

Department programme 2019-20



Department organizes a study tour to RUSA center Dr. B.A.M. University Aurangabad.



Mr. Theeazen at RUSA centre giving information about working of instruments in laboratory to students.



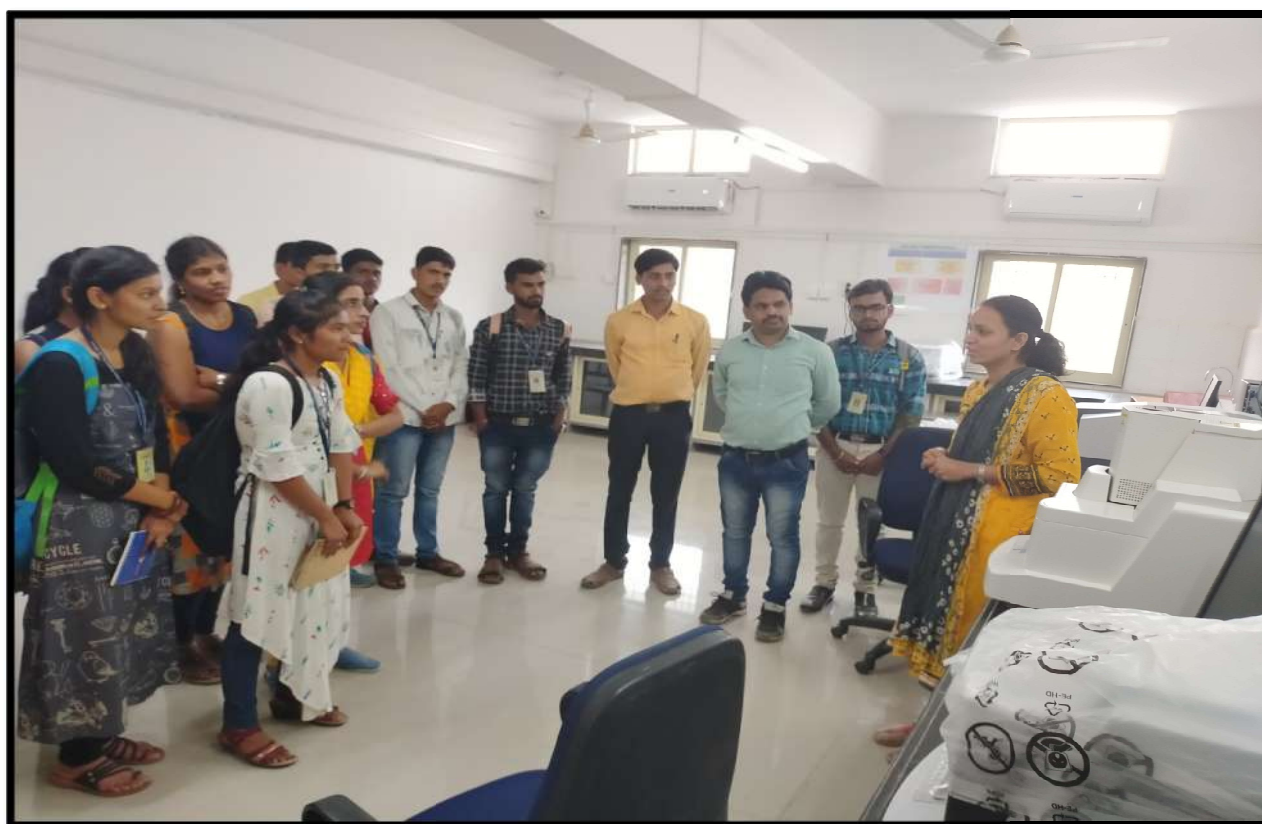
Students learning about the working of various instruments in RUSA center.



Mr. Sayyed Pasha at RUSA centre giving information about working of chemical synthesis laboratory to students.



Students along with the staff visited to Department of Chemistry Dr. B.A.M. University.



Students taking the information about working of various instruments in research laboratory of Department of Chemistry Dr. B.A.M. University.



