

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

List of the Paper Titles of M.Sc. First Semester (Revised-2008-2009)

Paper Codes	M.Sc. First Semester Paper Titles	Paper Codes	M.Sc. First Semester Paper Titles
9101 9102 9103 9104 9105 9106	BIOTECHNOLOGY Cell Biology) –BTT-1.1 (TH) Biochemistry–BTT-1.2 (TH) Microbiology-BTT1.3 (TH) Bioinstrumentation & Biostatistics-BTT-1.4(TH) Practical Based on Th. BTT-1.1 & 2 (PR) Practical Based on Th. BTT-1.3 & 4 (PR)	9131 9132 9133 9134 9135 9136	PHYSICS Mathematical Physics – PH-01 (TH) Classical Mechanics – PH -02 (TH) Electronics Devices and Application –PH-03 (TH) Atomic and Molecular Physics – PH-04 (TH) General Physics Practical Course-PH-05 (PR) General Electronics Practical Course-PH-06 (PR)
9107 9108 9109 9110 9111 9112	MICROBIOLOGY Bioinstrumentation –MB-101 (TH) Advances in virology –MB-102 (TH) Cell Biology & Microbial Physiology-MB-103 (TH) Food, Dairy and Agri. Microbiology–MB-104 (TH) Theory based MB-101 & 102 (PR) Theory based MB-103 & 104 (PR)	9137 9138 9139 9140 9141 9142	CHEMISTRY Inorganic Chemistry –I CH-411 (TH) Organic Chemistry-I CH-412 (TH) Physical Chemistry-I CH-413 (TH) Physical Methods in Chemistry-I CH-414 Laboratory Course –I CH-401 (PR) Laboratory Course –II CH-402 (PR)
9113 9114 9115 9116 9117 9118	ELECTRONICS Electronics devices & Circuits – I (TH) Optoelectronics – II (TH) Digital Fundamentals & System Design-III (TH) C – Programming – IV (TH) Laboratory course-I (PR-V) Laboratory course-II (PR-VI)	9143 9144 9145 9146 9147 9148	ZOOLOGY Invertebrates: Structure and Function – Zool-101(TH) Biosystematics, Taxonomy and Evolution –Zool - 102 (TH) Quantitative Biology and Bioinformatics- Zool- 103 (TH) Economics Zoology and Animal Behavior – Zool-104(TH) Practical based Th-101 & 102 (PR) Practical based Th-103 & 104 (PR)
9119 9120 9121 9122 9123 9124	BIOINFORMATICS Bio-Statistics - BI-101 (TH) Basics of Bio-Computing - BI-102 (TH) Introduction to Bio-Informatics-BI-103 (TH) Genetical Informat.Flow & Processing BI-104(TH) Laboratory course -I (PR) Laboratory course -II (PR)	9149 9150 9151 9152 9153 9154	ENVIRONMENTAL SCIENCE Ecobiology and Biodiversity-Env.-401(TH) Environmental Chemistry –Env.-402 (TH) Wastewater Treatment Technology-Env.403 (TH) Natural Resources Utilization & Mgt.Env.404 (TH) Laboratory Course-Env-405 (PR) Laboratory Course-Env-406 (PR)
9125 9126 9127 9128 9129 9130	DAIRY SCIENCE Advances in LPM –I (TH) Market Milk Industry – II (TH) Dairy Chemistry - I – III (TH) Dairy Technology - I- IV (TH) Practical Based On Th-I & V – IX (PR) Practical Based On Th-II & VI X (PR)	9155 9156 9157 9158 9159 9160	PHOTONICS Modern Optics –I (TH) Laser Technology -II (TH) Optoelectronics & Optical Communication–III (TH) Laboratory work- IV (PR) Laboratory work- V (PR) Continuous Internal Evaluation (CIE)

