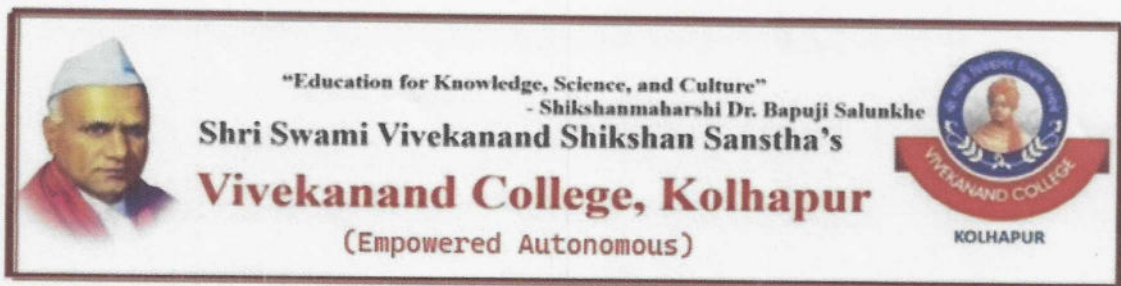


DEPARTMENT OF MATHEMATICS

INDEX

CO-PO-PSO Attainment of B.Sc. III 2023-24

Sr.No.	Title
1.	CO-PO-PSO Attainment Verification
2.	POs and PSOs
3.	Course Outcome of Courses
4.	Articulation Matrix
5.	Students Marklist
6.	Students Feedback Form



DEPARTMENT OF MATHEMATICS

B.Sc. I/II/III

CO-PO-PSO Attainment verification 2023-24

CO attainment verification:

Sr. No.	Course Name	Course Code	CO Target	CO Attainment	Fully attained or not
1	Calculus, Algebra and Geometry	DSC-1003A	3	2	Satisfactorily attained
2	Multivariable Calculus and Ordinary Differential Equation	DSC-1003B	3	2	Satisfactorily attained
3	Number Theory and Integral Calculus	DSC-1003C	3	1	Not attained
4	Discrete Mathematics and Integral Transform	DSC-1003D	3	1.2	Not attained
5	Real Analysis	DSC-1003E1	3	0.2	Not attained
6	Modern Algebra	DSC-1003E2	3	0.2	Not attained
7	Matrix Algebra	DSC-1003E3	3	1.2	Not attained
8	Numerical Methods I	DSC-1003E4	3	2	Satisfactorily attained
9	Metric Spaces	DSC-1003F1	3	1.2	Not attained
10	Linear Algebra	DSC 1003F2	3	2.8	Fully attained
11	Complex Analysis	DSC-1003F3	3	1.2	Not attained
12	Numerical Methods II	DSC-1003F4	3	1.2	Not attained



Prithvi
 Mr. S. P. Thorat.
HEAD
 DEPARTMENT OF MATHEMATICS
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

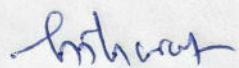
PO verification:

PO	Attainment	Level
PO1	1.354	Average
PO2	1.338	Average
PO3	1.314	Average
PO4	1.378	Average
PO5	1.354	Average
PO6	1.326	Average
PO7	1.383	Average

PSO verification:

PSO	Attainment	Level
PSO1	1.383	Average
PSO2	1.350	Average
PSO3	1.295	Average
PSO4	1.379	Average
PSO5	1.327	Average




(S.P. THORAT)
HEAD
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VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Mathematics
CO/PO/PSO attainment calculation
B.Sc. I/II/III
(Year 2023-2024)

PO'S

PO1 - Knowledge of Disciplines: Demonstrate the fundamental practical and theoretical understanding and conceptual knowledge of all the disciplines in physical sciences prescribed.

PO2 - Problem solving skills: Think and evaluate critically, analyze complex situations and provide solutions to problems using scientific methodology; those relating the acquired knowledge to day to-day life.

PO3 - Research aptitude: Cultivate a liking for research; and apply the related skills and scientific temper in order to carry out research work that benefits the surrounding community and industry.