Student delivering seminar using digital board on stereochemistry



Student delivering seminar using digital board on spectroscopy



Student giving information about element in a programme Celebration of International Year of Periodic Table (IYPT) 2019



Student giving information about element in a programme Celebration of International Year of Periodic Table (IYPT) 2019

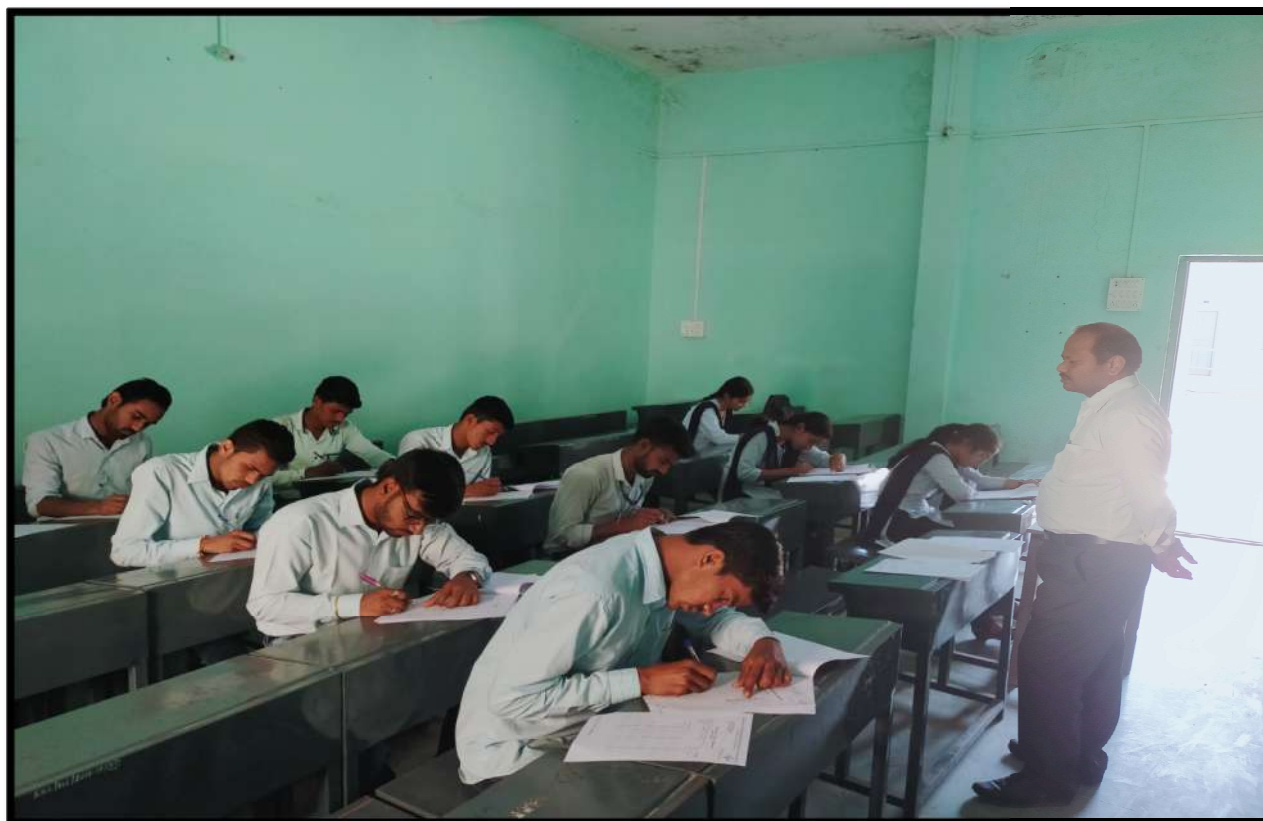


Hon. Chief Guest Prof. S. D. Chavan guiding the students on the occasion of a programme Celebration of International Year of Periodic Table (IYPT) 2019



Students and staff present during the programme Celebration of International Year of Periodic Table (IYPT) 2019

Department of Chemistry
Shri Vyankatesh, Arts, Commerce & Science College, Deulgaon Raja



Organized General Aptitude Test (GAT- 2020) for B.Sc. III year students



Student Pradip Kute of B.Sc. I year giving information about electronic configuration of element with the help of model.