Paper Codes	M.Sc. First Semester Paper Titles	Paper Codes	M.Sc. First Semester Paper Titles
9161 9162 9163 9164 9165 9166	BOTANY Diversity of Microbes and Lower Cryptog.-I (TH) Diversity of Higher Crypt.&Gymnosperms – II (TH) Systematics of Angiosperms – III (TH) Structure ,Dev. & Reprod.in flower.Plants-IV ((TH) Practical Based on Theory Paper –I & II (PR) Practical Based on Theory Paper –III & IV (PR)	9188 9189 9190 9191 9192 9193	INFORMATION TECHNOLOGY Computer Fundamentals & Operating System-MIT-1 (TH) Word Process. & Spreadsheet Hand. & DTP-MIT-2 (TH) Programming in C & C++ MIT-3 (TH) Programming Concept –MIT-4 (TH) Computer Laboratory-I (PR) Computer Laboratory-II (PR)
9167 9168 9169 9170 9171 9172 9173 9174 9175	MATHEMATICS Advanced Abstract Algebra – I - (TH) Real Analysis – I - (TH) Topology – I - (TH) Complex Analysis – I - (TH) ANY ONE OF THE FOLLOWING Differential Equations- I -VA (TH) Advanced Discrete Mathematics-I-VB (TH) Differential Geometry of Manifolds-V(C) (TH) Dynamics and Continuum Mechanics-I-V(D) (TH) Tutorials –VI	9194 9195 9196 9197 9198 9199	MULTIMEDIA Fundamental of Computers –SI-I (TH) Programming in C –SI-2 (TH) Adobe Illustrator –S1-3 (TH) Animation –I S1-4 (TH) C+ Illustration Lab. Course –I (PR) Animation –I – Lab. Course-II (PR)
9176 9177 9178 9179 9180 9181	INDUSTRIAL MICROBIOLOGY Introduction to Ind.Microbiolgoy-IMT-101(TH) Microbial Physiology –IMT-102 (TH) Metabolic Path. Related to I.Fert.-IMT-103 (TH) Microbial Gent. & Strain Improvem.-IMT-104(TH) Practical Based on Theory Paper –101 & 102 (PR) Practical Based on Theory Paper –103 & 104 (PR)	9200 9201 9202 9203 9204 9205	BIOCHEMISTRY Enzymology –BCH-1 (TH) Microbial Biochemistry –BCH-2 (TH) Bioenergetics & Metabolism –BCH-3 (TH) Immunology-BCH-4 (TH) Practical Based on Theory Paper –1 & 2 (PR) Practical Based on Theory Paper –3 & 4 (PR)
9182 9183 9184 9185 9186 9187	Computer Science Computer Architec. & Microprocessor-S1-1(TH) Programming in C++ - S1-2 (TH) Design Analysis of Algorithm –S1-3 (TH) Distributed Database Concepts-S1-4 (TH) Computer Laboratory – I (PR) Computer Laboratory – II (PR)	9200 9201 9202 9203 9204 9205	CLINICAL RESEARCH Fundamentals of clinical operations-CRT-101 (TH) Clinical Data Management-CRT-102 (TH) Statistics for Clinical Research-CRT-103 (TH) Basics of Phar.Drug dis.& Develop.-CRT-104 (TH) Laboratory Course-I (PR) Laboratory Course-II (PR)

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List of the Paper Titles of M.Sc. Second Semester (Revised-2008-2009)

Paper Codes	M.Sc. Second Semester Paper Titles	Paper Codes	M.Sc. Second Semester Paper Titles
9301 9302 9303 9304 9305 9306	BIOTECHNOLOGY Genetics & Mol.Biology–BTT-2.1 (TH) Immunology & Immu.Technics–BTT-2.2 (TH) Virology -BTT-2.3 (TH) Process Biotechnology -BTT-2.4 (TH) Practical Based on Th. BTT-2.1 & 2 (PR) Practical Based on Th. BTT-2.3 & 4 (PR)	9331 9332 9333 9334 9335 9336	PHYSICS Quantum Mechanics- PH-7 (TH) Statistical Mechanics- PH-8 (TH) Condensed Matter Physics-9 (TH) Numerical Techniques-10 (TH) Solid State Physics Practical Course-PH-11 (PR) Spectroscopy Practical Course-PH-12 (PR)
