FACULTY OF ENGINEERING & TECHNOLOGY

SYLLABUS

FOR

M.Sc. (Network & Protocol Design)  
(Two Years Course)

(SEMESTER: I – IV)

Session: 2019-20

GURU NANAK DEV UNIVERSITY
AMRITSAR

Note: (i) Copy rights are reserved.  
Nobody is allowed to print it in any form.  
Defaulters will be prosecuted.

(ii) Subject to change in the syllabi at any time.  
Please visit the University website time to time.
M.Sc. (NETWORK & PROTOCOL DESIGN)  
(SEMESTER SYSTEM)

Eligibility:

Graduate with Computer Science/IT/ Computer Applications / Computer Maintenance as one of the elective subjects with 50% marks in aggregate.

**OR**

BCA/B.Sc. (IT)/ BIT of GNDU or equivalent there to with atleast 50% marks in aggregate.

**OR**

Graduate with mathematics as an elective subject and Post-Graduate Diploma in Computer Applications / PG Diploma in Information Tech. / PG Diploma in E-Commerce & Internet Application or equivalent with 50% marks in the aggregate.

**Scheme**

**SEMESTER–I:**

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSNP-101</td>
<td>Advanced Networks Communication Concepts and Techniques</td>
<td>100</td>
</tr>
<tr>
<td>MSNP –102</td>
<td>Concept of Core and Advanced Java</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -103</td>
<td>Advanced Mobile Communications</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -104</td>
<td>Network Programming Concepts: Sockets, TCP and UDP Communication</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -105</td>
<td>Network Operating System</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -106P</td>
<td>Programming Lab</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>Total Marks:</strong></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>

**SEMESTER–II:**

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSNP-201</td>
<td>Network Programming-I Sockets API in C and LINUX</td>
<td>100</td>
</tr>
<tr>
<td>MSNP - 202</td>
<td>Design &amp; Implementation of Client-Server Architecture</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -203</td>
<td>Protocol Designing</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -204</td>
<td>Recent Routing Techniques</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -205</td>
<td>Advanced Network Design and Security Concepts</td>
<td>100</td>
</tr>
<tr>
<td>MSNP -206P</td>
<td>Network Programming Lab</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>Total Marks:</strong></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>
### SEMESTER–III:

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSNP-301</td>
<td>Linux Administration</td>
<td>100</td>
</tr>
<tr>
<td>MSNP-302</td>
<td>Network Design and Performance Analysis</td>
<td>100</td>
</tr>
<tr>
<td>MSNP-303</td>
<td>ASP.NET</td>
<td>100</td>
</tr>
<tr>
<td>MSNP-304</td>
<td>Exchange Server</td>
<td>100</td>
</tr>
<tr>
<td>MSNP-305</td>
<td>Network Security</td>
<td>100</td>
</tr>
<tr>
<td>MSNP-306</td>
<td>Programming Lab</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>Total Marks:</strong></td>
<td><strong>600</strong></td>
</tr>
</tbody>
</table>

### SEMESTER–IV:

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSNP-401</td>
<td>Industrial Training</td>
<td>(Ext. 400 + Int. 200)</td>
</tr>
</tbody>
</table>
MSNP-101: Advanced Networks Communication Concepts and Techniques

Time: 3 Hours

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

The student can use only Non-programmable & Non-storage type calculator.

Section–A

Multiplexing:- FDM,STDM; i.e Synchronous & Statistical Time Division Multiplexing. ATM Protocol Architecture, ATM Logical Connection, ATM Cells, Transmission of ATM Cells, ATM Service categories, ATM adaptation Layer.

Section–B

Section–C

Section–D
Application Layer Protocols: Basics, Commands: TCP, UDP, FTP, TFTP, TELNET, Ping, Trace route, SMTP, POP3, SNMP, Time Protocol, NNTP.

References:
MSNP-102
Concept of Core and Advanced Java

Time: 3 Hours
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

The student can use only Non-programmable & Non-storage type calculator.

