

DEPARTMENT OF ELECTRONICS

Anand Niketan College, Anandwan, Warora - 442 914

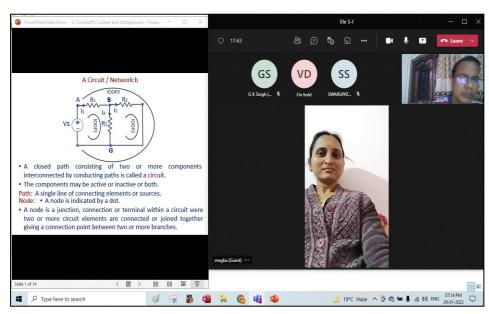


HOD: Dr. G. K. Singh, Cell: 9075322625, Email: ugclasses@gmail.com

ICT FACILITIES FOR TEACHING-LEARNING



- > Department is well equipped with ICT facilities for effective teaching-learning
- ➤ In addition to View Sonic Projector, it has Cybernetix Eyeris Ix series, Intractive Device Unit installed that makes whiteboard interactive
- ➤ It has high speed fibre cable internet facility
- ➤ It has six computers and four of them relate to internet
- ➤ Departmental faculty members use Microsoft Teams and Google Meet for online teaching-learning



Online teaching-learning with Microsoft Teams

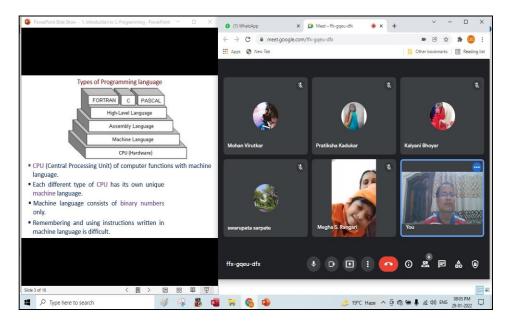


DEPARTMENT OF ELECTRONICS





HOD: Dr. G. K. Singh, Cell: 9075322625, Email: ugclasses@gmail.com



Online teaching-learning with Microsoft Teams

LINK FOR LECTURE VIDEOS AND PDF FILES

- Digital Book link for B. Sc. Electronics Sem-V P-II: https://ancollege.edu.in/wp-content/uploads/2022/07/C-Learning-E-Content-Module-for-B.-Sc.-Electronics-S-V.pdf
- 2. Digital Practical Book link for B. Sc. Electronics Sem-V: https://ancollege.edu.in/wp-content/uploads/2022/07/C-Practical-Learning-E-Content-Module-for-B.-Sc.-Electronics-S-V.pdf
- 3. Digital Book link for B. Sc. Electronics Sem-VI P-II: https://ancollege.edu.in/wp-content/uploads/2022/07/C-Learning-E-Content-Module-for-B.-Sc.-Electronics-S-VI.pdf
- 4. S-III P-I U-I PDF Files
- S-III P-I U-II PDF Files
 https://drive.google.com/drive/folders/1eTj-J1GYNAbXPwSr9hjbRmdEG3h1v7Ox?usp=sharing
- 6. S-I P-I U-I PDF Files https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-I-P-I-U-I.pdf
- 7. S-II P-II U-I PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-II-P-II-U-I.pdf



DEPARTMENT OF ELECTRONICS

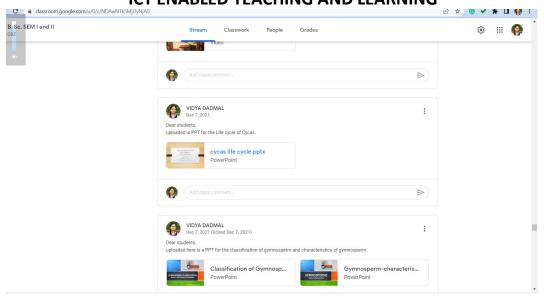
Anand Niketan College, Anandwan, Warora - 442 914



HOD: Dr. G. K. Singh, Cell: 9075322625, Email: ugclasses@gmail.com

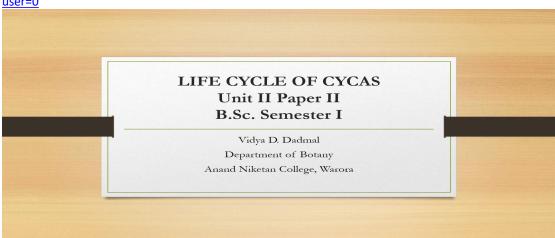
- 8. S-II P-II U-II PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-II-P-II-U-II.pdf
- 9. S-III P-I U-I PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-III-P-I-U-I.pdf
- 10. S-III P-I U-II PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-III-P-I-U-II.pdf
- 11. S-IV P-II U-I PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-IV-P-II-U-I.pdf
- 12. S-IV P-II U-III PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-IV-P-II-U-III.pdf
- 13. S-IV P-II U-IV PDF File https://ancollege.edu.in/wp-content/uploads/2022/07/B.-Sc.-Ele.-S-IV-P-II-U-IV.pdf
- 14. C&C++ Certificate Course PDF File https://ancollege.edu.in/wp-content/uploads/2022/06/C-C-Certificate-Course.pdf

