

Dept. of Chemistry

Certificate Course

2016-17

# SYLLABUS

S NO/ HOUR	TOPIC COVERED IN THE HOUR
1	Introduction of Nanotechnology
2	Nanotechnology of ancient times
3	Classification of nanomaterials
4	Synthetic methods of nanomaterials-Top down methods
5	Synthetic methods of nanomaterials-Bottom up methods
6	Synthetic methods of nanomaterials-Biological methods
7	Characterization of nanoparticles-UV-Visible spectroscopy, FTIR
8	EDX, SEM, TEM analysis
9	Physical properties of nanomaterials
10	Catalytic properties of nanomaterials
11	Antimicrobial studies of nanomaterials
12	Cytotoxicity of nanomaterials
13	nanocomposites
14	Metal oxide nanoparticles
15	Graphene
16	Nanoparticles in water treatment
17	Nanobiotechnology
18	Nanoparticles in electronic devices
19	Carbon Nanotubes
20	Dendrimers (Organic Nanoparticles)

S NO/ HOUR	TOPIC COVERED IN THE HOUR
21	Quantum Dots
22	Nanotechnology in Drug delivery – Therapeutic applications
23	Nanotechnology in Textiles
24	Lithography and Nanofabrication
25	Nanobots- Biological Applications
26	Green nanotechnology
27	Nanoglasses -Nano ceramics
28	Nanopolymers
29	Nanomedicine
30	Nanotoxicology challenges

# List of Students

Regd NO.	Name of the Students
716134805005	B. Ganga Parwathi
716134805022	N. Annapurna
716134805042	V. Mamatha
716134805004	B. Kiranmayi
716134805015	K. Sireesha
716134805021	N. Sridevi ChandraKala
716134805035	S. Lavanya
716134805003	A. Revathi
716134805006	B. Sravani
716134805007	B. Anusha
716134805011	G. Mary Rani
716134805017	K. Aruna
716134805029	R. Manjula
716134805032	SK. Dayesha
716134805041	V. Devi
716134805043	Y. Aruna Sri
716134805012	G. Simhachalam
716134805014	K. Prameela
716134805018	K. Parwathi
716134805027	R. Latha
716134805037	To. Roja Rani





VISAKHA GOVERNMENT DEGREE COLLEGE FOR WOMEN  
DEPARTMENT OF CHEMISTRY

ASSESSMENT TEST (2016-2017)

FUNDAMENTALS OF NANOTECHNOLOGY

max marks: 30

Time: 90 mins

SEC-A

5X3=15

Answer any five questions

1. Describe nanocatalysis.
2. Write about green nanotechnology.
3. Write about nanotechnology in ancient times.
4. Explain sputtering
5. Write about toxicology of nanomaterials.
6. What is the laser ablation method?
7. Write about XRD analysis.

SEC-B

5X3=15

Answer any three questions

1. Explain classification of nanomaterials.
2. Explain SEM, TEM characterization techniques of nanoparticles.
3. Write about applications of nanotechnology in medicine.
4. Describe biological methods for nanosynthesis.

# ASSESSMENT      RESULT

## Final Score.

S.No	Name of the Student	Marks obtained in written exam.
1	B. Ganga Parvathi.	25
2	N. Annapurna.	24
3	V. Mamatha.	24
4	B. Kiranmayi	26
5	K. Sireesha.	26
6	N. Sridevi Chaytrakala	25
7	S. Lavanya	24
8	A. Revathi	25
9	B. Bravani	27
10	B. Anusha	26
11	G. Mary Rani	24
12	K. Aruna	24
13	F. Maniula	25
14	S. Ayesha	26
15	V. Devi	24
16	Y. Aruna Sri	26
17	G. Simhachalam.	24
18	K. Prameela	26
19	K. Parvathi	24
20	R. Latha	26
21	T. Roja Rani.	27

## ASSESSMENT PROCEDURE

The Successful completion of the certificate course by the participants was determined on the basis of written examination which was conducted in the department for 30 marks. Students who have obtained 60% and above are declared as successful.



## Summary Report

Nano technology has greatly contributed to major advances in varied fields of science. The national nanotechnology initiative expects new commercial applications to be developed in the pharmaceutical industry.