9307 9308 9309 9310 9311 9312	MICROBIOLOGY Bioprocess Engineering - MB-201 (TH) Enzyme Technology - MB-202 (TH) Microbial Metabolism -MB-203 (TH) Molecular Biology & Micr.Genetics–MB-204 (TH) Theory based MB-201 & 202 (PR) Theory based MB-203 & 204 (PR)	9337 9338 9339 9340 9341 9342	CHEMISTRY Inorganic Chemistry –I CH-421 (TH) Organic Chemistry-I CH-422 (TH) Physical Chemistry-I CH-423 (TH) Principles of Spectroscopy- CH-424 (TH) Laboratory Course –I CH-403 (PR) Laboratory Course –II CH-404 (PR)
9313 9314 9315 9316 9317 9318	ELECTRONICS Power Electronics-I - VII (TH) Optical Fiber Commu. & Measurement –VIII (TH) Microprocessor Interfacing Technique-IX (TH) Numerical Methods (with A.P.C.)-X (TH) Laboratory course-III (PR-V) Laboratory course-IV (PR-VI)	9343 9344 9345 9346 9347 9348	ZOOLOGY Animal Ecology & Envi.Pollution – Zool-201(TH) Gamete Bio.& Animal Development –Zool - 202 (TH) Tools & Techniquesw for Biology- Zool- 203 (TH) Biochemistry & Immunology – Zool-204(TH) Practical based Th-201 & 202 (PR) Practical based Th-203 & 204 (PR)
9319 9320 9321 9322 9323 9324	BIOINFORMATICS Cell Biology & Genetic Immunology - BI-201 (TH) Molecular Biology - BI-202 (TH) Biological Databses & their Mgt.-BI-203 (TH) Chemo-informatics & biodiv. Informat. BI-204(TH) Laboratory course -II (PR) Laboratory course -IV (PR)	9349 9350 9351 9352 9353 9354	ENVIRONMENTAL SCIENCE Environmental Biotechnology-Env.407 (TH) Air Pollution & Climatology-Env-408 (TH) Toxicology & Hazardous waste Mgt.-Env.409 (TH) Instrumental tech.in Environ.Analysis-Env 410 (TH) Laboratory Course-Env-411 (PR) Laboratory Course-Env-412 (PR)
9325 9326 9327 9328 9329 9330	DAIRY SCIENCE Advances in animal nut. & breeding -V (TH) Quality assurance in dairy industry – VI (TH) Dairy Chemistry - II – VII (TH) Dairy Technology - II- VIII (TH) Practical Based On Th-III & VII – XI (PR) Practical Based On Th-IV & VIII- X II (PR)	9335 9336 9337 9338 9339 9360	PHOTONICS Fiber Optics & its Applications-VI (TH) Microprocessor, Microcontrollers-VII (TH) Laser Systems & its Applications- VIII (TH) Laboratory work- IXV (PR) Laboratory work- X (PR) Continuous Internal Evaluation (CIE)

Paper Codes	M.Sc. Second Semester Paper Titles	Paper Codes	M.Sc. Second Semester Paper Titles
9361 9362 9363 9364 9365 9366	BOTANY Instrumentation & Biotechniques- I (TH) Cell Biology & Genetics - II (TH) Plant Ecology & Environ.Biology- III (TH) Plant Resources & Utilization- IV (TH) Practical Based on Theory Paper –I & II (PR) Practical Based on Theory Paper –III & IV (PR)	9388 9389 9390 9391 9392 9393	INFORMATION TECHNOLOGY DBMS & RDBMS- MIT-5 (TH) System Analysis & Design- MIT-6 (TH) Oracle - MIT-7 (TH) Visual Basic –MIT-8 (TH) Computer Laboratory-III (PR) Computer Laboratory-IVI (PR)