PO4 - Professional and soft skills: Function independently and collaboratively to achieve the work-place goals through successful relations and mannerisms.

PO5 - Environment and Sustainability: Possess empathetic awareness towards environment and focus on sustainable social development while conducting research and scientific studies.

PO6 - Cultural ethics: Act in ethically righteous manner in planning, conducting and communicating the research and always keep in mind the cultural ethos of our society.

PO7 - Citizenship: Perform their roles as cultured and civilized citizens possessing human values, creativity, positivity and engaged in nation-building

PSO'S

PSO1: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

PSO2: Adopt changing scientific environment in the process of sustainable development by using mathematical tools

PSO3: Have necessary skills and expertise in the field of research and developments through seminar, field project and on job training.

PSO4: A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or technique in order to process the information and draw the relevant conclusion

PSO5: Adapt to and keep pace with emerging technologies in the field of Mathematics, demonstrating an understanding of their applications, limitations, and implications

Course I: Calculus, Algebra and Geometry (DSC -1003A)

CO1: Calculate the limit and examine the continuity of a function at a point.

CO2: Understand the consequences of various mean value theorems for differentiable functions.

Course I: Calculus, Algebra and Geometry (DSC -1003A)

- C01:** Calculate the limit and examine the continuity of a function at a point.
- C02:** Understand the consequences of various mean value theorems for differentiable functions.
- C03:** Sketch curves in Cartesian and polar coordinate systems.
- C04:** Calculate the radius of curvature of circle in parametric and cartesian form
- C05:** Familiarize with relations, equivalence relations and partitions.
- C06:** Employ De Moivre's theorem in a number of applications to solve numerical problems.
- C07:** Recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix, using rank.
- C08:** Understand various equation form of sphere.

Course II: Multivariable Calculus & Ordinary Differential equations (DSC -1003B)

- C01:** Learn conceptual variations while advancing from one variable to several variables in calculus.
- C02:** Apply multivariable calculus in optimization problems.
- C03:** Applications of multivariable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space etc.
- C04:** Calculate extreme value of function of two variable by various method.
- C05:** Learn various techniques of getting exact solutions of solvable first order differential equations and linear differential equations of higher order.
- C06:** Know Picard's method of obtaining successive approximations of solutions of first order differential equations, passing through a given point in the plane and Power series method for higher order linear equations.
- C07:** Formulate mathematical models in the form of ordinary differential equations to suggest solutions of the day to day problems arising in physical, chemical & biological disciplines.
- C08:** Learn various technique of solving Clairaut's equation.

Course III: Number Theory and Integral Calculus (DSC-1003C)

C01: Use mathematical induction and understand the logic and methods behind the major proofs in Number Theory.

C02: Describe the method of solving the linear Diophantine equation

C03: Determine GCD and LCM by using the Euclidean algorithm.

C04: Understand the definition of congruence and be familiar with number theoretic functions

C05: Acquire the information about beta, gamma function and evaluate it in various problems

C06: Apply Leibnitz rule for differential under integral sign

C07: Learn definition of Fourier Series, Odd and Even Functions, Half range series.

C08: Use the knowledge of double and triple integrals for finding area and volume

Course IV: Discrete Mathematics and Integral Transform (DSC-1003D)

C01: Understand Recurrence Relation, Generating functions and solving problems involving recurrence equations.

C02: Understand basic concept of graph theory to apply in various fields.

C03: Formulate Recurrence Relations to solve problems involving an unknown sequence.

C04: Familiarize with the types of graphs, types of paths and their properties

C05: recognize the different methods of finding Laplace transforms and Fourier transforms of different functions.

C06: explain the applications and the usefulness of these special functions.

C07: Determine Fourier transform, Relation between Laplace and Fourier Transform.

C08: apply the knowledge of Laplace transforms, Fourier transforms and Finite Fourier transforms in finding the solutions of differential equations

Course V: Real Analysis (DSC-1003E1)

CO1: Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequence.

