



दिल्ली विश्वविद्यालय

UNIVERSITY OF DELHI

SEMESTER EXAMINATIONS - (DECEMBER-2021)

***Date-Sheet for B. Sc. Programme (Choice Based Credit System (CBCS-LOCF) Semester Examinations December-2021 meant for Part-3 (V Semester) & Part-2 (III Semester) students alongwith this only Ex-students, Essential Repeaters and Improvement cases of Part-1 (Ist Semester) shall also appear as per rule.***

***(Admissions of 2019 & 2020 only )***

***Life Sciences, Applied Life Sciences (Agro Chemical and Pest Management), Physical Sciences and Applied Physical Science (Analytical Chemistry, Industrial Chemistry)***

***Time of Commencement: 9:30 AM***

SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
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02<sup>nd</sup> December, 2021 (Thursday)

***Skill Enhancement Elective***

V	42163512	Ethno Botany
V	42173901	Plants Quarantine
V	42173902	Biotechnology
V	42173903	Plant health diagnostics and Management
V	42173905	Plants regulators and Economic Botany
V	42173906	Forensic Science
V	42173907	Biotechnological control of Pest
V	42173909	Biological Control of Crop pests
V	42173910	Intellectual Property Rights(IPR)
V	42173911	Insect Toxicology
V	42173913	Conventional Insecticides
V	42173915	Use of nuclear technology for agro-pest management
V	42173917	Biological Insecticides
V	42173918	Pesticide Formulations
V	42173919	Analytical Techniques involved in Pesticide Analysis
V	42173920	Quality control in IPM
V	42173921	Medicinal Plants and IPR (Intellectual Property Rights)
V	42173922	Analytical Clinical Biochemistry
V	42173923	Basic Analytical Chemistry
V	42173924	Instrumental Methods of Analysis
V	32173901	IT Skills for Chemists
V	32173903	Chemical Technology & Society
V	32173904	Chemoinformatics
V	32173905	Business Skills for Chemists
V	32173908	Green Methods in Chemistry
V	32173909	Pharmaceutical Chemistry
V	32173910	Chemistry of Cosmetics & Perfumes
V	32173911	Pesticide Chemistry
V	32173912	Fuel Chemistry
V	42343502	Advanced Programming in Java
V	42343503	Web Design Using HTML5

Note: In Open Book Examinations (OBE) mode as special measure for Academic session 2021-22 in view of Covid-19 pandemic

**Date-Sheet for B. Sc. Programme (Choice Based Credit System (CBCS-LOCF) Semester Examinations December-2021 meant for Part-3 (V Semester) & Part-2 (III Semester) students alongwith this only Ex-students, Essential Repeaters and Improvement cases of Part-1 (Ist Semester) shall also appear as per rule.**

SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
<b>02<sup>nd</sup> December, 2021 (Thursday) Contd...</b>			<b><i>Skill Enhancement Elective</i></b>
	V	42363501	Portfolio Optimization
	V	42353504	Transportation and Network Flow Problems
	V	32223901	Physics Workshop Skills
	V	32223902	Computational Physics Skills
	V	32223903	Electrical circuits and Network Skills
	V	32223904	Basic Instrumentation Skills
	V	32223905	Renewable Energy and Energy harvesting
	V	32233905	Sericulture
	V	32223906	Technical Drawing
	V	32223907	Radiation Safety
	V	32223908	Applied Optics
	V	32223909	Weather Forecasting
	V	32233902	Aquarium Fish Keeping
	V	32513901	Design and Fabrication of Printed Circuit Boards
	V	42233902	Aquatic Biology
	V	42233904	Public Health and Hygiene
	V	42223901	Introduction of Physical Computing
	V	42223902	Numerical Analysis

