University of Mumbai

No. UG/16 of 2019-20

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges and Directors of the recognized Institutions in Commerce & Management Faculty is invited to this office Circular No. UG/369 of 2005, dated 9th September, 2005, relating to the introduction of various Add-on courses under the UGC scheme of Vocationalization of Higher Education in the Faculties of Arts, Science and Commerce.

They are hereby informed that the recommendations made by the I/c Dean, Faculty of Commerce & Management, have been accepted by the Academic Council at its meeting held on 26th December, 2018 **vide** item No. 4.15 and that in accordance therewith, the revised syllabus for Add-on-Vocational Certificate, Diploma and Advanced Diploma Course in E-Commerce (Sem. I to VI) (intake capacity 25 students), has been brought into force with effect from the academic year 2018-19, accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032   (Dr. Ajay Deshmukh)
  20th May, 2019   REGISTRAR

To

The Principals of the affiliated Colleges and Directors of the recognized Institutions in Commerce & Management Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C./4.15/26/12/2018

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No. UG/16   -A of 2019-20   MUMBAI-400 032   20th May, 2019

Copy forwarded with Compliments for information to:-
1) The I/c Dean, Faculty of Commerce & Management,
2) The Director, Board of Examinations and Evaluation,
3) The Professor-com-Director, Institute of Distance and Open Learning (IDOL),
4) The Director, Board of Students Development,
5) The Co-ordinator, University Computerization Centre,

(Dr. Ajay Deshmukh)
REGISTRAR

UNIVERSITY OF MUMBAI

Syllabus for Add-on-Vocational

Certificate, Diploma and Advanced Diploma Course

in

E-Commerce

Semester I to VI

Under the Faculty of Commerce & Management

(with effect from the Academic Year 2018-19)

ADD-ON-VOC E-COMMERCE

CERTIFICATE, DIPLOMA AND ADVANCED DIPLOMA COURSE

SYNOPSIS OF SYLLABUS

(w.e.f. 2018-2019)

LEARNING OBJECTIVE :

- To enable students to be covenants with different aspects of computer systems and have working knowledge in MS-OFFICE SUIT and Managerial Skills.
- To get hands on experience in software development tools, software system and modern computing platforms.

FIRST YEAR

SEMESTER – I

PAPER – I

FUNDAMENTALS OF COMPUTERS AND APPLICATIONS

UNIT I (10 Lectures)
Computer system and its components, Concepts of hardware and software, Generations of computers, Input and Output devices, Application software and System software, Concepts of operating systems, Batch and Real Time Processing

UNIT II (10 Lectures)
Data representation- data and information, bits and bytes, text codes , number system , conversions, Computer memory- main memory, auxiliary memory and RAM, Processor- CPU, microprocessor, processor structure, multiprogramming

UNIT III (10 Lectures)
Basic communication system, Data transmission, Methods of transmission, Modes of transmission, Computer networks- LAN , MAN , WAN , Routing , network topology , Transmission technology, Internetworks and Protocols

UNIT IV (PRACTICALS) (10 Lectures)
Practicals on Word processing using MS-Word, Electronic Spreadsheet using MS-Excel and Interacting presentations using MS-PowerPoint

REFERENCES :

1) Fundamentals of Computers and Information Technology by M. N. Doja
2) Fundamentals Information Technology by Deepak Bharihoke, Third Edition
3) Fundamentals of Computers and Information System by Niranjan Shrivastava

SEMESTER – I

PAPER – II

PRINCIPLES OF MANAGEMENT
Max. Marks : 50

Unit : 01 – Introduction to Management :   (05 Lectures)

- Management – Meaning – Concept – Definition – Functions of Management – Henry Fayol's 14 Principles of Management – F.W. Taylor's Scientific Management Approach.
- Managerial Skills – Concept – Conceptual Human and Technical Skills.

Unit : 02 – Planning & Decision Marketing :   (05 Lectures)

- Planning – Concept – Components – Significance / Importance – Steps.
- Organising – Principles – Organisation Structures – Matrix – Line & Staff – Virtual Organisations – Key Features, Merits & Limitations.
- Decision Making – Concept – Techniques.

