|| अंतरी पेटवू ज्ञानज्योत ||



### NORTH MAHARASHTRA UNIVERSITY, JALGAON

# Direction No. 1 Re-Constitution of authorities Under Section 14 (8) of the Maharashtra University Act, 1994 and direction Therefore

### Direction No. 2 Faculties of the University

### Direction No. 3 Faculty wise break of the subjects

# Direction No. 4 The Board of Studies for every subject or Group Subjects

# Direction No. 5 The Department in the Colleges with the subjects and their corresponding Board of Studies

### NORTH MAHARASHTRA UNIVERSITY, JALGAON

### DIRECTION No.:- 1 to 5

**Subject**: Re-Constitution of authorities Under Section 14(8)

of the Maharashtra Universities Act, 1994

and directions there for ...

Whereas the Maharashtra Universities Act, 1994 has come into force with effect from 22nd July, 1994, and whereas under the provision of the said act, the Board of Studies are to be reconstituted, and whereas no statutes for the purposes of reconstitution of the authorities established under the provision of the said act have been as yet framed, and whereas, therefore, in the absence of the said statutes and having regard to the need and urgency in the absence of the said statutes had having regard to the need and urgency of the matter, it is imperative to provide information in respect of the departments in colleges under various faculties, Board of Studies as well as the subjects that come under those departments, in conformity with the provisions of the said act, and whereas there is a need to issue appropriate directions.

Now therefore, I , Dr. S.U. Meshram, Vice-Chancellor, North Maharashtra University, in exercise of powers vested in me under Section 14(8) of the Maharashtra Universities Act, 1994 , do hereby, issue directions in relation to the formation of departments in colleges covering various subject and the corresponding Board of Studies under which the subjects under the respective departments would come, as appended in the annexure enclosed herewith:

I, further direct that the aforesaid directions shall come into force from the date of issuance and shall remain in force till the relevant Statutes come into being in accordance with the provisions of the Maharashtra Universities Act, 1994.

Encl: As stated

(Direction Nos. 1 to 5)

(Prof. Dr. S.U. Meshram)

Date: 12 March. 2015

Vice-Chancellor

Ref. No .: NMU/21/12/BOS/81/2015

Copy forwarded with compliments to:

1. All Principals of affiliated Colleges / Directors of Recognized Institutes of North Maharashtra University, Jalgaon.

2. All Director/H.o.Ds of Schools / Departments of N.M.U., Jalgaon.

3. All H.o.D./ Controlling Officers of Administrative Departments of North Maharashtra University, Jalgaon.

(Dr. A. M. Mahajan)

Registrar

### NORTH MAHARASHTRA UMVERSITY, JALGAON

### **Direction No. 2 :- Faculties of the University**

(Under Section 33 (1) of the Maharashtra Universities Act, 1994)

The University shall have the following Faculties:

- 1) Faculty of Arts & Fine Arts
- 2) Faculty of Mental, Moral and Social Sciences
- 3) Faculty of Science
- 4) Faculty of Law
- 5) Faculty of Pharmacy
- 6) Faculty of Engineering & Technology
- 7) Faculty of Commerce and Management
- 8) Faculty of Education

### Direction No. 3:- Faculty wise break of the subjects

(Under Section 33 (4) of the Maharashtra Universities Act, 1994)

The subjects comprised under each of these faculties shall be as follows: -

### **FACULTY OF ARTS AND FINE ARTS**

1) Modern Indian Languages : Marathi, Hindi, Urdu

2) Foreign Languages : English, German, French, Chinese, Russian, Japanese

3) Ancient Indian Languages : Sanskrit, Pali, Ardhamagadhi

4) Fine and Performing Arts : Music, Dancing, Dramatics, Drawing, Painting, Sculpture

and Applied Art, Diploma Course in Printing Arts

### **FACULTY OF MENTAL, MORAL AND SOCIAL SCIENCES**

- 1)History2)Economics3)Political Science4)Sociology5)Psychology6)Philosophy
- 7) Defence and Strategic Studies 8) Mass Communication and Journalism
- 9) Library and Information Science 10) Sociology & Social Work
- 11) Civics & Public Administration 12) Anthropology
- 13) Dr. Ambedkar Thoughts 14) Buddhist Heritage Studies & Tourism
- 15) Tribal Academy 16) Gandhian Thoughts
- 17) Womens Studies

### **FACULTY OF SCIENCE**

01)	Mathematics	02)	Physics
03)	Chemistry	04)	Botany
05)	Zoology	06)	Geology
07)	Geography (All Faculties)	08)	Microbiology
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- Computer Science 09) Statistics 10) 11) **Energy Studies** 12) Material Science 13) Biotechnology 14) Electronics Science 15) Biochemistry Polymer Chemistry 16)
- 17) Pesticides & Agrochemicals
   18) Environmental Science
   19) Molecular Biology
   20) Pharmaceutical Chemistry
- 21) Industrial Chemistry 22) Information Technology
- 23) Instrumentation
   24) Drug Chemistry
   25) Physical Chemistry
   26) Applied Geology
- 27) Geo informatics
   28) Organic Chemistry
   29) Analytical Chemistry
   30) Inorganic Chemistry
- 31) Animation & Web Designing 32) Agri. & Natural Resource Management Skills

33) 35)	Nano Science Software Development	34) 36)	Computer Application (MCA) Agriculture
37 <sup>°</sup> )	Printing & Publishing	38)	Soil & Water Conservation
FACU	JLTY OF LAW		
01)	Constitutional Law	02)	History of Courts
03)	Administrative Law	04)	Human Rights & international Law
05)	Environmental Law	06)	Labour Laws
07)	Taxation Laws (All Subjects of DTL & MLL	•	
08)	Banking Laws includes N, I. Act	09)	Company Law
10)	Contract Laws	11)	Transfer of Property Act
12)	Land Laws	13)	Law of Trust
14)	Family Law	15)	Jurisprudence
16)	Legislative Principles & Interpretation of Sta		'n aliah
17)	Legal Language! Legal Writing includes Ge Law of Torts		•
18)	Civil Procedure Code	19)	Law of Medicine Criminal Procedure Code
20)		21)	
22)	Law of Evidence	23)	Law of Crimes
24) 26)	Criminology & Penology General , English	25) 27)	Arbitration. Conciliation & ADR Systems Political Science
28)	Sociology	29)	Economics
30)	History	31)	Logic
32)	Computer	31)	Logic
<i>32</i> )	Comparer		
FACL	JLTY OF PHARMACY		
4)	DI «	۵)	D: 1
1)	Pharmaceutics	2)	Bio-pharmaceutics
3)	Dispensing pharmacy	4)	Pharmaceutical technology
5) 3\	Cosmetic technology	6)	Pharmaceutical microbiology
7) 0\	N.D.D.S. (Novel Drug Delivery system)	8) 10)	Pharmaceutical Chemistry
9) 11)	Organic Chemistry	10)	Pharmaceutical Inorganic Chemistry
11)	Drug Chemistry	12)	Medicinal Chemistry
13) 15)	Pharmacognocy Tissue Culture	14) 16)	Herbal Drugs Pharmacognocy and Phytochemistry
17)	Marine Drug	18)	Pharmacology
19)	Anatomy and physiology	20)	Patho-physiology
21)	Hospital and community pharmacy	22)	Clinical pharmacology
23)	Clinical pharmacy	24)	Cosmetic
20)	Similar priarriacy	<b>–</b> 1)	Comoto
FACL	JLTY OF ENGINEERING & TECHNOLOGY		
<u>Appli</u>	ed Science		
1)	Physics	2)	Chemistry (applied to all branches of Engg.)
3)	Engineering Mathematics (all branches of E	•	, , , , ,
<b>4</b> )	Engineering Economics & Industrial Psy.	33 /	
5)	Communication Skills	6)	Engg. Economics & Resource Management
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	nical Engineering & Technology (Subjects hnology)	comm	on or Chemical Engineering
01)	Generation And Transmission of Mechanical Power	02)	Applied Mathematics- I
03)	Organic Chemistry	04)	Workshop Technology
05)	Applied Physical Chemistry	06)	Computer Programming and
55)	Applicat Hydioal Chombuy	55)	Application
07)	Physical Chemistry	08)	Organic Chemistry- I
,	, : · · · · · · · · · · · · · · ·	/	- g

09) 11)	Electrical Engg And Electronics Physics	10) 12)	Engineering Graphics Inorganic Chemistry
13)	Applied Mathematics- II	14)	Material Technology
15)	Applied & Structural Mechanics	16)	Process heat transfer
17)	Structural Mechanics	18)	Fluid Mechanics
19)	Organic Chemistry-II	20)	Industrial Management &
			Communication Skill
21)	Industrial Stochiometry	22)	Mass Transfer
23)	Instrumentation & Process Control	24)	Machine Design
25)	Mechanical Operation	26)	Process Engg Thermodynamics
27)	Project Engineering & Economics	28)	Presentation On Industrial
			Training & Tour
29)	Project	30)	Chemical Reaction
31)	Process Equipment Design	32)	Technical Seminar
33)	Physical Chemistry- I	34)	Industrial Engineering Chemistry
35)	Mass Transfer- I	36)	Math-III
37)	Chemical Reaction Engg-1	38)	Chemical Reaction Engg II
39 <sup>°</sup> )	Machine Design & Drawing	40)	Chemical Engg. Math
41)́	Instrumentation & Instrumental Analysis	42)	Process Equipment Design
43)	Transport Phenomena	44)	Modeling Simulation &
- /		,	Computer Design
45)	Process Dynamic & Control	46)	Plant Design, Economics & Costing
47)	Elective- I,II,III *	50)	Chemistry of Oil's Fats
51)	Post Harvest Technology of Oleaginous Materia	,	Refining of Oils & Fats
53)	Quality Control Techniques in Oil and Fats	54)	Technology of Waxes and
55)	Quality Control recrimques in Oil and rats	J <del>-1</del> )	Biochemistry of Lipids
61)	Technology of Fats Slitting and Soaps	62)	Industrial Hydrogenation &
01)	reclindings of rats officing and soaps	02)	High Fat Products
<i>EE</i> \	Chamietry of Surfactanta & Olas chamicals	EG)	Technology of Essential Oils
55)	Chemistry of Surfactants & Oleo chemicals	30)	& Cosmetics
<i>57</i> \	Tachnology of Curfactants & Datargants	E0\	
57)	Technology of Surfactants & Detergents	58)	Modified & Tailor Made Oils
59)	Process Equipment Design	60)	Principles of Polymers
61)	Chemistry of Drying Oils,	62)	Chemistry & Technology of
C2)	Alkyed Resin & Varnish	C4)	Polymers- I
63)	Inorganic Pigments & Extenders	64)	Color Testing Organic
05)	Objects of Debuggers II	00)	Pigments & Additives
65)	Chemistry & Tech of Polymers- II	66)	Formulation & Manufacture of
a=\	0. 0.7	20)	Coatings- I
67)	Chem. & Technology of Pigment Dispersion	(68)	Evaluation of Surface
			Coatings and Paint Defects
69)	Technology of Printing Inks & Application Techniques	•	Elements of Food Chemistry
71)	Bio Chemistry & Nutrition	72)	Microbiology & Molecular Biology
73)	Principal of Food Preservation	74)	Food Processing- I
75)	Food Processing- II	76)	Biotechnology
77)	Packing Technology	78)	Food Quality
79)	Biochemical Engineering	80)	Treatment & Disposal of Food
			Industry Waste
81)	Analysis of Finished Food Products	82)	High Polymer Chemistry
83)	Processing Plastics- I	84)	Plastics Tech.Lab
85)	Processing of Plastics- II	86)	Technology Elastomers & Additives
87 <sup>°</sup> )	Testing of Plastics	88)	Polymer Rheology
89 <sup>°</sup> )	Mould and Die Design	90)	Polymer Blends & Composites
91)	Oleochemicals & Surfactants	92)	Nano Technology
93)	Pharmaceutical Technology	,	<b>5</b> ,
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### \* Elective - I, 1) Fuel & Combustion 2) Particulate Technology 3) Polymer Chemistry 5) Energy Recourses & Utilization 4) Catalysis \* Elective - II, 1) Environmental Engg. 2) Electrochemical Engg. 3) Biochemical Engg. 4) Multiphase Reaction 5) Petroleum Engg. \* Elective - III 1) Industrial Thermodynamics 2) Newer separation Process 3) Polymer Engg. 4) Applied Catalysis

### **Civil Engineering & Architecture**

### **Civil Engineering**

1)	Engineering Mechanics Elements of Civil	2)	Mechanics of Structures
	Engineering		
3)	Building Construction	4)	Geotechnical Engineering
5)	Surveying.	6)	Theory of Structure- I
7)	Building Design & Town Planning	8)	Concrete Technology & Construction Materials
9)	Highway, Airport & Bridges	10)	Fluid Mechanics.
11)	Advanced Surveying	12)	Advanced Fluid Mechanics
13)	Design of Concrete Structures	14)	Irrigation Engineering
15)	Transportation Engineering	16)	Public Health Engineering
17)	Engineering Geology	18)	Design of Steel Structures
19)	Advanced Theory of Structures.	20)	Foundation Engineering
21)	Practical Training Special Study	22)	Quantity Surveying & Valuation
23)	Numerical Analysis & Computer Application	24)	Environmental Engineering
25)	Water Shed Management	26)	Earthquake Resistant Design.
27)	Remote Sensing in Civil Engineering	28)	Earth Structures.
29)	Open Channel & Conduit Flow	30)	Low Cost Construction & Rural
			Development technique
31)	Dams & Hydraulics Structures	32)	Analysis & Design of Special Structures
33)	Construction Management	34)	Advanced Highway Engineering
35)	Finite Element Method	36)	Systems Approach in Civil Engineering
37)	Water Power Engineering	38)	Industrial Water Pollution & Control
39)	Land Development & Drainage Engineering	40)	Seminar
41)	Project	•	

