; X.25; Frame Relay; Asynchronous Transfer Mode Switching (ATM).	8
4	<b>Broadcast communication networks:</b>	<b>10L</b>
	1. Network Topology; Medium Access Control Techniques; IEEE CSMA/CD based LANs; IEEE Ring LANs; High Speed LANs – Token Ring Based; High Speed LANs – CSMA/CD based; Wireless LANs; Bluetooth; Cellular Telephone Networks; Satellite Networks.	10
5	<b>Internetworking:</b>	<b>6L</b>
	1. Internetworking Devices; Internet Protocols; TCP/IP; Transport and Application layer protocols. Network Security: Cryptography; Secured Communication; Firewalls.	6
<b>Total Number Of Hours = 40</b>		

## **Assignments:**

### **Module-1:**

1. Write down the functions of OSI Layers
2. What will be SNR value in case of noiseless channel?
3. Define Bandwidth? Create the relationship between Bit Rate and Baud Rate?
4. Write down the names of network impairments?
5. Write down the features and basic components of a computer network
6. What kind of topology is well suited for university or college environment?
7. Why we need layered architecture?
8. What will be the channel capacity of a noisy channel having SNR value= 20dB and Bandwidth=3 KHz?

### **Module-2:**

1. What is the significance of sequence number in Stop & Wait ARQ protocol?
2. Discuss Stop & Wait ARQ with 010101 bit sequence?
3. In Selective-Repeat ARQ, sender window size  $> 2m-1$ . Is it correct? Justify.
4. Suppose a sender is using sliding window protocol of window size 15. What will be the window status for the following occurrence? Sender has sent packets 0 to 11 and has received NAK 6.
5. Define ALOHA? Differentiate between Pure and Slotted ALOHA.

### **Module-3:**

1. Differentiate between circuit switching and packet switching.
2. Write short notes on the following topic:
  - A. Frame Relay
  - B. X.25
  - C. ATM
3. Why packet switching is connection less?

### **Module-4:**

1. Discuss CSMA/CA with the help of a flowchart.
2. Why CSMA/CD is not implemented in WLAN?
3. Describe 802.3 header formats. Why padding is required?
4. Describe Bluetooth Architecture.
5. Differentiate between Token Ring and Token Bus.

### **Module-5:**

1. What is distance vector routing protocol? What is the difference between RIP and EGP?
2. Distinguish between gateway and bridge. What is transparent bridge?
3. A network has subnet mask 255.255.255.224 Determine the maximum or number of Host in this network. Also determine the broadcast address of this network.
4. Compare IPv4 and IPv6
5. What is the purpose of subnetting? Find the netid and the host id of the following IP address
  - A. 192.167.78.1
  - B. 10.10.10.10
  - C. 189.32.1.34
6. What is CIDR? Define NAT with proper example?



# **UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR**

## **Lecture-wise Plan**

Subject Name: Fundamentals of Networking  
Year: 2<sup>nd</sup> Year

Subject Code-SM406  
Semester: Fourth

7. Write the differences between ARP and RARP?
8. Write the differences between TCP and UDP?
9. Differentiate Leaky Bucket Algorithm from Token Bucket Algorithm.
10. Why IP address is 32 Bit? How we need so many addresses? Compare IP address, Mac Address, Port address and Socket address?
11. Define Count to infinity problem? Which routing algorithm faces this problem?
12. Write the short notes on the following
  - A. DNS
  - B. FTP
  - C. EMAIL
  - D. MIME
  - E. POP3
  - F. SMTP
13. How are 'iterative query resolution and 'recursive query resolution different from each other in the context of DNS?
14. What do you understand by data privacy? How can authentication, integrity and non-repudiation be implemented by Digital Signature?
15. Define Firewall? Discuss all types of Firewall.