CO2: Use the ratio, root, alternating series and limit comparison tests for convergence and absolute convergence of an infinite series of real numbers.

CO3: Understand some of the families and properties of Riemann integrable functions, and the applications of the fundamental theorems of integration.

CO4: Solve Riemann integral and improper integral

Course VI: Modern Algebra (DSC-1003E2)

CO1: Recognize the mathematical objects that are groups, and classify them as abelian, cyclic and permutation groups, etc.

CO2: Explain the significance of the notion of cosets, normal subgroups, and factor groups

CO3: The fundamental concept of Rings, Fields, subrings, integral domains and the corresponding Homomorphisms

CO4: Apply fundamental theorem, Isomorphism theorems of groups to prove these theorems for Ring.

Course VII: Matrix Algebra (DSC-1003E3)

CO1: Understand the concept of formation of partial differential equation.

CO2: Understand the classification of partial differential equations.

CO3: Understand the Geometrical meaning of partial differential equation and method of solutions.

CO4: Understand transformation equations and its applications.

Course VIII: Numerical Methods I (DSC-1003E4)

CO1: Learn about various interpolating methods to find numerical solutions.

CO2: Demonstrate the use of interpolation methods to find intermediate values in given graphical and/or tabulated data.

CO3: Use of numerical differentiation and integration

CO4: Learn to find the solution of ordinary differential equation by Euler, Taylor and Runge-Kutta methods

Course IX: Metric Spaces (DSC-1003F1)

CO1: Acquire the knowledge of notion of metric space, open sets and closed sets.

CO2: Demonstrate the properties of continuous functions on metric spaces

CO3: Apply the notion of metric space to continuous functions on metric spaces.

CO4: Understand the basic concepts of connectedness, completeness and compactness of metric spaces

Course X: Linear Algebra (DSC-1003F2)

CO1: Understand the concepts of vector spaces, subspaces, bases, dimension and their properties.

CO2: Learn properties of inner product spaces and determine orthogonality in inner product spaces.

CO3: Learn basic concepts of linear transformation, dimension theorem, matrix representation of a linear transformation, and the change of coordinate matrix.

CO4: Familiarize characteristic roots and characteristic vectors.

Course XI: Complex Analysis (DSC-1003F3)

CO1: Understand the significance of differentiability of complex functions leading to the understanding of Cauchy-Riemann equations.

CO2: Understand the exponential function, Logarithmic function, Trigonometric functions.

CO3: apply Cauchy integral formula to evaluate integrals.

CO4: Represent functions as Taylor, power and Laurent series, classify singularities and poles, find residues and evaluate complex integrals using the residue theorem.

Course XII: Optimization Techniques (DSC-1003F4)

CO1: Analyse and solve linear programming models of real life situations.

CO2: Formulate and apply suitable methods to solve problems.

CO3: Identify and select procedures for various sequencing, assignment, transportation problems.

CO4: Model competitive real-world phenomena using concepts from game theory and analyse pure and mixed strategy games.

Articulation Matrix for

Course I:(DSC -1003A)

Outcomes	PO 1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	3	2	1	1	1	1	2	1	2	3	1
CO2	4	4	2	1	1	1	1	3	1	1	2	1
CO3	4	4	1	1	1	1	2	2	1	1	3	1
CO4	3	4	2	1	1	1	1	1	1	2	3	1
CO5	3	3	1	2	1	1	1	3	1	1	3	1
CO6	3	3	1	1	1	1	1	3	1	1	2	1
CO7	4	3	1	1	1	1	1	1	1	2	2	1
CO8	4	3	1	2	1	1	1	1	1	1	3	1
Average	3.5	3.375	1.375	1.25	1	1	1.125	2	1	1.375	2.625	1

Course II:(DSC -1003B)

Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	4	2	2	1	1	1	2	1	2	2	1
CO2	4	3	2	1	1	2	2	3	1	2	3	1
CO3	4	4	1	1	1	1	2	3	1	2	3	1
CO4	3	3	1	1	1	1	1	2	1	2	2	1
CO5	4	4	2	2	1	1	1	2	1	1	3	1
CO6	3	3	2	1	1	1	1	3	1	2	3	1
CO7	3	4	2	1	1	1	1	1	1	1	2	1
CO8	3	3	2	1	1	1	1	1	1	1	2	1
Average	3.375	3.5	1.75	1.25	1	1.125	1.25	2.125	1	1.625	2.5	1

Course III:(DSC -1003C)

Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	1	1	1	2	2	1	1	2	1
CO2	4	4	1	2	1	1	1	3	1	1	2	1
CO3	4	4	1	1	1	1	1	2	1	1	2	1
CO4	4	4	1	1	1	1	1	3	1	1	1	1
CO5	4	3	1	1	1	1	1	1	1	1	2	1
CO6	4	3	2	1	1	1	1	1	1	1	1	1
CO7	3	3	2	2	1	1	1	1	1	1	2	1
CO8	3	3	2	1	1	1	1	1	1	1	2	1
Average	3.625	3.375	1.5	1.25	1	1	1.125	1.75	1	1	1.75	1

Course IV:(DSC -1003D)

Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	4	2	2	1	1	2	3	1	1	2	1
CO2	3	4	2	1	1	1	2	2	1	1	2	1
CO3	4	4	3	1	1	1	1	2	1	1	1	1
CO4	3	4	3	1	1	1	1	2	1	1	1	1
CO5	4	3	2	1	1	1	1	1	1	1	2	1
CO6	4	3	2	1	1	1	1	1	1	1	2	1
CO7	4	3	2	1	1	1	1	1	1	1	1	1
CO8	4	3	3	1	1	1	1	1	1	1	2	1
Average	3.625	3.5	2.375	1.125	1	1	1.25	1.625	1	1	1.625	1

Course V:(DSC -1003E1)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	4	3	3	2	1	1	1	2	1	3	2	1
CO2	4	3	2	1	1	2	1	2	1	1	3	1
CO3	3	3	3	2	1	1	1	2	1	2	1	1
CO4	4	3	2	1	1	1	1	1	1	1	1	1
Average	3.75	3	2.5	1.5	1	1.25	1	1.75	1	1.75	1.75	1.5

Course VI:(DSC -1003E2)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	4	3	2	1	1	1	2	1	1	2	2
CO2	4	4	2	1	1	1	1	1	1	1	2	1
CO3	4	4	2	1	1	1	1	1	1	2	2	1
CO4	3	3	2	1	1	1	1	2	1	2	1	1
Average	3.5	3.75	2.25	1.25	1	1	1	1.5	1	1.5	1.75	1.25

Course VII:(DSC -1003E3)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	4	3	1	1	1	1	3	1	1	2	1
CO2	3	4	2	1	1	1	1	2	1	1	1	1
CO3	4	4	3	1	1	1	1	2	1	1	2	1
CO4	4	4	2	2	1	1	1	3	1	1	2	1
Average	3.5	4	2.5	1.25	1	1	1	2.5	1	1	1.75	1

Course VIII:(DSC -1003E4)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	3	3	2	1	1	1	2	1	1	2	1
CO2	4	3	3	2	2	1	1	3	1	1	1	1
CO3	4	3	2	1	1	1	1	2	1	1	1	1
CO4	4	3	2	1	1	1	1	2	1	1	2	1
Average	3.75	3	2.5	1.5	1.25	1	1	2.25	1	1	1.5	1

Course IX:(DSC -1003F1)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	4	3	2	2	1	1	2	1	1	2	2
CO2	3	4	3	1	1	2	1	3	1	1	1	1
CO3	4	4	2	1	1	1	1	2	1	1	2	1
CO4	4	3	3	1	1	1	1	2	1	1	2	1
Average	3.5	3.75	2.75	1.25	1.25	1.25	1	2.25	1	1	1.75	1