**08<sup>th</sup> December, 2021 (Wednesday) Discipline Specific Elective-1A**

Electronics	V	42517511	Semiconductor Devices Fabrication
Computer Science	V	42347501	Data Structures
	V	42347502	Digital Image Processing
App. Life Science with Agro Chemical & Pest Management	V	42167903	Genetics and Plant Biotechnology
	V	42167906	Plants regulators and Economic Botany
	V	42237907	General Entomology
	V	42237908	Applied Entomology
	V	42237909	Integrated Pest Management
	V	42177933	Soils And Fertilizers
	V	42177937	Herbicides
	V	42177935	Fungicides
Analytical Chemistry/ Industry Chemistry	V	42177915	Analytical Biochemistry
	V	42177916	Instrumental Methods of Analysis
	V	32177908	Green Chemistry
	V	42177918	Industrial Chemicals and Environment
	V	42177919	Application of Computers in Chemistry
	V	42177920	Molecular Modelling & Drug Design
	V	32177901	Novel Inorganic Solids
	V	32177906	Polymer Chemistry
	V	32177907	Research Methodology for Chemistry

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**Date-Sheet for B. Sc. Programme (Choice Based Credit System (CBCS-LOCF) Semester Examinations December-2021 meant for Part-3 (V Semester) & Part-2 (III Semester) students alongwith this only Ex-students, Essential Repeaters and Improvement cases of Part-1 (1st Semester) shall also appear as per rule.**

SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
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**08<sup>th</sup> December, 2021 (Wednesday)**

	V	32177902	Inorganic Materials of Industrial Importance
	V	42177925	Chemistry of d-Block elements, Quantum Chemistry & Spectroscopy
	V	42177926	Organometallics, Bio-inorganic Chemistry, Polynuclear Hydrocarbons and UV, IR
	V	32177904	Analytical Methods in Chemistry
	V	32177912	Nanoscale Materials and their Applications
Life Sciences	V	42167901	Economic Botany and Biotechnology
	V	42167902	Cell and Molecular Biology.
	V	42167904	Analytical Techniques in Plant Sciences
	V	42167905	Bioinformatics
	V	42167907	Research Methodology
	V	42177913	Molecules of Life
	V	32237910	Reproductive Biology
	V	32237911	Wild Life Conservation and Management
	V	42237903	Animal Biotechnology
	V	42237904	Immunology
	V	42237905	Applied Zoology
Mathematics	V	42357501	Differential Equations
	V	42357502	Mechanics and Discrete Mathematics
	V	42357932	Calculus and Geometry
Operational Research	V	42367901	Queueing and Reliability Theory
Operational Research	V	42367902	Quality Management
Physics	V	42227530	Digital, Analog and Instrumentation
Physics	V	42227531	Mathematical Physics
Physics	V	42227532	Nano Materials and Applications
Physics	V	42227533	Communication System
Physics	V	42227534	Verilog and FPGA based system design
Physics	V	42227535	Medical Physics
Physics	V	42227536	Applied Dynamics
Physics	V	42227928	Electricity and Magnetism
Physics	V	42227929	Elements of Modern Physics

**11<sup>th</sup> December, 2021 (Saturday)**

**Discipline Specific Elective-2A**

Electronics	V	42517512	Electronic Instrumentation
Computer Science	V	42347501	Data Structures
	V	42347502	Digital Image Processing
App. Life Science with Agro Chemical & Pest Management	V	42167903	Genetics and Plant Biotechnology
	V	42167906	Plants regulators and Economic Botany
	V	42237907	General Entomology

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**Date-Sheet for B. Sc. Programme (Choice Based Credit System (CBCS-LOCF) Semester Examinations December-2021 meant for Part-3 (V Semester) & Part-2 (III Semester) students alongwith this only Ex-students, Essential Repeaters and Improvement cases of Part-1 (Ist Semester) shall also appear as per rule.**

SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
<b>11<sup>th</sup> December, 2021. (Saturday) Contd... Discipline Specific Elective-2A</b>			
	V	42237908	Applied Entomology
	V	42237909	Integrated Pest Management
	V	42177933	Soils And Fertilizers
	V	42177937	Herbicides
	V	42177935	Fungicides
Analytical Chemistry/ Industry Chemistry	V	42177915	Analytical Biochemistry
	V	42177916	Instrumental Methods of Analysis
	V	32177908	Green Chemistry
	V	42177918	Industrial Chemicals and Environment
	V	42177919	Application of Computers in Chemistry
	V	42177920	Molecular Modelling & Drug Design
	V	32177901	Novel Inorganic Solids
	V	32177906	Polymer Chemistry
	V	32177907	Research Methodology for Chemistry
	V	32177902	Inorganic Materials of Industrial Importance
	V	42177925	Chemistry of d-Block elements, Quantum Chemistry & Spectroscopy
	V	42177926	Organometallics, Bio-inorganic Chemistry, Polynuclear Hydrocarbons and UV, IR
	V	32177912	Nanoscale Materials and their Applications
	V	32177904	Analytical Methods in Chemistry
Life Sciences	V	42167901	Economic Botany and Biotechnology
	V	42167902	Cell and Molecular Biology
	V	42167904	Analytical Techniques in Plant Sciences
	V	42167905	Bioinformatics
	V	42167907	Research Methodology
	V	42177913	Molecules of Life
	V	32237910	Reproductive Biology
	V	32237911	Wild Life Conservation and Management
	V	42237903	Animal Biotechnology
	V	42237904	Immunology
	V	42237905	Applied Zoology
Mathematics	V	42357501	Differential Equations
Mathematics	V	42357502	Mechanics and Discrete Mathematics
Mathematics	V	42357932	Calculus and Geometry
Operational Research	V	42367901	Queuing and Reliability Theory
Operational Research	V	42367902	Quality Management
Physics	V	42227530	Digital, Analog and Instrumentation
Physics	V	42227531	Mathematical Physics
Physics	V	42227532	Nano Materials and Applications
Physics	V	42227533	Communication System

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**Date-Sheet for B. Sc. Programme (Choice Based Credit System (CBCS-LOCF) Semester Examinations December-2021 meant for Part-3 (V Semester) & Part-2 (III Semester) students alongwith this only Ex-students, Essential Repeaters and Improvement cases of Part-1 (1st Semester) shall also appear as per rule.**

SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
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**11<sup>th</sup> December, 2021 (Saturday) Contd... Discipline Specific Elective-2A**

Physics	V	42227534	Verilog and FPGA based system design
Physics	V	42227535	Medical Physics
Physics	V	42227536	Applied Dynamics
Physics	V	42227928	Electricity and Magnetism
Physics	V	42227929	Elements of Modern Physics

**14<sup>th</sup> December, 2021 (Tuesday) Discipline Specific Elective-3A**

Electronics	V	42517513	Digital Signal Processing
Computer Science	V	42347501	Data Structures
	V	42347502	Digital Image Processing
App. Life Science with Agro Chemical & Pest Management	V	42167903	Genetics and Plant Biotechnology
	V	42167906	Plants regulators and Economic Botany
	V	42237907	General Entomology
	V	42237908	Applied Entomology
	V	42237909	Integrated Pest Management
	V	42177933	Soils And Fertilizers
	V	42177937	Herbicides
	V	42177935	Fungicides
Analytical Chemistry/ Industry Chemistry	V	42177915	Analytical Biochemistry
	V	42177916	Instrumental Methods of Analysis
	V	32177908	Green Chemistry
	V	42177918	Industrial Chemicals and Environment
	V	42177919	Application of Computers in Chemistry
	V	42177920	Molecular Modelling & Drug Design
	V	32177901	Novel Inorganic Solids
	V	32177906	Polymer Chemistry
	V	32177907	Research Methodology for Chemistry
	V	32177902	Inorganic Materials of Industrial Importance
	V	42177925	Chemistry of d-Block elements, Quantum Chemistry & Spectroscopy
	V	42177926	Organometallics, Bio-inorganic Chemistry, Polynuclear Hydrocarbons and UV, IR
	V	32177912	Nanoscale Materials and their Applications
	V	32177904	Analytical Methods in Chemistry

