BSc(General) Major Mathematics

Level	Sem	Disciplinary Major Mandatory	DSE Electives	Minor Chemistry	Minor Physics	Minor Electronics	Minor Statistics	OE	VSC/SEC	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Total	Exit Credit	Final Total Credits
4.5	I	2 cr (Th)Major Paper-1:Algebra 2 cr (Th)Major Paper-2:Introduction to Calculus 2 cr (Pr)Major Paper-3:Mathematics Practical based on Major Paper 1 and Major Paper 2	---	---				1)Fundamentals in Mathematics (Practical) 2 Cr (Arts) 2)Quantitative Aptitude (Practical) 2 Cr (Commerce)	VC : Exploring Algebra using software SageMath (Practical) 2 Cr SEC : Basic in Vedic Mathematics (Practical) 2 Cr	ACE : English (Theory) 2 Cr VEC : Environment Science (Theory) 2 Cr Major Specific : IKS : Introduction to Indian Mathematics (Theory) 2 Cr	CC : Yoga 2 Cr	22	4	26
4.5	II	2 cr (Th)Major Paper-4:Analytical Geometry 2 cr (Th)Major Paper-5:Calculus of one variable 2 cr (Pr)Major Paper-6:Mathematics Practical based on Major Paper 4 and Major Paper 5	---	2 Cr-T: Fundamental Biochemistry	2Cr-T: Calibration Techniques / Instrumentation for agriculture	2Cr-T:Basics of Electronic devices and Systems	2Cr-T:Learning Basics of Data Science	1)Foundations of Financial Mathematics (Practical) 2 Cr (Arts) 2)Logical Reasoning (Practical) 2 Cr (Commerce)	VC : Exploring Calculus using software SageMath (Practical) 2 Cr SEC : Advance Course in Vedic Mathematics (Practical) 2 Cr	ACE : English (Theory) 2 Cr VEC : Environment Science (Theory) 2 Cr	CC : Performing Arts 2 Cr	22		22
Cumulative		12		2				8	8	10	4	44	4	48
Certificate on Exit + 4 credit Bridge Course														

				BSc(General) Major Mathematics										
			DSE Electives	**Minor**										
Level	**Sem**	**Disciplinary Major Mandatory**		**Chemistry**	**Physics**	**Electronics**	**Statistics**	**OE**	**VSC/SEC**	**AEC, VEC, IKS**	**OJT, FP, CEP, CC, RP**	**Total**	**Exit Credit**	**Final Total Credits**
5	**III**	2 cr (Th):Major Paper-7:Calculus of Several Variables 2 cr (Th):Major Paper-8:Discrete Mathematics 2 cr (Pr):Major Paper-9 : Mathematics Practical based on Major Paper-7 2 cr (Pr):Major Paper-10 : Mathematics Practical based on Major Paper-8	---	4Cr-T:Chemistry of life	2Cr-T: Basic Telecommu nication 2Cr-P:Fun with Mechanics	2Cr-T:Digital System Design 2Cr-P:Practicals based on Digital System Design	2Cr-T:Introducti on to R software and learning of exploratory data Analysis 2Cr-P:Use of R software to explore the data	Beginners Course in Vedic Mathematics (Practical) 2 Cr (Arts and Commerce)	VC : Basic Course in Scientific Writing using LaTeX software (Practical) 2 Cr	AEC : English (Theory) 2 Cr	FP : Major Specific Project (Practic al) 2 Cr CC : Music 2 Cr	22	4	26

BSc(General) Major Mathematics

Level	Sem	Disciplinary Major Mandatory	DSE Electives	Minor				OE	VSC/SEC	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Total	Exit Credit	Final Total Credits
				Chemistry	Physics	Electronics	Statistics							
5	IV	2 cr (Th):Major Paper-11:Linear Algebra 2 cr (Th):Major Paper-12:Graph Theory 2 cr (Pr):Major Paper-13 : Mathematics Practical based on Major Paper-11 2 cr (Pr):Major Paper-14 : Mathematics Practical based on Major Paper-12	---	4Cr-T:Chemistry of Materials	2Cr-T:Fiber Optic Communication 2Cr-P:Basic Optics	2Cr-T:Analog System Design 2Cr-P:Practicals based on Analog System Design	2Cr-T:Fittiting of mathematical models for predicative data Analysis 2Cr P:Use of R software for fitting of model	Industrial Mathematics (Practical) 2 Cr (Commerce)	SEC : Mathematical Techniques using Softwares (Practical) 2 Cr	AEC : English (Theory) 2 Cr	CEP : Community Engagement Project (Practical) 2 Cr CC : Drama 2 Cr	22		22
Cumulative		28		10				12	12	14	12	88	8	96
Diploma on Exit + 4 credits of NSQF and Internship														