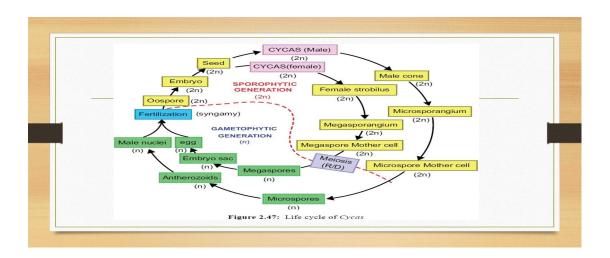
ANAND NIKETAN COLLEGE, ANANDWAN DEPARTMENT OF BOTANY ICT ENABLED TEACHING AND LEARNING



Link for Uploaded PPT:

 $\frac{https://drive.google.com/file/d/100HdoGTXz6BAK3vWkfxqpRIIE78NzTyR/view?usp=drive_web\&auth_user=0$





ANAND NIKETAN COLLEGE, ANANDWAN DEPARTMENT OF BOTANY ICT ENABLED TEACHING AND LEARNING

VEGETATIVE REPRODUCTION

- By bulbils
- > The bulbils develop from the axil of the scaly leaves.
- Several scaly leaves are arranged spirally and compactly over a dormant stem in a bulbil.
- On detachment from the stem, a bulbil starts germination by producing many roots towards the lower side and a leaf towards the upper side.





Morphology of Cycas plant

- > Cycas is a palm-like, evergreen plant.
- The plant body consists of a columnar aerial trunk with a crown of pinnately compound leaves as its top.
- Root in Cycas are of two type: normal tap root system and coralloid roots
- The stem is thick, woody and usually unbranched. It is tuberous when young but columnar, erect and stout at maturity.
- Dimorphic leaves: green, assimilatory or foliage leaf and scaly leaves or cataphyllus.



SEXUAL REPRODUCTION

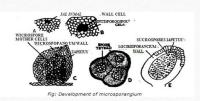


Male Cone (Cycas)

> Cycas is the only genus of Cycadaceae which does not produce any female cone. Instead, several megasporophylls arise spi-rally in acropetal succession around the stem apex of the female plant.

ANAND NIKETAN COLLEGE, ANANDWAN **DEPARTMENT OF BOTANY** ICT ENABLED TEACHING AND LEARNING

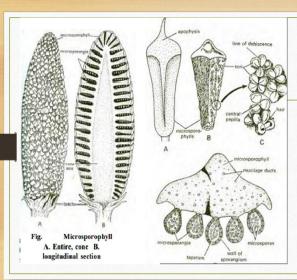




Few hypodermal sporangial initial divide periclinally to form outer primary wall and inner sporogenous cell. Outer primary wall produce 5-6 cell thick wall of sporangium.

Sporogenous cell further divide and develop into microspore mother cell.

MMC undergo meiosis division produce haploid microspores or pollen grains arranged tetrahedrally. Tapetum utilized for spore formation,



Microsporophyll are flat ,leaf like, woody and brown color structures with narrow base and expanded upper portion which become pointed

called apophysis
On adaxial surface ridge like projection is present On abaxial surface microsporangia is present in

Each such group is called sorus.

In between these group hair like structure is present.

Oval or sac like microsporangia is surrounded by 5-6 layers(outer epidermis or exothecium, middle inner wall cell, innermost is tapetum)

Many pollen grain present in microsporangium. Expanded region of microsporophyll mucilaginous canal and vascular bundles are

Female cone



True female cone is absent in Cycas Megasporophyll are loosely arranged in crown On the apex of the main stem the megasporophylls arises in an acropetal succession.

Megasporophyll in Cycas are produce only once in year

ANAND NIKETAN COLLEGE, ANANDWAN **DEPARTMENT OF BOTANY** ICT ENABLED TEACHING AND LEARNING

Structure of ovule

Orthotropous, unitegmic and shortly stalked. Single integument is thick and cover the ovule all side except a mouth like opening called micropyle.

Integument consist 3 layer: outer called sarcotesta, middle called sclerotesta, inner.

Nucellus grows out into a beak like portion, certain cell of the top of nucellus dissolve and form pollen chamber.

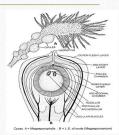
Nucellus is reduced in the form of a thin papery layer in mature seeds

enclose the massive female gametophyte.

Embryo sac/ megaspore present within nucellus.

The endosperm form by the repeated division of the megaspore nucleus followed by free cell formation.

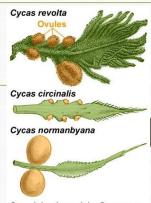
Just below the pollen chamber is present an archegonial chamber.