Course X:(DSC -1003F2)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	4	2	2	1	1	1	3	1	1	1	1
CO2	4	3	2	2	1	1	1	2	1	1	2	1
CO3	4	3	3	2	1	1	1	1	1	1	2	1
CO4	4	3	2	1	1	1	2	1	1	1	1	1
Average	3.75	3.25	2.25	1.75	1	1	1.25	1.75	1	1	1.5	1

Course XI:(DSC -1003F3)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	4	3	3	1	1	1	1	3	1	1	2	1
CO2	3	3	2	2	2	1	1	2	1	1	1	1
CO3	3	3	3	2	1	2	2	1	1	1	2	1
CO4	3	4	2	2	1	1	1	2	1	1	1	1
Average	3.25	3.25	2.5	1.75	1.25	1.25	1.25	2	1	1	1.5	1

Course XII:(DSC -1003F4)

Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	4	3	3	1	1	1	1	2	1	1	2	1
CO2	3	4	3	1	1	1	1	1	1	1	1	1
CO3	3	4	2	1	1	1	1	2	1	1	2	1
CO4	3	4	2	2	1	1	1	1	1	1	1	1
Average	3.25	3.75	2.5	1.25	1	1	1	1.5	1	1	1.5	1

Year 2023-2024

Sr. No	Roll no.	Name Of Student	SEM I		SEM II		SEM III		SEM IV		Sem V				Sem VI												
			DSCI003 A		DSCI003 B		DSCI003 C		DSCI003D		DSCI003 E1		DSCI003E 2		DSCI003E 3		DSCI003E 4		DSCI003F 1		DSCI003F2		DSCI003F3		DSCI003F4		
			CA	CI E	C A	CIE	C A	CIE	C A	CIE	CA	CI E	CA	CI E	CA	CI E	CA	CI E	CA	CI E	CA	CI E	CA	CI E	CA	CI E	CA
1	8289	Chavan Aishwarya S.	34	30	29	30	27	13	37	17	10	12	10	16	12	12	12	12	12	24	12	16	14	19	15	24	12
2	8290	Chougale Anuja A.	48	30	48	29	33	26	42	26	10	12	10	16	12	15	14	14	14	24	12	16	14	22	14	24	12
3	8291	Gudle Pallavi B.	35	28	38	28	33	19	40	22	10	12	11	19	12	14	14	14	24	13	14	15	19	15	24	12	
4	8292	Jadhav Sandesh D.	41	27	70	30	70	30	69	29	33	15	35	15	15	35	15	15	34	15	34	15	35	15	35	15	
5	8293	Jamadar Karishma K.	29	25	54	21	46	13	37	18	15	14	15	26	15	13	15	13	24	14	21	14	31	15	29	13	
6	8294	Kamble Priyanka A.	29	29	27	27	28	18	26	17	15	10	12	10	15	14	14	14	21	12	14	10	25	15	22	12	
7	8295	Kamble Rutik V.	26	27	51	24	34	18	26	13	12	12	11	31	9	13	11	13	23	12	15	14	27	14	28	12	
8	8296	Kashid Namrata M.	34	30	43	23	39	17	39	18	13	12	10	20	14	15	14	15	30	14	15	15	25	15	30	12	
9	8297	Koli Prajakta M.	25	30	37	26	31	9*1	34	17	22	12	14	11	20	16	15	16	22	14	17	15	26	13	33	13	
10	8298	Magadum Anuja B.	41	24	70	29	63	27	66	27	34	13	23	35	14	34	14	34	29	12	24	15	34	15	35	12	
11	8299	Parit Vaishnavi S.	45	30	69	30	59	23	65	30	29	15	18	35	15	33	15	33	31	14	30	14	35	15	32	14	
12	8300	Pirjade Sahad M.	28	10	32	10	46	18	50	24	12	11	12	18	12	17	12	17	24	11	14	10	20	13	17	12	
13	8301	Powar Mrunali A.	50	24	65	25	50	27	65	26	21	12	13	29	13	31	15	31	26	15	23	15	26	14	32	13	
14	8302	Shinde Neha R.	54	27	69	30	69	30	68	30	34	15	35	15	15	35	15	35	34	15	35	15	35	15	35	15	