Unit : 03 – Human Resource Management :   (10 Lectures)

- Human Resource Management – Concept – Scope.
- Motivation – Concept – Need – Factors – Theories – Maslow's Need Hierarchy Theory – Theory X & Theory Y – Need for Motivation in Corporate Business Houses – Case Studies.

Unit : 04 – Leadership & Corporate Governance :   (10 Lectures)

- Leadership – Concept – Qualities – Styles – Transactional & Transformational Leadership Styles – Case Studies.
- Corporate Governance – Concept – Importance – Corporate Governance with respect to Accountability of Board of Directors.
- Case Studies.

PAPER – I

DEVELOPMENT OF PERSONAL SKILLS

Max. Marks : 50

Unit : 01 – Personal Skills   **(06 Lects)**

Personal Skills – Concept – Importance

Personality – Concept – Determinants

Self Evaluation – Identifying Ones Strengths & Weaknesses

Unit : 02 – Types of Skills – Implications   **(08 Lects)**

Types of Personal Skills – Written Communication Skills – Interpersonal – Presentation Skills – Listening Skills – Human Skills – Honesty and Integrity Skills – Leadership – Concept Benefits – Applicability in Corporate Houses.

Unit : 03 – Intelligence Quotient & Emotional Quotient :   **(08 Lects)**

Intelligence Quotient – Concept – Skills Required – Critical Thinking – Thinking Skills – Analytical Skills – Adaptability Skills – Decision Making Skills – Importance – Implications.

Emotional Quotient – Concept – Importance – Implications.

Unit : 04 – Stress Management & Networking :   **(08 Lects)**

-    Stress & Stress Management – Concept – Sources – Effects and Ways to Reduce Stress.
-    Conflict Management – Concept – Techniques.
-    Networking – Concept – Importance.

SEMESTER – II

PAPER – II

INTERNET PRACTICES AND APPLICATIONS

UNIT I   (**10 Lectures**)
History of Internets, Protocols, Services, Domains, Search engines ,Security issues for systems, Internet as a research tool, Intranets, Viruses, Anti-Viruses, Precaution and Safety measures,

UNIT II   (**10 Lectures**)
Client and servers, host and terminals, TCP/IP, URL , World Wide Web , Web browsers, IP Address, HTML document life cycle, Planning the site , Designing the site , Developing the site, Domain name registration, Testing the site, Maintaining the site

UNIT III   (**10 Lectures**)
Using basic html tags, adding headings, paragraphs, adding lists, table tag, form tag, images, and frames.

UNIT IV (PRACTICALS)   (**10 Lectures**)
Designing the Webpages using HTML

REFERENCES :

1)   The World Wide Web, Tata McGraw-Hill.
2)   Web Application Architecture Principles, protocols and practices Leon Shklar Richard Rosen Dow Jones and Company.
3)   HTML AND CSS: DESIGN AND BUILD WEBSITES, BY JON DUCKETT

SECOND YEAR

SEMESTER III

PAPER – I

DATABASE MANAGEMENT SYSTEMS (DBMS) & RELATIONAL DATABASE MANAGEMENT SYSTEMS (RDBMS) (50 MARKS)

Total : 20 Lects + 20 Practs

	UNIT I	
1.	Introduction to DBMS Definition, Purpose, Database language, Database management system, Database Users, Overall System Structure, Different types of database systems.	**08 Lects**
2.	E- R Model Basic concepts, Mapping constraints, Keys, E-R diagram, Database Schema, Reduction of schema to tables.	
3.	Relational Model Structure of relational database, Relational Algebra.	
	UNIT II	
4.	SQL – Background, Basic structure, Null values, Nested sub queries, Derived relations, Joined relations, DDL	**08 Lects**
5.	Concurrency control-lock based protocol, timestamp based protocol, validation based protocol, Deadlock handling	
	UNIT III	
6.	Introduction to SQL The SQL language, role of SQL, Features and benefits, SQL standards (ANSI/ISO standards, other SQL standards & SQL access group), SQL and Networking	**04 Lects** **+** **20 Practs**
7.	Basics Statements, names, data types, constants, expressions, built in functions, missing data (NULL values), Insert and delete operations, SET operations, Aggregate functions,	
8.	Simple Queries & Multi Table Queries	
Practical : Minimum 10 practical to be covered.		
References : 1. Database management Systems, Majumdar / AK Bhattacharya, Tata McGraw Hill 2. Database Systems and Concepts, Henry F. Korth, Sliberschatz, Sudarshan, McGraw Hill		