9367 9368 9369 9370 9371 9372 9373 9374 9375	MATHEMATICS Advanced Abstract Algebra – II – VII (TH) Integration Theory – VIII - (TH) Topology – II - IX (TH) Complex Analysis – II - X (TH) ANY ONE OF THE FOLLOWING Differential Equations- II -XIA (TH) Advanced Discrete Mathematics-II- XI (B) (TH) Differential Geometry of Manifolds-II – XI (C) (TH) Dynamics and Continuum Mechanics-II-XI(D) (TH) Tutorials –XII	9394 9395 9396 9397 9398 9399	MULTIMEDIA Introduction to Multimedia –S2-5 (TH) Computer Graphics –S2-6 (TH) Adobe Photoshop- S2-7 (TH) Animation –II- S2-8 (TH) CG+ Photoshop Lab. Course –III (PR) Animation-II Lab. Course-IVI (PR)
9376 9377 9378 9379 9380 9381	INDUSTRIAL MICROBIOLOGY Bio analytical Techniques-IMT-201 (TH) Industrial Ferment. Technology-IMT-202 (TH) Bioprocess. Engg.& D.S. Processing-IMT-203 (TH) Enzyme Technology & Biosensors-IMT-204 (TH) Practical Based on Theory Paper –201 & 202 (PR) Practical Based on Theory Paper –203 & 204 (PR)	9400 9401 9402 9403 9404 9405	BIOCHEMISTRY Principle of Molecular Biology –BCH-7 (TH) Biostatistics –BCH-8 (TH) Bioinformatics & Comp.technique –BCH-9 (TH) Biophysical Techniques-BCH-10 (TH) Practical Based on Theory Paper –7 & 10 (PR) Practical Based on Theory Paper –8 & 9 (PR)
9382 9383 9384 9385 9386 9387	Computer Science Advanced Networking Concepts-S2-1 (TH) Mobile Computing –S2-2 (TH) C # .net -S2-3 (TH) Compiler Designing – S2-4 (TH) Computer Laboratory – III (PR) Computer Laboratory – IV (PR)	9400 9401 9402 9403 9404 9405	CLINICAL RESEARCH IPR & Data Exc.,Bio. in clini.research -CRT-201 (TH) Pre Clinical studies -CRT-202 (TH) Pharmaceutical Biotechnology -CRT-203 (TH) Basics of Mol.Biology & Biotech.-CRT-204 (TH) Laboratory Course-III (PR) Laboratory Course-IV (PR)

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List of the Paper Titles of M.Sc. Third Semester (Revised-2009-2010)

Paper Codes	M.Sc. Third Semester Paper Titles	Paper Codes	M.Sc. Third Semester Paper Titles
9501 9502 9503 9504 9505 9506	INORGANIC CHEMISTRY Advanced Spectroscopic Methods – CH-531 (TH) Bio-Inorganic and Supramol. Chem. CH-532/1 (TH) Organic –Metallic chemistry - CH-533/1 (TH) Analytical Chemistry- CH- 534/1 Laboratory Course-V– CH-501/1 (PR) Laboratory Course – VI-CH-502/1 (PR)	9533 9534 9535 9536 9537 9538	INDUSTRIAL MICROBIOLOGY Biostat. & Comp.applic. in Industrial Fert.-IMB-301 (TH) Microbial Genetics Engg. & its Ind.applic.-IMB-302 (TH) Bioinformatics, IPR & Patents -IMB-303 (TH) Herbal technology-IMB-304 (TH) Practical based on TH-301 & 302 (PR) Practical based on TH-303 & 304 (PR)