Feed Back Form Questions

- Q1. How do you rate the syllabus of the courses that you have studied in relation to the capability expected out of the course?
- Q2. How do you rate the usefulness of the units in the syllabus relevant to the course?
- Q3. How do you rate the weightage of the credits to the courses
- Q4. How do you rate the offering of electives in terms of their quality to the specialization stream?
- Q5. How do you rate the electives offered in relation to technological advancements?
- Q6. Rate the size of the syllabus in terms of the load of the students.
- Q7. Rate the courses in terms of self-learning considering the design of the courses.
- Q8. How do you rate the evaluation scheme designed for each of the courses?
- Q9. How do you rate the objectives stated for each of the course?
- Q10. How do you rate the percentage of the courses having lab components

B.Sc.I (DSC -1003A): Calculus, Algebra and Geometry

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8300	4	5	5	5	4	5	4	4	4	4
2	8291	3	5	3	5	3	5	5	3	5	3
3	8289	5	5	5	5	5	5	5	5	5	5
4	8297	5	5	5	5	4	5	5	4	3	4
5	8302	5	5	5	5	4	5	5	5	5	5
6	8292	5	5	4	4	5	5	5	5	4	5
7	8298	5	4	4	5	5	4	5	4	5	5
8	8290	5	5	4	4	5	5	5	4	3	5
9	8295	4	4	4	4	4	4	4	4	3	4
10	8293	5	4	4	4	4	5	5	5	5	5
11	8296	2	3	4	5	4	3	4	5	2	4
12	8301	4	3	5	3	4	2	4	2	4	3
13	8299	5	4	5	5	5	4	4	5	4	4
14	8294	5	5	5	4	4	4	4	5	5	5

c.I (DSC -1003B): Multivariable Calculus and Ordinary Differential equations

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8297	4	4	5	5	5	5	4	4	3	3
2	8302	5	5	5	5	5	5	5	5	5	5
3	8291	5	5	5	5	5	5	5	5	5	5
4	8300	5	4	3	5	4	4	5	4	5	5
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	5	5	5	5	5	3	3	4	4
7	8290	5	3	5	3	5	3	5	3	5	3
8	8295	4	4	4	3	3	3	4	4	3	3
9	8294	5	4	3	3	5	4	5	4	3	4
10	8296	4	4	5	3	3	4	3	3	2	4
11	8301	4	5	4	5	4	4	5	5	5	4
12	8299	5	4	3	5	4	5	3	5	5	5
13	8289	5	4	4	4	4	5	5	5	4	3
14	8294	5	4	5	5	4	4	4	5	5	5

B
Sc.II (DSC-1003C): Number Theory and Integral
Calculus

		Q1	Q2	Q3	Q4	Q 5	Q 6	Q 7	Q 8	Q 9	Q1 0
1	8302	5	5	5	5	5	5	5	5	5	5
2	8291	5	5	5	5	5	5	5	5	5	5
3	8300	4	5	4	5	5	4	5	4	4	5
4	8297	4	4	4	3	4	4	5	4	4	3
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	4	4	4	4	4	5	4	3	4
7	8290	5	3	5	3	5	3	5	3	5	3
8	8295	3	3	3	3	4	3	4	4	4	4
9	8296	3	4	3	5	2	4	2	3	2	3
10	8301	4	5	5	5	4	4	3	5	4	3
11	8290	5	4	5	3	4	3	4	3	4	4
12	8299	5	5	4	4	3	5	5	5	4	4
13	8293	5	3	4	4	3	2	4	4	3	5
14	8294	4	4	5	5	5	5	5	5	5	5