SEMESTER III

PAPER II

NETWORKING (50 MARKS)

Total : 20 Lects + 20 Practs

	UNIT I	
1.	Networking Need, types, Media, topologies, standards, Internetworking, Network design and tasks in designing a network	
2.	Identifying requirements Business need, future growth of the network, working with existing infrastructure, internet and intranet requirements, security and accessibility requirements, choosing suitable architecture, Choosing a suitable LAN &WAN	**10 Lects**
3.	Terms Protocols, Network traffic, Protocol analyzer	
	UNIT II	
4.	Different types of switching and its applications	
5.	Network access methods for enterprise: Ethernet, gigabit Ethernet, token ring, FDDI	**10 Lects**
6.	Access and backbone networks, Network tuning	
7.	Address management CIDR, NAT	
	UNIT III	
8.	Introduction to network security Need, threats, authentication, access control, server logs, virus protection, firewalls, intrusion detection systems, VPN, backup and off-site storage, Physical security, physical threats, implementing physical security.	**10 Lects**
9.	Data security SSL, cryptography	
10.	Data Privacy Encapsulation, IPSec, L2TP Protocol	
References: 1. Andrew Tonenbourn - Networking 2. William Stollings – Computer Networks		

PAPER I

TALLYERP 9 (50 MARKS)

Total : 20 Lects + 20 Practs

	TALLY ERP 9	
	UNIT I	
1.	Introduction Opening Tally.ERP9 software, creating a company, selecting a company, shut a company, delete a company	**08 Lects**
2.	Groups and Ledgers Creating: single group, sub – groups, multiple groups and displaying and altering groups Create, display and later a single ledger, create multiple ledgers and display or alter it.	
	UNIT II	
3.	Understanding Inventory Stock group, stock categories, godowns, units of measure, stock items	**08 Lects**
4.	Understanding vouchers Types of vouchers, configuring entry, journal entry for receipt and payment	
	UNIT III	
5.	Contra and journal voucher Purchase and Sales Sequence, Cost categories and cost centre's	**04 Lects +**
6.	Understanding BOM (Bill of material) and Price list Tax deducted at source, VAT and service tax	**20 Practs**
	Practical : Minimum 5 practical of Tally to be covered.	
References : 1. **Tally ERP 9**		

SEMESTER IV

PAPER II

CONCEPTS OF E-COMMERCE & CYBER LAWS (50 MARKS)

Total : 30 Lects

	CONCEPTS OF E-COMMERCE UNIT I	
1.	Introduction to Internet The development of internet, TCP/IP, Internet protocols, Internet components, Uses of internet	**10 Lects**
2.	Introduction to E-commerce Definition, Scope, E-commerce and trade cycle, Electronic Markets, EDI, Internet Commerce, E-commerce in Perspective, Trade Cycle, Other E-commerce technologies, Online payments, the E-shop, Delivering the goods, After sales service, Internet e-commerce security	
	UNIT II	
3.	Business strategy in an Electronic Age The Value chain : Supply chains, Porters value chain model, inter organizational value chains, Competitive Advantage, Business strategy	**10 Lects**
4.	E – business Introduction, Internet bookshops, grocery supplies, software supplies and support, software supplies and support, electronic newspapers, internet banking, virtual auctions, online share dealing, gambling on the net, e-diversity, Business to Business and Business to Consumer E-commerce.	
	CYBER LAWS UNIT III	
1.	Introduction to cyber laws, IT Act	**10 Lects**
2.	IT – Digital Signature, Private key, Public key	
3.	Cyber crime, Digital Signature Certificate	
4.	Penalties & Adjudication, Offences under IT Act	
5.	Virus on the Internet, Defamation, harassment & Email abuse, Protection of Cyber Consumers in India, Arrest without warrant (u/s 80) & Act to have an overriding effect	

References :