Dept. of Chemistry

2017 - 2018

CERTIFICATE COURSE

FUNDAMENTALS OF

NANOTECHNOLOGY

# SYLLABUS

S NO/ HOUR	TOPIC COVERED IN THE HOUR
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9	Physical properties of nanomaterials
10	Catalytic properties of nanomaterials
11	Antimicrobial studies of nanomaterials
12	Cytotoxicity of nanomaterials
13	nanocomposites
14	Metal oxide nanoparticles
15	Graphene
16	Nanoparticles in water treatment
17	Nanobiotechnology
18	Nanoparticles in electronic devices
19	Carbon Nanotubes
20	Dendrimers (Organic Nanoparticles)

S.NO/ HOUR	TOPIC COVERED IN THE HOUR
21	Quantum Dots
22	Nanotechnology in Drug delivery – Therapeutic applications
23	Nanotechnology in Textiles
24	Lithography and Nanofabrication
25	Nanobots- Biological Applications
26	Green nanotechnology
27	Nanoglasses -Nano ceramics
28	Nanopolymers
29	Nanomedicine
30	Nanotoxicology challenges

# List of Students

Register Number	Name of the Student
717134805001	A. Balamma
717134805002	B. Prashanthi
717134805003	B. Hemalatha
717134805005	B. Sivamma
717134805006	B. Madhuri
717134805007	B. Triveni
717134805008	B. Sireesha
717134805010	Ch. Chandrika
717134805012	D. Jyothi
717134805013	G. Gayathri
717134805014	G. Veni
717134805019	K. Indumathi
717134805024	Md. Sana Parveen
717134805027	N. Sowmya Priyadarshini
717134805025	N. Kumari
717134805035	S. Gowthami
717134805036	T. Udaya Lakshmi
717134805037	V. Sowmya
717134805038	V. Saraswathi
717134805039	Y. Taraka Someswari





VISAKHA GOVERNMENT DEGREE COLLEGE FOR WOMEN  
DEPARTMENT OF CHEMISTRY

ASSESSMENT TEST (2017-2018)

FUNDAMENTALS OF NANOTECHNOLOGY

Time: 90 mins

max marks: 30

SEC-A

Answer any five questions

5X3=15

1. Write about nanotechnology in water treatment.
2. Write about nanotechnology in cosmetics.
3. Explain sol-gel synthesis
4. Write about Quantum dots.
5. Write about nanopolymers
6. Describe nanocatalysis.
7. Write about dendrimers

SEC-B

Answer any three questions

5X3=15

1. Explain classification of nanomaterials.
2. Explain EDX, XRD characterization techniques of nanoparticles.
3. Write about applications of nanotechnology in cancer treatment.
4. Describe top down methods for nanosynthesis.



## Summary Report:

Department of Chemistry  
organized certificate course on  
"Fundamentals of Nanotechnology"  
for the year 2017-18. I BSC (MPC)  
students (20 no.) enrolled in  
the course and participated in  
the programme from 03-08-2017  
to 13-09-2017 for 30 hours duration.

The assessment test was  
conducted on 15-09-2017, for  
30 marks with 90 minutes duration.  
All the students got through the  
examination.

Department of  
Chemistry

Certificate Course

2018 - 2019



**Visakha Govt. Degree College for Women**  
(NAAC REACCREDITED 'B' GRADE INSTITUTION)  
Old Jail Road, VISAKHAPATNAM 530 020, Andhra Pradesh

**DEPARTMENT OF CHEMISTRY**

**Certificate Course on**

**FUNDAMENTALS OF NANOTECHNOLOGY**

**OBJECTIVES:**

- Introduction to Nanotechnology
- Synthetic methods
- Characterization techniques
- Applications of Nanotechnology



**Course Coordinator**

**Smt.Ch.S.Anuradha**

Lecturer in Chemistry

**Faculty**

**Smt.Ch.S.Anuradha**

D.Sravani

**Course Director**

**Dr.S.Shobha Rani**

Principal

# SYLLABUS

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27	Nanoglasses -Nano ceramics
28	Nanopolymers
29	Nanomedicine
30	Nanotoxicology challenges

