List of assignment for slow learners 2023-24:

Proper remedial classes for slow learners of PG courses were conducted and apart from this, Assignments were also provided to slow learners which help in improving their writing ability. The list of assignments is attached below:

M.Sc. Ist Year

Name	Assignment 1	Assignment 2	Assignment 3	Assignment 4
Payal kumbhkar	Molecular population genetic	Plague	Acylglycerol biosynthetic pathway and regulation.	Normal distribution.
	ELISA	The environmental protection act.	Application of enzyme immobilization.	Autoimmunity.
Prachi Sahu	Endoplasmic reticulum and transport	Aspergillosis and Blastomycosis	Lipid Extraction method	Median and mode
	Overview of gene control,	Wild life protection act	Whole cell immobilization	Transplantation immunology
Hricha sahu	Translation in eukaryotes	Anaerobic process	Enzyme inhibition	B cell generation, activation and differentiation
	Biology of cancer	Archaebacteria	Biosynthesis of aromatic amino acid	Test of goodness of fit
Durgesh	Golgi complex and transport	Virus	DNA sequencing	Correlation- types of correlation, degree of correlation
	Post trascriptional modification	Waste water treatment	Enzyme catalytic machanism -	T - cell
Hricha sahu	Biology of cancer	Archaebacteria	Biosynthesis of aromatic amino acid	Test of goodness of fit
	Translation in eukaryotes	Anaerobic process	Enzyme inhibition	B cell generation, activation and differentiation

M.Sc. II[nd] year

Name	Assignment 1	Assignment 2	Assignment 3
Archana	ELISA	Molecular Marker (AFLP, SSR, STS)	Insecticide Resistant Transgenic Plants (Bt toxin gene)
Bhogesh	Fluorescence spectroscopy	Gene silencing	Haploid plant generation from anther.
Garima	HPTLC	Protein engineering	Single cell culture
Vikrant Shukla	Sonication	cDNA library	Non bt like protienase inhibitor

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Project Report -

Biogenic Synthesis of Silver Nanoparticles Using *Mandevilla sanderi* leaf extract*:* A Green Approach

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ABSTRACT

It is well known that the silver nanoparticles were powerful candidate for antimicrobial activity and cancer therapy. To create AgNPs without using harmful chemicals, we used a natural method involving plant extracts. We focused on *Mandevilla sanderi*, a plant known for its medicinal properties. This plant contains substances like flavonoids and glycosides, which have been shown to fight inflammation and infections. So our aim is to find out if *Mandevilla sanderi* could be used to make effective AgNPs. By studying the se AgNPs, we hope to learn more about their potential as a natural antimicrobial agent.

Keywords: Mandevilla sanderi, Silver nanoparticles, Green (Biogenic) synthesis

A

Internal Project Report

On

"Green Synthesis of Silver Nanoparticles Using Leaf Extract of *Cucurbita moschata*"

Submitted to:-

Department of Biotechnology

GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG, CHHATTISGARH

(Erstwhile: Govt. Arts & Science College, Durg)

CPE Phase- III By UGC

Awarded Star College by DBT, New Delhi

Guided by:- Dinesh Kumar, Somendra Kumar

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Introduction

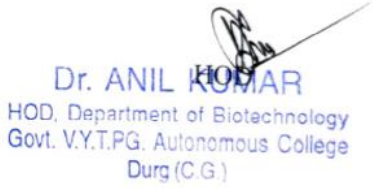
In Greek,"nano" denotes"relatively small" and"dwarf." The area of nanotechnology is constantly developing to produce particulars at the nanoscale. multitudinous trials are conducted to produce details with lower than 1mm. Nanotechnology is among the disciplines of material wisdom that are diligently involved. further and further people are taking notice of it, because of its benefactions to the natural lores, particularly widgets, and biotechnology, in all aspects of mortal actuality, which is evolving continuously. Green nanomedicine is of transnational significance. interest in treating a variety of ails. It's an area that deals with considering that medicinal sauces are needed as reactants in contemporary nanotechnology(Chung *et al.*,2016). In recent times, nanotechnology has attracted a lot of interest. In nanotechnology, nanoparticles are the introductory structure block. A distinct physical specific of the nanoparticles is characteristics at the nanoscale that differ from those of their corresponding patches at larger confines. Because of this miracle, the face area is comparatively lesser than the volume, the reactivity is advanced, or it bettered mechanical strength, chemical stability, etc. These attributes of nanoparticle operation led to colorful operations(Hasan S.,2015).