1. E- commerce Strategy, Technologies and Applications, David Whiteley, McGraw Hill International.
2. E – commerce: The cutting Edge of Business, Kamlesh K Bajaj & Debjani Nag, Tata McGraw Hill.
3. Vivek Sood, Cyber Law Simplified, Tata McGraw Hill Publishing Company LTD
4. D.P.Mittal, Law of Information Technology, Taxmann's

THIRD YEAR

PAPER – V

SEMESTER V

ADVANCED CONCEPTS OF WEB – DESIGNING (100 MARKS)

Total : 15 Lects + 25 Practs

	JAVA SCRIPTING & XML UNIT I	
1.	Introduction to Java scripting, Web browser object model, manipulating Windows & frames with java script, using java script to create smart forms.	**05 Lects + 15 Practs**
	UNIT II	
2.	Introduction toXML	**05 Lects**
	ASP.NET 2.0 UNIT III	
3.	Creating a webpage application, binding data to ASP.net server controls, accessing data from database using ADO.NET, using stored procedures in ASP.NET.	**05 Lects + 10 Practs**
	Practical : Minimum 10 practical to be covered.	

References :
  1. O'reily – ASP.net 2.0 cookbook
  2. O'reily – Javascripting the definitive guide		

PAPER – VI

SECTION A : ENTREPRENEUR SHIP DEVELOPMENT (50 MARKS)

(This Section is Common for all Third Year Vocational Students) = 50 Marks

Module 1 : Introduction to Entrepreneurship   (07 Lects)

- Concept & Definition of an Entrepreneur.
- Characteristics of an Entrepreneur.
- Functions of Entrepreneur.
- Need & Significance of Entrepreneurship Development.
- Types of Entrepreneurs.
- Intrapreneur – Meaning / Concept.
- Difference between Intrapreneur & Entrepreneur.
- Difference between Social Entrepreneur & Business Entrepreneur.
- Problems faced by Women Entrepreneurs.
- Entrepreneurship Development Programmes (EDP) – Concept & Importance.

Module 2 : Setting Up an Entrepreneurial Venture   (07 Lects)

- Sources of Business Idea.
- Environmental Scanning.
- SWOC Analysis.
- Project – Concept & Meaning.
- Project Report – Elements & Importance.
- Feasibility Study – Concept – Importance – Areas.
- Steps in Project Selection.
- Business Plan – Concept – Elements – Devising a B – Plan on Business Ideas.

Module 3 : Sources of Finance for an Entrepreneur   (07 Lects)

- Fixed Capital & Working Capital.
  - Meaning & Factors.
- Capital Structure – Concept.
- Special Schemes for Women Entrepreneurs.
- Institutional Support to an Entrepreneur.
  - Small Industries Development Bank of India (SIDBI).
  - National Bank of Agriculture & Rural Development (NABARD).
  - National Small Industries Corporation (NSIC).
  - Industrial Development Bank of India (IDBI).
  - Khadi & Village Industries Commission (KVIC).
- Recent Trends of Finance Options for start-ups to venture into entrepreneurship
  High Network Individuals (HNI's), Venture Funding.
- Self Help Groups.
- Microfinance.

Module 4 : Forms of Organisation & New Opportunities Available to Entrepreneurs (07 Lects)

- Forms of Organisation – Sole Trading Concern – Partnership Firm – Limited Liability Partnership (LLP) – Limited Company – Public Company – Non-Government Organisations (NGO's).
- Prospects and Challenges for Entrepreneur in India.
- Scope of E-Entrepreneurship.
- Role of Entrepreneurship Development Cell (EDC) in Educational Institutions.

Module 5 : Practical Training / Project Work on Live Projects /   **(02 Lects)**
Start-Up Ventures in Any Form / Venturing into any form of Entrepreneurship.

                                             (30 Lects)
                                             ========

Total Marks
Theory   **:**   **35**
Practical / Project   **:**   **15**
                               50 Marks

OUTLINE OF THE QUESTION PAPER : (Maximum Marks – 100)

Section I (Max marks - 35 marks)
N.B : 1) Q.01 is compulsory
      2) Attempt any two questions from Q.02-Q.05

Q.01 /- Answer the following. (Any 1 out of 2) (07)
Q.02/- Answer the following. (14)
Q.03/- Answer the following. (14)
Q.04/- Answer the following. (14)
Q.05/- Write short notes on. (Any two) (14)

N.B : Q.02- Q.04 can be descriptive questions or short answer questions.