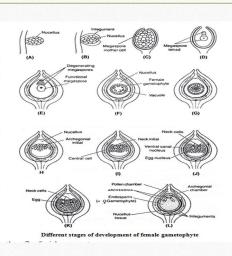
Megasporophyll

Each megasporophyll is modified foliage leaf. It is flat body consisting an upper dissected or pinnate leafy portion, middle ovule-bearing portion and proximal petiole.

The are green when young but at maturity they are fleshy and bright orange or red-colored



Cycadales (cycads) - Cycas spp. megasporophylls ("carpels"). From: Zimmermann (1930), Die Phylogenie der Pflanzen, Verlag von Gustav Fischer, Jena Drawing: Karsten. Colorization: Leubner. © 2007 Gerhard Leubner - The Seed Biology Place - www.seedbiology.de

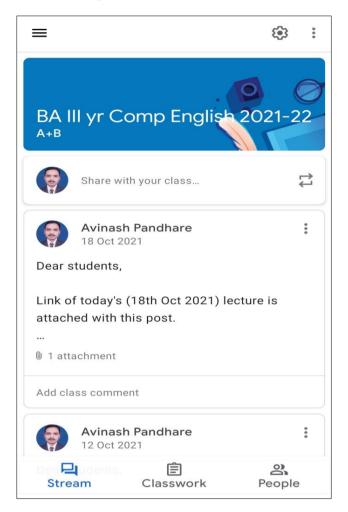


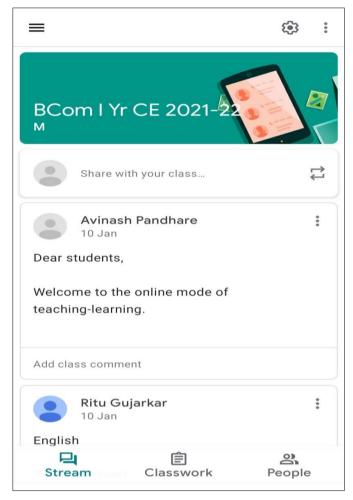
- In nucellus regions the nucleus of the cell enlarge
- Its cytoplasmic contents become dense and it also increase in size.
- This cell represents the megaspores mother cell, which undergo meiosis to form four haploid megaspores arranged in a linear tetrad.
- Out of these four megaspores, the upper three present towards the micropylar end degenerate, leaving only the lowermost functional megaspore or embryo sac cell.
- This is the first cell of gametophyte.
- The archegonia develop from the gametophytic cells lining the archegonial chamber towards the micropylar end.
- Any cell enlarge in size and functions as archegonial initial which later on after repetitive division develops into archegonium.