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**14<sup>th</sup> December, 2021 (Tuesday) Discipline Specific Elective-3A**

Life Sciences	V	42167901	Economic Botany and Biotechnology
	V	42167902	Cell and Molecular Biology.
	V	42167904	Analytical Techniques in Plant Sciences
	V	42167905	Bioinformatics
	V	42167907	Research Methodology
	V	42177913	Molecules of Life
	V	32237910	Reproductive Biology
	V	32237911	Wild Life Conservation and Management
	V	42237903	Animal Biotechnology
	V	42237904	Immunology
	V	42237905	Applied Zoology
Mathematics	V	42357501	Differential Equations
Mathematics	V	42357502	Mechanics and Discrete Mathematics
Mathematics	V	42357932	Calculus and Geometry
Operational Research	V	42367901	Queuing and Reliability Theory
Operational Research	V	42367902	Quality Management
Physics	V	42227530	Digital, Analog and Instrumentation
Physics	V	42227531	Mathematical Physics
Physics	V	42227532	Nano Materials and Applications
Physics	V	42227533	Communication System
Physics	V	42227534	Verilog and FPGA based system design
Physics	V	42227535	Medical Physics
Physics	V	42227536	Applied Dynamics
Physics	V	42227928	Electricity and Magnetism
Physics	V	42227929	Elements of Modern Physics

**16<sup>th</sup> December, 2021 (Thursday)**

Analytical Chemistry	III	42174301	Quantitative Methods of Analysis
Physics	III	42224303	Thermal Physics and Statistical Mechanics

**17<sup>th</sup> December, 2021 (Friday)**

Life Science	I	42161101	Biodiversity (Microbes, Algae, Fungi and Archegoniatae)
Applied Life Science with Agro Chemical & Pest Management	I	42171101	Biology of Life forms Plants

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SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
<b>18<sup>th</sup> December, 2021 (Saturday)</b>			
Computer Science	III	42344304	Operating System
Electronics	III	42514305	Communication Electronics
<b>19<sup>th</sup> December, 2021 (Sunday)</b>			<b><i>Skill Enhancement Elective</i></b>
	III	42173901	Plants Quarantine
	III	42173903	Plant health diagnostics and Management
	III	42173905	Plants regulators and Economic Botany
	III	42173907	Biotechnological control of Pest
	III	42173909	Biological Control of Crop pests
	III	42173911	Insect Toxicology
	III	42173913	Conventional Insecticides
	III	42173915	Use of nuclear technology for agro-pest management
	III	42173917	Biological Insecticides
	III	42173918	Pesticide Formulations
	III	42173919	Analytical Techniques involved in Pesticide Analysis
	III	42173920	Quality control in IPM
	III	42173921	Medicinal Plants and IPR (Intellectual Property Rights)
	III	42173924	Instrumental Methods of Analysis
	III	42343307	Data Analysis using python programing
	III	42343308	Introduction to R Programing
	III	42363307	Operational Research Applications
	III	42163302	Biofertilizes
	III	32173901	IT Skills for Chemists
	III	42173923	Basic Analytical Chemistry
	III	32173903	Chemical Technology & Society
	III	32173904	Chemoinformatics
	III	32173905	Business Skills for Chemists
	III	32163302	Intellectual Property Rights
	III	42173922	Analytical Clinical Biochemistry
	III	32173908	Green Methods in Chemistry
	III	32173909	Pharmaceutical Chemistry
	III	32173910	Chemistry of Cosmetics & Perfumes
	III	32173911	Pesticide Chemistry
	III	32173912	Fuel Chemistry
	III	42233902	Aquatic Biology
	III	42233904	Public Health and Hygiene
	III	32233905	Sericulture
	III	42353328	Computer Algebra Systems
	III	42363307	Operational Research Applications
	III	42173902	Biotechnology
	III	42173906	Forensic Science
	III	32173908	Green Methods in Chemistry
	III	42173910	Intellectual Property Rights(IPR)