### **Architecture**

1)	English Communication Skills	2)	History of Architecture & Human Settlements- I,II,III,IV
3)	Design Fundamentals In Architectures	4)	Structure- I,II,III,IV,V,VI,VII
5)	Building Material- I,II,III	6)	Architecture Drawing and graphics- I,II,III,IV
7)	Visual Arts- I,II	8)	Basic Design- I
9)	Model Workshop- I,II	10)	Social Science and History of culture
11)	Introduction to computing	12)	Basic and architectural Design
13)	Surveying and Leveling	14)	Climatology- I,II
15)	Architectural Design- I,II,III,IV,V,VI	16)	Building Construction- I,II,III,IV,V,VI
17)	Anthropometrics	18)	Building Service- I,II,III

19)	Acoustics	20)	Photography
21)	Specifications	22)	Air Conditioning and Ventilation
23)	Landscape Design	24)	Working drawing- I,II
25)	Quantity Surveying and Estimating-I,II	26)	Introduction to town Planning
27)	Housing	28)	Rural Architectural
29)	Project and Construction management	30)	Interior Design
31)	Computer Application	32)	Appropriate Technology
33)	Professional Practice- I, II	34)	Contract Documents and Building Bylaws
35)	Building Economics	36)	Elective- I,II,III
37)	Architectural Construction Project	38)	Dissertation, Project Work

### Computer Engineering & information Technology Engineering

### **Computer Engineering**

1)	Computer Programming	2)	Discrete Structures and Graph Theory
3)	Industrial Management and Economics	4)	Programming Laboratory- I
5)	Microprocessor- I	6)	Data structures and Files
7)	Computer organization	8)	Programming Laboratory- II
9)	Microprocessor- II	10)	Theory of Computer Science
11)	Digital System Design	12)	Computer Graphics
13)	System Programming	14)	Microprocessor- III
15)	Data Communication	16)	Software Engineering
17)	Database Management Systems	18)	Management Information S
19)	Application Development Tool	20)	Practical Training / Special stUi
21)	Mobile Network	22)	Artificial Intelligence
23)	VLSI Design	24)	Computer Network
25)	Operating Systems.	26)	Object Oriented Modeling Design and
			Architecture
27)	Embedded Systems	29)	Neural Networks and Fuzzy Logic
30)	Design and Analysis of Computer Algorithm	าร31)	Compiler Construction
32)	Software Metrics and Quality Assurance	33)	Advanced Computer Architecture
34)	Technical Visit! Case Studies	35)	Seminar
36)	Project Work		

### **Information Technology**

11110111	lation reciniology		
1)	Discrete Structures and Graph Theory	2)	Programming Paradigms and methodology
3)	Industrial Management and Economics	4)	Programming Laboratory-1
5)	Microprocessor- I	6)	Data Communications
7)	Data Structures And Files	8)	Object Oriented Programming Methodology
9)	Information Theory	10)	Programming Laboratory- II
11)	Microprocessor- II	12)	Computer Organization
13)	Database Management	14)	Computer Graphics
15)	System Programming	16)	Computer Networks and
17)	Operating System	18)	Software Engineering
19)	Web Designing	20)	Management Information sy,
21)	Application Development Tools,	22)	Practical Training! Special study!
23)	Mobile Network	24)	Enterprise Resource Planning
25)	Information Retrieval	26)	E-Commerce
27)	Advanced Database Management System	28)	Object Oriented Modeling Design and Architecture
29)	Embedded Systems	30)	Multimedia Techniques
31)	Image Processing	32)	Internet Security
33)	Software Metrics and Quality Assurance	34)	Data Warehousing and Mining
35)	Technical Visit Case Studies	36)	Seminar
37)	Project Work		

### **Electronics & Telecommunication & Industrial Electronics**

### <u>Electronics and Telecommunication & Industrial Electronics</u>

1) 3) 5) 7) 9) 11) 13) 15) 17) 21) 23) 25) 27) 29) 31) 33) 35) 37)	Elements of Electrical and Electronics Engg Digital Electronics Network and Lines Electronic Devices and Circuits - II Electronic Instrumentation Microprocessor Techniques Network Analysis and Synthesis Feedback Control System Communication System - I Power Electronics VLSI Design Television Engineering Radiation and Microwave Techniques Seminar Fiber Optic Communication Information Technology Consumer Electronics Project Applied Electronics Signal Conditioning and Data conversion	2) 4) 6) 8) 10) 12) 14) 16) 18) 20) 22) 24) 26) 28) 30) 32) 34) 36) 38) 40)	Electronic Devices and Circuits- I Electromagnetic Engineering Component Devices and Technology Principles of Communication System Electrical Machines Electronic Design- I Signal Conditioning and Data Conversion Microprocessor Interface & Peripherals Electronic Design- II Communication Systems- II System Programming Bio-Medical Instrumentation Digital Signal Processing Computer Communication Digital Image Processing Telematics Electronic Measurement Industrial Electronics and Drives Network Analysis Digital and Microprocessor Lab.
39)	Signal Conditioning and Data conversion	40)	Digital and Microprocessor Lab.  Analog & Digital Electronics
41)	Digital Circuits and Logic Design	42)	

### **Electrical and Instrumentation Engineering**

### **Electrical Engineering**

1)	AC Circuits & Transformer	2)	Electrical Engg. Material
3)	Electromagnetic Engg.	4)	Applied Thermodynamics
5)	Digital Computational Techniques	6)	Electrical Machine- I
7)	Electrical measurement- 1	8)	Applied Electronics- I
9)	Fluid Mechanics & Machinery	10)	Applied Electronics- II
11)	Electrical Mechanics- II	12)	Power System- I,II
13)	Network Analysis	14)	Electrical Installation Ratio nation and Distribution
15)	Microprocessors Fundamentals & Applications	16)	Industrial Organization & Management
17)	Electrical Measurement- II	18)	Principles of Electrical Machine Design
19)	Practical Training/Special Study/Minor Project	20)	Power Electronics
21)	Contract System- I & II	22)	Switch Gear Protection
23)	Project	24)	Seminar
25)	Industrial Electrical Engineering	26)	Power System Stability
27)	High Voltage Engineering	28)	Power System, Operation & Contract
29)	Electromechanical Energy Conversion	30)	Microprocessor Based System
31)	Power System design practices	32)	Electric Traction Engg.
Inctru	montation		

### **Instrumentation**

1)	Industrial instrumentation	2)	Electronics Device & Circuits
3)	Digital Techniques	4)	Electromagnetic Engg.
5)	Workshop Technology & Fabrication Techniques	6)	Transducers & Signal Conditioners
7)	Enga Materials	8)	Electrical Machines

9)	Thermal & Food Power Engg.	10)	Engg. Math- III
11)	Elective-I-DSP	12)	Elective-I-PPI
13)	Elective-I-Micro Electronics	14)	Elective-I-AET
15)	Unit Operations	16)	Process Equipment Design
17)	Process Instrumentation P1	18)	Seminar
19)	Project	20)	Elective-II-FONT
21)	Elective_II-Fuzzy & Nurul Neww	22)	Elective-II-BI
23)	Elective-II-Computer Networks	24)	Instrumentation System Design
25)	Project Planning Estimation & Assessments	26)	Process Modeling & Optimization
27)	Technical Visits	·	

### Mechanical, Production & Automobile Engineering

Mech	anical Engineering		
1)	Engineering Graphics- I	2)	Workshop Practice- I
3)	Engineering Graphics- II	4)	Elements of Mechanical Engineering
5)	Workshop Practice- II	6)	Energy Conversion- I
7)	Machine Drawing & Computer Graphics	8)	Dynamics of Machinery- I
9)	Manufacturing Process	10)	Workshop Practice- III
11)	Energy Conversion- II	12)	Material science
13)	Workshop Practice- IV	14)	Numerical analysis and Computational Method
15)	Engineering Metallurgy	16)	Ind. Engg. and Management
17)	Machine Design- I	18)	Heat Transfer and Gas Dynamics
19)	Workshop Practice-V	20)	Turbo Machinery
21)	Manufacturing Technology	22)	Dynamics of Machinery- II
23)	Machine design- II	24)	Metrology & Quality Control
25)	Practical Training/Special study/Minor	26)	Non-Conventional Energy Sources
27)	Project/EDP	20)	Operation Deceared
27)	MJC Tool design	28)	Operation Research
29)	Robotics Machanical Estimation & Casting	30)	Automobile Engg I
31)	Mechanical Estimation & Costing	32)	Reliability Engg.
33) 35)	Machine Design- III	34) 36)	Refrigeration & Air Conditioning Seminar
•	Project & Financial Management	•	
37) 39)	Power Plant Engg. Materials Management	38) 40)	Mgt. Information system Energy Conversion & Mgt.
41)	Automobile EnggLi	40) 42)	Production Planning & Control
43)	Automobile EnggLi Analysis & Synthesis of Mechanism	44)	CAD & CAM
45) 45)	Tribology	44) 46)	Mechanical Vibration
43) 47)	Project	48)	Technical Visits
47) 49)	Engg. Metalogy	<del>4</del> 6) 50)	CAD / CAM
<del>4</del> 9) 51)		50) 52)	Machine Design- I
53)	Industrial Engg. & Management Heat Transfer & Mass Transfer	54)	Workshop Practice- V
55)	Metrology & Quality Control	56)	Hydraulics & Pneumatics
57)	Automobile Systems	58)	Dynamics of Machinery- II
•	Manufacturing Technology	60)	Practical Training
59)	Mandiacturing recinology	00)	Fractical frailing
	mobile		
1)	Engg. Metalogy	2)	CAD /CAM
3)	Industrial Engg. & Management	4)	Machine Design- I
5)	Heat Transfer & Mass Transfer	6)	Workshop Practice- V
7)	Metrology & Quality Control	8)	Hydraulics & Pneumatics
9)	Automobile Systems	10)	Dynamics of Machinery- II
11)	Manufacturing Technology	12)	Practical Training

### **Production**

1)	Tool Design	2)	Production, Planning & Control
3)	Financial Management & Cost Control;	4)	Project
5)	Seminar	6)	Elective-I-Energy Management
7)	Elective-I-Total Quality Management	8)	Elective-I- Automobile Engg I
9)	Elective-I- Non Conventional Energy	10)	Elective-I- Management Information System
11)	Trilogy	12)	CAD CAM
13)	Materials Management	14)	Technical Visit
15)	Elective-II-Mechanical Estimation & Costing	16)	Elective-II-Industrial Relations
17)	Elective-I I-Automobile Engg- II	18)	Elective-II-Power Plant Engg
19)	Elective-II-Foundry Engg.		

### **FACULTY OF COMMERCE & MANAGEMENT**

### **Accountancy & Costing**

- Financial & Cost Accounting
   Financial & Cost Accountancy
   Corporate Accounting
   Advance Accounting & Costing
- Techniques
  9. Financial & Management Accountancy
  11. Corporate laws & Income Tax Laws
- 13. Auditing Practices
- 15. Direct & Indirect Tax Laws
- 17. Advanced cost & Management Accounting
- 19. Principles & Practice of Auditing
- 21. Management Accountancy
- 23. Income Tax Law
- 25. Auditing
- 27. Advanced Accountancy
- 29. Direct & Indirect Law
- 31. Financial Accounting and Cost Control
- 33. System Analysis and Design
- 35. Cost Accounting
- 37. Financial Accounting for Manager (Tally 9.2)
- 39. Information System Audit (ISA)

- 2. Financial Accountancy
- 4. Corporate Accounting & Costing
- 6. Advance Accounting & Costing Method
- 8. Income Tax
- 10. Direct & Indirect Tax Laws
- 12. Auditing
- 14. Income Tax Laws
- 16. Advanced Accounting
- 18. Income Tax
- 20. Corporate Accounting & Auditing
- 22. Auditing
- 24. Corporate Accounting & Auditing
- 26. Management Accounting
- 28. Advanced cost Accountancy
- 30. Accountancy for Managers
- 32. Information System Audit (ISA)
- 34. Human Resource Auditing & Outsourcing
- 36. Costing Methods & Techniques
- 38. Management Accounting
- 40. Business Accounting

### Commerce & Business Laws

- 1. Corporate Laws
- 3. E Commerce
- 5. Co-operative Laws & Micro Finance
- 7. Business Law
- 9. Business & Tax Laws
- 11. Business Processing outsourcing
- 13. Business Communication
- 15. Business Ethics & Corporate Governance
- 17. Operation & Material Management
- 19. E-Commerce
- 21. Stock & Commodity Market
- 23. Communication Skills
- 25. Mercantile Laws