9507 9508 9509 9510 9511 9512 9513	ORGANIC CHEMISTRY Advanced Spectroscopic Methods – CH-531 (TH) Natural Product-CH-532/2 (TH) Organic Synthesis - CH-533/2 (TH) Elective Paper (Any one) Medicinal Chemistry-CH-534/2A Polymer Chemistry- CH-534/2B Laboratory Course-V – CH-501/2 (PR) Laboratory Course-VI – CH-502/2 (PR)	9539 9540 9541 9542 9543 9544	PHYSICS Electrodynamics- PH-13 (TH) Nuclear & Particle Physics-PH-14 (TH) Basics of Laser and Devices –PH-15 (TH) Thin Film and Nano Physics-PH-16 (TH) Nuclear Physics & Laser Lab.- PH-17 (PR) Laser and Thin Film Lab. –PH-18(PR)
9514 9515 9516 9517 9518 9519 9520	PHYSICAL CHEMISTRY Advanced Spectroscopic Methods – CH-531 (TH) Solid State Chemistry - CH-532/3 (TH) Chemical Dynamics - CH-533/3 (TH) Elective Paper (Any one) Statistical Thermodynamics-CH-534/3A Advanced Quantum Chemistry-CH-534/3B Laboratory Course -V– CH-501/3 (PR) Laboratory Course -VI– CH-502/3 (PR)	9545 9546 9547 9548 9549 9550	ELECTRONICS Power Electronics-II- XIII (TH) Digital Communication- XIV (TH) Microwave Devices & Measurement-XV (TH) Advanced Microprocessor & Microcontroller-XVI (TH) Practical based on TH-XIII & XIV (PR) Practical based on TH-XV & XVI (PR)
9521 9522 9523 9524 9525 9526	ANALYTICAL CHEMISTRY Advanced Spectroscopic Methods – CH-531 (TH) Fundamental of Analytical Chem.-CH-532/4 (TH) Chromatography in Chem. Analysis -CH-533/4 (TH) Instrumental methods of Chem.Ana.-CH- 534/4(TH) Laboratory Course-V – CH-501/4 (PR) Laboratory Course - VI– CH-502/4 (PR)	9551 9552 9553 9554 9555 9556	ENVIRONMENTAL SCIENCE Applied Microbiology- Env.501 (TH) Remote Sensing & G.I.S. – Env.502 (TH) Biostatistics & Computational Techniques-Env.503 (TH) Soil Pollution & Solid Waste Mgt.-Env.504 (TH) Laboratory Course-Env.505 (PR) Laboratory Course-Env.506 (PR)
9527 9528 9529 9530 9531 9532	MICROBIOLOGY Biostat.,Comp. application & Res. M.- MB-301(TH) Molecular Immunology– MB-302 (TH) Microbial Diversity & Extremop.-MB-303 (TH) Recombinant DNA technology-MB_304 (TH) Practical based on TH-301 & 302 (PR) Practical based on TH-303 & 304 (PR)	9557 9558 9559 9560 9561 9562	DAIRY SCIENCE Dairy Engineering-I – XIII (TH) Dairy Microbiology-I- XIV (TH) Dairy Engineering-II-XV (TH) Dairy Business Management & Co-operation-XVI (TH) Practical based on TH-XIII & XXVII (PR) Practical based on TH-XIV & XXVIII (PR)

Paper Codes	M.Sc. Third Semester Paper Titles	Paper Codes	M.Sc. Third Semester Paper Titles
9563 9564 9565 9566 9567 9568	MULTIMEDIA 3ds Max- S3-1 (TH) CorelDRAW –S3-2 (TH) Audio Editing-S3-3 (TH) Video Editing-S3-4 (TH) Computer Lab.-I (3ds Max+ CorelDRAW) (PR) Computer Lab.-II(Adobe Prem.,S.F+Mini Proj. (PR)	9594 9595 9596 9597 9598 9599 9600 9601	INFORMATION TECHNOLOGY Software Engineering-MIT-9 (TH) UNIX /LINUX Administration-MIT-10 (TH) Java Programming –MIT-11 (TH) Elective paper-I (Any one) Computer Networks –MIT-12 A (TH) Operating System –MIT-12 B (TH) Data Structure Using C –MIT-12 C (TH) Computer Laboratory-5 (PR) Computer Laboratory-6 (PR)