Students of B.Sc. I yr collecting soil sample from the village Pimpalgaon for testing in departments laboratory.



Students of B.Sc. III yr collecting soil sample from the village Singaon for testing in departments laboratory.



Department organized a quiz competition “Rasayan” for students.



Students participated in “Rasayan” competition.

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BORON

Symbol = B
Atomic No. = 5
Atomic Mass = 10.81 g/mol
Discovered by = Joseph Louis Gay-Lussac, Humphry Davy, Louis Berthollet

★ Properties Of Boron :

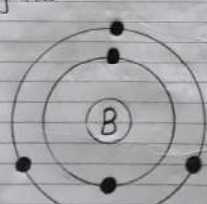
- One of the unusual properties of boron is many physical forms called Allotropes in which it occurs.
- Allotropes are forms of an element with diff. physical & chemical properties.
- One form of boron consists of clear red crystals with a density of 0.46 grams per cubic centimeter.

★ Uses Of Boron :

- Amorphous boron is used as rocket fuel (grit) & in pyrotechnic flares. It gives the flares a distinctive green colour.
- The most imp. compounds of boron are boric acid, borax & boric oxide.
- These can be found in eye drops, mild antiseptics, washing powders & tile glazes.

Electron Configuration of Boron

$1s^2 2s^2 2p^1$



Ajanta

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CARBON

Symbol = C
Atomic No. = 6
Atomic Mass = 12.011
Discovered by = Antoine Lavoisier in 1789

★ Properties Of Carbon :

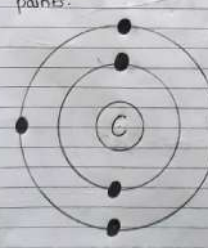
- Carbon has several allotropes, or diff. form in which it can exist.
- These allotropes include Graphite & Diamond, which have very diff. properties.
- Despite carbon's ability to make 4 bonds, its presence in many compounds, it is highly unreactive under normal cond.

★ Uses Of Carbon :

- It makes up for 18% of the human body. Sugar, Glucose, proteins etc are all made of it.
- Carbon in its diamond form is used in Jewellery obviously.
- Amorphous Carbon is used to make inks & paints.

Electron Configuration of Carbon

$1s^2 2s^2 2p^2$



Ajanta

“Element of the week” activity conducted by Department.

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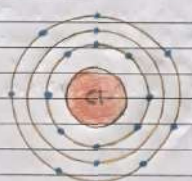
Chlorine (17)

Symbol = Cl
Atomic number = 17
Electronic configuration = $[Ne] 3s^2 3p^5$
Name = Chlorine
Atomic weight = 35.453
Crystal structure = 
Physical state at 20°C (68°F) = Gas
It will not burn in oxygen.
It can be used as a water.

Uses of Chlorine :

- Bleaches
- Mustard gas
- Production of chlorates
- Paper production
- Antiseptic
- Insecticides
- Paint
- Plastics
- Medicines

Structure of Chlorine



Who was discovered Chlorine :

Chlorine discovered in 1774 by Carl Wilhelm Scheele, who mistakenly thought it contained oxygen. Chlorine was given its name in 1810 by Humphry Davy, who insisted it was in fact an element.

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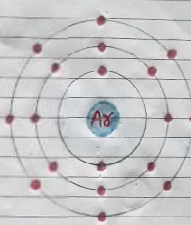
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ARGON (18)

Element's Information :

Atomic number = 18
Symbol = Ar
Name = Argon
Atomic Mass = 39.948
Discovery year = 1894
Discovered by = William Ramsay
Block = p-block
Element Category = Noble gas
CAS number = 7440-37-1
Allotropes = None
Density = 0.001633
Electronic Con- = $[Ar] 3s^2 3p^6$

Atomic Structure of Argon



Uses of Argon :

- Argon and helium are used in the welding, cutting and spraying of metals, used in metallurgy as a protective gas.
- A mixture of argon with 15% nitrogen is filled in electric bulbs to increase the life of the filaments.
- Argon used in filling fluorescent tubes and radio valves.