- 2. Principles and Practices of Insurances
- 4. Stock & Commodity Market
- 6. Foundation course in Comm & Management
- 8. Business Communication
- 10. Corporate regulatory framework
- 12. Entrepreneurship Management
- 14. Production Management & Operation Management
- 16. Company Law
- 18. Insurance & Risk Management
- 20. Business Entrepreneurship
- 22. Production & Material Management
- 24. International Business
- 26. Export & Import Management

- 27. Investment management
- 29. Production & Material Management
- 31. Communication Skills
- 33. Corporate Laws
- 35. Competitive Skills
- 37. Import & Export Management
- 39. Business & Mercantile Law
- 41. Stock & Commodity Market
- 43. Business ethics and Corporate Governance
- 45. Production & Operation Management
- 47. Business Research Methods
- 49. Corporate Social Responsibility
- 51. E-Commerce & Excellence Management
- 53. Legal Aspects of Business
- 55. Operation Management
- 57. Introduction to ERP and SAP
- Social issues and responsibility
- 61. Laws relating to industrial relations
- 63. Social security & Welfare regulations
- 65. Labour Welfare
- 67. Public Relation
- 69. Research Methodology in Commerce

- 73. Professional Communication
- 75. Soft Skill Development
- **Business Administration** 1. Modern office Management Marketing & Advertising
- 3. Marketing Management
- 5. Financial Analysis & journalism
- 7. Financial Services & Instruments
- 9. Portfolio Management
- 11. Investment Management
- 13. Business Administration Paper I,II
- 4. Organization & Management
- 6. Retail management
- 8. Supply Chain Management
- 10. Service Management
- 12. Financial Management
- 14. Corporate Regulatory Framework

### **Business Economics & Banking**

- 1. Principles & Practices of Banking
- 3. Business Economics
- 5. Macro economic analysis
- 7. Econometrics
- 9. Current Economic Scenario
- 11. Indian Economic Scenario
- 13. Advanced Banking
- 15. Economics of Environment & Research Methodology

- 2. Micro economic Analysis
- 4. Managerial Economics
- Modern Banking & Financial system
- 8. Banking & Finance
- 10. Indian Economy
- 12. Global Economics
- 14. Economics of Industries
- 16. Banking and Finance

### **Management of Studies**

- 1. Human Resource Management
- 3. Bank Management
- 5. Strategic Management
- 7. Industrial Physiology & Sociology
- 9. Laws for wages & working conditions
- 2. Modern Management Techniques
- 4. Organizational Behavior
- 6. Agro Business management
- 8. Personal Administration & Management
- 10. Risk Management

30. Corporate Governance 32. Agro Business

28. Financial Management

34. Business Research Methods

36. Business Laws

38. Corporate Laws 40. Entrepreneurship Development

42. Industrial Relation

44. Entrepreneurship Development

- 46. Financial Management
- 48. Introduction to operations Management
- 50. Corporate Communication Skills
- 52. Enterprenuer & Project Management
- 54. Indian Commercial Laws
- 56. Stock & Commodity Markets
- 58. Business & Correspondence & Communication Skills
- 60. Industrial relations & trade unions
- 62. Soft skills building
- 64. Industrial Compliance Framework
- 66. Industrial Counseling & Negotiations
- 68. Consumer Protection and Business Ethics
- 70. Organization Behavior

74. Career Management and Counseling

- 11. Training & Development
- 13. Modern Management Technology
- 15. Hospitality Management

### **Computer Management**

- 1. Quantiative Tech. & computing skills
- 3. Programming in C++
- 5. Office Automation
- 7. Internet & Web Page design
- 9. Introduction to Visual Basic
- 11. Introduction of MS-Access
- 13. Database system & DB-2
- 15. Database Concepts & MS-Access
- 17. Programming in VC++
- 19. MIS and Data Security
- 21. System Analysis & ERP
- 23. RDBMS Oracle
- 25. Java Programming
- 27. Information System Audit
- 29. Systems Management and ERP I&II
- 31. MIS & Management and ERP
- 33. Introduction Programming using C++
- 35. Introduction to DBMS
- 37. Object Oriented Programming using C++
- 39. VB.NET
- 41. Numerical Methods
- 43. Computer Fundamentals & Office Automation
- 45. Human Resource Information System & ERP
- 47. Operating Systems
- 49. Computer Fundaments & Hardware/Software Installation
- 51. 245. DBS & SQL Server

1. Web Mining Concepts

3. C#.Net

3. VB.Net

5. Oracle & D2K

5. ASP.NET

- 53. Introduction to Animation & Flash
- 55. Lab- III (2.1&2.2) & Lab IV(2.3)
- 57. Information Security & Cyber law
- 59. Lab-IV(4.1&4.4) & Lab-VIII(4.5)
- 61. Information System for Business

1. Database Administration & Security

Introduction Designing & Graphics
 3D Animation using Houdini

- 2. Business Statistics
- 4. Business Mathematics
- 6. Internet & Application
- 8. Basic of Database Internet & web Designing using HTML

12. Placement Activity Management

14. Modern Retail Management

- 10. E-Commerce & IT Act,2000
- 12. Computing Management
- 14. Programming Visual Basic-6
- 16. Database Programming through VB 6.0
- 18. Programming in ASP
- 20. System Analysis and Designing
- 22. Information Management
- 24. ERP and SAP
- 26. Developer 2000 (D2K)
- 28. Computer Applications for Business
- 30. Quantitative Techniques
- 32. Mathematical Techniques
- 34. Computer Networks and Web design
- 36. Data Structure
- 38. Computer Animation using Flash and Statistical Quality Control
- 40. Design of Experiments and Competitive skills
- 42. Introduction to R
- 44. Introduction of Internet & Web Technology
- 46. Research Methodology & Statistical Tools
- 48. Web Designing & Web tools
- 50. Ruby Programming Language
- 52. M I S & ERP
- 54. Software Designing & Development
- 56. Lab- V(3.1&3.4) & Lab VI(3.5)
- 58. Quality Control & Software Testing
- 60. Research Methodology & Statistical Tools
- 62. Cyber Crime and Security

### **Functional Electives**

#### Α

- 2. Scripting languages
- 4. Website Management & Services
- 6. PHP & AJAX

### В

- 2. Java
- 4. Data Mining & ware housing
- 6. J2EE & J2ME

#### C

- 2. Digital Graphics Design
- 4. Advanced Computer Animation
- 5. Post Production Processes for Animation 6. 3D Animation using Mays

#### FACULTY OF EDUCATION

- 1. Education and Development
- 2. Education an Evolutionary Perspective
- 3. Contemporary issues and concerns in secondary Education
- 4. Education: A Global perspective
- 5. Mental Retardation: The multidisciplinary Perspective
- 6. Education in India- A Global Perspective.
- 7. Process of Education
- 8. Curriculum Development and Transaction
- 9. Education as a Field of Study / Education in 21st Century
- 10. Teacher Education.
- 11. Foundations of Distance Education
- 12. Educational Technology
- 13. New trends in Education
- 14. Advanced Educational Theory
- 15. Fundamental Of Educational Theory
- 16. Learner and Learning
- 17. Teaching: Approaches, Strategies
- 18. Learning Resources
- 19. Various disabilities and Educational Psychology
- 20. Identification and Assessment of mental Retardation
- 21. An Introduction to Educational Psychology and Nature of Various Disabilities
- 22. Introduction to Visual Impairment and personality development
- 23. Educational Perspectives of Visual Impairment and intelligence
- 24. Psychology for Individual and Social Development.
- 25. Statistical Methods for data analysis
- 26. Inclusive Education for Children with Diverse Needs
- 27. Learner, Learning and Teaching Process
- 28. Methodology of Educational Research and Statistical Methods
- 29. Classroom Organization and Management
- 30. Assessment and Evaluation
- 31. Pedagogical content Knowledge CCM-I,III (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Mathematics, Science)
- 32. Pedagogical content Knowledge CCM- II,IV (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Maths, Science)
- 33. Mental Retardation: Curriculum and Teaching Strategies
- 34. Subject Teaching
- 35. Teaching and Learning Methods with Visual Impairment.
- 36. Educational Guidance and Counseling
- 37. Educational, Planning, Management, and Financing of Education
- 38. Information Communication and Technology and E-learning
- 39. Secondary and Higher Secondary Education
- 40. Foundations & History of Physical Education
- 41. Anatomy, Physiology & Health Education
- 42. Organization Administration in Physical Education
- 43. Method in General School Subjects- [ Marathi, Hindi, English, History, Geography, Science, Mathematics ]
- 44. Psychological base of Physical Education
- 45. Officiating, Coaching & Evaluation in Physical Education
- 46. Computer in Physical Education
- 47. Teaching Methodology in Physical Education

- 48. Science of sports training
- 49. Test Measurement & Evaluation and Physical Education
- 50. Sports Biomechanics
- 51. ICT (Information Computer Technology)
- 52. Yoga Science
- 53. Research Methodology
- 54. Management Officiating and Coaching
- 55. Physical Fitness & Wellness
- 56. Sports Sociology
- 57. Management in Physical Education & Sports
- 58. Sports Psychology
- 59. Sports Nutrition
- 60. Sports Medicine
- 61. Curriculum Design In Physical Education
- 62. Health & Fitness Management
- 63. Recreational and Luster Time Management
- 64. Personality Development Programme and Life Skill
- 65. English
- 66. Foundations Of Physical Education
- 67. Health Education
- 68. Sport Psychology
- 69. Organization, Administration in Physical Education
- 70. Anatomy
- 71. Marathi / Hindi
- 72. General Science
- 73. Computer in Physical Education
- 74. Physiology
- 75. Sports Sociology
- 76. Management Of Physical Education
- 77. History of Physical Education
- 78. Kinesiology
- 79. Recreation
- 80. Personality Development
- 81. Professional Preparation
- 82. Biomechanics
- 83. Methods of Physical Education
- 84. Officiating & Coaching
- 85. Basic of Sport Training
- 86. Sports Injuries & Rehabilitation
- 87. Fitness & Nutrition / Yoga
- 88. Test & Measurement

# Direction No. 4 - The Board of Studies for every subject or Group of Subjects {Under Section 37(1) of the Maharashtra Universities Act, 1994}

### **FACULTY OF ARTS AND FINE ARTS**

Board of Studies	Subject or Group of Subjects.
1) B.o.S. in Marathi	1) Marathi.(For all faculties)
2) B.o.S. in Hindi	1) Hindi (For all faculties)
3) B.o.S. in English	<ol> <li>English (includes Science, Commerce, Law, B.S.W., M.S.W.)</li> <li>Linguistics</li> </ol>
4) B.o.S. in Ancient Indian Languages	1) Sanskrit 2) Pali & Ardhamagadhi.
5) B.o.S. in Urdu, Persian & Arabic Languages	1) Urdu 2) Persian & Arabic Languages
6) B.o.S. in Fine and Performing Arts	<ol> <li>Music</li> <li>Dancing</li> <li>Dramatics</li> <li>Drawing and Painting</li> <li>Sculpture</li> <li>Applied Arts</li> </ol>

### FACULTY OF MENTAL, MORAL AND SOCIAL SCIENCES

Board of Studies	Subject or Group of Subjects
1) B.o.S. in History	<ol> <li>History (includes Law faculty)</li> <li>History of Civilization</li> </ol>
2) B.o.S. in Philosophy	<ol> <li>Philosophy</li> <li>Logic (Includes Law College)</li> </ol>
3) B.o.S. in Sociology & Social Work	1) Sociology 2) Social Work
4) B.o.S. in Political Science	<ol> <li>Political Science</li> <li>Civics</li> <li>Public Administration (Includes related faculties)</li> </ol>
5) B.o.S. in Economics	1) Economics. (Includes related faculties)
B.o.S. in Mass Communication     Journalism	1) Mass Communication and Journalism
7) B.o.S. in Defense & Strategic Studies	Defense and Strategic Studies (includes related faculties)
8) B.o S. in Psychology	<ol> <li>Psychology.</li> <li>Yogic science</li> </ol>
9) B.o S. in Dr. Ambedkar Thoughts	1) Dr. Ambedkar Thoughts
10) B.o S. in Buddhist Heritage Studies & Tourism	1) Buddhist Heritage Studies & Tourism
11) B.o S. in Tribal Academy	1) Tribal Academy
12) B.o S. in Gandhian Thoughts	1) Gandhian Thoughts
13) B.o S. in Womens Studies	1) Womens Studies
14) B.o S. in Library Science	1) Library and Information Sciences

### **FACULTY OF SCIENCE**

Board of Studies 01) B.o.S. in Mathematics	Subject or Group of Subjects  1) Mathematics
02) B.o S. in Statistics	1) Statistics
03) B.o.S. in Physics	<ol> <li>Physics</li> <li>Energy Studies</li> <li>Material Science</li> </ol>
04) B.o.S. in Chemistry	<ol> <li>Chemistry</li> <li>Inorganic Chemistry</li> <li>Organic Chemistry</li> <li>Analytical Chemistry</li> <li>Physical Chemistry</li> </ol>
05) B.o.S. in Botany	1) Botany
06) B.o.S in Computer Science	<ol> <li>Computer Science</li> <li>Information Technology</li> <li>Computer Application (MCA)</li> </ol>
07) B.o.S. in Zoology	1) Zoology