B.Sc.I (DSC-1003D): Discrete Mathematics and Integral
I Transform

		Q1	Q2	Q3	Q4	Q5	Q 6	Q 7	Q 8	Q 9	Q1 0
1	8297	5	5	3	4	4	4	4	5	5	4
2	8291	5	4	4	5	5	4	5	5	4	4
3	8292	5	5	5	5	5	5	5	5	5	5
4	8300	5	4	4	5	4	4	4	4	5	5
5	8290	5	3	5	3	5	3	5	3	5	3
6	8295	3	4	4	4	3	3	3	3	3	4
7	8293	5	4	5	2	4	4	3	4	3	3
8	8301	5	4	5	4	5	4	4	5	5	4
9	8299	5	4	5	4	5	4	3	5	4	4
10	8289	5	4	4	5	4	4	5	3	5	5
11	8298	5	5	4	5	4	4	4	4	4	3
12	8294	5	5	5	4	4	5	5	5	5	4
13	8296	4	5	4	2	4	2	2	4	3	4
14	8302	5	5	5	5	4	5	5	5	5	5

B.Sc.III (DSE-1003E1): Real Analysis

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8300	4	4	5	4	5	5	4	4	3	5
2	8297	4	5	4	4	4	5	4	5	4	4
3	8291	4	4	4	4	5	4	4	5	4	4
4	8292	5	5	5	5	5	5	5	5	5	5
5	8298	5	5	5	5	5	5	4	5	5	5
6	8290	5	3	5	3	5	3	5	3	5	3
7	8295	4	4	4	4	3	3	3	3	3	3
8	8299	5	4	5	5	4	4	4	4	5	4
9	8293	5	4	5	3	4	3	4	3	2	2
10	8296	4	3	4	5	3	5	3	5	3	4
11	8301	5	4	5	5	4	4	4	5	4	5
12	8302	5	5	5	5	4	5	5	5	5	5
13	8289	5	4	4	5	5	4	4	4	5	3
14	8294	5	5	5	5	4	4	4	4	4	4

B.Sc.III (DSE-1003E2): Modern Algebra

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8300	4	4	5	4	5	5	4	4	3	5
2	8297	4	5	4	4	4	5	4	5	4	4
3	8291	4	4	4	4	5	4	4	5	4	4
4	8292	5	5	5	5	5	5	5	5	5	5
5	8298	5	5	5	5	5	5	4	5	5	5
6	8290	5	3	5	3	5	3	5	3	5	3
7	8295	4	4	4	4	3	3	3	3	3	3
8	8299	5	4	5	5	4	4	4	4	5	4
9	8293	5	4	5	3	4	3	4	3	2	2
10	8296	4	3	4	5	3	5	3	5	3	4
11	8301	5	4	5	5	4	4	4	5	4	5
12	8302	5	5	5	5	4	5	5	5	5	5
13	8289	5	4	4	5	5	4	4	4	5	3
14	8294	5	5	5	5	4	4	4	4	4	4

B.Sc.II (DSC 1003E3): Partial Differential Equation

I

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8302	5	5	5	5	5	5	5	5	5	5
2	8300	5	4	3	4	5	5	4	4	5	4
3	8291	5	4	4	5	4	5	4	5	4	5
4	8297	4	4	4	4	5	5	4	5	4	5
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	5	4	4	4	5	4	5	4	4
7	8290	5	3	5	3	5	5	3	5	3	5
8	8295	4	4	3	4	3	5	4	4	4	4
9	8299	5	5	4	5	5	5	4	5	4	5
10	8289	5	5	5	3	3	5	5	5	5	4
11	8293	4	3	3	5	4	5	2	3	2	4
12	8296	4	5	3	5	3	5	4	2	4	3
13	8301	5	4	5	5	4	4	5	4	5	5
14	8294	5	5	5	5	4	5	4	4	4	4

B.Sc.III (DSC 1003E4): Numerical Methods

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8302	5	5	5	5	5	5	5	5	5	5
2	8300	5	4	3	4	5	5	4	4	5	4
3	8291	5	4	4	5	4	5	4	5	4	5
4	8297	4	4	4	4	5	5	4	5	4	5
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	5	4	4	4	5	4	5	4	4
7	8290	5	3	5	3	5	5	3	5	3	5
8	8295	4	4	3	4	3	5	4	4	4	4
9	8299	5	5	4	5	5	5	4	5	4	5
10	8289	5	5	5	3	3	5	5	5	5	4
11	8293	4	3	3	5	4	5	2	3	2	4
12	8296	4	5	3	5	3	5	4	2	4	3
13	8301	5	4	5	5	4	4	5	4	5	5
14	8294	5	5	5	5	4	5	4	4	4	4