# List of Students

Regd No.	Name of the Student
718134805001	A. Hemalatha
718134805002	A. Jhansi Kumari
718134805003	B. Sirisha
718134805004	B. Divya
718134805007	Ch. D. Gayathri
718134805008	Ch. Lavanya
718134805009	D. Prasanna Kumari
718134805017	K. Mani
718134805024	M. Rama
718134805026	M. Sri Devi
718134805029	M. Keerthi
718134805031	P. Sai Prasanna
718134805032	P. Siva Kumari
718134805033	P. Prasanna
718134805036	S. Challyamma
718134805037	S. Lavanya
718134805038	T. Sai Supraja
718134805040	V. Sowjanya
718134805041	V. Ravalika
718134805042	V. Sunitha
718134805043	V. Hemalatha

# ATTENDANCE

S.No	Name of the Students	03/8/18	04/8/18	06/8/18	07/8/18	08/8/18	09/8/18	10/8/18	12/8/18	14/8/18	15/8/18	18/8/18	20/8/18	21/8/18	22/8/18	25/8/18	27/8/18	28/8/18	29/8/18	30/8/18
1.	A. Hemalatha	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
2.	A. Jhansi Kumari	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3.	B. Sirisha	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
4.	B. Divya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5.	Ch. D. Gayathri	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
6.	Ch. Lavanya	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
7.	D. Prasanna Kumari	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
8.	K. Mani	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
9.	M. Rama	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
10.	M. Sridevi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P
11.	M. Keerthi	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
12.	P. Sai. Prasanna	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P
13.	P. Siva Kumari	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
14.	P. Prasanna	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
15.	S. Challayamma	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16.	S. Lavanya	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17.	T. Sai Supraja	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
18.	V. Sowjanya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19.	V. Ravalika	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P
20.	V. Suritha	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
21.	V. Hemalatha	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P



VISAKHA GOVERNMENT DEGREE COLLEGE FOR WOMEN  
DEPARTMENT OF CHEMISTRY

ASSESSMENT TEST (2018-2019)

FUNDAMENTALS OF NANOTECHNOLOGY

Time: 90 mins

max marks: 30

SEC-A

Answer any five questions

5X3=15

1. Write about nanotechnology in ancient times.
2. Explain sputtering.
3. What is the laser ablation method?
4. Write about green nanotechnology.
5. Describe nanocatalysis.
6. Write about TEM analysis.
7. Write about Quantum dots.

SEC-B

Answer any three questions

5X3=15

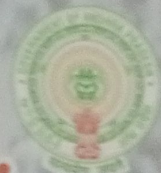
1. Explain UV-Visible, XRD characterization techniques of nanoparticles.
2. Write about applications of nanotechnology in water treatment.
3. Explain classification of nanomaterials.
4. Describe bottom up methods for nanosynthesis.



Dept. of Chemistry

Certificate Course

2019-20



# Visakha Govt. Degree College for Women

(NAAC REACCREDITED 'B' GRADE INSTITUTION)

Old Jail Road, VISAKHAPATNAM 530 020, Andhra Pradesh

## DEPARTMENT OF CHEMISTRY

### Certificate Course on

# FUNDAMENTALS OF NANOTECHNOLOGY

#### OBJECTIVES:

- Introduction to Nanotechnology
- Synthetic methods
- Characterization techniques
- Applications of Nanotechnology



Course Coordinator

Smt. Ch. S. Anuradha

Lecturer in Chemistry

Faculty

Smt. Ch. S. Anuradha

D. Sravani

Course Director

Dr. S. Shobha Rani

Principal

# SYLLABUS

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13	nanocomposites
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15	Graphene
16	Nanoparticles in water treatment
17	Nanobiotechnology
18	Nanoparticles in electronic devices
19	Carbon Nanotubes
20	Dendrimers (Organic Nanoparticles)

S.NO/ HOUR	TOPIC COVERED IN THE HOUR
21	Quantum Dots
22	Nanotechnology in Drug delivery – Therapeutic applications
23	Nanotechnology in Textiles
24	Lithography and Nanofabrication
25	Nanobots- Biological Applications
26	Green nanotechnology
27	Nanoglasses -Nano ceramics
28	Nanopolymers
29	Nanomedicine
30	Nanotoxicology challenges

