



# Let's Crack Classification of Elements (Code:AS07)

Special class

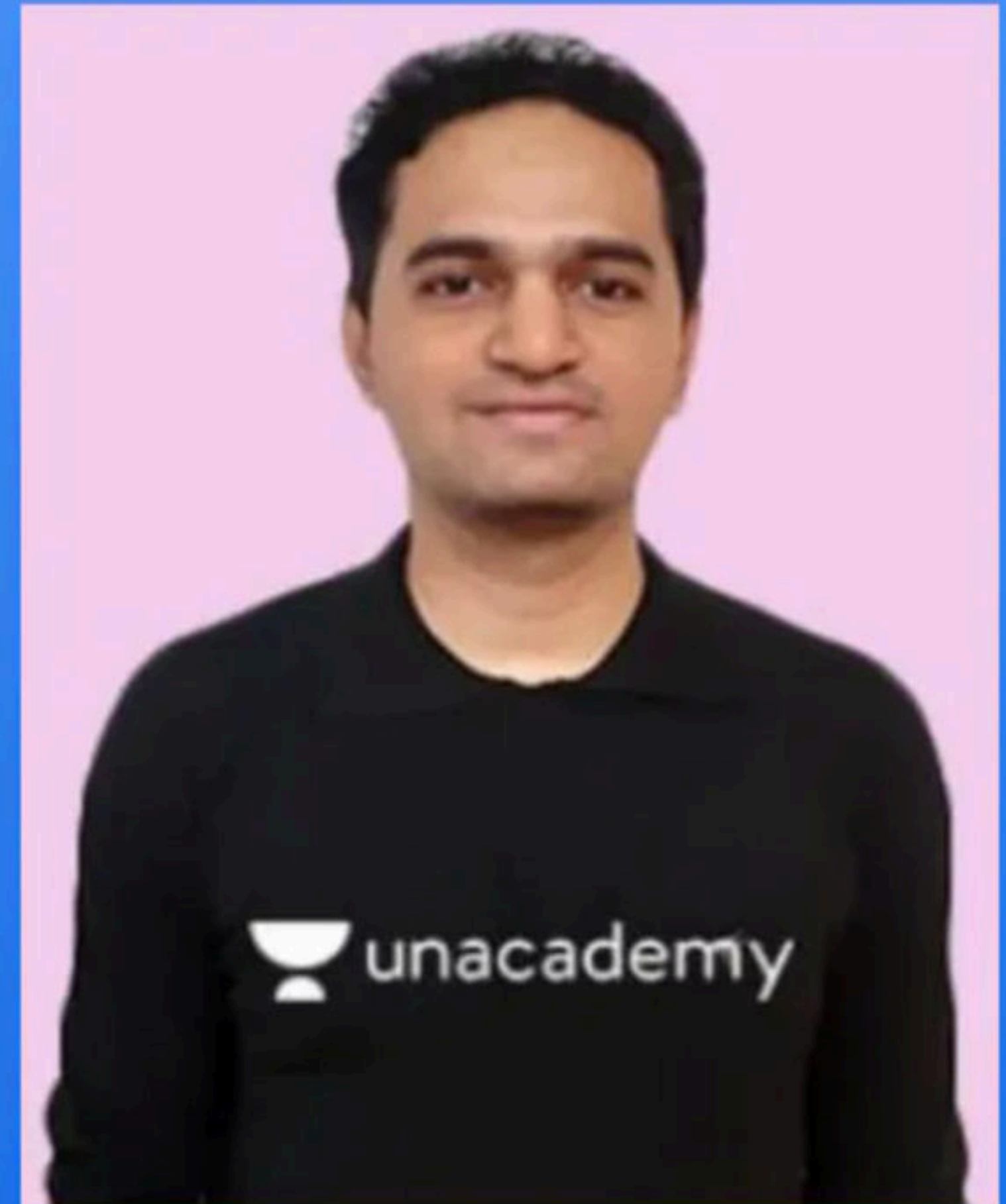
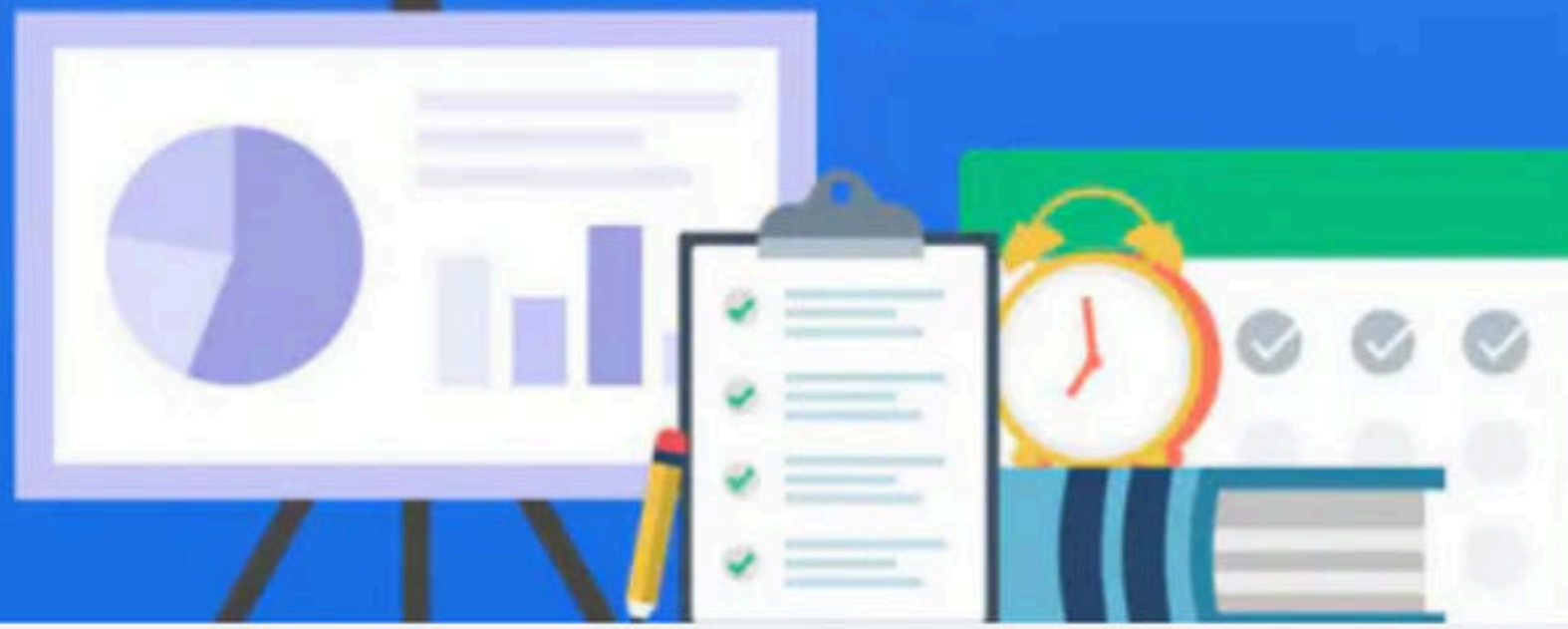