08) B.o.S. in Geography	1) Geography
09) B.o.S. in Life Science	<ol> <li>Microbiology</li> <li>Biochemistry</li> <li>Biotechnology</li> <li>Molecular Biology</li> </ol>
10) B.o.S. in Electronics & Instrumentation	<ol> <li>Electronics</li> <li>Instrumentation</li> </ol>
11) B.o.S. in Environmental Science	1) Environmental Science
12) B.o.S. in Chemical Science	<ol> <li>Polymer Chemistry</li> <li>Pesticides and Agro Chemicals</li> <li>Industrial Chemistry</li> </ol>
13) B.o.S. in Geosciences	<ol> <li>Geology</li> <li>Applied Geology</li> <li>Geo informatics</li> </ol>
14) B.o.S. in Animation & Web Designing	<ol> <li>Software Development</li> <li>Printing &amp; Publishing</li> </ol>
15) B.o.S. in Agri. & Natural Resource Management Skills	<ol> <li>Agriculture</li> <li>Soil &amp; Water Conservation</li> </ol>

### **FACULTY OF LAW**

### **Board of Studies**

01) B.o.S. in Law

### **Subject or Group of Subjects**

- 1) Constitutional Law
- 2) History of Courts
- 3) Administrative Law
- 4) Human Rights & International Law
- 5) Environmental Law
- 6) Transfer of Property Act
- 7) Land Laws
- 8) Law of Trust
- 9) Family Law
- 10) Labour Laws
- 11) Taxation Laws
  - - (All Subjects of DTL & MLL & LW)
- 12) Banking Laws includes N.I. Act,
- 13) Company Law
- 14) Contract Laws
- 15) Jurisprudence
- 16) Legislative Principles & Interpretation of Statutes
- 17) Legal Language Includes Legal Writing
- 18) Legal Language Includes General English
- 19) Law of Torts
- 20) Law of Medicine
- 21) Civil Procedure Code
- 22) Criminal Procedure Code
- 23) Law of Evidence
- 24) Law of Crimes,
- 25) Criminology & Penology,
- 26) Arbitration, Conciliation & ADR Systems.
- 27) Research Methodology
- 28) Growth of Modern Indian Legal system I & II

### **FACULTY OF PHARMACY**

Board of Studies	Subject or Group of Subjects
B.o.S. in Pharmaceutics  B.o.S. in Pharmaceutical Chemistry	<ol> <li>Pharmaceutics</li> <li>Bio-pharmaceutics</li> <li>Dispensing pharmacy</li> <li>Pharmaceutical Technology</li> <li>Cosmetic Technology</li> <li>Pharmaceutical Microbiology</li> <li>Novel Drug Delivery System</li> <li>Pharmaceutical Chemistry</li> <li>Organic Chemistry</li> <li>Pharmaceutical inorganic chemistry</li> <li>Drug Chemistry</li> <li>Medicinal Chemistry</li> </ol>
B.o.S. in Pharmacognosy and Pharmacology	1) Pharmacognocy 2) Herbal Drug 3) Tissue Culture 4) Pharmacognocy and phytochemistry 5) Marine Drug 6) Pharmacology 7) Anatomy and Physiology 8) Pathophysiology 9) Hospital and community pharmacy 10) Clinical Pharmacology 11) Clinical Pharmacy
B.o.S. in B.Tech. (Cosmetics)	<ol> <li>Cosmetic Engineering</li> <li>Beauty Culture</li> <li>Cosmetic Technology</li> <li>Perfumes &amp; Colors</li> </ol>
Faculty of Engine	ering & Technology
Board of Studies	Subject or Group of Subjects
1) B.o.S. in Applied Sciences	<ol> <li>Physics</li> <li>Chemistry (applied to all branches of Engg.)</li> <li>Engineering Mathematics (applied to all branches of Engg.)</li> <li>Engineering Economics &amp; Industrial Psy.</li> <li>Communication Skills</li> <li>Engg. Economics &amp; Resource Management</li> </ol>
B.o.S. in Chemical Engineering     & Chemical Technology	<ul> <li>01) Generation And Transmission of Mechanical Power</li> <li>02) Applied Mathematics- I</li> <li>03) Organic Chemistry</li> <li>04) Workshop Technology</li> <li>05) Applied Physical Chemistry</li> <li>06) Computer Programming and Application</li> </ul>

06) Computer Programming and Application

09) Electrical Engg And Electronics

07) Physical Chemistry08) Organic Chemistry- I

10) Engineering Graphics

12) Inorganic Chemistry

11) Physics

- 13) Applied Mathematics- II
- 14) Material Technology
- 15) Applied & Structural Mechanics
- 16) Process heat transfer
- 17) Structural Mechanics
- 18) Fluid Mechanics
- 19) Organic Chemistry- II
- 20) Industrial Management & Communication Skill
- 21) Industrial Stochiometry
- 22) Mass Transfer
- 23) Instrumentation & Process Control
- 24) Machine Design
- 25) Mechanical Operation
- 26) Process Engg Thermodynamics
- 27) Project Engineering & Economics
- 28) Presentation On Industrial Training & Tour
- 29) Project
- 30) Chemical Reaction
- 31) Process Equipment Design
- 32) Technical Seminar
- 33) Physical Chemistry- I
- 34) Industrial Engineering Chemistry
- 35) Mass Transfer- I
- 36) Math- III
- 37) Chemical Reaction Engg.- I
- 38) Chemical Reaction Engg.- II
- 39) Machine Design & Drawing
- 40) Chemical Engg. Math
- 41) Instrumentation & Instrumental Analysis
- 42) Process Equipment Design
- 43) Transport Phenomena
- 44) Modeling Simulation & Computer Design
- 45) Process Dynamic & Control
- 46) Plant Design, Economics & Costing
- 47) Elective -1,11,111 \*
- 48) Chemistry of Oil's Fats
- 49) Post Harvest Technology of Oleaginous Materials
- 50) Refining of Oils & Fats
- 51) Quality Control Techniques in Oil and Fats
- 52) Technology of Waxes and Biochemistry of Lipids
- 53) Technology of Fats Slitting and Soaps
- 54) Industrial Hydrogenation & High Fat Products
- 55) Chemistry of Surfactants & Oleo chemicals
- 56) Technology of Essential Oils & Cosmetics
- 57) Technology of Surfactants & Detergents
- 58) Modified & Tailor Made Oils
- 59) Process Equipment Design
- 60) Principles of Polymers
- 61) Chemistry of Drying Oils, Alkyed Resin & Varnish
- 62) Chemistry & Technology of Polymers-I
- 63) Inorganic Pigments & Extenders
- 64) Color Testing Organic Pigments & Additives
- 65) Chemistry & Tech of Polymers- II
- 66) Formulation & Manufacture of Coatings- I
- 67) Chem. & Technology of Pigment Dispersion
- 68) Evaluation of Surface Coatings and Paint Defects
- 69) Technology of Printing Inks & Application Techniques
- 70) Elements of Food Chemistry
- 71) Bio Chemistry & Nutrition

- 72) Microbiology & Molecular Biology
- 73) Principal of Food Preservation
- 74) Food Processing-I
- 75) Food wizsin4J
- 76) Biotechnology
- 77) Packing Technology
- 78) Food Quality
- 79) Biochemical Engineering
- 80) Treatment & Disposal of Food Industry Waste
- 81) Analysis of Finished Food Products
- 82) High Polymer Chemistry
- 83) Processing Plastics- I
- 84) Plastics Tech.Lab
- 85) Processing of Plastics- II
- 86) Technology Elastometer & Additives
- 87) Testing of Plastics
- 88) Polymer Rheology
- 89) Mould and Die Design
- 90) Polymer Blends & Composites
- 91) Oleo chemistry & Surfactants
- 92) Nano Technology
- 93) Pharmaceutical Technology
- \* Elective- I
- 1) Fuel & Combustion
- 2) Particulate Technology
- 3) Polymer Chemistry
- 4) Catalysis
- 5) Energy Recourses & Utilization
- \* Elective- II.
- 1) Environmental Engg.
- 2) Electrochemical Engg.
- 3) Biochemical Engg.
- 4) Multiphase Reaction
- 5) Petroleum Engg.
- \* Elective- III
- 1) Industrial Thermodynamics
- 2) Newer separation Process
- 3) Polymer Engg.

### **Civil Engineering**

- 1) Engineering Mechanics Elements of Civil Engineering
- 2) Mechanics of Structures
- 3) Building Construction
- 4) Geotechnical Engineering
- 5) Surveying
- 6) Theory of Structure- I
- 7) Building Design & Town Planning
- 8) Concrete Technology & Construction Materials
- 9) Highway. Airport & Bridges
- 10) Fluid Mechanics
- 11) Advanced Surveying
- 12) Advanced Fluid Mechanics
- 13) Design of Concrete Structures
- 14) Irrigation Engineering
- 15) Transportation Engineering
- 16) Public Health Engineering
- 17) Engineering Geology
- 18) Design of Steel Structures

### 3) B.o.S. in Civil Engineering & Architecture

### Architecture

- 19) Advanced Theory of Structures.
- 20) Foundation Engineering
- 21) Practical Training Special Study
- 22) Quantity Surveying & Valuation
- 23) Numerical Analysis & Computer Application
- 24) Environmental Engineering
- 25) Water Shed Management
- 26) Earthquake Resistant Design
- 27) Remote Sensing in Civil Engineering
- 28) Earth Structures
- 29) Open Channel & Conduit Flow
- 30) Low Cost Construction & Rural Development technique
- 31) Dams & Hydraulics Structures
- 32) Analysis & Design of Special Structures
- 33) Construction Management
- 34) Advanced Highway Engineering
- 35) Finite Element Method
- 36) Systems Approach in Civil Engineering
- 37) Water Power Engineering
- 38) Industrial Water Pollution & Control
- 39) Land Development & Drainage Engineering
- 40) Seminar
- 41) Project
- 1) English /Communication Skills
- 2) History of Architecture & Human Settlements I. II. III, IV
- 3) Design Fundamentals In Architectures
- 4) Structure- I, II,III,IV,V,VI,VII
- 5) Building Material- I,II,III
- 6) Architecture Drawing and graphics- I,II,III,JV
- 7) Visual Arts- I,II
- 8) Basic Design- I
- 9) Model Workshop- I,II
- 10) Social Science and History of culture
- 11) Introduction to computing
- 12) Basic and architectural Design
- 13) Surveying and Leveling
- 14) Climatologic- I,II
- 15) Architectural Design- I,II,III,V,VI
- 16) Building Construction- I,II,III,IV,V,VI
- 17) Anthropometrics
- 18) Building Service- I,II,III
- 19) Acoustics
- 20) Photography
- 21) Specifications
- 22) Air Conditioning and Ventilation
- 23) Landscape Design
- 24) Working drawing- I,II
- 25) Quantity Surveying and Estimating- I,II
- 26) Introduction to sown Planning
- 27) Housing
- 28) Rural Architectural
- 29) Project and Construction management
- 30) Interior Design
- 31) Computer Application
- 32) Appropriate Technology
- 33) Professional Practice-I,II
- 34) Contract Documents and Building Bylaws

- 35) Building Economics
- 36) Elective- I,II,III
- 37) Architectural Construction Project
- 38) Dissertation, Project Work

### 4) <u>B.o.S. in Computer Engineering & Information Technology</u>

- 1) Computer Programming
- 2) Discrete Structures and Graph Theory
- 3) Industrial Management and Economics
- 4) Programming Laboratory- I
- 5) Microprocessor- I
- 6) Data structures and Files
- 7) Computer organization
- 8) Programming Laboratory- II
- 9) Microprocessor- II
- 10) Theory of Computer Science
- 11) Digital System Design
- 12) Computer Graphics
- 13) System Programming
- 14) Microprocessor- III
- 15) Data Communication
- 16) Software Engineering
- 17) Database Management Systems
- 18) Management Information S
- 19) Application Development Tool
- 20) Practical Training / Special stUi
- 21) Mobile Network
- 22) Artificial Intelligence
- 23) VLSI Design
- 24) Computer Network
- 25) Operating Systems.
- 26) Object Oriented Modeling Design and Architecture
- 27) Embedded Systems
- 28) Neural Network and Fuzzy Logic
- 29) Design and Analysis of Computer Algorithms
- 30) Compiler Construction
- 31) Software Metrics and Quality Assurance
- 32) Advanced Computer Architecture
- 33) Technical Visit! Case Studies
- 34) Seminar
- 35) Project Work

### **Information Technology**

- 1) Discrete Structures and Graph Theory
- 2) Programming Paradigms and methodology
- 3) Industrial Management and Economics
- 4) Programming Laboratory- I
- 5) Microprocessor- I
- 6) Data Communications
- 7) Data Structures And Files
- 8) Object Oriented Programming Methodology
- 9) Information Theory
- 10) Programming Laboratory- II
- 11) Microprocessor- II
- 12) Computer Organization
- 13) Database Management

- 14) Computer Graphics
- 15) System Programming
- 16) Computer Networks and
- 17) Operating System
- 18) Software Engineering
- 19) Web Designing
- 20) Management Information sy.
- 21) Application Development Tools,
- 22) Practical Training! Special study/
- 23) Mobile Network
- 24) Enterprise Resource Planning
- 25) Information Retrieval
- 26) F-Commerce
- 27) Advanced Database Management System
- 28) Object Oriented Modeling Design and Architecture
- 29) Embedded Systems
- 30) Multimedia Techniques
- 31) Image Processing
- 32) Internet Security
- 33) Software Metrics and Quality Assurance
- 34) Data Warehousing and Mining
- 35) Technical Visit Case Studies
- 36) Seminar