Properties of Argon :

- Argon is non-metal
- Conductivity ability is electricity.
- Argon is 2% times more soluble in water than nitrogen.
- Argon is extremely inert and forms no known chemical compound.

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“Element of the week” activity posted on departments blog SVC Chemistry

Department of Chemistry
Shri Vyankatesh, Arts, Commerce & Science College, Deulgaon Raja



Hon. Chief Guest Prin. Dr. D. S. Talwankar, G. S. College Khamgaon guiding the students on the occasion of National Science day programme



Asst. Prof. P. M. Kadam giving the introductory speech on the occasion of National Science day programme.



Student Shubhangi Rathod explaining about his poster on the occasion of National Science day programme.



Student Junaid Shah explaining about his poster on the occasion of National Science day programme.



Hon. Guest and Principal Dr. G. B. Jadhao felicitating the winner student of “Rasayan” Competition organized by department.



Student explaining about his poster in “Poster exhibition on Chemicals in day today life” organized on the occasion of National Science day.

Department of Chemistry
Shri Vyankatesh, Arts, Commerce & Science College, Deulgaon Raja

Kailasavedivoo Sivan (Chairperson of Indian Space Research Organisation)

INTRODUCTION: Kailasavedivoo Sivan is an Indian space scientist and the chairperson of the Indian Space Research Organisation. He is former director of Vikram Sarabhai Space Centre and liquid propulsion centre.

- He Born on 14 April 1957 in Melaravakkalvilai, Kanyakumari district.
- Sivan is popularly known as 'Rocket man'.
- Sivan's father is a teacher.

EDUCATION:

- Studied in Tamil medium Government school in Melaravakkalvilai village and later in Vallankumaranvilai in Kanyakumari district.
- Sivan's completed graduation in B.E from Madras Institute of Technology 1980. He got a master's degree in aerospace engineering from Indian Institute of Science Bangalore in year 1982.
- 1982 He started working in ISRO. Sivan's earned a Doctoral degree in aero-space engineering from Indian Institute of Technology Bombay in 2006.

AWARDS & ACHIEVEMENT:

- 1) ISRO merit Award (2007)
- 2) Dr. Biren Roy space science Award (2011)
- 3) Distinguished Alumnus Award (2013) from MIT Alumnus Association, Chennai & IIT Bangalore (2018)
- 4) He was conferred doctor of science (Honoris causa) from Sathyabhama University Chennai in April 2014
- 5) Tamil Nadu government's Dr. A.P.J. Abdul Kalam Award.

WORK:

- 1) Sivan worked on the design and development of launch vehicle for Indian space Research.
- 2) 1982 he participate in the polar satellite launch vehicle project.
- 3) He joined ISRO in pslv project and has contributed immensely towards integration and analysis.
- 4) He worked as chief architect of 60 trajectory simulation software.
- 5) He joined GSLV project in April 2011 as project director with a mandate to demonstrate the robustness and reliability of 5 GSLV as well as flight demonstration and the indigenous cryo-stage.
- 6) He was appointed as a director of Indian Space Research Organisation liquid propulsion systems centre on 2 July 2014.
- 7) on 1 June 2015 he become Director of VSSC.
- 8) His leadership led to historical achievement of most successful GSLV flight with indigenous cryogenic stage.
- 9) Sivan's expertise that gave ISRO the ability to send 104 satellites in a single mission, setting a world record on 14 February 2017.
- 10) Sivan was appointed the Chief of ISRO in January 2018 he assumed office on 15 January.
- 11) Under his chairmanship on ISRO launched Chandrayaan-2, the second mission to the moon July 20-2022-2019.

ROCKET MAN

Student prepared a wall magazine on scientist K.Sivan.

Shanti Swarup Bhatnagar



• Shanti Swarup Bhatnagar was an Indian Scientist, famously known as the 'father of Research Laboratories'.