# List of Students

Regd no.	Name of the student
719134805001	A. Pushpa
719134805002	B. Priyanka
719134805003	B. Malathi
719134805004	<del>B. Jyothi</del> B. Jyothi
719134805008	<del>B. Leela</del> D. Leela
719134805012	G. Uma
719134805013	G. Yamuna
719134805014	G. Jagadeswari
719134805017	K. Bhargavi
719134805018	K. Bharathi
719134805022	K. Lavanya
719134805023	L. Puja
719134805024	M. Dhana Lakshmi
719134805027	M. Indu
719134805028	M. Leela
719134805030	M. Hemalatha
719134805031	M. Swathi

Regd No.	Name of the student
719134805032	M. Ramalakshmi
719134805034	N. Charani
719134805036	P. Satya
719134805038	P. Aamani
719134805042	R. Nirmala
719134805043	R. Lakshmi
719134805044	R. Madhuri
719134805045	R. Sai Zalneetha Sri
719134805046	S. Sravani
719134805047	S. Ester Rani
719134805048	Sheik Shahida
719134805051	T. Suneetha
719134805054	V. Geetha Bhavani
719134805055	V. Vani
719134805056	V. Ramya Sri
719134805057	V. Anuradha



S.NO.	Name of the Student	7/8/19	8/8/19	12/8/19	13/8/19	14/8/19	16/8/19	19/8/19	20/8/19	21/8/19	22/8/19	26/8/19	27/8/19	28/8/19	29/8/19	30/8/19	03/9/19	04/9/19	05/9/19
21	P. Aamani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	R. Nirmala	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
23	R. Lakshmi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P
24	R. Madhuri	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	R. Sai Zaineetha Sri	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	S. Sravani	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
27	S. Ester Rani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
28	Sheik Sahida	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
29	T. Suneetha	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
30	V. Geetha Bhavani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
31	V. Vani	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
32	V. Ramya Sri	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	V. Anuradha	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P





S.No	Name of the Student	06/11	07/11	08/11	12/11	13/11	14/11	16/11	17/11	18/11	19/11	20/11	21/11
21	P. Aamani	P	P	P	P	P	P	P	P	P	P	P	P
22	R. Nirrnala	P	P	A	P	P	P	P	P	P	P	P	P
23	R. Lakshmi	P	P	P	A	P	P	P	P	P	P	P	P
24	R. Madhuri	P	P	P	P	R	P	A	P	P	P	P	P
25	R. Sai Zaineetha Sri	P	P	P	P	P	A	P	P	P	P	P	P
26	S. Sravani	P	P	P	P	P	P	P	P	A	P	P	P
27	S. Ester Rani	P	P	P	P	P	P	A	P	P	P	P	P
28	Sheik Sahida	P	P	P	A	P	P	P	P	P	P	P	P
29	T. Suneetha	P	P	P	P	P	P	P	P	P	P	P	P
30	V. Geetha Bhavani	P	P	P	P	A	P	P	P	P	P	P	P
31	V. Vari	P	P	P	P	P	P	P	P	P	P	P	P
32	V. Ramya Sri	P	P	P	P	P	P	P	P	P	P	P	P
33	V. Anuradha	P	P	P	P	P	P	P	A	P	P	P	P

VISAKHA GOVERNMENT DEGREE COLLEGE FOR WOMEN  
DEPARTMENT OF CHEMISTRY

ASSESSMENT TEST (2019-2020)

FUNDAMENTALS OF NANOTECHNOLOGY

Time: 90 mins

max marks: 30

SEC-A

Answer any five questions

5X3=15

1. Define nanotechnology.
2. Explain chemical vapour deposition
3. What is the sol-gel method?
4. Write about green nanotechnology.
5. Explain nanocatalysis.
6. Write about SEM analysis.
7. Write about graphene.

SEC-B

Answer any three questions

5X3=15

1. Explain any two characterization techniques of nanoparticles.
2. Write about applications of nanotechnology in medicine
3. Describe top down methods for nanosynthesis.
4. Explain classification of nanomaterials.

ASSESSMENT RESULT.

Final score.