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SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
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**19<sup>th</sup> December, 2021 (Sunday) Contd...**

	III	32223901	Physics Workshop Skills
	III	32223902	Computational Physics Skills
	III	32223903	Electrical circuits and Network Skills
	III	32223904	Basic Instrumentation Skills
	III	32223905	Renewable Energy and Energy harvesting
	III	32223906	Technical Drawing
	III	32223907	Radiation Safety
	III	32223908	Applied Optics
	III	32223909	Weather Forecasting

**20<sup>th</sup> December, 2021 (Monday)**

Mathematics	I	42351101	Mathematics-I (Calculus and Matrices)
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**21<sup>st</sup> December, 2021 (Tuesday)**

Physics	I	42221101	Physics-I (Mechanics)
Industrial Chemistry	I	42171108	Mathophysics Mechanics

**22<sup>nd</sup> December, 2021 (Wednesday)**

<b>Operational Research</b>	III	42364303	Optimization Techniques
<b>Life Science</b>	III	42234301	Physiology and Biochemistry

**23<sup>rd</sup> December, 2021 (Thursday)**

Analytical Chemistry	I	42171104	Basic Principles & Laboratory Operations
Industrial Chemistry	I	42171107	Industrial Chemicals and Environment
App. Life Science with Agro Chemical & Pest Management	I	42171102	Animal Form, Structure and Function

**24<sup>th</sup> December, 2021 (Friday)**

Computer Science	I	42341102	Problem Solving using Computer
Electronics	I	42511101	Network Analysis and Analog Electronics

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SUBJECT	SEM.	UNIQUE PAPER CODE	DESCRIPTION
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**26<sup>th</sup> December, 2021 (Sunday)**

Industrial Chemistry	III	42174303	Industrial Chemistry-Inorganic Materials
App. Life Science with Agro Chemical & Pest Management	III	42174307	Biochemistry and Immunology
Mathematics	III	42354302	Algebra

**27<sup>th</sup> December, 2021 (Monday)**

Operational Research	I	42361102	Introduction to Operational Research and Linear Programming
Life Science	I	42231102	Animal Diversity

**28<sup>th</sup> December, 2021 (Tuesday)**

Life Science	III	42164301	Plant Anatomy and Embryology
Applied Life Science with Agro Chemical & Pest Management	III	42174302	Fundamentals of Plant Systematics and Ecology

**29<sup>th</sup> December, 2021 (Wednesday)**

Chemistry	I	42171103	Atomic Structure, Bonding, General Organic Chemistry & Aliphatic Hydrocarbons
Applied Life Science with Agro Chemical & Pest Management	I	42171111	Inorganic Chemistry

**30<sup>th</sup> December, 2021 (Thursday)**

Chemistry	III	42174304	Solutions, Phase Equilibrium, Conductance, Electrochemistry & Functional Group Organic Chemistry-II
Applied Life Science with Agro Chemical & Pest Management	III	42174306	Physical Chemistry

**Note: Discipline Specific Elective-1, 2 & 3 (As per student option)**

*The student shall appear in this paper based on alphabetical order. The colleges shall prepare their list of students appearing in the Discipline Specific Elective paper based on the alphabetic order of paper.*

- This is a special measure for academic session 2021-22 in view of the Covid-19-Pandemic.
- The duration for examination is three hours only and one hour can be taken in addition to three hours for downloading question papers and scanning, uploading Answer sheets. The Total duration shall be Four (04) hours. For the PWD students, the total duration shall be six (06) hours.
- All information related with datesheet like Modification, Updation etc. shall only be notified on official website of University of Delhi i.e. [www.du.ac.in](http://www.du.ac.in).
- Information given only on the University website i.e. [www.du.ac.in](http://www.du.ac.in). shall be considered official.

*Ajay Kumar*  
**O.S.D. (Examinations)**  
 Delhi, the 02<sup>nd</sup> November, 2021

*[Signature]*  
**Dean (Examinations)**  
 19/11/21