• He was the first director-general of the Council of Scientific and Industrial Research (CSIR) and a professor of Chemistry for over 19 years.

• Though his areas of interest included emulsions, colloids, and industrial chemistry, but his primary contributions were in the spheres of magnetochemistry.

• He greeted Science with a mission and also valued literature as much as he loved Science & Engineering.

• Under his directorship, twelve laboratories were established all over the country for Scientific research in multiple areas, including the ones for food processing, metallurgy and chemical research.

• He was the first chairman of the University Grants Commission.

Birth:

• He was born on February 21, 1894 in Bhera, Shahpur District, British India to Parmeshwari Sahai Bhatnagar, a school master, and his wife.

Education:

• He got enrolled in the Forman Christian College and completed graduation with major in Physics in 1916, and MSc in Chemistry in 1919.

• After completing his masters, he was awarded a scholarship by the Dayal Singh College Trust to study abroad.

Career:

• In 1921, after his return to India, he joined Banaras Hindu University (BHU) as a professor of Chemistry.

• Later, he moved to the University of Punjab, Lahore where he was appointed the Professor of Physical Chemistry and Director of University Chemical Laboratories.

• He became involved in solving industrial problems of different organizations such as Delhi Cloth Mills, J.K Mills Ltd of Kanpur, Ganesh Flour Mills Ltd., Tata Oil Mills Ltd., and Steel Brothers & Co. Ltd. of London.

• In 1940, the Board of Scientific and Industrial Research (BSIR) was formed for a period of two years and he was appointed as its Director.

• In 1941, he persuaded the government to set up an Industrial Research Utilization Committee (IRUC) for further investment into industrial research.

• In 1942, the CSIR was formed and the BSIR & IRUC became its advisory bodies. In 1943, CSIR approved his proposal to establish five national laboratories.

• Post-independence, he was made the chairman of the CSIR and became the first director general of the Council.

• He established many laboratories & mentored many great minds during his tenure as the head of the CSIR.

Awards & Achievements:

• In 1936, New Year Honours List, for excellent contributions to pure and applied chemistry.

• In 1943, he was elected a member of Royal Society of UK.

• In 1954, honored with the Padma Bhushan, the 3rd highest civilian award in the Republic of India.

• The 'Shanti Swarup Bhatnagar Prize for Science and Technology', named in his honor, is awarded to outstanding scientists in various branches of Science since 1958.

Student prepared a wall magazine on scientist Shanti Swarup Bhatnagar.

Shri Vyankatesh Arts, Commerce & Science College
Deulgaon Raja, Dist. Buldana



**ONLINE STATE LEVEL
INFOGRAPH
MAKING COMPETITION**

☆ Organized by ☆
Department of Chemistry

Organizing Committee

Dr. G. B. Jadhav
Principal & Convener

Mr. P. M. Kadam **Mr. B. U. Kale** **Dr. D. R. Birkhade**
Coordinator Member Member