S.No	Name of the Student	Markk Obtained in written exam.
1.	A. Pushpa.	26
2.	B. Priyanka.	27
3.	B. Malathi	26
4.	B. Jyothi	25
5.	D. Leela	28
6.	G. Uma	28
7.	G. Yamuna	27
8.	G. Jagadeswari	24
9.	K. Bhayyathi	25
10.	K. Bhavathi	27
11.	K. Lavanya	26
12.	K. Puja	24
13.	M. Dharmalakshmi	25
14.	M. Indu	26
15.	M. Leela.	25

S.NO	Name of the Student	Mark Obtained in written exam
16.	M. Hemalatha	28
17.	M. Swathi	28
18.	M. Ramalakshmi	27
19.	N. Charani	24
20.	P. Satya	25
21.	P. Aamani	28
22.	R. Nirmala	28
23.	R. Lakshmi	27
24.	R. Madhuri	25
25.	R. Sai Zaineeetha Sri	26
26.	S. Sowani	24
27.	S. Ester Rani	25
28.	Sheik Sahida	26
29.	T. Suneetha	27
30.	V. Geetha Bhavani	27
31.	V. Vani	25
32.	V. Ramya Sri	24
33.	V. Anuradha,	24

## Summary Report.

nano technology has greatly contributed to major advances in various fields of science. The national nanotechnology initiative expects new commercial applications to be developed in the pharmaceutical industry.

This course "Fundamentals of Nanotechnology" has been introduced by the Dept. of Chemistry with the following objectives.

- i, Students get expertise on the basic science involved in the wide applications of nano materials.
- ii, This course would provide insight into the deep understanding of nano materials and students would be motivated to pursue higher education and research in nano science.
- iii, Students get the employability in chemical industries.

Written exam for 30 marks has been conducted at the end of the course to assess the outcomes where in all students attempted the assessment and completed the course successfully.

Ch. S. Anuradha  
[Ch. S. ANURADHA]  
Lecturer in Chemistry.

Dept. of Chemistry

Certificate Course

2020 - 2021



# Visakha Govt. Degree College for Women

(NAAC REACCREDITED 'B' GRADE INSTITUTION)

Old Jail Road, VISAKHAPATNAM 530 020, Andhra Pradesh

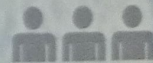
## DEPARTMENT OF CHEMISTRY

### Certificate Course on

# FUNDAMENTALS OF NANOTECHNOLOGY

#### OBJECTIVES:

- Introduction to Nanotechnology
- Synthetic methods
- Charecterization techniques
- Applications of Nanotechnology



Course Coordinator

Smt.Ch.S.Anuradha

Lecturyr in Chemistry

Faculty

Smt.Ch.S.Anuradha

D.Sravani

Course Director

Dr.S.Shobha Rani

Principal

# SYLLABUS

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11	Antimicrobial studies of nanomaterials
12	Cytotoxicity of nanomaterials
13	nanocomposites
14	Metal oxide nanoparticles
15	Graphene
16	Nanoparticles in water treatment
17	Nanobiotechnology
18	Nanoparticles in electronic devices
19	Carbon Nanotubes
20	Dendrimers (Organic Nanoparticles)



S NO/ HOUR	TOPIC COVERED IN THE HOUR
21	Quantum Dots
22	Nanotechnology in Drug delivery – Therapeutic applications
23	Nanotechnology in Textiles
24	Lithography and Nanofabrication
25	Nanobots- Biological Applications
26	Green nanotechnology
27	Nanoglasses -Nano ceramics
28	Nanopolymers
29	Nanomedicine
30	Nanotoxicology challenges

## STUDENT

S.NO.	Regd No.	Name of the Student	Group
01.	A.N.S.V.Lakshmi	Aripaka.N.S.V.Lakshmi	IBSc. MPC
02.	720134805005	Arli. Mounika	IBSc MPC
03.	720134805013	chappa uha	IBSc MPC
04.	720134805023	Gorle Ranjitha	IBSc MPC
05.	720134805024	Gudivada yerramma	IBSc MPC
06.	720134805047	Polipalli Sai sindhu	IBSc MPC
07.	720134805050	Rajana yesturi	IBSc MPC
08.	720134805051	Rambha satya	IBSc MPC
09.	720134805056	singampalli <sup>sandhya</sup> satya	IBSc MPC
10.	720134805062	Yedla Adiseshu	IBSc MPC
11.	720134805127	Kolipaka Grace Mary	IBSc BZC
12.	720134805136	Pinninti Geethanjali	IBSc BZC
13.	720134805139	Rongala Nagalakshmi	IBSc BZC
14.	720134805143	Surada Korlaveni	IBSc BZC
15.	720134805146	Yajjala Neelima	IB.Sc BZC
16.	720134805150	Bonu Mangamma	IBSc BBC
17.	720134805151	Bonu Swapna	IBSc BBC
18.	720134805156	Konduri Thanuja	IBSc. BBC
19.	720134805163	Sheik Afreen	IBSc. BBC
20.	720134805165	Sonkara Sree Lakshmi	IB.Sc. BBC
21.	720134805175	Schittapuli Sreelatha	IB.Sc MBC
22.	720134805178	Gantā Sai Lakshmi	IB.Sc. MBC
23.	720134805186	Masavarapu Renuka	IB.Sc MBC
24.	720134805193	Seemala Sindhuri	IB.Sc. MBC