9569 9570 9571 9572 9573 9574 9575 9576 9577 9578 9579 9580 9581	MATHEMATICS Functional Analysis - XIII (TH) Mechanics – XIV- (TH) Three papers to be chosen from XV to XXIV Difference Equations-I-XV (TH) Fluid Mechanics-I- XVI (TH) Analytical Number Theory-I-XVII (TH) Fuzzy Sets & their Applications-I-XVIII (TH) Wave Propagation –I-XIX (TH) Integral Equations-XX (TH) Programming in C (with ANSI features-I)-XXI (TH) Advanced Functional Analysis-I- XXII (TH) Fundamentals of Computer .Science -I-XXIII (TH) Theory of Linear operators-I-XXIV (TH) Tutorials –III - XXVV	9602 9603 9604 9605 9606 9607 9608 9609 9610 9611	BOTANY Plant Physiology & Metabolism-I- V (TH) Cytogenetics, Gene regulation & Biotechnology- VI (TH) Elective paper-I (Any one) Plant Pathology (Prin.of Plant Pathology)-I- VII (A) (TH) Angiosperms (Taxonomy & Systematic) -I- VII (B) (TH) Seed Technology (Seed Sci.& G.S.T.)-I- VII (C) Elective paper-II (Any one) Plant Pathology (Basic Pl.Path.&Mgt.P.D.)-II-VIII A(TH) Angiosperms (Plant Anat.&Pharmacog.) -II- VIII (B) (TH) Seed Technology (Seed Path.& S.H.M.) –II-VIII C (TH) Practical based on TH-V & VII (PR) Practical based on TH- VII & VIII (PR)
9582 9583 9584 9585 9586 9587	PHOTONICS Optical & Digital Signal Processing-XI (TH) Photonics Materials- XII (TH) Photonics Devices and Sensors-XIII (TH) Laboratory work-XIV (PR) Laboratory work –XV (PR) Continuous Internal Evaluation- (CIE)	9612 9613 9614 9615 9616 9617 9618 9619 9620 9621 9622 9623	ZOOLOGY Vertebrate : Structure & Function -Zool-301 (TH) Molecular Cell Biology – Zool-302 (TH) Elective paper-I (Any one) Entomology-I (Insect:Struc. & function) –Zool-303 A (TH) Fishery Science-I (Fish morp.,A.& Phy.)- Zool-303 B (TH) Applied Parasitology-I(Microbes & A.M.I.)-Zool-303C(TH) Animal Physiology-I (General Physiology)-Zool-303D (TH) Elective paper-II (Any one) Entomology –II(Insect tax.,Insect.D.&eco.)-Zool-304 (TH) Fishery Science-Ii (Fish morp.,A.& Phy.)- Zool-304 B(TH) Applied Parasitology-II (Ptroto.& A.M.I.)- Zool-304 C (TH) Animal Physiology-II (Gen.Physiology) -Zool-304 D (TH) Practical based on TH-Zool-301 & 302 (PR) Practical based on TH-Zool-303 & 304 (PR)
9588 9589 9590 9591 9592 9593	BIOINFORMATICS Genetic Engineering- BI-301 (TH) Taxonomy & Phylogency- BI-302 (TH) Parasite Bioinformatics-BI-303 (TH) Computer graphics & networking-BI-304 (TH) Taxonomy & Phylogency Lab. I (PR) Graphics & networking Lab.II (PR)		

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List of the Paper Titles of M.Sc. Fourth Semester (Revised-2009-2010)

Paper Codes	M.Sc. Fourth Semester Paper Titles	Paper Codes	M.Sc. Fourth Semester Paper Titles