SECTION B : OBJECT ORIENTED PROGRAMMING (50 MARKS)

Total : 15 Lects + 25 Practs

C++ UNIT I		
1.	Introduction to Programming language C++	05 Lects + 15 Practs
2.	Keywords, Identifiers, Data types, User defined data types, Derived data types, constants, Type compatibility, Declaration of variables	
3.	Operators in C++, memory management operators, Manipulators	
4.	Control Structures – if, if… else, nested if…else, switch, do-while, for	
UNIT II		
5.	Functions in C++, Arrays, pointers, references, strings	05 Lects + 10 Practs
6.	Principles of OOP's, Classes and objects, Inheritance, Polymorphism, Data Abstraction, Encryption	
7.	Constructors and destructors	
8.	Operator overloading and type conversion	
JAVA UNIT III		
1.	Introduction to JAVA	05 Lects
Practical : 50 Programs in C++ & 5 programs in JAVA.		
References : 1. C++ complete reference Tata McGraw Hill 2. JAVA complete reference Tata McGraw Hill		

ADOBE FLASH & SOFTWARE TESTING (100 MARKS)

Total : 22 Lects + 18 Practs

ADOBE FLASH UNIT I		
1.	Flash Tools	04 Lects + 18 Practs
2.	Drawing and modifying an Image	
3.	Making the moves with Symbols	
4.	Layering and other Neat Tricks	
SOFTWARE TESTING UNIT II		
1.	Fundamentals of Testing Definition, requirement, Fundamental test process, psychology of testing	08 Lects
2.	Testing throughout the software life cycle Software development models, test levels, test types : the targets of testing, Maintenance	
UNIT III		
3.	Design Techniques and tool support for testing Identifying test conditions and designing test cases, categories of test design techniques, specification based or black box techniques, structure based or black box techniques, experienced based techniques, choosing a test technique, test organization, test plans, estimates and strategies, types of test tools	10 Lects
Practical : Minimum 12 practical to be covered		
Reference : 1. Foundation of Software Testing, ISTQB certification, D Graham, Erik, Cengage Learning 2. Adobe Flash Professional CC Classroom in a Book, by Russell Chun		

PROJECT (100 MARKS)

Design a project which is a temporary endeavor undertaken to create a unique product or service. Thus, the end result sought may be distinct from the mission from the organization which undertakes it because the project specifically has a deadline.

Services defined in project

In economics and marketing, a service is the non – material equivalent of a good. Service provision has been defined as an economic activity that does not result in ownership, and this is what differentiates it from providing physical goods. It is claimed to be a process that creates benefits by facilitating either a change in customers, a change in their physical possessions, or a change in their intangible assets.

Project Specifications :

1) Design any dynamic website
2) Develop any dummy or an actual software using appropriate server with a front end system to access the date of this custom made proprietary software.

Evaluation of Project :

SR. NO.	TOPIC	MARKS
1.	Written / Hardcopy of Project	80
2.	Viva	20
	TOTAL	**100**

Format of Project :

1. Front page
2. Certificate
3. Declaration
4. Introduction
5. Index
6. Content
   - General Introduction
   - Objectives of study
   - Scope of study
   - Research Methodology
     (a) Research Problem
     (b) Hypothesis (Optional)
     (c) Collection of data
     (d) Sampling Plan
     (e) Research limitation
7. Conclusion
8. Acknowledgement
9. References
10. Work experience along with certificate

Font Size – 12
Headline – 16
Font Type – Times New Roman
Line Spacing – 1.5
Total No. of Pages – Minimum 20
Header – Title of the Project
Footer – Page Number
Set Right & Left margin, Justify each paragraph
Spiral bind the project

COURSE FEES RECOMMENDED :

Course	Year	Fees	Project	Practicals	Total p.a.
First Year	Certificate Course	3000	–	500	3500
Second Year	Diploma Course	3000	–	500	3500
Third Year	Advance Diploma Course	3000	1000 (inclusive of all projects)	1000	5000

INTAKE CAPACITY : 25 Seats