B.Sc.III (DSC-1003F1): Metric Space

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8300	4	4	5	5	4	4	5	4	5	5
2	8302	5	5	5	5	5	5	5	5	5	5
3	8291	5	4	4	5	4	4	5	4	5	4
4	8297	5	4	4	4	4	5	4	4	5	4
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	5	4	5	4	5	5	4	4	4
7	8290	5	3	5	3	5	3	5	3	5	3
8	8295	4	5	4	3	3	3	4	3	3	4
9	8299	5	4	4	4	4	5	4	4	4	4
10	8289	5	5	5	5	5	5	4	4	4	4
11	8293	4	3	5	2	4	3	5	3	4	2
12	8296	4	5	4	2	4	4	2	4	4	2
13	8301	5	4	5	4	5	4	4	5	5	4
14	8294	5	4	5	5	4	5	4	4	4	4

B.Sc.III (DSC-1003F2): Linear Algebra

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8300	4	4	5	5	4	4	5	4	5	5
2	8302	5	5	5	5	5	5	5	5	5	5
3	8291	5	4	4	5	4	4	5	4	5	4
4	8297	5	4	4	4	4	5	4	4	5	4
5	8292	5	5	5	5	5	5	5	5	5	5
6	8298	5	5	4	5	4	5	5	4	4	4
7	8290	5	3	5	3	5	3	5	3	5	3
8	8295	4	5	4	3	3	3	4	3	3	4
9	8299	5	4	4	4	4	5	4	4	4	4
10	8289	5	5	5	5	5	5	4	4	4	4
11	8293	4	3	5	2	4	3	5	3	4	2
12	8296	4	5	4	2	4	4	2	4	4	2
13	8301	5	4	5	4	5	4	4	5	5	4
14	8294	5	4	5	5	4	5	4	4	4	4

B.Sc.III (DSC-1003F3): Complex Analysis

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8299	4	5	5	5	4	5	4	4	4	4
2	8290	3	5	3	5	3	5	5	3	5	3
3	8302	5	5	5	5	5	5	5	5	5	5
4	8300	5	5	5	5	4	5	5	4	3	4
5	8292	5	5	5	5	4	5	5	5	5	5
6	8298	5	5	4	4	5	5	5	5	4	5
7	8291	5	4	4	5	5	4	5	4	5	5
8	8297	5	5	4	4	5	5	5	4	5	5
9	8295	4	4	4	4	4	4	4	4	3	4
10	8289	5	4	4	4	4	5	5	5	5	5
11	8293	2	3	4	5	4	3	4	5	2	4
12	8296	4	3	5	3	4	2	4	2	4	3
13	8301	5	4	5	5	5	4	4	5	4	4
14	8294	5	5	5	4	4	4	4	5	5	5

B.Sc.III (DSC-1003F4): Optimization Technique

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	8299	4	5	5	5	4	5	4	4	4	4
2	8290	3	5	3	5	3	5	5	3	5	3
3	8302	5	5	5	5	5	5	5	5	5	5
4	8300	5	5	5	5	4	5	5	4	3	4
5	8292	5	5	5	5	4	5	5	5	5	5
6	8298	5	5	4	4	5	5	5	5	4	5
7	8291	5	4	4	5	5	4	5	4	5	5
8	8297	5	5	4	4	5	5	5	4	5	5
9	8295	4	4	4	4	4	3	4	4	3	4
10	8289	5	4	4	4	4	5	5	5	5	5
11	8293	2	3	4	5	4	3	4	5	2	4
12	8296	4	3	5	3	4	2	4	2	4	3
13	8301	5	4	5	5	5	4	4	5	4	4
14	8294	5	5	5	4	4	4	4	5	5	5