### **Subject or Group of Subjects**

# 5) B.o.S. in Electronics and Telecommunication & industrial Electronics

**Board of Studies** 

### **Electronics and Telecommunication**

- 1) Elements of Electrical and Electronics Engg
- 2) Electronic Devices and Circuits- I
- 3) Digital Electronics
- 4) Electromagnetic Engineering
- 5) Network and Lines
- 6) Component Devices and Technology
- 7) Electronic Devices and Circuits- II
- 8) Principles of Communication System
- 9) Electronic Instrumentation
- 10) Electrical Machines
- 11) Microprocessor Techniques
- 12) Electronic Design I
- 13) Network Analysis and Synthesis
- 14) Signal Conditioning and Data conversion
- 15) Feedback Control System
- 16) Microprocessor Interface & Peripherals
- 17) Communication System- I
- 18) Electronic Design- II
- 19) Power Electronics
- 20) Communication Systems- II
- 21) VLSI Design
- 22) System Programming
- 23) Television Engineering
- 24) Bio-Medical Instrumentation
- 25) Radiation and Microwave Techniques

- 26) Digital Signal Processing
- 27) Seminar
- 28) Computer Communication
- 29) Fiber Optic Communication
- 30) Digital Image Processing
- 31) Information Technology
- 32) Telemetric
- 33) Consumer Electronics
- 34) Electronic Measurement
- 35) Project
- 36) Industrial Electronics and Drives
- 37) Applied Electronics
- 38) Network Analysis
- 39) Signal Conditioning and Data conversion
- 40) Digital and Microprocessor Lab.
- 41) Digital Circuits and Logic Design
- 42) Analog & Digital Electronics

### **Industrial Electronics**

- 01) Electronic Devices and Circuits
- 02) Network and Lines
- 03) Digital Electronic
- 04) Electromagnetic Engineering
- 05) Radio Communication Systems
- 06) Television System
- 07) Microprocessors and Microcomputers
- 08) Industrial Electronics
- 09) Electronic Measurements and Instruments
- 10) Optoelectronics
- 11) Power Electronics
- 12) Medical Electronics
- 13) Control System
- 14) Components and Devices Technology
- 15) Microelectronics
- 16) Electronic Drives and Control
- 17) Electronic Systems design
- 18) Industrial Instrumentation
- 19) Microprocessor based Systems
- 20) Computerized Numerical Controlled Machines
- 21) Robotics
- 22) Modem Control Theory
- 23) Computer Techniques
- 24) Electrical Safely and Power Distribution Systems
- 25) Biomedical Instrumentation
- 26) Elements of Electrical & Electronics Engg.
- 27) Digital Communication

### **Electrical Engineering**

- 1) AC Circuits & Transformer
- 2) Electrical Engg. Material
- 3) Electromagnetic Engg.
- 4) Applied Thermodynamics
- 5) Digital Computational Techniques
- 6) Electrical Machine- I
- Electrical measurement- I
- 8) Applied Electronics- I

6) B.o.S. in Electrical & Instrumentation Engineering

- 9) Fluid Mechanics & Machinery
- 10) Applied Electronics- II
- 11) Electrical Mechanics- II
- 12) Power System- I,II
- 13) Network Analysis
- 14) Electrical Installation Ratio nation and Distribution
- 15) Microprocessors Fundamentals & Applications
- 16) Industrial Organization & Management
- 17) Electrical Measurement- II
- 18) Principles of Electrical Machine Design
- 19) Practical Training/Special Study/Minor Project
- 20) Power Electronics
- 21) Contract System- I & II
- 22) Switch Gear Protection
- 23) Project
- 24) Seminar
- 25) Industrial Electrical Engineering
- 26) Power System Stability
- 27) High Voltage Engineering
- 28) Power System. Operation & Contract
- 29) Electromechanical Energy Conversion
- 30) Microprocessor Based System
- 31) Power System design practices
- 32) Electric Traction Engg.

### **Instrumentation**

- 1) Industrial Instrumentation
- 2) Electronics Device & Circuits
- 3) Digital Techniques
- 4) Electromagnetic Engg.
- 5) Workshop Technology & Fabrication Techniques
- 6) Transducers & Signal Conditioners
- 7) Engg. Materials
- 8) Electrical Machines
- 9) Thermal & Food Power Engg.
- 10) Engg. Math- III
- 11) Elective-i-DSP
- 12) Elective-I-PPI
- 13) Elective-I-Micro Electronics
- 14) Elective-1-AET
- 15) Unit Operations
- 16) Process Equipment Design
- 17) Process Instrumentation PT
- 18) Seminar
- 19) Project
- 20) Elective-II-FONT
- 21) Elective II-Fuzzy & Nurul Neww
- 22) Elective-II-BI
- 23) Elective-II-Computer Networks
- 24) instrumentation System Design
- 25) Project Planning Estimation & Assessments
- 26) Process Modeling & Optimization
- 27) Technical Visits

### 7) <u>B.o.S. in Mechanical Production &</u> Automobile Engineering

### Mechanical Engineering

- 1) Engineering Graphics I
- 2) Workshop Practice I
- 3) Engineering Graphics -II
- 4) Elements of Mechanical Engineering
- 5) Workshop Practice II
- 6) Energy Conversion -I
- 7) Machine Drawing & Computer Graphics
- 8) Dynamics of Machinery-I
- 9) Manufacturing Process
- 10) Workshop Practice -III
- 11) Energy Conversion -II
- 12) Material science
- 13) Workshop Practice -IV
- 14) Numerical analysis and Computational Method
- 15) Engineering Metallurgy
- 16) Ind. Engg. and Management
- 17) Machine Design- I
- 18) Heat Transfer and Gas Dynamics
- 19) Workshop Practice-V
- 20) Turbo Machinery
- 21) Manufacturing Technology
- 22) Dynamics of Machinery-II
- 23) Machine design -II
- 24) Metrology & Quality Control
- 25) Practical Training! Special study! Minor Project! EDP
- 26) Non-Conventional Energy Sources
- 27) MJC Tool design
- 28) Operation Research
- 29) Robotics
- 30) Automobile Engg.-I
- 31) Mechanical Estimation & Costing
- 32) Reliability Engg.
- 33) Machine Design-III
- 34) Refrigeration & Air Conditioning
- 35) Project & Financial Management
- 36) Seminar
- 37) Power Plant Engg.
- 38) Mgt. Information system
- 39) Materials Management
- 40) Energy Conversion & Mgt
- 41) Automobile Engg.-II.
- 42) Production Planning & Control
- 43) Analysis & Synthesis of Mechanism
- 44) CAD& CAM
- 45) Tribology
- 46) Mechanical Vibration
- 47) Project
- 48) Technical Visits
- 49) Engg. Metalogy
- 50) CAD /CAM

- 51) Industrial Engg. & Management
- 52) Machine Design-I
- 53) Heat Transfer & Mass Transfer
- 54) Workshop Practice-V
- 55) Metrology & Quality Control
- 56) Hydraulics & Pneumatics
- 57) Automobile Systems
- 58) Dynamics of Machinery-II
- 59) Manufacturing Technology
- 60) Practical Training

### **Automobile**

- 1) Engg. Metalogy
- 2) CAD /CAM
- 3) Industrial Engg. & Management
- 4) Machine Design- I
- 5) Heat Transfer & Mass Transfer
- 6) Workshop Practice-V
- 7) Metrology & Quality Control
- 8) Hydraulics & Pneumatics
- 9) Automobile Systems
- 10) Dynamics of Machinery-II
- 11) Manufacturing Technology
- 12) Practical Training

### **Production**

- 1) Tool Design
- 2) Production, Planning & Control
- 3) Financial Management & Cost Control;
- 4) Project
- 5) Seminar
- 6) Elective-I-Energy Management
- 7) Elective-I-Total Quality Management
- 8) Elective-I- Automobile Engg.-I
- 9) Elective-I- Non Conventional Energy
- 10) Elective-I- Management Information System
- 11) Trilogy
- 12) CAD CAM
- 13) Materials Management
- 14) Technical Visit
- 15) Elective-II-Mechanical Estimation & Costing
- 16) Elective-II-Industrial Relations
- 17) Elective-II-Automobile Engg-II
- 18) E1ective-II-Power Plant Engg
- 19) Elective-II-Foundry

### **FACULTY OF COMMERCE & MANAGEMENT**

### 1) BoS in Accountancy & Costing

- 1. Financial & Cost Accounting
- 3. Financial & Cost Accountancy
- 5. Corporate Accounting
- 7. Advance Accounting & Costing Techniques
- 9. Financial & Management Accountancy
- 11. Corporate laws & Income Tax Laws
- 13. Auditing Practices
- 15. Direct & Indirect Tax Laws
- 17. Advanced cost & Management Accounting
- 19. Principles & Practice of Auditing
- 21. Management Accountancy
- 23. Income Tax Law
- 25. Auditing
- 27. Advanced Accountancy
- 29. Direct & Indirect Law
- 31. Financial Accounting and Cost Control
- 33. System Analysis and Design
- 35. Cost Accounting
- 37. Financial Accounting for Manager (Tally 9.2)
- 39. Information System Audit (ISA)

- 2. Financial Accountancy
- 4. Corporate Accounting & Costing
- 6. Advance Accounting & Costing Method
- 8. Income Tax
- 10. Direct & Indirect Tax Laws
- 12. Auditing
- 14. Income Tax Laws
- 16. Advanced Accounting
- 18. Income Tax
- 20. Corporate Accounting & Auditing
- 22. Auditing
- 24. Corporate Accounting & Auditing
- 26. Management Accounting
- 28. Advanced cost Accountancy
- 30. Accountacy for Managers
- 32. Information System Audit (ISA)
- 34. Human Resource Auditing & Outsourcing
- 36. Costing Methods & Techniques
- 38. Management Accounting
- 40. Business Accounting

### 2) BoS in Commerce & Business Laws

- 1. Corporate Laws
- 3. E Commerce
- 5. Co-operative Laws & Micro Finance
- 7. Business Law
- 9. Business & Tax Laws
- 11. Business Processing outsourcing
- 13. Business Communication
- Business Ethics & Corporate Governance
- 17. Operation & Material Management
- 19. E-Commerce
- 21. Stock & Commodity Market
- 23. Communication Skills
- 25. Mercantile Laws
- 27. Investment management
- 29. Production & Material Management
- 31. Communication Skills
- 33. Corporate Laws
- 35. Competitive Skills
- 37. Import & Export Management
- 39. Business & Mercantile Law
- 41. Stock & Commodity Market
- 43. Business ethics and Corporate Governance

- 2. Principles and Practices of Insurances
- 4. Stock & Commodity Market
- 6. Foundation course in Comm & Management
- 8. Business Communication
- 10. Corporate regulatory framework
- 12. Enterprenuership Management
- 14. Production Management & Operation Management
- 16. Company Law
- 18. Insurance & Risk Management
- 20. Business Entrepreneurship
- 22. Production & Material Management
- 24. International Business
- 26. Export & Import Management
- 28. Financial Management
- 30. Corporate Governance
- 32. Agro Business
- 34. Business Research Methods
- 36. Business Laws
- 38. Corporate Laws
- 40. Entrepreneurship Development
- 42. Industrial Relation
- 44. Entrepreneurship Development

- 45. Production & Operation Management
- 47. Business Research Methods
- 49. Corporate Social Responsibility
- 51. E-Commerce & Excellence Management
- 53. Legal Aspects of Business
- 55. Operation Management
- 57. Introduction to ERP and SAP
- 59. Social issues and responsibility
- 61. Laws relating to industrial relations
- 63. Social security & Welfare regulations
- 65. Labour Welfare
- 67. Public Relation
- 69. Research Methodology in Commerce
- 71. Entrepreneurship and Project Management 72. Foundation Course for Managers
- 73. Professional Communication
- 75. Soft Skill Development

- 46. Financial Management
- 48. Introduction to operations Management
- 50. Corporate Communication Skills
- 52. Enterprenuer & Project Management
- 54. Indian Commercial Laws
- 56. Stock & Commodity Markets
- 58. Business & Correspondence & Communication Skills
- 60. Industrial relations & trade unions
- 62. Soft skills building
- 64. Industrial Compliance Framework
- 66. Industrial Counseling & Negotiations
- 68. Consumer Protection and Business Ethics
- 70. Organization Behavior
- 74. Career Management and Counseling

### 3) BoS in Business Administration

- 1. Modern office Management
- 3. Marketing Management
- 5. Financial Analysis & journalism
- 7. Financial Services & Instruments
- 9. Portfolio Management
- 11. Investment Management
- 13. Business Administration Paper I,II
- 2. Marketing & Advertising
- 4. Organization & Management
- 6. Retail management
- 8. Supply Chain Management
- 10. Service Management
- 12. Financial Management
- 14. Corporate Regulatory Framework

### 4) BoS in Business Economics & Banking

- 1. Principles & Practices of Banking
- 3. Business Economics
- 5. Macro economic analysis
- 7. Econometrics
- 9. Current Economic Scenario
- 11. Indian Economic Scenario
- 13. Advanced Banking
- 15. Economics of Environment & Research Methodology