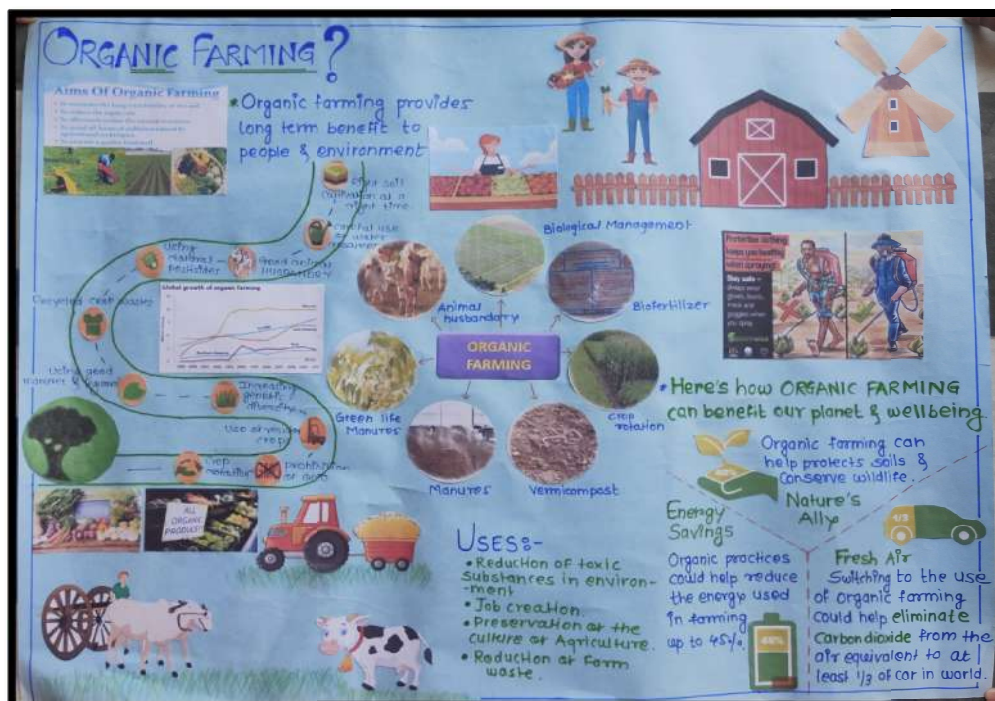
SUBMISSION DETAILS:

Submission format – submit your infograph in PDF, PNG or JPEG to svcdeptchem@gmail.com by May 03, 2020.

Fees and Certificate: 'No participation Fee'. E- Certificate will be given to all the participants. The prizes will be given to the three best infograph.