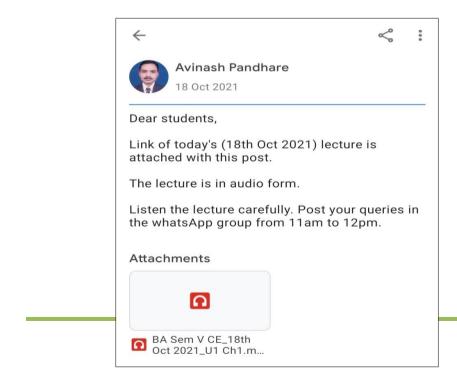
Use of ICT in Teaching – 2021-22

-Dr. Avinash L. Pandhare

A. Google Classroom

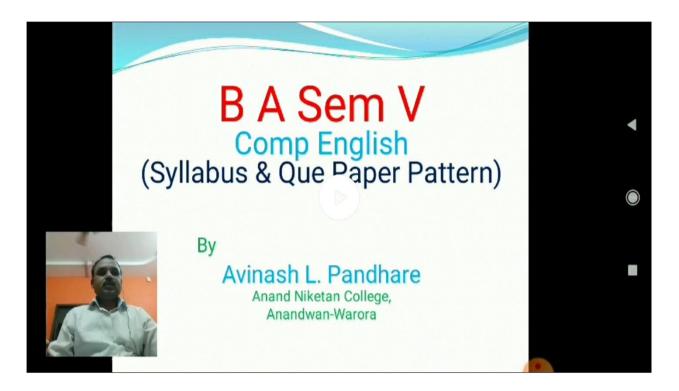


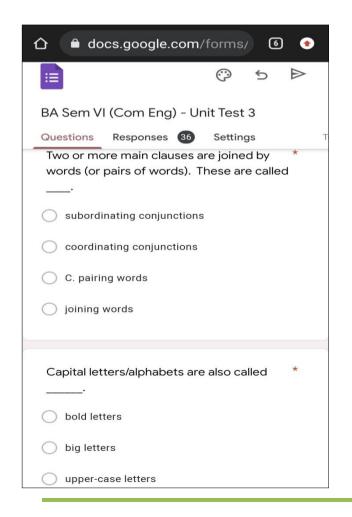


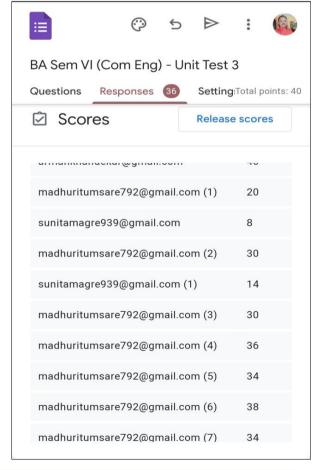


Dr. Avinash L. Pandhare

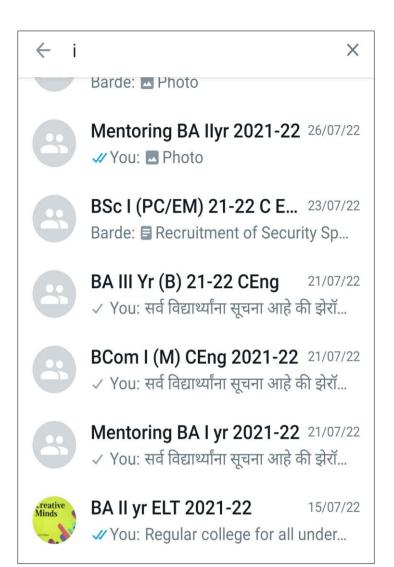
B. Online Lecture and Unit Test

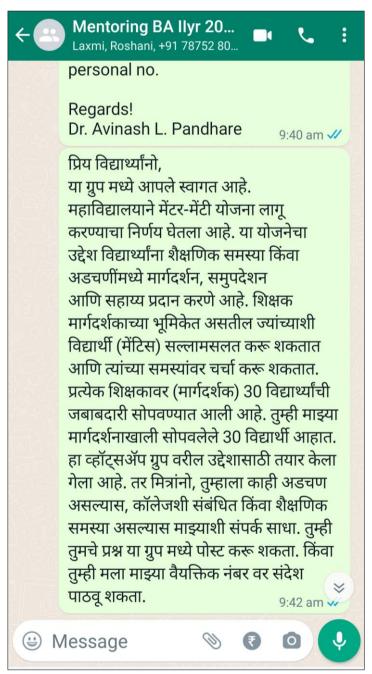


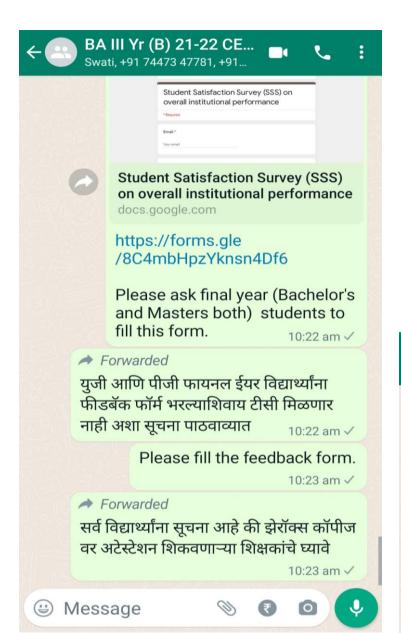


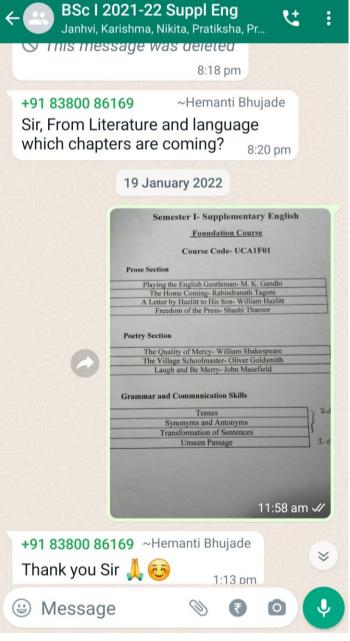


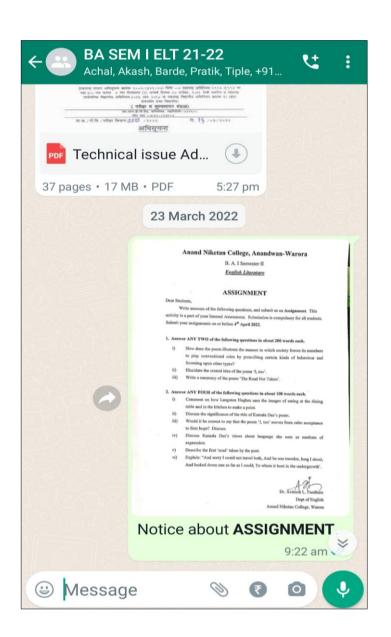
C. Use of Whatsapp

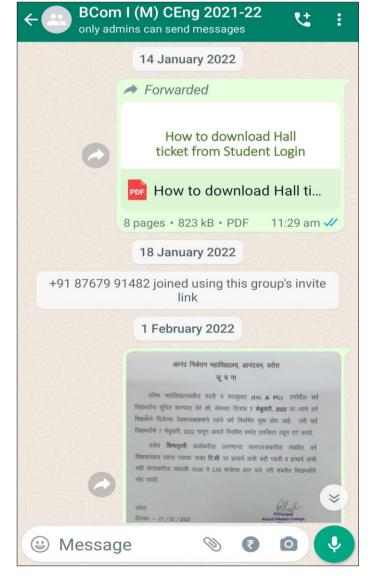








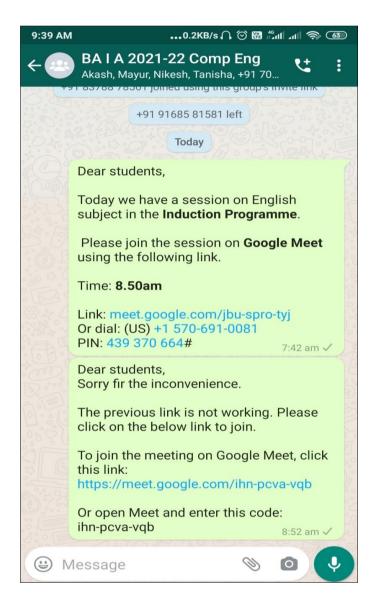


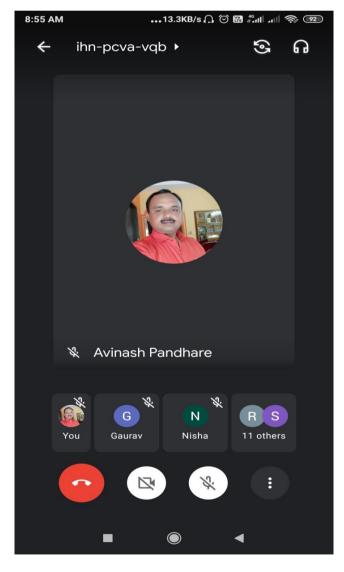


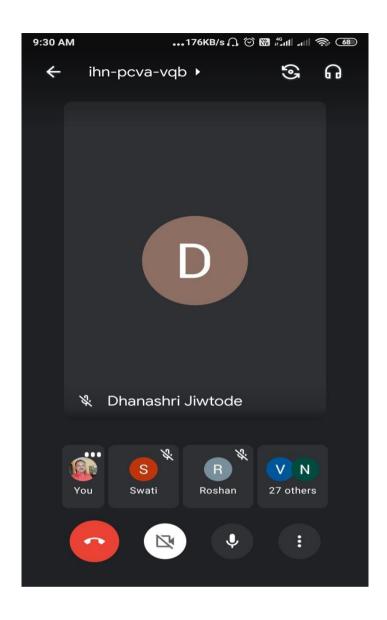
Induction Programme

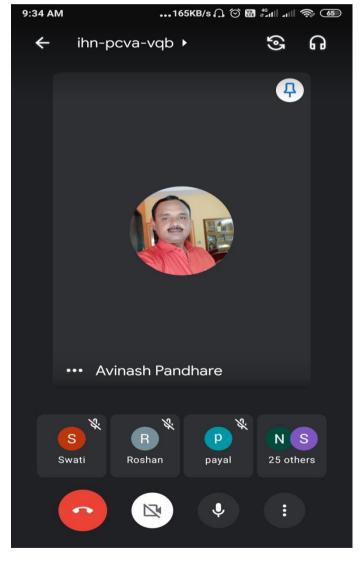
-Dr. Avinash L. Pandhare

BA Sem I (A) – 2021-22











BA sem III ELT... 😥 : 三



Add class comment



Lecture 2 on the man in black