One definition of a nanoparticle is a small particle with at least one dimension smaller than 100 nanometers. Unlike bulk materials, they have distinct physical, chemical, thermal, electrical, and optical properties attributes. and hence they have a wide range of uses in agriculture, chemistry, medicine, energy, environment-heavy industry, communication, information, culture, and consumer products(Thakkar *et al*., 2010). The ability to measure, see, manipulate, and create objects on an atomic or molecular scaletypically one to 100 nanometersis known as nanotechnology. These little item is most significant characteristic, which accounts for their extensive use, is their high surface area to volume ratio. application of nanomaterials in environmental science, biotechnology, microbiology, electronics, optics, mechanics medicine, material science, remediation, and several engineering specialties(Christian *et a*l., 2008).

Nanoparticles vary in dimension, shape, and size, independent of their material. One-dimensional nanoparticles can have only one parameter, such as nanodots, or zero-dimensional ones, where the length, width, and height are all fixed at a single location. For instance, graphene is two-dimensional and possesses length and width, like carbon nanotubes for instance, gold is three-dimensional and contains all the extents of length, width, and height. nanoparticles(Holback *et al*.,2013). The size, shape, and structure of the nanoparticles vary. It might be tubular, cylindrical, or spherical, They can be uneven, conical, hollow core, spiral, flat,

etc., and range in size from 1 nm to 100 nm. The exterior can have surface differences that can be either uniform or uneven(Machado *et al*.,2015).

Nanoscale materials are now widely used in science and technology across multiple areas. Elevated material characteristics and transport capacity make the synthesis and nanoparticle applications. Nanoparticles (NPs) are structures with excellent performance that have several biological benefits (Pabari *et al*.2015).NPs differ from macroforms in their physical and chemical characteristics because of their tiny size and high volume ratio (Vijayaragahavan, K., & Ashokkumar, T., 2017). Because of their optical, catalytic, antibacterial, cytotoxic, and biocompatible properties, AuNPs have a lot of promise. Characteristics(Ding, X, Li,D., & Jiang, J,2020).



Initiative for Slow Learners of UG Courses of Biotechnology for Session: 2023-24:

Based on the performances of slow learners of UG courses in their internal assessment exams, formal remedial classes were organized for them followed by time bound assessments. The list, progress chart and attendance of slow learners is as given below:

B.Sc. Biotechnology Semester I/II

SNO.	Names of Students (Slow Learners)
1.	Keshav
2.	Rahul
3.	Tejashvi
4.	Deboshri

B.Sc. Biotechnology Semester III/IV

SNO.	Names of Students (Slow Learners)
1.	Sampad
2.	Palak
3.	Nilesh

B.Sc. Biotechnology Semester IIIrd Year

SNO.	Names of Students (Slow Learners)
1.	Yash Shah
2.	Gaurav Aditya

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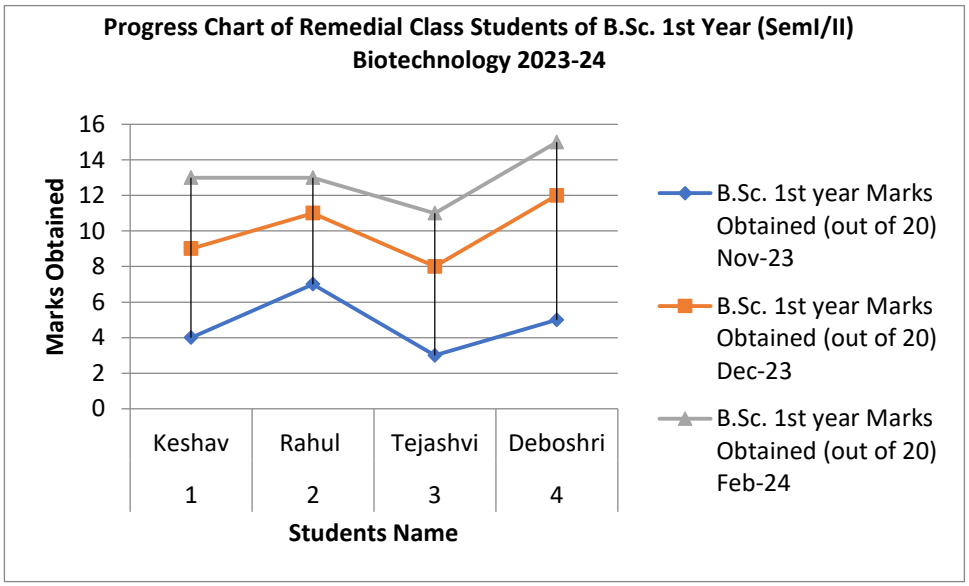
PROGRESS OF SLOW LEARNERS (Under Graduate)

(Based on Time bound Evaluation Tests)

