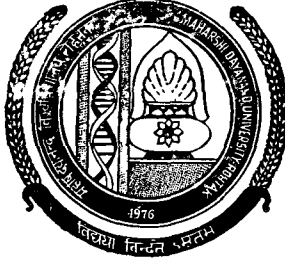


Maharshi Dayanand University Rohtak



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Ordinances, Syllabus and Courses of Reading for P.G. Diploma in Network Examination

Session—2002-2003

Available from :

Deputy Registrar (Publication)
Maharshi Dayanand University
Rohtak-124 001 (Haryana)

Price :

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
POST GRADUATE DIPLOMA IN NETWORK
MANAGEMENT (PGDNM)

(Distance Mode)

It is one-year Post Graduate Diploma Course in Network Management. A Candidate can get admission in first semester of this course after graduation in any discipline or equivalent. After doing this course a candidate can seek for the job of Network Administrator etc.

Eligibility :

A Candidate seeking admission to Post Graduate Diploma in Network Management (PGDNM) should have three years Bachelor Degree (or equivalent thereto) in any discipline.

Duration :

It is one-year programme comprising two semesters.

Scheme of Examination

MAHARSHI DAYANAND UNIVERSITY, ROHTAK
POST GRADUATE DIPLOMA IN NETWORK
MANAGEMENT (PGDNM)

(Distance Mode)

Syllabus

Paper No.	Title of Paper	Max. Marks/ Pass Marks	Exam Duration
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FIRST SEMESTER

PGDNM-01	Concept of IT Management	100/40	3 Hrs. each
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PGDNM-02	Automation of Business Systems	100/40	3 Hrs. each
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PGDNM-03	Basic Communication Systems	100/40	3 Hrs. each
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PGDNM-04	Information Security	100/40	3 Hrs. each
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PGDNM-05	Practicals	100/40	4 Hrs. each
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(Based on PGDNM-01 & 02)

SECOND SEMESTER

PGDNM-06	Advanced Communi- cations	100/40	3 Hrs. each
PGDNM-07	Network Security	100/40	3 Hrs. each
PGDNM-08	E-Business and Web Systems	100/40	3 Hrs. each
PGDNM-09	Practical (Based on PGDNM-07 & 08)	100/40	4 Hrs. each
PGDNM-10	Project, Report & Viva-voce (Based on any Language, Software Development Tool, etc.)	100/40	4 Hrs. each

Note : Out of 100 marks for each paper, including Theory, Practicals and Project, 25 marks are reserved for internal assessment with the following distribution :

Assignments : 15 Marks

Internal Test(s) : 10 Marks

FIRST SEMESTER

PGDNM-01 : Concepts of IT Management

Max. Marks : 75

Time Allowed : 3 Hrs.

Note :

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Role and scope of information Technology :
Fundamentals of Information technology, Word Processing Tools, Basics of Data Storage Systems, Accounting Softwares and spread sheets, Reporting Tools and MIS. Information technology for Business and Industrial Applications : Introduction to Business Applications, Basics of Resource Planning Systems, Requirements of Industrial Applications.

PGDNM-02 : Automation of Business Systems

Max. Marks : 75

Time Allowed : 3 Hrs.

Note :

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Principles of Connectivity : Basic Principles of Connectivity, Types of Networks, Requirement of Data Transfer Systems, Network Design and Analysis : Analysis of Organizational Requirements, Components of Network, Hardware Requirements and Selection, Types of Networks and Network Layouts. Protocols and Protocol management : Basic Protocols and Architecture, Protocol Layers and Their Functions, TCP/IP Networks and Novel Network.

PGDNM-03 : Basic Communication Systems

Max. Marks : 75

Time Allowed : 3 Hrs.

Note :

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Understanding Communication Systems : Concepts of Data and Signals, Types of Communication Systems, Mathematics in Telecommunications. Fundamentals of Telecommunications : Basic Telecommunications, Telecommunications for non-engineers, Fundamentals of Signals Processings. Transmission Systems and Fibre Optics : Types of Transmission Systems, Understanding Fiber Optic Networks, Modulations.

PGDNM-04 : Information Security**Max. Marks : 75****Time Allowed : 3 Hrs.****Note :**

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Analysis of Security Risks in information Systems : Risk Analysis of Networks, Designing of Protection Systems for Networks. Encryption Systems and Cryptography : Understanding Cryptography, Public Key and Private Key Architectures, SS L. Encryption Algorithms : IDEA and SKIP Encryptions, RSA Algorithms, Digital Signature - DSA and Message Digests.

PGDNM-05 : Practicals**(Based on PGDNM-01 & 02)****Max. Marks : 75****Time Allowed : 4 Hrs.****PGDNM-06 : Advanced Communication System****Max. Marks : 75****Time Allowed : 3 Hrs.****Note :**

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Computer Telephony Interfaces : Fundamentals of CTI, CTI in Business Applications, Designing and implementing CTI. Broad Band Communication : Fundamentals of Broadband Systems, Requirements of Broadband Systems, Designing and Implementing Broad Band Networks. Wireless Communication and Digital Telecom : Basic of Wireless Communication, WAP and Blue tooth, Digital Signal Processing and Modulation, Digital Transmission networks.

PGDNM-07 : Network Security

Max. Marks : 75

Time Allowed : 3 Hrs.

Note :

- i) The examiner has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Attack Profiles, Virus Detections and Definitions : Analysis of Attack Profiles, Understanding Viruses, Virus Detection Systems and Anti-Virus Tools. Firewalls and Proxies : Understanding Policy based Security Systems, Types of Firewalls and Their Implementations, Proxy servers as Firewalls, Policy Definitions. Routers, Gateways and VPN's : Implementation and Setup of Routers, Routers as Security Managers, Gateways and SPX Protocols, Managing Heterogeneous Network Systems.

PGDNM-08 : E-Business and Web Systems

Max. Marks : 75

Time Allowed : 3 Hrs.

Note :

- i) The examiner, has to set 8 questions in all and students will have to attempt any 5 questions.*
- ii) All questions will carry equal marks.*

Web Server Administration : Web Server Architectures, Managing IIS Servers, Managing Apache servers, Setting Up Mail Servers and FTP Servers. Electronic Payment Systems : Types of Electronic Payment Systems, Merchant Banks, SET and Transaction Procession. Cyber Laws : The Concept of Intellectual Property, Copyright and neighbouring Rights, Protection of New Technological developments.

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PGDNM - 09 : Practicals

(Based on PGDNM-07 & 08)

Max. Marks : 75

Time Allowed : 4 Hrs.

PGDNM - 10 : Project Report & Viva-voce

**(Based on any language, Software Development
Tool, etc.)**