Section–A
Java Fundamentals: Features, Object Oriented Basics, Java Virtual Machine
Character set, Operators, Data Types, Control Structures

Section–B
Classes, Inheritance, Polymorphism, Packages & Interfaces, Stream IO Classes
Exception Handling, Multithreading, Applet Package

Section–C
Applet Programming

Section–D
Distributed Programming in Java using RMI, COBRA Technologies

Network Programming in Java using Sockets API

Protocol Design: Telnet, FTP, Web Server

References:
MSNP 103
Advanced Mobile Communications

Time: 3 Hours
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section--A
Introduction: Introduction to wireless & mobile communication, wireless transmission, multiplexing, modulations, spread spectrum, cellular systems.
Telecommunication systems: GSM, DECT, TETRA, UMTS & IMT-2000

Section--B
Satellite Systems: Basics, routing, localization, handover
Broadcast System: Cyclical repetition of data, digital audio and video broadcasting, Convergence of broadcasting and mobile communication.

Section--C
Wireless LAN: Comparison of infrared and radio transmission, infrastructure and adhoc networks, IEEE 802.11, HIPERLAN, Bluetooth

Section--D
Mobile Transport Layer: Traditional TCP, TCP improvements, TCP over 2.5/3G wireless networks
Support for Mobility: World wide web, wireless application protocol (version 1.x), wireless telephony application, push architecture, push/pull services, WAP 2.0
Architecture of Future Networks

Reference:
MSNP-104
Network Programming Concepts: Sockets, TCP and UDP Communication

Time: 3 Hours  
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A
Sockets and Socket Address structures, Concept of Zombies, Daemon Processes, Super servers, Concurrent versus Iterative servers, Protocol Independence, Error Handling: Wrapper functions, OSI Model, Unix standards

Section–B
TCP Connection Establishment & Termination, Port Numbers and Concurrent Servers, Protocol Usage by common Internet Applications

UDP Communication Semantics, UDP Echo Server, Echo Client working, Protocol Usage by Common Internet Applications

Section–C
Sockets Address Structures, Byte ordering & Manipulation Functions, TCP Socket System Calls, TCP Client- Server E.g., I/O Multiplexing, Signal Handling in Concurrent Servers

Elementary TCP sockets: socket function, canned function, blind function, listen function, accept function, conclusion server, close function

Section–D
I/O multiplexing: select & Pol functions, I/O model, batch input TCP echo server.

Socket Options, Elementary Names Address Conversions, IPv4 and IPv6 Interoperability

References:
Note: students should be taught these concepts on ANSI C & POSIX Standards
M.Sc. (NETWORK & PROTOCOL DESIGN)
(SEMESTER-I)

MSNP-105
Network Operating System

Time: 3 Hours Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A

Section–B
Disk Management: Terminology and Concepts, Managing Disks, Managing Basic and Dynamic Disks, Disk Quotas, Disk Fragmentation, Remote Storage, RAID and Mirroring.
Servers: Managing DHCP, IIS, WINS, DNS and Proxy servers.

Section–C


Section–D
Special Topics: Introduction to E-Mail, Telnet and FTP, Distributed Systems.
Case and Comparative Studies: Windows 2003 server and Unix/Linux.

Reference:
M.Sc. (NETWORK & PROTOCOL DESIGN)  
(SEMESTER-I)

MSNP-106P  
Programming Lab

Time: 3 Hours  
Marks: 100

Programming Lab based on Advanced Java and Network Operating System.
MSNP-201
Network Programming-I Sockets API in C and LINUX

Time: 3 Hours  
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A
Advanced sockets, Advanced Names & Address conversions, Daemon Processes and their Implementation, Advanced I/O Functions: recv & send, readv & writev, recvmsg & sendmsg

Section–B
UNIX Domain Protocols, UNIX domain Socket address structure, Socket Functions, Stream & Data gram Client-Server.