- 2. Micro economic Analysis
- 4. Managerial Economics
- 6. Modern Banking & Financial system
- 8. Banking & Finance
- 10. Indian Economy
- 12. Global Economics
- 14. Economics of Industries
- 16. Banking and Finance

### 5) BoS in Management of Studies

- 1. Human Resource Management
- 3. Bank Management
- 5. Strategic Management
- 7. Industrial Physiology & Sociology
- 9. Laws for wages & working conditions
- 11. Training & Development
- 13. Modern Management Technology
- 15. Hospitality Management

- 2. Modern Management Techniques
- 4. Organizational Behavior
- 6. Agro Business management
- 8. Personal Administration & Management
- 10. Risk Management
- 12. Placement Activity Management
- 14. Modern Retail Management

### 6) BoS in Computer Management

- 1. Quantiative Tech. & computing skills
- 3. Programming in C++
- 5. Office Automation
- 7. Internet & Web Page design
- 2. Business Statistics
- 4. Business Mathematics
- 6. Internet & Application
- 8. Basic of Database Internet & web Designing using HTML

- 9. Introduction to Visual Basic
- 11. Introduction of MS-Access 158. Business Statistics & Operations Research
- 13. Database system & DB-2
- 15. Database Concepts & MS-Access
- 17. Programming in VC++
- 19. MIS and Data Security
- System Analysis & ERP
- RDBMS Oracle
- 25. Java Programming
- 27. Information System Audit
- 29. Systems Management and ERP I&II
- 31. MIS & Management and ERP
- 33. Introduction Programming using C++
- 35. Introduction to DBMS
- 37. Object Oriented Programming using C++
- 39. VB.NET
- 41. Numerical Methods
- 43. Computer Fundamentals & Office Automation
- 45. Human Resource Information System & ERP
- 47. Operating Systems
- 49. Computer Fundaments & Hardware/Software Installation
- 51, 245, DBS & SQL Server

1. Web Mining Concepts

- 53. Introduction to Animation & Flash
- 55. Lab- III (2.1&2.2) & Lab IV(2.3)
- 57. Information Security & Cyber law
- 59. Lab-IV(4.1&4.4) & Lab-VIII(4.5)
- 61. Information System for Business

- 10. E-Commerce & IT Act,2000
- 12. Computing Management
- 14. Programming Visual Basic-6
- 16. Database Programming through VB 6.0
- 18. Programming in ASP
- 20. System Analysis and Designing
- 22. Information Management
- 24. ERP and SAP
- 26. Developer 2000 (D2K)
- 28. Computer Applications for Business
- 30. Quantitative Techniques
- 32. Mathematical Techniques
- 34. Computer Networks and Web design
- 36. Data Structure
- 38. Computer Animation using Flash and Statistical Quality Control
- 40. Design of Experiments and Competitive skills
- 42. Introduction to R
- 44. Introduction of Internet & Web Technology
- 46. Research Methodology & Statistical Tools
- 48. Web Designing & Web tools
- 50. Ruby Programming Language
- 52. M I S & ERP
- 54. Software Designing & Development
- 56. Lab- V(3.1&3.4) & Lab VI(3.5)
- 58. Quality Control & Software Testing
- 60. Research Methodology & Statistical Tools
- 62. Cyber Crime and Security

### **Functional Electives**

- 2. Scripting languages
- 4. Website Management & Services
- 6. PHP & AJAX

#### В

- Database Administration & Security
- 3. VB.Net

3. C#.Net

5. ASP.NET

5. Oracle & D2K

- 2. Java
- 4. Data Mining & ware housing
- 6. J2EE & J2ME

### C

- 1. Introduction Designing & Graphics
- 3. 3D Animation using Houdini
- 2. Digital Graphics Design
- 4. Advanced Computer Animation
- 5. Post Production Processes for Animation 6. 3D Animation using Mays

### **FACULTY OF EDUCATION**

#### **Board of Studies**

### 1) B.o.S. in Education

### **Subject or Group of Subjects**

- 1. Education and Development
- 2. Education an Evolutionary Perspective
- 3. Contemporary issues and concerns in secondary Education
- 4. Education: A Global perspective
- 5. Mental Retardation: The multidisciplinary Perspective
- 6. Education in India- A Global Perspective
- 7. Process of Education
- 8. Curriculum Development and Transaction
- 9. Education as a Field of Study / Education in 21st Century
- 10. Teacher Education
- 11. Foundations of Distance Education
- 12. Educational Technology
- 13. New trends in Education
- 14. Advanced Educational Theory
- 15. Fundamental Of Educational Theory

### 2) B.o.S. in Educational Psychology

- 1. Learner and Learning
- 2. Teaching: Approaches, Strategies
- 3. Learning Resources
- 4. Various disabilities and Educational Psychology
- 5. Identification and Assessment of mental Retardation
- 6. An Introduction to Educational Psychology and Nature of Various Disabilities
- 7. Introduction to Visual Impairment and personality development
- 8. Educational Perspectives of Visual Impairment and intelligence
- 9. Psychology for Individual and Social Development
- 10. Statistical Methods for data analysis
- 11. Inclusive Education for Children with Diverse Needs
- 12. Learner, Learning and Teaching Process
- 13. Methodology of Educational Research and Statistical Methods

### 3) B.o.S. in Administration and Evaluation

- 1. Classroom Organization and Management
- 2. Assessment and Evaluation
- 3. Pedagogical content Knowledge CCM-I,III (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Mathematics, Science)
- 4. Pedagogical content Knowledge CCM- II,IV (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Maths, Science)
- 5. Mental Retardation: Curriculum and Teaching Strategies
- 6. Subject Teaching
- 7. Teaching and Learning Methods with Visual Impairment
- 8. Educational Guidance and Counseling
- 9. Educational, Planning, Management and Financing of Education
- 10. Information Communication and Technology and E-learning
- 11. Secondary and Higher Secondary Education

### 4) B.o.S. in Physical Education

- 1. Foundations & History of Physical Education
- 2. Anatomy, Physiology & Health Education
- 3. Organization Administration in Physical Education
- 4. Method in General School Subjects- [Marathi, Hindi, English, History, Geography, Science, Mathematics]
- 5. Psychological base of Physical Education.
- 6. Officiating, Coaching & Evaluation in Physical Education
- 7. Computer in Physical Education
- 8. Teaching Methodology in Physical Education
- 9. Science of sports training
- 10. Test Measurement & Evaluation and Physical Education
- 11. Sports Biomechanics
- 12. ICT (Information Computer Technology)
- 13. Yoga Science
- 14. Research Methodology
- 15. Management Officiating and Coaching
- 16. Physical Fitness & Wellness
- 17. Sports Sociology
- 18. Management in Physical Education & Sports
- 19. Sports Psychology
- 20. Sports Nutrition
- 21. Sports Medicine
- 22. Curriculum Design In Physical Education
- 23. Health & Fitness Management
- 24. Recreational and Luster Time Management
- 25. Personality Development Programme and Life Skill
- 26. English
- 27. Foundations of Physical Education
- 28. Health Education
- 29. Sport Psychology
- 30. Organization, Administration in Physical Education
- 31. Anatomy
- 32. Marathi / Hindi
- 33. General Science
- 34. Computer in Physical Education
- 35. Physiology
- 36. Sports Sociology
- 37. Management Of Physical Education
- 38. History of Physical Education
- 39. Kinesiology
- 40. Recreation
- 41. Personality Development
- 42. Professional Preparation
- 43. Biomechanics
- 44. Methods of Physical Education
- 45. Officiating & Coaching
- 46. Basic of Sport Training
- 47. Sports Injuries & Rehabilitation
- 48. Fitness & Nutrition / Yoga
- 49. Test & Measurement

### Direction No. 5 :- The Department in the Colleges with the subjects and their corresponding Board of Studies.

(Under Section 37(1)(2) of the Maharashtra Universities Act 1994.)

The department in the Colleges teaching the subjects at the special, principal, major or main level for the purposes of Board of Studies under section 37(1)(2) of the Maharashtra Universities Act 1994 and Direction-4 shall be as given below.

### **FACULTY OF ARTS AND FINE ARTS**

College Departments with the Subject Covered under the respective Deptts.	Corresponding Board of Studies
Department of Marathi	B.o.S. in Marathi
Department of Hindi	B.o.S. in Hindi
Department of English & Linguistics	B.o.S. in English
Department of Sanskrit, Pali & Ardhamagadhi	B.o.S. in Ancient Indian Languages
Department of Urdu, Persian & Arabic.	B.o.S. in Urdu, Persian & Arabic.
Department of Music,	
Department of Dancing,	
Department of Dramatics,	B.o.S. in Fine and Performing Arts.
Department of Drawing and Painting,	
Department of Sculpture,	
Department of Applied Arts.	

### FACULTY OF MENTAL, MORAL AND SOCIAL SCIENCES

**Corresponding Board of Studies** College Departments with the Subject **Covered under the respective Depts Department of History** B.o.S. in History History & History of Civilization **Department of Philosophy** B.o.S. in Philosophy Philosophy & Logic Department of Sociology / B.o.S. in Sociology & Social Work Social Work & Anthropology. (Includes M.S.W. /B.S.W. Colleges & Law Colleges) **Department of Political Science** B.o.S. in Political Science Political Science, Civics and Public Administration. (Includes Commerce & Law Colleges) **Department of Economics** B.o.S. in Economics Economics, Home-Economics **Department of Mass Communication** B.o.S. in Mass Communication & Journalism & Journalism Communication & Journalism,

B.o.S. in Defense & Strategic Studies Strategic Studies Strategic Studies

**Department of Psychology** B.o.S. in Psychology Psychology Yogic science

**Department of Defense &** 

Department of Library & Information Sci. B.o.S. in Library & Information Science Library & Information Science

### **FACULTY OF SCIENCE**

College Departments with the Subject **Corresponding Board of Studies Covered under the respective Depts Department of Mathematics** B.o.S. in Mathematics **Computational Mathematics Department of Statistics** B.o.S. in Statistics Statistics B.o.S. in Physics **Department of Physics** Physics, Energy Studies Material Science **Department of Organic Chemistry /** B.o.S. in Chemistry **Department of Physical Chemistry** Organic Chemistry Physical Chemistry **Department of Botany** B.o.S. in Botany Botany **Department of Computer Science** B.o. S. in Computer Science Computer Science Information Technology Computer Application (MCA) Software Development Printing & Publishing **Department of Zoology** B.o.S. in Zoology Zoology **Department of Geography** B.o.S. in Geography Geography for (all faculties) **Department of Life Sciences** B.o.S. in Life Sciences. Microbiology, Biochemistry Biotechnology, Molecular Biology **Department of Electronics &** B.o.S. in Electronics & Instrumentation Instrumentation Electronics. Instrumentation **Department of Environmental Sciences** B.o S. in Environmental Science **Environment Science** Agriculture Soil & Water Conservation **Department of Chemical Sciences** B.o.S. in Chemical Science Polymer Chemistry, Pesticides & Agro Chemicals **Industrial Chemistry Department of Geology** B.o.S. in Geosciences Geology Applied Geology Geo informatics

### **FACULTY OF LAW**

### **College/ Department of Law**

### **Corresponding Board of Studies**

B.o.S. in Law

- 1) Constitutional Law
- 2) History of Courts
- 3) Administrative Law
- 4) Human Rights & International Law
- 5) Environmental Law
- 6) Transfer of Property Act
- 7) Land Laws
- 8) Law of Trust
- 9) Family Law
- 10) Labour Laws
- 11) Taxation Laws (All Subjects of DTL & MLL & LW)
- 12) Banking Laws includes N.I. Act,
- 13) Company Law
- 14) Contract Laws
- 15) Jurisprudence
- 16) Legislative Principles & Interpretation of Statutes
- 17) Legal Language Includes Legal Writing
- 18) Legal Language Includes General English
- 19) Law of Torts
- 20) Law of Medicine
- 21) Civil Procedure Code
- 22) Criminal Procedure Code
- 23) Law of Evidence
- 24) Law of Crimes
- 25) Criminology & Penology
- 26) Arbitration, Conciliation & ADR Systems

### FACULTY OF PHARMACY

### **Dept. of Pharmaceutics**

- 1) Bio-pharmaceutics
- 2) Dispensing pharmacy
- 3) Pharmaceutical Technology
- 4) Cosmetic Technology
- 5) Pharmaceutical Microbiology
- 6) Novel Drug Delivery System

### **Dept. of Pharmaceutical Chemistry**

- 1) Pharmaceutical Chemistry
- 2) Organic Chemistry
- 3) Pharmaceutical inorganic chemistry
- 4) Drug Chemistry
- 5) Medicinal Chemistry

**B.o.S.** in Pharmaceutics

**B.o.S.** in Pharmaceutical Chemistry

### Dept. of Pharmacognosy & Pharmacology

### **B.o.S.** in Pharmacognosy & Pharmacology

- 1) Herbal Drug
- 2) Tissue Culture
- 3) Pharmacognocy and phytochemistry
- 4) Marine Drug
- 5) Pharmacology
- 6) Anatomy and Physiology
- 7) Pathophysiology
- 8) Hospital and community pharmacy
- 9) Clinical Pharmacology
- 10) Clinical Pharmacy

### Dept. of B.Tech. (Cosmetics)

B.o.S. in B.Tech. (Cosmetics)

- 1) Cosmetic Engineering
- 2) Beauty Culture
- 3) Cosmetic Technology
- 4) Perfumes & Colors

### FACULTY OF ENGINEERING & TECHNOLOGY

### College Department with subject Covered under the respective Department Dept. of Applied Science

Physics,

Chemistry (applied to all branches of Engineering),

Engineering Mathematics (applied to all branches of Engineering)

Engineering Economics & Industrial Psychology,

Communication Skills.