9701 9702 9703 9704 9705 9706	INORGANIC CHEMISTRY Organo-metallic Catalysis & fluxan.-CH-541/1 (TH) Photo Inorganic Chemistry-CH-542/1 (TH) Chemistry of materials-CH-543/1 (TH) Nuclear & radiation Chemistry-CH-544/1 (TH) Laboratory Course-VII- CH-503/1 (PR) Laboratory Course – VIII-CH-504/1 (Project/PR)	9735 9736 9737 9738 9739 9740	INDUSTRIAL MICROBIOLOGY Pharmaceutical Microbiology –IMB-401 (TH) Industrial Food & Dairy Fermentation-IMB-402 (TH) Environmental Micro. Ind. W. Mgt. & t.t.-IMB-403 (TH) Project & Seminar/Implant Training -IMB-404 (PJ & Sem.) Practical based on TH-401 & 402 (PR) Practical based on TH-403 & 404 (PR/PJ)
9707 9708 9709 9710 9711 9712 9713	ORGANIC CHEMISTRY Advanced Heterocyclic Chemistry-CH-541/2 (TH) Bio-organic & Green Chemistry-542/2 (TH) Organic Synthesis-II –CH-543/2 (TH) Elective Paper (Any one) Medicinal Chemistry-CH-544/2A Polymer Chemistry- CH-544/2B Laboratory Course-V – CH-503/2 (PR) Laboratory Course-VI – CH-504/2(Project/PR)	9741 9742 9743 9744 9745 9746	BIOINFORMATICS Comparative genomic & Proteomics- BI-401 (TH) Genome to drug & Vaccine - BI-402 (TH) Advanced Tech. for seq.& S.a.&d.m.-BI-403 (TH) Project & Seminar -BI-304 (PJ & Sem.) Comp.genomic & Proteomics Lab. III (PR) Advan.Tech. for s.& s.a.& d.m. Lab.IV (PR/PJ)
9714 9715 9716 9717 9718 9719 9720	PHYSICAL CHEMISTRY Radiation Chemistry- CH-541/3 (TH) Photochemistry-CH-542/3 (TH) Molecular Rea.Dyna.&Bioph.Chem.-CH-543/3(TH) Elective Paper (Any one) Electrochemistry- CH-544/3 A (TH) Liquid State – CH-544/3 (TH) Laboratory Course -V– CH-503/3 (PR) Laboratory Course -VI– CH-504/3 (Project/PR)	9747 9748 9749 9750 9751 9752 9753	ELECTRONICS Instrumentation -XIX (TH) Simulation in Electronics: VHDL- XX (TH) Microwave Communication-XXI (TH) Integrated Circuit Techniques -XXII (TH) Practical based on TH-XIX & XX - XXIII (PR) Project & Seminar –XXIV (PJ) Industrial Training - XXV
9721 9722 9723 9724 9725 9726	ANALYTICAL CHEMISTRY Industrial Analytical Chemistry – CH-541/4 (TH) Analytical Methods -CH-542/4 (TH) Chromatography & O.P. in C. analy.-CH-543/4 (TH) Instrumental methods of Chem.analy.CH- 544/4(TH) Laboratory Course-V – CH-503/4 (PR) Laboratory Course - VI– CH-504/4 (Project/PR)	9754 9755 9756 9757 9758 9759	ENVIRONMENTAL SCIENCE Environmental impact A. & D. Mgt. Env.507 (TH) Industrial Pollution control & S. Mgt– Env.508 (TH) Environmental Management -Env.509 (TH) Energy Resource Managemnt-Env.510 (TH) Laboratory Course-Env.511 (PR) Dissertation-Env.512
9727 9728 9729 9730 9731 9732 9733 9734	INFORMATION TECHNOLOGY Multimedia Production -MIT-13 (TH) E-Commerce -MIT-14 (TH) Oracle Data Base Administration –MIT-15 (TH) Elective paper-I (Any one) Management Information System –MIT-16 A (TH) Programming in Visual C++–MIT-16 B (TH) Software Project Management –MIT-16 C (TH) Computer Laboratory-7 (PR) Computer Laboratory-8 (Project/PR)	9760 9761 9762 9763 9764	DAIRY SCIENCE Dairy Engineering-III – XVII (TH) Dairy Microbiology-II- XVIII (TH) Dairy Plant Management -XIX (TH) Practical based on TH-XV & XIX (PR) Dissertation & Seminar-XXIII

Paper Codes	M.Sc. Fourth Semester Paper Titles	Paper Codes	M.Sc. Fourth Semester Paper Titles