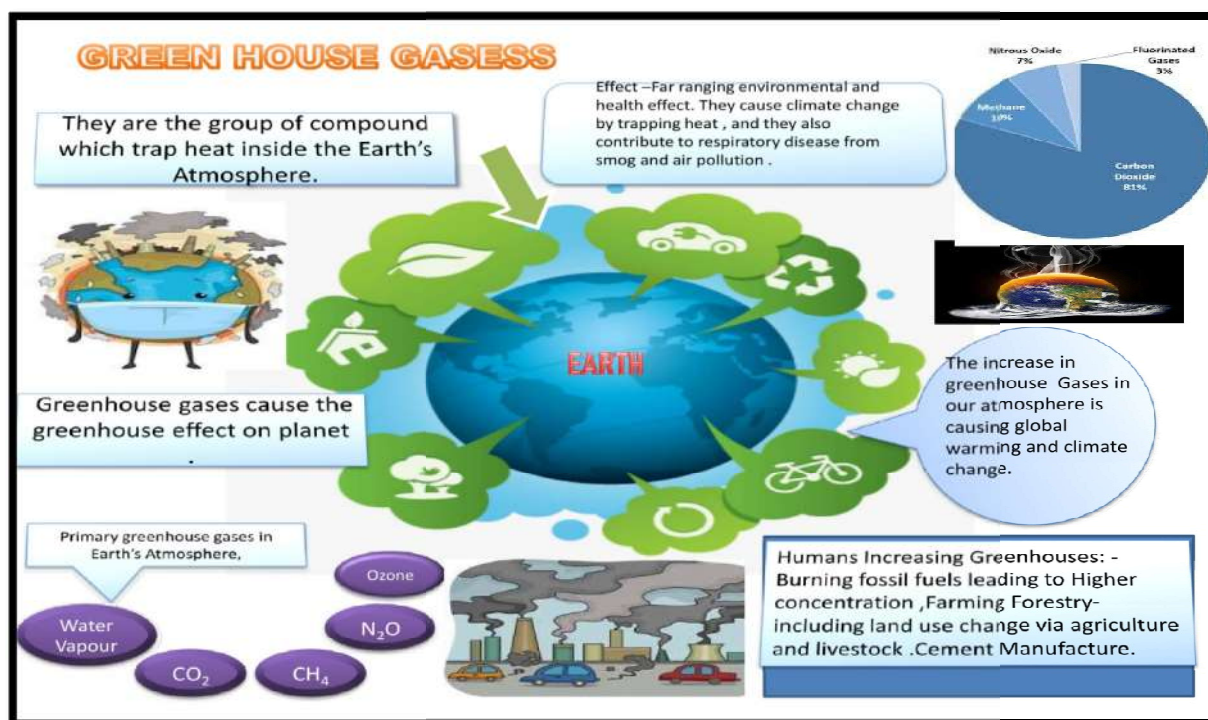
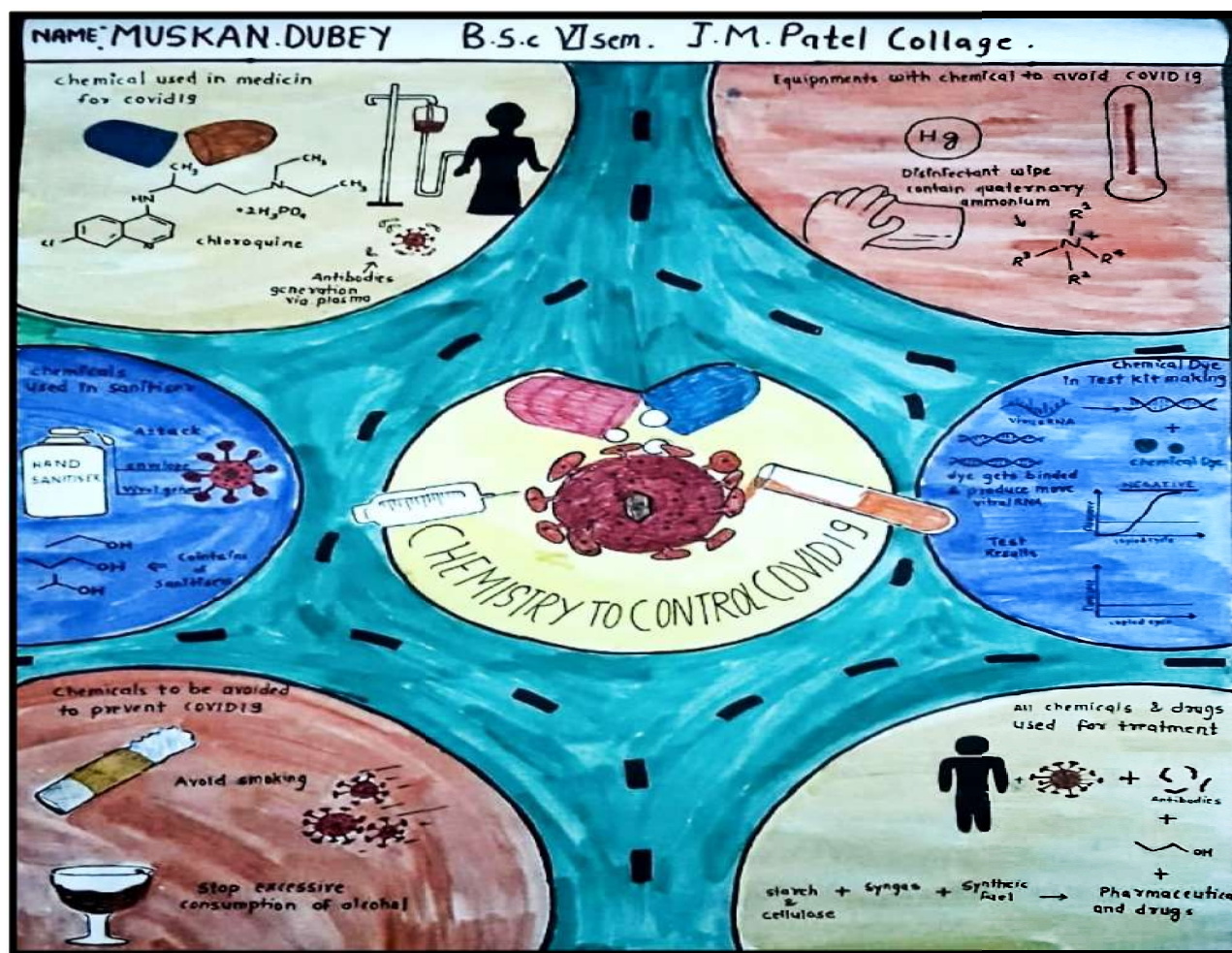
Infograph may be digital or handmade in horizontal or vertical orientation.

