B.Sc-Med (Paper Code: BM504B)/ B.Sc(Non-Med) (Paper Code:BNM504B) Part-III Sem-V (Minor)

E-Commerce

Total Marks: 70
External Marks: 50
Internal Assessment: 20

Minimum Pass Marks: 35%
Credit: 3
Lectures to be delivered: 45-55Hrs

Course Objectives	Course Outcomes
Gain knowledge of e-commerce concepts and applications	Students will understand the fundamentals of e-commerce and its scope
Learn online business models and strategies	Students will identify and apply different e-commerce business models
Understand digital payment systems and security issues	Students will explain digital payment methods and evaluate security measures
Explore legal, ethical, and social aspects of e-commerce	Students will analyze legal, ethical, and social implications of online business
Apply e-commerce tools for business solutions	Students will use e-commerce platforms and tools to develop business solutions

A) Instructions for paper-setter

The question paper will consist of three sections. Section A and B will have four questions each from respective units and candidates are required to attempt two questions each from section A and B. Each question in section A and B shall carry 7.5 marks. Section C will consist of 10 short answer type questions covering entire syllabus. Each question in section C will carry 2 marks.

B) Instructions for candidates

Candidates are required to attempt two questions each from sections A & B of the question paper and the entire section C.

Section A

Introduction to E-commerce: Definition of E-commerce, Advantages and disadvantages of E-commerce, E-commerce versus traditional commerce. Internet and WWW, Electronic commerce framework, Electronic commerce and media convergence, The anatomy of E-commerce applications. Architectural framework for E-commerce, World Wide Web as the architecture, Web background: Hypertext publishing, Security and the Web.

Consumer-oriented E-commerce: Consumer-oriented applications, Mercantile Process Models - consumer's perspective, Merchant's perspective.

Section B

Advertising and Marketing on the Internet: The new age information- based marketing, Advertising on the Internet - Active or push-based advertising models, Passive or pull-based advertising models. Guidelines for Internet advertising. Online marketing process.

Types of Electronic Payment Systems, Digital token-based electronic payment systems, Smart cards and electronic payment systems, Credit card-based electronic payment systems, Risk and electronic payment systems.

Electronic Data Interchange and its applications in business. Legal, Ethical and other public policy issues related to e-commerce.

B.Sc-Med (Paper Code: BM504PB)/B.Sc(Non-Med)(Paper Code: BNM504B) Part-III Sem-V (Minor Practical)
Practical based on E-Commerce

Total Marks: 30	Maximum Times: 2 Hrs.
Practical External Marks: 20	Credit: 1
Practical Internal Assessment: 10	Minimum Pass Marks: 35%

The laboratory course will comprise of Activities related to out based e-commerce

Create a Project Report based on Online Shopping/Online Business.

Viva Voce	:	10 Mark
Project Work	:	10 Marks

B.Sc-Med(Paper Code: BM604)/ B.Sc(Non-Med) (Paper Code: BNM604)
Part-III Sem-VI
Fundamental of Computer Networks and Python Programming

Total Marks: 70
External Marks: 50
Internal Assessment: 20
Minimum Pass Marks: 35%
Credit: 3
Lectures to be delivered: 45-55Hrs

Course Objectives	Course Outcomes
Gain knowledge of computer network concepts, models, and protocols	Students will understand fundamentals of networks, OSI/TCP-IP models, and protocols
Learn client-server communication and socket programming	Students will implement basic client-server applications using Python sockets
Understand data transmission, routing, and security basics	Students will explain data flow, routing techniques, and security measures
Develop Python programming skills for problem solving	Students will write, debug, and execute Python programs for network applications
Integrate networking concepts with Python for practical projects	Students will design small projects combining network theory and Python coding

A) Instructions for paper-setter
The question paper will consist of three sections. Section A and B will have four questions each from respective units and candidates are required to attempt two questions each from section A and B. Each question in section A and B shall carry 7.5 marks. Section C will consist of 10 short answer type questions covering entire syllabus. Each question in section C will carry 2 marks.
B) Instructions for candidates
Candidates are required to attempt two questions each from sections A & B of the question paper and the entire section C.

Section A

Computer networks- Hardware, Software, users, goals and applications of computer networks.
Types of Network: Local area networks, wide area networks, metropolitan area networks and value added networks -their features.
Transmission media: Magnetic media, twisted pair, coaxial cables, fibre optics, radio transmission, microwavetransmission, infrared waves and Line of sight transmission, Cellular radio and communication Satellites.
Internet: What is Internet, its advantages, disadvantages, internet facilities through WWW and HTML, InternetProtocols, TCP/IP, FTP, newsgroups, remote logins, chat groups etc.
WWW: the client side, the server side, web browsers, web pages, locating information on the web.
E-Mail: architecture, various aspects, user agent, message format, message transfer, e-mail privacy.
Network Security: Various threats, prevention and solutions

Section B

Introduction to Python: History of Python, Strength and Weakness, Different Versions, Installing Python, Settingup in local environment, IDLE, Executing from file, command line from interactive mode, Python Identifiers andreserved key words.

Python syntax: Variables and Variables type, Data types, Data Types Conversion, Operators (Arithmetic,Comparison, Assignment, Bitwise, Logical, Membership, Identity), Operators Precedence, Python Decision making(if, el if, else, nested if), Python loops (while, for, nested loops), Break and continue statements.

Python Collections or Sequence: Sequence introduction, Number operations, String Operations, List, Tuple,Dictionary, Set.

Python Functions: Function introduction, User defined functions, Functions with parameters, Keywords and optionalparameters, Scope of variables (Global and Local), Anonymous function - Lambda, In-build function, Listcomprehension.

B.Sc-Med (Paper Code: BM604P)/B.Sc(Non-Med) (Paper Code: BNM604P) Part-III Sem-VI
Practical based on Fundamental of Computer Networks and Python Programming

Total Marks: 30	Maximum Times: 2 Hrs.
Practical External Marks: 20	Credit: 1
Practical Internal Assessment: 10	Minimum Pass Marks: 35%

The laboratory course will comprise of program list related to out based Fundamental of Computer Network and Python Programming

i. Write a Python program to identify the type of network (LAN, MAN, or WAN) based on the coverage area.
ii. Write a Python program to display information about different transmission media based on the user's choice.
iii. Write a Python program to display information about Internet services such as WWW, FTP, E-mail, and Remote Login
iv. Write a Python program to display basic information about Internet protocols such as TCP/IP and FTP using a dictionary.
v. Write a Python program to calculate the estimated time required to download a file based on file size and Internet speed.
vi. Write a Python program to validate the basic format of an IP address
vii. Write a Python program to validate an e-mail address using basic string operations
viii. Write a Python program to create a simple username and password-based login authentication system
ix. Write a Python program to check the strength of a password based on basic security requirements
x. Develop a simple Network Quiz Application using Python to test students' knowledge of computer networks, Internet, and network security

Lab Record	:	05 Marks
Viva Voce	:	10 Mark
Practical Work	:	5 Marks