0 2 attachments

Add class comment



Sandesh Tiple 23 Oct 2021



0 1 attachment

Add class comment



Sandesh Tiple

9 Oct 2021

8th Lecture on Of Studies

1 attachment









UNIT I (A) Hydrides Of Boron STRUCTURE AND BONDING IN BORAZINE

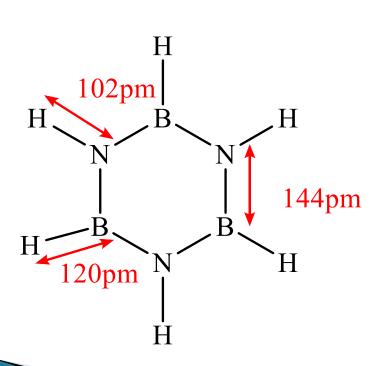
Saroj Sahare Assistant Professor Anand Niketan College, Warora

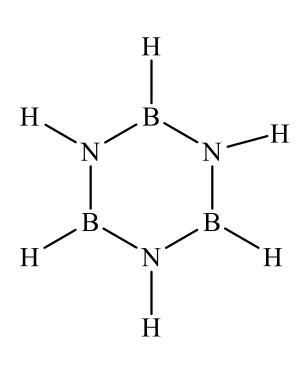
Borazine (Inorganic Benzene)

- Formula: $B_3H_6N_3$
- Polar inorganic compound
- Cyclic structure
- ▶ Alternate three BH units and three NH units
- Isoelectronic with Benzene
- Isostructural with Benzene
- Borazine is a colourless liquid
- Aromatic smell
- ► Aromatic compound

Borazine (Inorganic Benzene)

Formula: $B_3H_6N_3$





Characteristics of Aromatic Compounds

- A delocalized conjugated π system
- Coplanar structure
- Cyclic nature
- A number of deloclized electrons that is $(4n+2\pi)$ electrons this is known as Huckel rule.