Engineering Economics & Resource Management

#### Deptt. of Chem. Engg. / Technology

2) B.o.S. in Chemical Engg. & Chemical Technology

1) B.o.S. in Applied Science

Generation And Transmission of Mechanical Power

Applied Mathematics-I, Organic Chemistry,

Workshop Technology, Applied Physical Chemistry

Computer Programming and Application,

Physical Chemistry, Organic Chemistry- I,

Electrical Engineering And Electronics, Engineering Graphics.

Physics, Inorganic Chemistry, Applied Mathematics-II,

Material Technology, Applied & Structural Mechanics,

Process heat transfer, Structural Mechanics, Fluid Mechanics

Organic Chemistry-II, Industrial Management &

Communication Skill, Industrial Tachometry,

Mass Transfer, Instrumentation & Process Control,

Machine Design. Mechanical Operation.

Process Engineering Thermodynamics,

Project Engineering & Economics,

Presentation On Industrial Training & Tour. Project

Chemical Reaction, Process Equipment Design,

Technical Seminar, Physical Chemistry- I.

Industrial Engineering Chemistry. Mass Transfer- I

Math-III, Chemical Reaction Engineering-I,

Chemical Reaction engineering- II,

Machine Design & Drawing, Chemical Engineering Math

Instrumentation & Instrumental Analysis, Process Equipment Design

Transport Phenomena, Modeling Simulation

& Computer Design, Process Dynamic & Control.

Plant Design. Economics & Costing, Elective 1,11,111\*

Chemistry of Oil's Fats, Post Harvest Technology

of Oleaginous Materials, Refining of Oils & Fats

Quality Control Techniques in Oil and Fats.

Technology of Waxes and Biochemistry of Lipids,

Technology of Fats Slitting and Soaps,

Industrial Hydrogenation & High Fat Products

Chemistry of Surfactants & Oil chemicals.

Technology of Essential Oils & Cosmetics, Technology of Surfactants & Detergents

Modified & Tailor Made Oils, Process Equipment Design

Principles of Polymers, Chemistry of Drying Oils,

Alkyl Resin & Varnish, Chemistry &

Technology of Polymers-I, Inorganic Pigments & Extenders.

Color Testing Organic Pigments & Additives Chemistry

& Tech of Polymers-II, Formulation & Manufacture of Coatings-I,

Chem. & Technology of Pigment Dispersion.

Evaluation of Surface Coatings and Paint Defects,

Technology of Printing inks & Application Techniques,

Elements of Food Chemistry. Bio Chemistry & Nutrition

Microbiology & Molecular Biology, Principal of Food Preservation

Food Processing-I, Food Processing-II, Biotechnology

Packing Technology, Food Quality, Biochemical Engineering

Treatment & Disposal of Food Industry Waste,

Analysis of Finished Food Products, High Polymer Chemistry

Processing Plastics-I, Plastics Tech. Lab,

processing of Plastics-II. Technology Elastomers & Additives

Testing of Plastics. Polymer Rhcology. Mould and Die Design

Polymer Blends & Composites

Oleo Chemistry & Surfactants

Nano Technology

Pharmaceuticals Technology

#### \* Elective- I

Fuel & Combustion, Particulate Technology. Polymer Chemistry

Catalysis. Energy Recourses & Utilization

### \* Elective- II,

Envier mental Engineering, Electrochemical Engineering

Biochemical Engineering, Multiphase Reaction

Petroleum Engineering

#### \* Elective- III

Industrial Thermodynamics, Newer separation Process

Polymer Engineering, Applied Catalysis

### 3) B.o.S. in Civil Engineering & Architecture

### **Department of Civil Engineering & Architecture**

Engineering Mechanics, Elements of Civil Engineering, Mechanics of Structures, Building Construction,

(Geotechnical Engineering, Surveying, Theory of Structure-i,

Building Design & Town Planning, Concrete Technology

& Construction Materials, Highway. Airport & Bridges

Fluid Mechanics, Advanced Surveying, Advanced Fluid Mechanics

Design of Concrete Structures, Irrigation Engineering,

Transportation Engineering, Public Health Engineering

Engineering Geology, Design of Steel Structures
Advanced Theory of Structures, Foundation Engineering
Practical Training Special Study, Quantity Surveying & Valuation
Numerical Analysis & Computer Application. Environmental Engineering
Water Shod Management, Earthquake Resistant Design,
Remote Sensing in Civil Engineering, Earth Structures,
Open Channel & Conduit Flow. Low Cost Construction &
Rural Development technique, Dams & Hydraulics Structures
Analysis & Design of Special Structures, Construction Management
Advanced Highway Engineering, Finite Element Method,
Systems Approach in Civil Engineering, Water Power Engineering,
Industrial Water Pollution & Control, Land Development &
Drainage Engineering, Seminar, Project

### **Architecture**

English /Communication Skills, History of Architecture & Human Settlements I, II. III, IV, Design Fundamentals In Architectures, Structure- I. II. III, IV, V. VI, VII. Building Material- I, II, III, Architecture Drawing and graphics- I, II, III, IV, Visual Arts- I,H, Basic Design- I Model Workshop- I,II, Social Science and History: of culture Introduction to computing, Basic and archixiura1 Design Surveying and Leveling, Climatology- I, II, Architectural Design- I, II, III.IV V. VT, Building Construction -I, II, III, IV, V, VI, Anthropometrics, Building Service- I, II, III, Acoustics, Photography, Specifications, Air Conditioning and Ventilation, Landscape Design Working drawing- I,II. Quantity Surveying and Estimating- I, II, Introduction to town Planning, Housing, Rural Architectural, Project and Construction management, Interior Design, Computer Application, Appropriate Technology, Professional Practice-I,II Contract Documents and Building Bylaws. Building Economics Elective- I,II.III. Architectural Construction Project, Dissertation, Project Work

### <u>Department of Computer Engineering & Information Technology</u>

### 4) <u>B.o.S. in Computer Engineering & Information Technology</u>

### **Computer Engineering**

Computer Programming, Discrete Structures and Graph Theory, Industrial Management and Economics Programming Laboratory- I. Microprocessor- I, Data structures and Files, Computer organization, Programming Laboratory- II, Microprocessor-II, Theory of Computer Science Digital System Design, Computer Graphics, System Programming Microprocessor-III, Data Communication, Software Engineering, Database Management Systems, Management Information S Application Development Tool, Practical Training / Special stUi Mobile Network, Artificial Intelligence, VLSI Design Computer Network, Operating Systems, Object Oriented Modeling Design and Architecture, Embedded Systems, Neural Networks and Fuzzy Logic Design and Analysis of Computer Algorithms Compiler Construction, Software Metrics and Quality Assurance Advanced Computer Architecture, Technical Visit! Case Studies Seminar, Project Work

### Information Technology

Discrete Structures and Graph Theory,

Programming Paradigms and methodology

Industrial Management and Economics, Programming Laboratory- I

Microprocessor-I, Data Communications. Data Structures And Files

Object Oriented Programming Methodology Information Theory

Programming Laboratory-H, Microprocessor- II, Computer Organization

Database Management, Computer Graphics. System Programming

Computer Networks and, Operating System, Software Engineering

Web Designing, Management Information sy,

Application Development Tools, Practical Training! Special study

Mobile Network, Enterprise Resource Planning

Information Retrieval, E-Commerce,

Advanced Database Management System,

Object Oriented Modeling Design and Architecture

Embedded Systems, Multimedia Techniques,

Image Processing Internet Security,

Software Metrics and Quality Assurance. Data Warehousing and Mining

Technical Visit! Case Studies, Seminar, Project Work

### <u>Department of Electronics, Electronics & Telecommunication</u> & Industrial Electronics

### **Electronics and Telecommunication**

5) B.o.S. in Electronics, Electronics & Telecommunication & Industrial Electronics

Elements of Electrical and Electronics Engineering.

Electronic Devices and Circuits- I. Digital Electronics

Electromagnetic Engineering, Network and Lines,

Component Devices and Technology, Electronic Devices and Circuits- II

Principles of Communication System, Electronic Instrumentation

Electrical Machines, Microprocessor Techniques, Electronic Design-I

Network Analysis and Synthesis, Signal Conditioning and Data conversion,

Feedback Control System, Microprocessor Interface & Peripherals

Communication System- I, Electronic Design- II, Power Electronics

Communication. Systems - H, VLSI Design. System Programming

Television Engineering, Bio-Medical Instrumentation,

Radiation and Microwave Techniques, Digital Signal Processing

Seminar, Computer Communication, Fiber Optic Communication

Digital Image Processing. Information Technology, Telematics

Consumer Electronics, Electronic Measurement. Project

Industrial Electronics and Drives. Applied Electronics,

Network Analysis, Signal Conditioning and Data conversion,

Digital and Microprocessor Lab., Digital circuit and Logic Design

Analog & Digital Electronics

### **Department of Electrical and Instrumentation Engineering**

### Electrical Engineering

6) B.o.S. in Electrical and Instrumentation Engineering

AC Circuits Transformer,

Electrical Engineering Material,

Electromagnetic Engineering. Applied Thermodynamics,

Digital Computational Techniques. Electrical Machine- I.

Electrical measurement-I, Applied Electronics-I

Fluid Mechanics & Machinery . Applied Electronics- II

Electrical Mechanics-II, Power System- I, II

Network Analysis, Electrical Installation Ratio nation and Distribution

Microprocessors Fundamentals & Applications.

Industrial Organization & Management, Electrical Measurement- II
Principles of Electrical Machine Design,
Practical Training/Special Study/Minor Project,
Power Electronics, Contract System- I & Ii. S h Gear Protection
Project, Seminar, Industrial Electrical Engineering, Power System Stability
High Voltage Engineering, Power System, Operation & Contract
Electromechanical Energy Conversion, Microprocessor Based System
Power System design practices, Electric Traction ENGINEERING

### **Instrumentation**

Industrial Instrumentation, Electronics Device & Circuits
Digital Techniques, Electromagnetic Engineering,
Workshop Technology & Fabrication Techniques,
Transducers & Signal Conditioners, Engineering Materials,
Electrical Machines, Thermal & Food Power Engineering
Engineering Math-III, Elective-i-DSP, Elective-I-PPI,
Elective-i-Micro Electronics, Electivc-1-AET, Unit Operations
Process Equipment Design, Process Instrumentation P1
Seminar, Project, Elective-II-FONT, Elective H-Fuzzy & Nurul New
Elective-II-BI, Elective-II-Computer Networks instrumentation System Design
Project Planning Estimation & Assessments, Process Modeling & Optimization
Technical Visits,

### <u>Department of Mechanical Production &</u> Automobile Engineering

### **Mechanical Engineering**

7) B.o.S. in Mechanical, Production & Automobile Engineering

Engineering Graphics- I, Workshop Practice- I Engineering Graphics- II. Elements of Mechanical Engineering Workshop Practice- II, Energy Conversion- I Machine Drawing & Computer Graphics, Dynamics of Machinery- I Manufacturing Process, Workshop Practice- III Energy Conversion- II, Material science, Workshop Practice- IV Numerical analysis and Computational Method, Engineering Metallurgy Ind. Engineering and Management, Machine Design-I, Heat Transfer and Gas Dynamics, Workshop Practice- V Turbo Machinery, Manufacturing Technology, Dynamics of Machinery- II Machine design- II, Metrology & Quality Control. Practical Training! Special study! Minor Project! EDP, Non-Conventional Energy Sources, M/C Tool design, Operation Research Robotics, Automobile Engineering-i, Mechanical Estimation & Costing Reliability Engineering, Machine Design-III, Refrigeration & Air Conditioning Project & Financial Management, Seminar, Power Plant Engineering Mgt. Information system, Materials Management, Energy Conversion & Mgt. Automobile Engineering- II, Production Planning & Control Analysis & Synthesis of Mechanism, CAD& CAM Tribology, Mechanical Vibration, Project, Technical Visits Engineering Met logy, Cat Cam, Industrial Engineering & Management Machine Design- I, Heat Transfer & Mass Transfer, Workshop Practice- V, Metrology & Quality Control Hydraulics & Pneumatics, Automobile Systems, Dynamics of Machinery- II, Manufacturing Technology **Practical Training** 

### **Automobile**

Engineering Met logy, Cat Cam, Industrial ENGINEERING & Management, Machine Design-I Heat Transfer & Mass Transfer, Workshop Practice- V Metrology & Quality Control, Hydraulics & Pneumatics Automobile Systems, Dynamics of Machinery- II Manufacturing Technology, Practical Training

### **Production**

Tool Design, Production, Planning & Control
Financial Management & Cost Control, Project
Seminar, Elective-I-Energy Management
Elective-I-Total Quality Management,
Elective-I- Automobile Engineering- I
Elective-I- Non Conventional Energy, Elective- I - Management Information System

Trilogy, CAD CAM, Materials Management, Technical Visit

Elective-TI-Mechanical Estimation & Costing, Elective-II-Industrial Relations Elective-I I-Automobile Engineering- II, Elective-II-Power Plant Engg. Elective-II-Foundry Engineering

### FACULTY OF COMMERCE & MANAGEMENT

### College / Department with the Subject Covered under the respective Department

Corresponding B.O.S.