9765 9766 9767 9768 9769 9770	MULTIMEDIA Dream weaver – S4-5 (TH) Advanced Flash-S4-6 (TH) Action Script 3.0 Programming-S4-7 (TH) Computer Lab.-III (Dream weaver) (PR) Computer Lab.-IV(Flash +Action Script) (PR) Project work –S4-8 (PJ)	9793 9794 9795 9796 9797 9798 9799 9800 9801 9802	BOTANY Plant Physiology & Metabolism-II- V (TH) Genetic Engineering & Biostatistics - VI (TH) Elective paper-I (Any one) Plant Pathology (Phys. & Mol.Plant Pathol.)-I- VII (A) (TH) Angiosperms (Taxonomy & Systematic) -I- VII (B) (TH) Seed Technology (Seed Sci.& G.S.T.)-I- VII (C) Elective paper-II (Any one) Plant Pathology (Diseases of Crop.plants)-II-VIII A(TH) Angiosperms (Plant Anat.& Pharmacog.) -II- VIII (B) (TH) Seed Technology (Seed Path.& S.H.M.) –II-VIII C (TH) Practical based on TH-V & VII (PR) Practical based on TH- VII & VIII (PR/PJ)
9771 9772 9773 9774 9775 9776 9777 9778 9779 9780 9781 9782 9783	MATHEMATICS Numerical Analysis - XXVI (TH) Partial Differential Equations– XXVII- (TH) Three papers to be chosen from XXVIII to XXXVII Difference Equations-II-XXVIII (TH) Fluid Mechanics-II- XXIX (TH) Analytical Number Theory-II-XXX (TH) Fuzzy Sets & their Applications-II-XXXI (TH) Wave Propagation –II-XXXII (TH) Boundary Value Problems-XXXIII (TH) Programming in C (with ANSI feat.-II)-XXXIV(TH) Advanced Functional Analysis-II- XXXV (TH) Fundamentals of Comp. Science -II-XXXVI (TH) Theory of Linear operators-II-XXXVII (TH) Tutorials –III - XXXVIII	9803 9804 9805 9806 9807 9808 9809 9810 9811 9812 9813 9814 9815 9816	ZOOLOGY Genetics & Genetic Engineering -Zool-401 (TH) Endocrinology– Zool-402 (TH) Elective paper-I (Any one) Entomology-I (Economic Entomology) –Zool-403 A (TH) Fishery Science-I (Fish & Fish Culture-I)- Zool-403 B (TH) Applied Parasitology-I(Trema. & Cestodes)-Zool-403C(TH) Animal Physiology-I (Mam.Physiology-I)-Zool-403D (TH) Elective paper-II (Any one) Entomology –II(Agri.Entomol.& Pest Mgt.)-Zool-404A (TH) Fishery Science-II (Fish. & Fish Cult.-II)- Zool-304 B(TH) Applied Parasitology-II (Ani.Net.& Plt.Nem)- Zool-404 C (TH) Animal Physiology-II (Mam.Physiolgy-II) -Zool-404D(TH) Practical based on TH-Zool-401 & 402 (PR) Practical based on TH-Zool-403 & 404 (PR) Project work & Internal Assessment (PJ)
9784 9785 9786	PHOTONICS Industrial Phonics Engineering- XVI (TH) Project (PJ) Continuous Internal Evaluation –CIE	9817 9818 9819 9820 9821 9822	PHYSICS Fiber optics & optical fiber comm.-PH-19(TH) Microwaves & Measurements-PH-20 (TH) Microprocessor & Micro controller-PH-21(TH) Energy Physics-PH-22(TH) Lab. Course based on Th-19 & 21 (PR) Project & Seminar (PJ)
9787 9788 9789 9790 9791 9792	MICROBIOLOGY Bioinformatics, Proteo. & Genomics-MB-401 (TH) Medical & Pharmaceutical Microbio.-MB-402 (TH) Environmental Microbiology-MB-403 (TH) Fermentation Technology-MB-404 (TH) Practical based on Theory MB-401 to 404 (PR) Project work (PJ)		