SN	Regd No:	Name of the student
25.	720134805195	Udralla Tyothshna Sri
26.	720134805202	Golagani Chakrika yodan
27.	720134805203	Gollari Divya
28.	720134805206	Killo Chandini
29.	720134805213	Pandi Divyamanjula
30.	720134805215	Pothala Uma
31.	720134805218	Siveri Jayasri
32.	720134805207	Killo Kalpana Devi
33.	720134805216	Pulakala Shilpa
34.		Muddani Sri Ranjitha

Group
I B.Sc. MBC
I B.Sc. BHC
I B.Sc. BHC
I B.Sc. BHC
I B.Sc. BHC
I B.Sc. BHC
I B.Sc. BHC
I B.Sc. BHC
BSc-I BHC
BSc-I BHC





VISAKHA GOVERNMENT DEGREE COLLEGE FOR WOMEN  
DEPARTMENT OF CHEMISTRY  
ASSESSMENT TEST 2020-2021  
FUNDAMENTALS OF NANOTECHNOLOGY

Time: 90 mins  
Max Marks: 30

SECTION A

Answer any five questions

5x3 = 15

1. Define Nanotechnology.
2. What are quantum dots.
3. Explain X ray diffraction.
4. Write a short note on fullerenes and carbon nanotubes.
5. Write about grapheme.
6. Write the classification of nanomaterials.
7. Write a short note on nano thin films.

SECTION B

Answer any three questions

3x5=15

1. Explain top down and bottom up approach.
2. Write about SEM analysis.
3. Explain Sol gel method.
4. Write about the applications of nonmaterials in medicine.
5. Write about the applications of nanomaterials in industry.

ASSESSMENT RESULT

S.NO	Name of the student	Marks obtained in written exam
1	A.N.S.V. Lakshmi Prasanna	26
2	Arli. Mounika	24
3	Chappa. Uha	26
4	Gi. Ranjitha	25
5	Gi. Yerramma	24
6	p. Sai Sindhu	28
7	Rajana. Yestuni	28
8	Rambha. Satya	24
9	Singampalli Sandhya	25
10	Y. Adishesu	26
11	K. Gracemary	26
12	P. Greethanjali	24
13	R. Nagalakshmi	28
14	S. Koslaveni	28
15	Y. Neelima	25
16	B. Mangamma	24
17	B. Swapna	26
18	K. Thanuja	28
19	Sk. Afreen	28

S.No	Name of the student	Marks obtained written exam
20,	S. Sreelakshmi	26
21,	Ch. Sreelatha	24
22,	G. Sai lakshmi	25
23,	M. Renuka	24
24,	S. Sindhuri	26
25,	V. Jyoshshna sri	25
26,	G. Chakrika yadav	28
27,	G. Divya	28
28,	K. Chandini	28
29,	P. Divya Manjula	24
30,	P. Uma	26
31,	S. Jayasri	24
32,	K. Kalpana Devi	26
33,	P. Shilpa	25
34,	M. Sri Ranjitha	25



# Summary Report

Nano technology has greatly contributed to major advances in varied fields of science. The national nanotechnology initiative expects new commercial applications to be developed in the pharmaceutical industry.

This course "Fundamentals of nanotechnology" has been introduced by the Dept. of Chemistry with the following objectives.

i Students get the expertise on the basic science involved in the wide application of nanomaterials.

ii This course would provide insight into the deep understanding of nanomaterials and students would be motivated to pursue higher education and research in nanoscience.

iii Students get the employability in chemical industries.

Summary Report

Written exam is conducted for 30 min  
to assess the outcome where in all  
students attempted the assessment  
and completed the course successfully.

[ Ch. S. ANURADHA  
Lecturer in Chemistry