Aromatic compound

- Benzene
- Cyclic

$$H \xrightarrow{C} C \xrightarrow{C} H$$

$$H \xrightarrow{C} C \xrightarrow{C} H$$

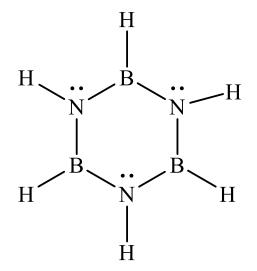
- Planarн
- $(4n+2\pi)$ rule

$$\sigma \text{ bond} = 6 (C-C) + 6(C-H)$$

$$\Pi$$
 bond = 3

$$\Pi e = 6$$

- Borazine
- Cyclic
- Planar



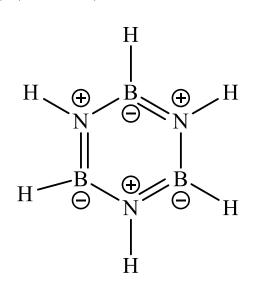
• $(4n+2\pi)$

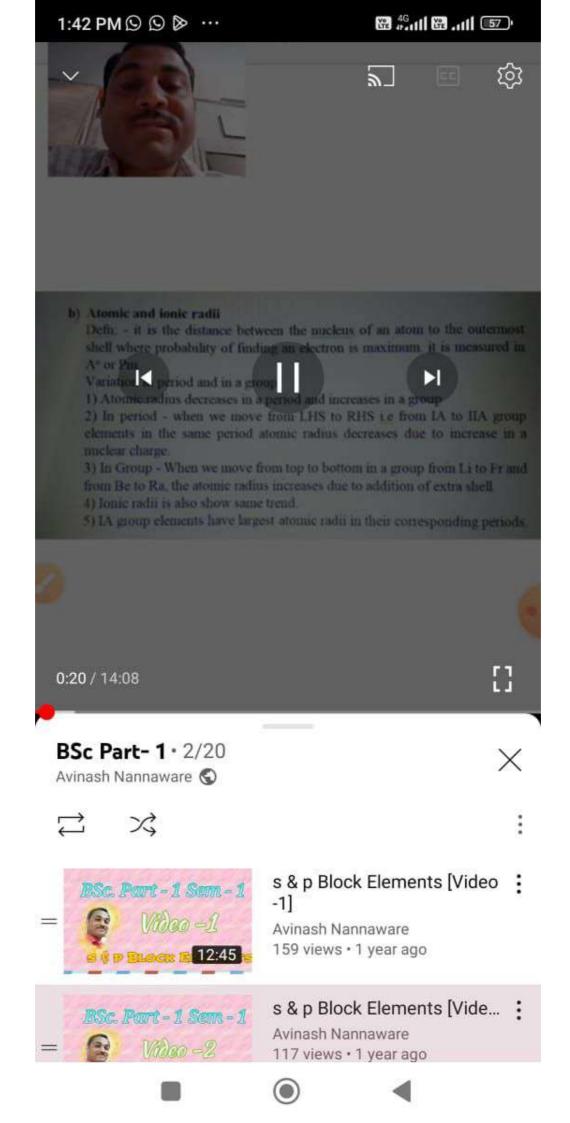
$$\sigma$$
 bond = 6 (3B-H)(3N-H)

$$+6 (B-N)$$

$$\Pi$$
 bond = 3

$$\Pi e = 6$$









 \leftarrow

2

Q

:



Electrochemistry [Video - : 10]

Avinash Nannaware 70 views • 1 year ago



Electrochemistry [Video -11]

Avinash Nannaware 73 views • 1 year ago



Electrochemistry [Video - : 12]

Avinash Nannaware 59 views • 1 year ago



Electrochemistry [Video - : 9]

Avinash Nannaware 82 views • 1 year ago



Electrochemistry [Video - : 8]

Avinash Nannaware 91 views • 1 year ago



Electrochemistry [Video -7]

Avinash N

Avinash Nannaware 81 views • 1 year ago

BSc. Part -3 Sem - 5

Electrochemistry
[video-6]













B.Sc. Sem-V Unit-II-Magnetic Properties of Matter

Dr. Nilesh S. Ugemuge

Syllabus-(UNIT-II -12L)

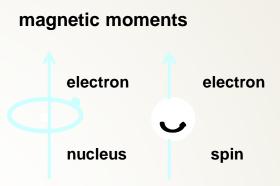
- Magnetic Properties of Matter: Dia-, Para-, Ferri- and Ferromagnetic Materials.
- Classical Langevin theory of Dia– and Paramagnetic Domains.
- Quantum Mechanical Treatment of Paramagnetism,
- Curie's law,
- Weiss's Theory of Ferromagnetism and Ferromagnetic Domains,
- Discussion of B-H Curve, Hysteresis and Energy Loss.