State Level online Infograph Competition organized during Covid- 19 pandemic for student.



Poster prepared by student for State Level online Infograph Competition organized during Covid-19 pandemic.

Department of Chemistry
Shri Vyankatesh, Arts, Commerce & Science College, Deulgaon Raja



Poster prepared by student for State Level online Infograph Competition organized during Covid-19 pandemic.

The screenshot shows the Moodle LMS dashboard for a site named 'SVC CHEMISTRY'. On the left is a sidebar menu with options: Dashboard, Site home (highlighted), Calendar, Private files, and Site administration. The main content area features a video player titled 'What is Moodle? (2013)' with 'Watch later' and 'Share' buttons. Below the video, under the heading 'Available courses', there is a course titled 'Certificate course in Introduction to Coordination Chemistry'. A description follows: 'This is oneweek online course. The course is for those who want to learn about coordination chemistry'. A link labeled 'Syllabus of Course' is provided below the description. The top right corner shows the user 'Admin User' with a profile picture.

Conducted an online Certificate course Introduction to coordination chemistry using **Moodle** platform. Site- **pavankadamgnomio.com**

The screenshot displays the 'Participants' page within the Moodle course interface. The left sidebar includes links for Participants (highlighted), Badges, Competencies, Grades, General, and the course 'Introduction to Coordination Chemistry'. The main area is titled 'Participants' and indicates 'No filters applied'. A search bar is present with the placeholder 'Search keyword or select filter'. It states 'Number of participants: 991'. Below this are two alphabetical filters for 'First name' and 'Surname', both currently set to 'All'. At the bottom, a pagination bar shows '1' as the selected page, followed by numbers 2 through 10, an ellipsis, and 50, with a right arrow indicating further pages.

Total 991 participants were enrolled for online Certificate course Introduction to coordination chemistry.

It was an excellent way to brush up my basic knowledge in chemistry. All the notes provided and lectures were very precise and informative. Hope many UG and PG students got a lot of inputs for their current studies. Happy to be a part of this program and awaiting for more programs like this from the organizers. And above all thank you for sharing your knowledge with us.

1 response

Very nice course was organised. Thanks to all of you for organizing this course. I was knowing answer to all questions but when I started solving the quiz I get engaged in coordination chemistry so interestingly that when I reached on question 19, window get closed due to crossing of time limit, it makes me very sorrow as I like chemistry.

The course was quiet informative, even if it was of a 5 day course almost covered a huge portion of coordination chemistry. The demonstration videos are quiet informative and short videos, which clearly point out the important parts. We should have provided with some more solved examples. Thank You..

1 response

It is a good initiative from you and your organisation, which plays a key role in such situation and makes to be intact with subject. Do not stop here, continue in future with different modules. I congratulate to Mr. Pavan. Kadam for his great contribution and effort, wish you all the best.

1 response

Thank you so much for giving an opportunity to participate here for others state also I'm belongs to KARNATAKA state. During these lockdown days this made by days ... Hope another course will also start by College on latest topics ... Once again thank you so much for giving 🙏🙏🙏

You may go for "Coordination Chemistry" to P.G. level. I would like to talk to you in this connection if you agree. Please send your contact numbers. Overall very nicely conducted the session. This is really useful for U.G. students. You may add interaction session also. Totally happy with the program. All the Best for days to come. Stay safe, Take care of yourself and your family

1 response

It's a well maintained course, still the spectrum of coordination chemistry is quite vast, I'd like to see such courses on specific topics like organometallic reaction mechanism or heterogeneous catalysis. But anyway, the course was really well maintained, and if there are further upcoming courses like this, I'd like to have updates, and I'd like to join them as well, thank you.

Feedback of participants of online Certificate course Introduction to coordination chemistry.