B.Sc. 1st year

S No.	Name of B.Sc. 1st year Biotech. Students 2023-24	Marks Obtained (out of 20)		
		Nov-23	Dec-23	Feb-24
1	Keshav	4	9	13
2	Rahul	7	11	13
3	Tejashvi	3	8	11
4	Deboshri	5	12	15

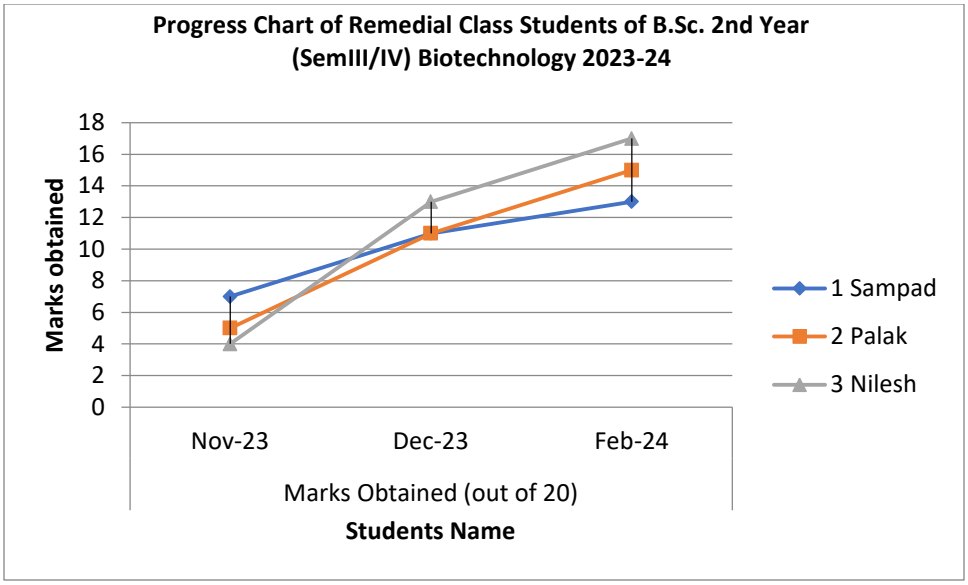


PROGRESS OF SLOW LEARNERS (Under Graduate)

(Based on Time bound Evaluation Tests)

B.Sc. 2nd Year (SemIII/IV)

S No.	Name of B.Sc. 2nd year Biotech. Students 2023-24	Marks Obtained (out of 20)		
		Nov-23	Dec-23	Feb-24
1	Sampad	7	11	13
2	Palak	5	11	15
3	Nilesh	4	13	17

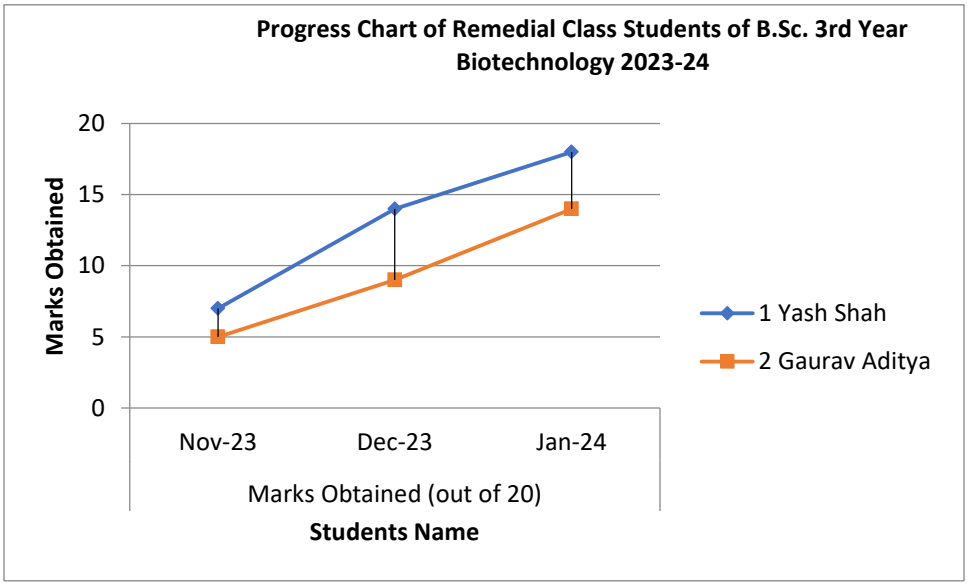


PROGRESS OF SLOW LEARNERS (Under Graduate)

(Based on Time bound Evaluation Tests)

B.Sc. 3rd Year

S No.	Name of B.Sc. 3rd year Biotech. Students 2023-24	Marks Obtained (out of 20)		
		Nov-23	Dec-23	Jan-24
1	Yash Shah	7	14	18
2	Gaurav Aditya	5	9	14



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