Why Magnetism?



Introduction(Origin of Magnetism)

- Macroscopic properties (Magnetic) are the result of electron magnetic moments.
- Moments come from 2 sources:
- Orbital motion around a nucleus
- Spinning around an axis



- *The net magnetic moment for an atom is the sum of the magnetic moments of constituent electrons.
- Atoms with completely filled electron shells does not contribute to magnetic moment of the atom.
- The main contribution to magnetism comes fro the spin of the unpaired valence electrons.

Applications of Magnetic Materials

- □ Soft Magnetic Materials Ferromagnetic materials are often used to enhance the magnetic flux density (B) produced when an electric current is passed through the material. Applications include cores for electromagnets, electric motors, transformers, generators, and other electrical equipment.
- Data Storage Materials Magnetic materials are used for data storage.
- Permanent Magnets Magnetic materials are used to make strong permanent magnets
- Power The strength of a permanent magnet as expressed by the maximum product of the inductance and magnetic field.

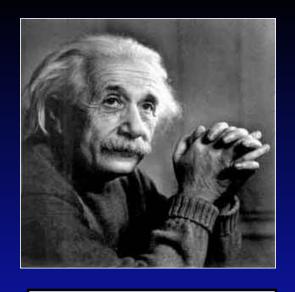
UNIT IV - LASER

Kalyani Vitthal Atram Assistant Professor, Department Of Physics, Anand Niketan College, Anandwan, Warora

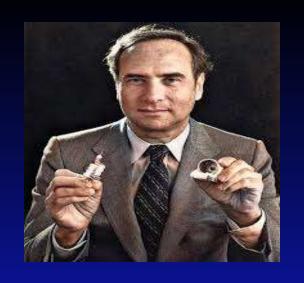


LASER

Light Amplification by Stimulated Emission of Radiation.







The idea of laser is based on Albert Einstein theory of light.

Laser was developed first time by Gordon Gould in 1957

The first Laser was fabricated by Maiman in 1960

PROPERTIES OF LASER

- Coherence
- Directionality
- Intensity
- Monochromaticity

ICT Teaching Learning

1. S. A. Shah	https:/	/youtu.be	/m-krLYvsP98

2. A. P. Wakulkar - https://youtu.be/FRY2T1fpDX8

https://youtu.be/pYWRotD_-3I

3. D. S. Panchbhai https://youtu.be/wXVPVD6Aq0Y

4. S. M. Parkhi https://youtu.be/V684JF12pHw

5. S. P. Sahare https://youtu.be/RYRIGLydvgl

6. P. P. Bhukya https://youtu.be/-x_T29fQo1o

7. A. M. Nannaware https://youtu.be/Prg2ZnuzDa0

8. N. S. Ugemuge https://youtu.be/FlGqEZmipUA

http://meet.google.com/nqm-xdom-ftv

9. K. V. Atram https://classroom.google.com/c/MTE2Nzc2Mjk3NjQ2?cjc=cjj6ggp

https://youtu.be/wGbN46-UINo

10. H. Parchake https://youtu.be/Wy4jHiCKwuw

11. Dr. A.A.Mistry https://meet.google.com/vqq-toyf-zdp

12.Mr. S. G.Rathod http://meet.google.com/gjg-oapa-ijk

13. Dr. Prasant Wagh

https://drive.google.com/file/d/1rEMjDP4aODOh2WV0DiQl3UytR8 5zZID/view?usp=sharing

https://drive.google.com/file/d/1Furr kyTHnzRm-rMTU-tbwPph5-Tw5Gh/view?usp=sharing

14. Dr. A.P. Sawane https://youtu.be/5wx0-NvBHys

15.Dr.N.K.Patil

https://us04web.zoom.us/j/72189389167?pwd=NG14K3pPelJQTmVRRzBpMUJ2Rjk4UT09

16. Mr. Hemant Parchake https://youtu.be/t39G-xU5ges

17. Mr. Tilak Dboble https://youtu.be/nMxk9o-58Eo

18. Dr. R.R.Kamdi

 $\frac{\text{https://drive.google.com/file/d/1vaTDnOi1v6SM4DhLcuwEorv1yVum7aWW/view?usp=drivesd}}{\underline{k}}$

- 19. Dr. T.N.Sutey https://youtu.be/3AzyLWEDQWw
- 20. Vidya Dadmal https://classroom.google.com/c/MTk3OTU2ODMzODY2
 https://meet.google.com/awz-zsgx-ffu?authuser=0&hs=179
- 21. Mr. Chetan Warade https://forms.gle/PktZYzjknrMSfYMB9
- 22. Mr. Sandesh Tiple https://drive.google.com/file/d/1wWTLnl1J3cg3nDo4BMpC7uC5h2G-seGU/view?usp=drivesdk
- 21. Dr.S.R.Verma https://meet.google.com/wff-erez-qff
- 22. Mr. A. N. Barde https://classroom.google.com/c/MzkyODY1NzY5MDY5?cjc=wzfhl2p
- 23. Mrs. M.M. Manohar https://meet.google.com/ogv-qhkk-euo
- 24. Mr. M.R. Chaudhary

https://us05web.zoom.us/j/9581199849?pwd=S09kSEs2ejF6T1dJdDZCTzBJSGtIUT09

25. Dr.G.K.Singh

https://drive.google.com/file/d/1Dnvf0Zw9SZeLoufBytQLM4dUA42pMFzd/view?usp=sharing

https://drive.google.com/file/d/1YXbUUkz05szgXPmObbPPH3H9WZoyGt1c/view?usp=sharing