### **Dept. of Accountancy & Costing**

- 1. Financial & Cost Accounting
- 3. Financial & Cost Accountancy
- 5. Corporate Accounting
- 7. Advance Accounting & Costing Techniques
- 9. Financial & Management Accountancy
- 11. Corporate laws & Income Tax Laws
- 13. Auditing Practices
- 15. Direct & Indirect Tax Laws
- 17. Advanced cost & Management Accounting
- 19. Principles & Practice of Auditing
- 21. Management Accountancy
- 23. Income Tax Law
- 25. Auditing
- 27. Advanced Accountancy
- 29. Direct & Indirect Law
- 31. Financial Accounting and Cost Control
- 33. System Analysis and Design
- 35. Cost Accounting
- 37. Financial Accounting for Manager (Tally 9.2)
- 39. Information System Audit (ISA)

### **BoS in Accountancy & Costing**

- 2. Financial Accountancy
- 4. Corporate Accounting & Costing
- 6. Advance Accounting & Costing Method
- 8. Income Tax
- 10. Direct & Indirect Tax Laws
- 12. Auditing
- 14. Income Tax Laws
- 16. Advanced Accounting
- 18. Income Tax
- 20. Corporate Accounting & Auditing
- 22. Auditing
- 24. Corporate Accounting & Auditing
- 26. Management Accounting
- 28. Advanced cost Accountancy
- 30. Accountacy for Managers
- 32. Information System Audit (ISA)
- 34. Human Resource Auditing & Outsourcing
- 36. Costing Methods & Techniques
- 38. Management Accounting
- 40. Business Accounting

### **Dept. of Commerce & Business Laws**

- 1. Corporate Laws
- 3. E Commerce
- 5. Co-operative Laws & Micro Finance
- 7. Business Law
- 9. Business & Tax Laws
- 11. Business Processing outsourcing
- 13. Business Communication
- 15. Business Ethics & Corporate Governance
- 17. Operation & Material Management
- 19. E-Commerce
- 21. Stock & Commodity Market
- 23. Communication Skills
- 25. Mercantile Laws
- 27. Investment management
- 29. Production & Material Management
- 31. Communication Skills
- 33. Corporate Laws
- 35. Competitive Skills
- 37. Import & Export Management
- 39. Business & Mercantile Law
- 41. Stock & Commodity Market
- 43. Business ethics and Corporate Governance
- 45. Production & Operation Management
- 47. Business Research Methods
- 49. Corporate Social Responsibility
- 51. E-Commerce & Excellence Management
- 53. Legal Aspects of Business
- 55. Operation Management
- 57. Introduction to ERP and SAP
- 59. Social issues and responsibility
- 61. Laws relating to industrial relations
- 63. Social security & Welfare regulations
- 65. Labour Welfare
- 67. Public Relation
- 69. Research Methodology in Commerce
- 73. Professional Communication
- 75. Soft Skill Development

### **Dept. of Business Administration**

- 1. Modern office Management
- 3. Marketing Management
- 5. Financial Analysis & journalism
- 7. Financial Services & Instruments
- 9. Portfolio Management
- 11. Investment Management
- 13. Business Administration Paper I,II

#### **BoS in Commerce & Business Laws**

- 2. Principles and Practices of Insurances
- 4. Stock & Commodity Market
- 6. Foundation course in Comm & Management
- 8. Business Communication
- 10. Corporate regulatory framework
- 12. Enterprenuership Management
- 14. Production Management & Operation Management
- 16. Company Law
- 18. Insurance & Risk Management
- 20. Business Entrepreneurship
- 22. Production & Material Management
- 24. International Business
- 26. Export & Import Management
- 28. Financial Management
- 30. Corporate Governance
- 32. Agro Business
- 34. Business Research Methods
- 36. Business Laws
- 38. Corporate Laws
- 40. Entrepreneurship Development
- 42. Industrial Relation
- 44. Entrepreneurship Development
- 46. Financial Management
- 48. Introduction to operations Management
- 50. Corporate Communication Skills
- 52. Enterprenuer & Project Management
- 54. Indian Commercial Laws
- 56. Stock & Commodity Markets
- 58. Business & Correspondence & Communication Skills
- 60. Industrial relations & trade unions
- 62. Soft skills building
- 64. Industrial Compliance Framework
- 66. Industrial Counseling & Negotiations
- 68. Consumer Protection and Business Ethics
- 70. Organization Behavior
- 71. Entrepreneurship and Project Management 72. Foundation Course for Managers
  - 74. Career Management and Counseling

### **BoS in Business Administration**

- 2. Marketing & Advertising
- 4. Organization & Management
- 6. Retail management
- 8. Supply Chain Management
- 10. Service Management
- 12. Financial Management
- 14. Corporate Regulatory Framework

### **Dept. of Business Economics & Banking**

- 1. Principles & Practices of Banking
- 3. Business Economics
- 5. Macro economic analysis
- 7. Econometrics
- 9. Current Economic Scenario
- 11. Indian Economic Scenario
- 13. Advanced Banking
- 15. Economics of Environment & Research Methodology

### **Dept. of Management of Studies**

- 1. Human Resource Management
- 3. Bank Management
- 5. Strategic Management
- 7. Industrial Physiology & Sociology
- 9. Laws for wages & working conditions
- 11. Training & Development
- 13. Modern Management Technology
- 15. Hospitality Management

### **Dept. of Computer Management**

- 1. Quantiative Tech. & computing skills
- 3. Programming in C++
- 5. Office Automation
- 7. Internet & Web Page design
- 9. Introduction to Visual Basic
- 11. Introduction of MS-Access
- Business Statistics & Operations Research
- 15. Database system & DB-2
- 17. Database Concepts & MS-Access
- 19. Programming in VC++
- 21. MIS and Data Security
- 23. System Analysis & ERP
- 25. RDBMS Oracle
- 27. Java Programming
- 29. Information System Audit
- 31. Systems Management and ERP I&II
- 33. MIS & Management and ERP
- 35. Introduction Programming using C++
- 37. Introduction to DBMS
- 39. Object Oriented Programming using C++
- 41. VB.NET
- 43. Numerical Methods
- 45. Computer Fundamentals & Office Automation
- 47. Human Resource Information System & ERP
- 49. Operating Systems
- 51. Computer Fundaments & Hardware/Software Installation

### **BoS in Business Economics & Banking**

- 2. Micro economic Analysis
- 4. Managerial Economics
- 6. Modern Banking & Financial system
- 8. Banking & Finance
- 10. Indian Economy
- 12. Global Economics
- 14. Economics of Industries
- 16. Banking and Finance

### **BoS in Management of Studies**

- 2. Modern Management Techniques
- 4. Organizational Behavior
- 6. Agro Business management
- 8. Personal Administration & Management
- 10. Risk Management
- 12. Placement Activity Management
- 14. Modern Retail Management

### **BoS in Computer Management**

- 2. Business Statistics
- 4. Business Mathematics
- 6. Internet & Application
- 8. Basic of Database Internet & web Designing using HTML
- 10. E-Commerce & IT Act,2000
- 12. Computing Management
- 14. Programming through Visual Basic Net
- 16. Programming Visual Basic-6
- 18. Database Programming through VB 6.0
- 20. Programming in ASP
- 22. System Analysis and Designing
- 24. Information Management
- 26. ERP and SAP
- 28. Developer 2000 (D2K)
- 30. Computer Applications for Business
- 32. Quantitative Techniques
- 34. Mathematical Techniques
- 36. Computer Networks and Web design
- 38. Data Structure
- 40. Computer Animation using Flash and Statistical Quality Control
- 42. Design of Experiments and Competitive skills
- 44. Introduction to R
- 46. Introduction of Internet & Web Technology
- 48. Research Methodology & Statistical Tools
- 50. Web Designing & Web tools
- 52. Ruby Programming Language

- 53. 245. DBS & SQL Server
- 55. Introduction to Animation & Flash
- 57. Lab- III (2.1&2.2) & Lab IV(2.3)
- 59. Information Security & Cyber law
- 61. Lab-IV(4.1&4.4) & Lab-VIII(4.5)
- 63. Information System for Business
- 54. M I S & ERP
- 56. Software Designing & Development
- 58. Lab- V(3.1&3.4) & Lab VI(3.5)
- 60. Quality Control & Software Testing
- 62. Research Methodology & Statistical Tools
- 64. Cyber Crime and Security

### **Functional Electives**

### Α

- 1. Web Mining Concepts
- 3. C#.Net
- 5. ASP.NET

- 2. Scripting languages
- 4. Website Management & Services
- 6. PHP & AJAX

#### R

- 1. Database Administration & Security
- 3. VB.Net
- 5. Oracle & D2K

- 2. Java
- 4. Data Mining & ware housing
- 6. J2EE & J2ME

### C

- 1. Introduction Designing & Graphics
- 3. 3D Animation using Houdini
- 2. Digital Graphics Design
- 4. Advanced Computer Animation
- 5. Post Production Processes for Animation 6. 3D Animation using Mays

### **FACULTY OF EDUCATION**

### College Department with the Subject Covered under the respective Department

**Corresponding B.o.S.** 

### **Department of Education**

### **B.o.S.** in Education

- 1. Education and Development
- 2. Education an Evolutionary Perspective
- 3. Contemporary issues and concerns in secondary Education
- 4. Education: A Global perspective
- 5. Mental Retardation: The multidisciplinary Perspective
- 6. Education in India- A Global Perspective
- 7. Process of Education
- 8. Curriculum Development and Transaction
- 9. Education as a Field of Study / Education in 21st Century
- 10. Teacher Education
- 11. Foundations of Distance Education
- 12. Educational Technology
- 13. New trends in Education
- 14. Advanced Educational Theory
- 15. Fundamental of Educational Theory

### Department of Educational Psychology

### **B.o.S.** in Educational Psychology

- 1. Learner and Learning
- 2. Teaching: Approaches, Strategies
- 3. Learning Resources
- 4. Various disabilities and Educational Psychology
- 5. Identification and Assessment of mental Retardation
- 6. An Introduction to Educational Psychology and Nature of Various Disabilities
- 7. Introduction to Visual Impairment and personality development
- 8. Educational Perspectives of Visual Impairment and intelligence
- 9. Psychology for Individual and Social Development
- 10. Statistical Methods for data analysis
- 11. Inclusive Education for Children with Diverse Needs
- 12. Learner, Learning and Teaching Process
- 13. Methodology of Educational Research and Statistical Methods

### **Department of Administration and Evaluation**

### **B.o.S.** in Administration and Evaluation

- 1. Classroom Organization and Management
- 2. Assessment and Evaluation
- 3. Pedagogical content Knowledge CCM-I,III (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Mathematics, Science)
- 4. Pedagogical content Knowledge CCM- II,IV (Marathi, Hindi, English, History, Geography, Urdu, Sanskrit, Maths, Science)
- 5. Mental Retardation: Curriculum and Teaching Strategies
- 6. Subject Teaching
- 7. Teaching and Learning Methods with Visual Impairment
- 8. Educational Guidance and Counseling
- 9. Educational, Planning, Management and Financing of Education
- 10. Information Communication and Technology and E-learning
- 11. Secondary and Higher Secondary Education

### **Department of Physical Education**

### **B.o.S.** in Physical Education

- 1. Foundations & History of Physical Education
- 2. Anatomy, Physiology & Health Education
- 3. Organization Administration in Physical Education
- 4. Method in General School Subjects- [Marathi, Hindi, English, History, Geography, Science, Mathematics]
- 5. Psychological base of Physical Education
- 6. Officiating, Coaching & Evaluation in Physical Education
- 7. Computer in Physical Education
- 8. Teaching Methodology in Physical Education
- 9. Science of sports training
- 10. Test Measurement & Evaluation and Physical Education
- 11. Sports Biomechanics
- 12. ICT (Information Computer Technology)
- 13. Yoga Science
- 14. Research Methodology
- 15. Management Officiating and Coaching
- 16. Physical Fitness & Wellness
- 17. Sports Sociology
- 18. Management in Physical Education & Sports
- 19. Sports Psychology

- 20. Sports Nutrition
- 21. Sports Medicine
- 22. Curriculum Design in Physical Education
- 23. Health & Fitness Management
- 24. Recreational and Luster Time Management
- 25. Personality Development Programme and Life Skill
- 26. English
- 27. Foundations of Physical Education
- 28. Health Education
- 29. Sport Psychology
- 30. Organization, Administration in Physical Education
- 31. Anatomy
- 32. Marathi / Hindi
- 33. General Science
- 34. Computer in Physical Education
- 35. Physiology
- 36. Sports Sociology
- 37. Management of Physical Education
- 38. History of Physical Education
- 39. Kinesiology
- 40. Recreation
- 41. Personality Development
- 42. Professional Preparation
- 43. Biomechanics
- 44. Methods of Physical Education
- 45. Officiating & Coaching
- 46. Basic of Sport Training
- 47. Sports Injuries & Rehabilitation
- 48. Fitness & Nutrition / Yoga
- 49. Test & Measurement