Section–C
Nonblocking I/O, Routing sockets, Broadcasting & Multicasting, Advanced UDP Sockets, Raw Sockets

Section–D
Threads, Multithreading, POSIX Standards for Thread Implementation, Mutual Exclusion, Pipes, Web server and Web Client Implementation

References:
M.Sc. (NETWORK & PROTOCOL DESIGN)
(SEMESTER-II)

MSNP-202
Design & Implementation of Client-Server Architecture

Time: 3 Hours Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A
Client-Server Need, Benefits, Migration from Centralized to Decentralized Heterogeneous Computing, Client-Server Computing midway in Distributed and Heterogeneous Computing Communication techniques in Client-Server

Section–B
Memory Management and Protection for Network Operating system, Distributed File System Client-server Process based vs Thread based, Multithreading

Section–C

Section–D

Client-Server Architecture Design: Independence at OS, File System Level, IPC Layer Formulation: Predefined vs Flexible, Application Layer

Section–D
Middleware: MOM, CORBA, COM, DCOM
RPC: Synchronous and Asynchronous

References:
Instructions for the Paper Setters:
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A

How to Specify Network Protocols: Syntax and semantics of Traditional protocol specifications, new protocol specifications
First protocol Examples: Vending machine, Request/Reply, Manchester Encoding

Section–B

Network Processes: Constants, inputs and variables, actions, protocol execution
More on Processes: Messages with fields, Nondeterministic assignment, Process arrays, parameters, Resource allocation protocol

Section–C

Transmission errors
Maintaining local, global, hierarchical topology information
The abstraction of perfect channel, Application structures

Section–D

Data Compression: Huffman coding, static Huffman compression, dynamic Huffman compression, context sensitive compression, lossy compression
Applications, Protocol layers and hierarchies

Reference:
Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section–A
Hubs, switches, faster LANs, virtual LANs
Distance vector routing, link state routing, load splitting, link cost, migrating routing algorithms
Intradomain routing protocols, RIP, RTMP, IPX – RIP, DECnet, IS-IS, OSPF, NLSP and PNNI.

Section–B
Interdomain switches, bridges vs routers, extensions to Bridges, extensions to routers.
Routers and LANs, Routers and WANs, Mechanics of routing Protocols, Internetworking with dissimilar protocols, future of routing.

Section–C
Protocol Designing: Simplicity vs flexibility vs optimality, overhead & scaling, operation above capacity, forward compatibility, migration: routing algorithms & addressing parameters.

Section–D
Protocol Designing: Making multiprotocol operations possible, robustness, determinism vs stability, performance for correctness.

Reference:
1. Interconnections: Bridges, routers switches & Internet-working protocols
   Radia Perlman (Pearson Education)
2. IP Routing Fundamentals, Mark Sportack (Pearson Education)
MSNP-205
Advanced Network Design and Security Concepts

Time: 3 Hours  Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

The student can use only Non-programmable & Non-storage type calculator.

Section–A
Basics: Introduction, Protocol Structure
Specification and Modeling: Validation Models, Correctness Requirements, Protocol Design, Finite State Machines

Section–B

Section–C
Design Tools: A protocol Simulator, A Protocol Validator, Using the Validator

Section–D

Reference:
Design and validation of computer protocols: Gerard J. Holzmann (Prentice Hall)
MSNP 206P
Network Programming Lab

Time: 3 Hours  Marks: 100

Network Programming Lab based on socket API in C and LINUX / SOLARIS
Time: 3 Hours  
Marks: 100

Instructions for the Paper Setters:
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section A
Introduction: Introduction to LINUX, Installing LINUX, Partitions, LILO, Installing software packages. Updating with Gnome, Updating with KDE, Command line installing.


Section B
Administering Linux: Creating a user A/C, modifying a user A/C, Deleting a user A/C, Checking Disk Quotas, System Initialization, System start-up & shutdown, Installing & managing H/W devices.

Setting Up A LAN: Understanding LAN, Setting up Wireless LAN, Understanding IP address, Troubleshooting LAN.