26.Mr. V.S.Dhabarde https://meet.google.com/dgg-jiwv-xnz

27. Dr. R. H. Lad

https://docs.google.com/forms/d/1Se2BdFRnmPZTq5JKVhLZEtULA6KSFGFXsYLdJPLH6HM/edit

28. Mrs.K.K.Kale https://forms.gle/Jqt1JFDjB7RFRzdb7

Anand Niketan College, Anandwan Warora, Distt. Chandrapur- 442917

Department Of Zoology

M.sc sem –I seminar topic 1 Oct -15 Oct 2019 (Session 2019-20)

SR.N	NAME OF STUDENT	Seminar TOPIC	
1	Bhagyashri U. Bhoyar	Dermal cells and skeletal organization in calcareous sponges, hexactinilida	
2	Nikita A. Bhoyar	Spermatogenesis: Process and Hormonal control	
3	Sonu R.Chandekar	Origin of Metazoan: Colonial, Syncytial and Molecular theories	
4	Sumit p. Daware	Structure and affinities of neopilina	
5	Rashmi R. Deshmukh	General account and affinities of Ectoprocta	
6	Pratiksha v. Dhone	General account and affinities of Ectoprocta	
7	Monihi L. Khapne	Enzyme: Classification And Mechanism of Enzyme Action	
8	Punam B. Mahajan	Thermoregulation In Poikilotherms	
9	Sneha R. Meshram	Digestion And Absortion Of Carbohydrate In Gastrointestinal Tract	
10	Anjali D. Nande	Digestion and Absorption Of Protein In Gastrointestinal Tract	
11	Vishaka v. Nikhade	Mechanism Of Reflex Action	
12	Aarati N. Padal	Mechanism Of Vitellogenesis in Insect	
13	Pornima R. Rode	Mechanism Of Vitellogenesis in fish	
14	Harsha Y. Sakharkar	Cytological And Molecular Events Of Fertilization	

16	Pragati S. Turale	Splicing and cloning: gene replacement and restriction enzymes.	04/01/20
17	Pallavi B. Wakade	Colour change mechanisms in crustacea.	06/01/20
18	Monali S. Wararkar	Evolution of urinogenital organs in vertebrates.	06/01/20
19	Manisha G. Warbhe	Parathyroid ultimobranchial glands: Hormones and regulatory mechanisms.	06/01/20
20	Anjali S. Godbole	Endocrine control of metamorphosis in insects.	06/01/20
21	Payal P. Baddilwar	Structure and development of Amoecoetus.	07/01/20
22	Roma P. Sharma	Role of mutants and transgenic in human welfare.	07/01/20
23	Pallavi H. Gulghane	Hormones and Functions of Pituitary Gland	07/01/20



Anand Niketan College, Anandwan Warora, Distt. Chandrapur- 442917

Department Of Zoology

M.sc sem –II seminar topic (Session 2019-20)

SR.NO	NAME OF STUDENT	Seminar TOPIC	Date
1	Bhagyashri U. Bhoyar	Metamorphosis of Amoecoetus.	01/01/20
2	Nikita A. Bhoyar	Appendicular skeleton in Amphibia and reptilia.	01/01/20
3	Sonu R.Chandekar	Appendicular skeleton in Aves and mammals.	01/01/20
4	Sumit p. Daware	Cetacia- General characters and adaptation.	01/01/20
5	Rashmi R. Deshmukh	Evolution Of Man	02/01/20
6	Pratiksha v. Dhone	Endocrine contol of Metaphorphosis in Insect	02/01/20
7	Mohini L. Khapne	Gonadal hormone in vertebrates and feedback mechanism.	02/01/20
8	Punam B. Mahajan	Mismach repair, recombination repair	02/01/20
9	Anjali D. Nande	Double strand break repair and transcription coupled repair.	03/01/20
10	Vishaka v. Nikhade	Prokaryotic and Eukaryotic translation.	03/01/20
11	Aarati N. Padal	Cloning vector for recombinant DNA Technology.	03/01/20
12	Pornima R. Rode	Medical biotechnology-Disease Prognosis and Genetic Counseling	03/01/20
13	Harsha Y. Sakharkar	Metamorphosis in amphibian: Morphogenetic and biochemical mechanism.	04/01/20
14	Shraddha S. Satpute	Regeneration in vertebrates: Lens and retina.	04/01/20
15	Vaishnavi S. Sawasakade	Cloning of animals by nuclear transfer.	04/01/20