BSc(General) Major Mathematics

Level	Sem	Disciplinary Major Mandatory	DSE Electives	Minor				OE	VSC/SEC	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Total	Exit Credit	Final Total Credits
				Chemistry	**Physics**	**Electronics**	**Statistics**							
5.5	V	2cr(Th)Major Paper-15 : Metric Spaces 2cr(Th)Major Paper-16 : Real Analysis 2cr(Th)Major Paper-17 : Group Theory 2cr(Th)Major Paper-18 : Ordinary Differential Equations 2cr(Pr)Major Paper-19 : Mathematics Practical based on Major Papers-15,16,17,18	**2 Cr (Th)Major Elective-1(A) : Operations Research 2 Cr (P) Major Elective-1(B) : Practical based on Major Elective-1(A)** **OR 2 Cr (Th)Major Elective-2(A) : Mathematics in Machine Learning 2 Cr (P) Major Elective-2(B): Practical based on Major Elective-2(A)**	2Cr-P:Laboratory Safety 2Cr-T:IPR and Chemoinformatics	2Cr-T:Lasers and its Applications 2Cr-P: Optoelectronics/ Photonics	2Cr-T:Digital and wireless communication systems 2Cr-P:Practical based on Communication	2Cr-T:Statistical Quality control 2Cr-P:Practical based on Statistical Quality control	---	VC : Mathematics in Python Programing (Practical) 2 Cr	---	CEP : Community Engagement Project (Practical) 2 Cr	22		22

BSc(General) Major Mathematics												
			DSE Electives	Minor							OJT, FP, CEP, CC, RP	
Level	Sem	Disciplinary Major Mandatory		Chemistry	Physics	Electronics	Statistics	OE	VSC/SEC	AEC, VEC, IKS		Total	Exit Credit	Final Total Credits
5.5	VI	2cr(Th)Major Paper-20 : Complex Analysis 2cr(Th)Major Paper-21 : Number Theory 2cr(Th)Major Paper-22 : Ring Theory 2cr(Th)Major Paper-23 : Partial Differential Equations 2cr(Pr)Major Paper-24: Mathematics Practical based on Major Papers-20,21,22,23	2 Cr (Th)Major Elective-3(A) : Numerical Analysis 2 Cr (Pr) Major Elective-3(B): Practical based on Major Elective-3(A) or 2 Cr (Th)Major Elective-4(A) : Mathematical Techniques in Machine Learning 2 Cr (Pr) Major Elective-4(B): Practical based on Major Elective-4(A)	2Cr-T:Instrumental methods of analysis 2Cr-P: Analytical Chemistry Practical Course	2Cr-T:Acoustics 2Cr-P:Radiation Physics	2Cr-T:Microcontroller and Embedded Systems 2Cr-P:Interfacing and Programming the microcontroller	2Cr-T:Introduction to Python for handling large data 2Cr-P:Introduction to Data Analytics	---	---	---		4Cr-On Job Training	22		22
Cumulative		48	8	18				12	14	14		18	132		140
Award of Degree														

				Minor									
BSc(General) Major Mathematics													
Level	Sem	Disciplinary Major Mandatory	DSE Electives	Chemistry	Physics	Electronics	Statistics	OE	VSC/SEC	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Total	Exit Credit	Final Total Credits
6	VII	4cr(Th)Major Paper-25 : Linear Algebra 4cr(Th)Major Paper-26 : Advance Calculus 4cr(Th)Major Paper-27 : Measure Theory 2cr(Pr)Major Paper-28: Mathematics Practical	**4 Cr (Th)Major Elective-5 : Advance Course in Group Theory 4 Cr (Th) Major Elective-6 : Advance Course in Ordinary Differential Equations**	2Cr-T+2Cr-P: Research Methodology				---	---	---	---	22		22

BSc(General) Major Mathematics														
Level	**Sem**	**Disciplinary Major Mandatory**	**DSE Electives**		**Minor**				**OE**	**VSC/SEC**	**AEC, VEC, IKS**	**OJT, FP, CEP, CC, RP**	**Total**	**Exit Credit**	**Final Total Credits**
				Chemistry	**Physics**	**Electronics**	**Statistics**							
6	VIII	4cr(Th)Major Paper-29 :Advance Course in Complex Analysis 4cr(Th)Major Paper-30 : General Topology 4cr(Th)Major Paper-31 :Advance Numerical Analysis 2cr(Pr)Major Paper-32: Mathematics Practical	**4 Cr (Th)Major Elective-7 : Rings and Modules Or 4 Cr (Th) Major Elective-8 : Advance Course in Partial Differential Equations**	---				---	---	---	**4Cr-On Job Training**	22		22
Cumulative		76	16	**22**				12	14	14	22	176		184