Section C
Setting Up Print Server: Choosing CUPS, Working with CUPS Pointing, Managing Pointing, Configuring Point Server.

Setting Up File Server: Setting up an NFS, SAMBA, Installing & Running send mail.

Section D
Setting Up Web Server: Configuring the Apache Server, Starting & stopping the server, Monitoring Server Activities.

Setting Up DHCP & NIS: Setting up DHCP Server, Setting up DHCP Client, Setting up Network Information Service.

Troubleshooting: Troubleshooting LINUX in GRUB mode.

References:
1. Redhat Linux(10) Bible : Christopher Negus, 2003
2. Linux Unleashed : Tim Parker, 2006
MSNP-302
Network Design & Performance Analysis

Time: 3 Hours  
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. The student can use only Non-programmable & Non-storage type calculator.

Section A
Requirements, Planning & Choosing Technology: System requirements, Traffic sizing characteristics time & delay consideration.

Traffic Engineering and Capacity Planning: Throughput calculation traffic characteristics & source models, Traditional traffic engineering, Queued data & packet switched traffic modeling, Designing for peaks, Delay or latency

Section B
Network Performance Modeling: Creating traffic matrix, Design tools, Components of design tools, Types of design projects.

Technology Comparisons: Generic packet switching networks characteristics, Private vs. public networking, Business aspects of packet, Frame and cell switching services, High speed LAN protocols comparison, Application performance needs, Throughput, burstiness, Response time and delay tolerance, Selecting service provider, Vendor, service levels etc.

Section C
Access Network Design: N/W design layers, Access N/W design, Access N/W capacity, Backbone N/W design, Backbone segments, Backbone capacity, topologies, Turning the network, Securing the network, Design for network security.

Documentation and Network Management: Documentation, Network management, SNMP, RMON.

Section D
Network Optimization: Network optimization theory, Goals of network optimization, measurements for network optimization, Optimization tools, Optimization techniques.

Reference:
Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four
Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are
required to attempt five questions, selecting at least one question from each Section. The fifth
question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section A
Using The Standard Controls: Display information, Accepting user input, Submitting form
data, Displaying images, Using the panel control, Using the hyperlink control.

Using The Validation Controls: Using the required field validator control, Using the range
validator control using the compare validator control, Using the regular expression validator
control, Using the custom validator control, Using the validation summary controls.

Using The Rich Controls: Accepting file uploads, Displaying a calendar, Displaying
advertisement, Displaying different page views, Displaying a wizard.

Section B
Designing Website With Master Pages: Creating master pages, Modifying master page
content, Loading master page dynamically.


Using The SQL Data Source Control: Creating database connections, Executing
database commands, Using ASP.net parameters with the SQL data source controls,
Programmatically executing SQL data source commands, Cashing database data with the SQL
data Source controls.

Section C
Using List Controls: Overview of the list controls, Working with the dropdown list control,
Working with the radio button list controls, Working with the list box controls, Working with
the bulleted list controls, Creating a custom list controls.

Using The Grid View Controls: Grid view control fundamentals, Using field with the gridview
control, Working with grid view control events extending the grid view control.

Building Data Access Components With ADO.NET: Connected the data access, Disconnected
data access, Executing a synchronous database commands, Building data base objects with the
.NET framework.

Section D

Cashing Application Pages And Data: Overview of caching, Using page output caching, Using
partial page cashing, Using data source cashing, Using data cashing, Using SQL cache
dependences.

Reference:

ASP.NET 3.5: Stephen Walther, Pearson Education, 2005
Instructions for the Paper Setters:
Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
The student can use only Non-programmable & Non-storage type calculator.

Section A
Microsoft exchange server 2003 and active directory: Active directory – Introduction, Integration of window server 2003 and exchange server 2003 protocol and services
Preparing a Microsoft exchange server 2003 environment: Installation requirements, preparing forests and domains

Section B
Configuring a secure Exchange Server 2003 Environment: Securing Mail Boxes, Implementing Digital Signature and encryption capabilities, configuring fire walls, configuring Administrative permission, allowing only required services to run on Exchange 2003.

Section C
Managing Exchange Recipients: Introduction to exchange Recipients, Creating deleting and modifying user and contacts, Managing Mail boxes, Managing Mail-Enabled Groups.
Managing Public Folders: Managing Public folder data, Managing access to Public folder, Publishing an Outlook 2003 form
Creating and Managing address List: Introduction to address List, Managing and Customize addresses List

Implementing Client Access with Internet Protocol: Introduction to client access protocol implementing a front-end and back-end server topology, implementing and managing outlook web access
Managing Client Configuration and connectivity: Configuring and customize outlook 2003, Calendaring Tasks in Outlook 2003, Installing and configuring outlook express
Section D


Managing data storage and hardware resource: Managing data storage, Managing disc space, managing hardware upgrades


Migrating users from Exchange server 5.5 to Exchange server 2003: Populating active directory with windows NT user and group accounts, Connecting the exchange directory to active directory

Reference:

M.Sc. (NETWORK & PROTOCOL DESIGN)  
(SEMESTER-III)

MSNP-305  
Network Security

Time: 3 Hours  
Marks: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. 
The student can use only Non-programmable & Non-storage type calculator.

Section A


Section B
Stateful Firewalls: How a Stateful Firewall Works, The Concept of State, Stateful Filtering and Stateful Inspection.

Proxy Firewalls: Fundamentals of Proxying, Pros and Cons of Proxy Firewalls, Types of Proxies, Tools for Proxying.

Section C
Security Policy: Firewalls Are Policy, How to Develop Policy, Perimeter Consideration.


Host Hardening: The Need for Host Hardening, Removing or Disabling of Unnecessary Programs, Limiting Access to Data and Configuration Files, Controlling User and Privileges, Maintaining Host Security Logs, Applying Patches, Additional Hardening Guidelines.

Section D

**Instruction Prevention Systems**: What is IPS, IPS Limitation. NIPS, Host-Based Intrusion Prevention Systems, Monitoring File Integrity, Monitoring Application Behavior.


**Separation Resources**: Security Zones, Common Design Elements, VLAN-Based Separation.


**Reference**:
Inside Network Perimeter Security

- Stephen Northcutt
- Lenny Zeltser
- Scott Winters, Pearson Education, 2007
M.Sc. (NETWORK & PROTOCOL DESIGN)
(SEMESTER-III)

MSNP-306
Programming Lab

Time: 3 Hours
Marks: 100

Programming Lab based on Linux Administration and ASP.NET
I\textsuperscript{st} Synopsis (Containing mainly literature survey corresponding to the problem taken up for the project work and line of attack to solve the problem) within one month of joining the training will be evaluated for marks: 100

II\textsuperscript{nd} Synopsis (containing essentially the progress of work in comparative details) with in three month of joining the training will be evaluated for marks: 100

- Final Project Report for Marks : 200
- Seminar/Viva Voce by the Student for Marks : 200

Synopsis I\textsuperscript{st} & II\textsuperscript{nd} will be evaluated by Head of Department of the college and internal examiner.

1. Candidates have to submit only one hard copy and CD of documentation which shall be kept with the course supervisor/guide in the college only. Further, supervisor/guide OR principal of college shall forward two copies of DVD (Digital Versatile Disk) containing all the documentation files of the students (file name to be saved as Rollno\_of\_the\_student .pdf) to the concerned branch of the University. Covering letter (duly signed by the principal/Head of the college/institute) should contain the following information.

   \textit{Candidate name, Candidate Roll no, Project Title of the student and .pdf file name of his project documentation.}

2. The assignment shall be evaluated by a board of three examiner (two (02) External examiners and one (01) internal examiner) as approved by the BOS.

3. The Project is to be submitted as per the common ordinances for P.G. courses under semester system.