# Welcome to Class!

**Dear Learners,**

**I'm Ajinkya Solunke**

**Physics, Chemistry, Biology,  
Mathematics, History,  
Geography, Political Science,  
Economics and Computer  
Science Educator.**



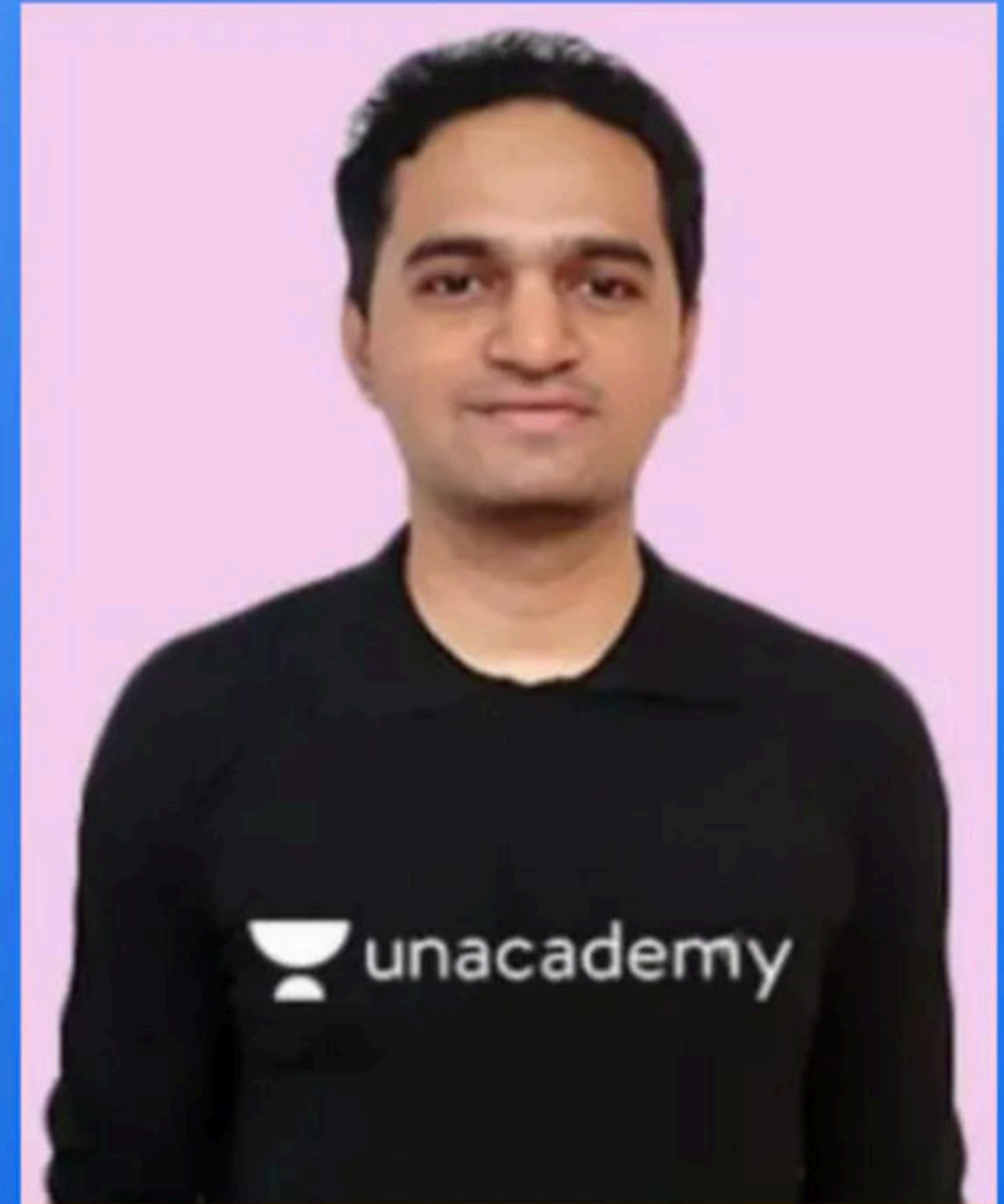
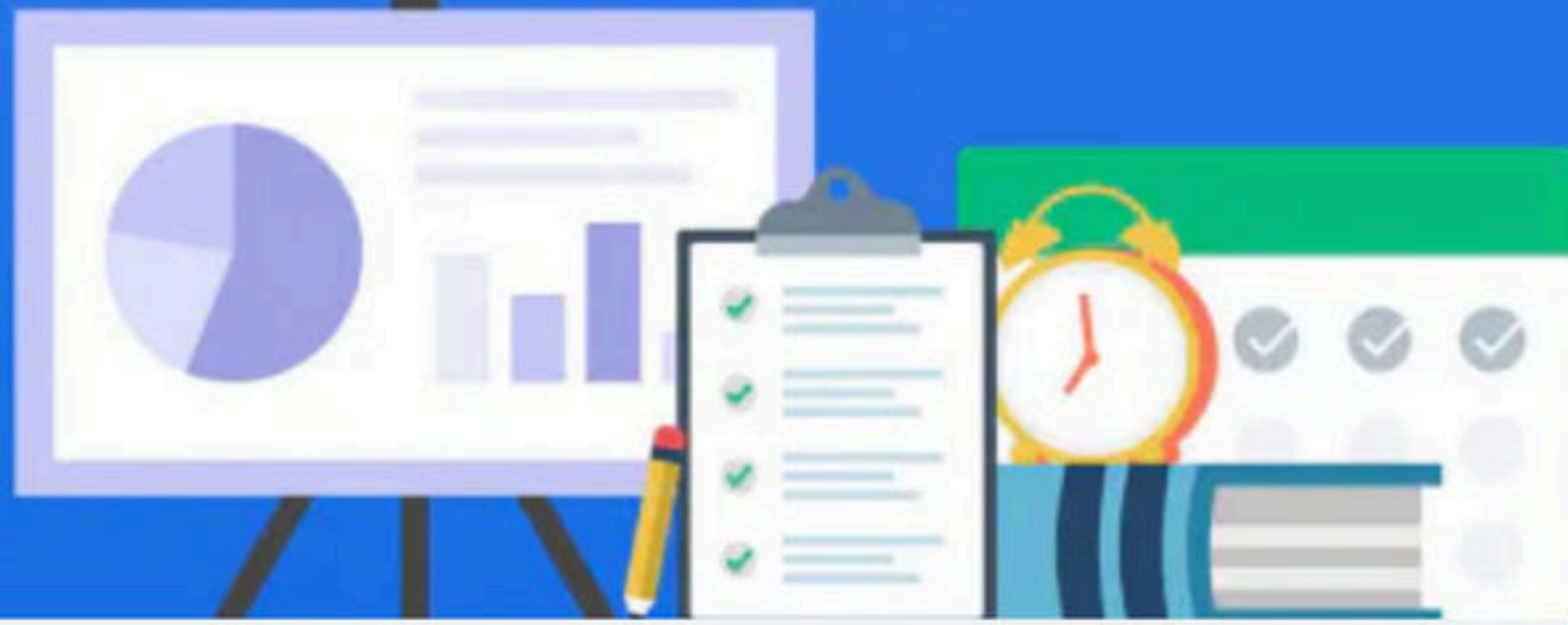


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# Credits of this period

- NCERT Class 11
- NCERT Exemplar Class 11
- Physical Chemistry – Wiley
- Physical Chemistry → O.P. Tandon
- Rachna Publication
- Oswaal Publication

Telegram ID

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# Books to be used

- NCERT – Class 11 (2 books) & Class 12 (2 books)
- NCERT Exemplar → Class 11 and Class 12
- Physical Chemistry
  - Wiley Physical Chemistry – By Vipul Mehta
- Inorganic Chemistry
  - Concise Inorganic Chemistry – J.D. Lee → adopted by Sudarshan Guha
- Organic Chemistry
  - Organic Chemistry – Solomons | Fryhle | Snyder → adopted by M. S. Chouhan
- Previous year questions (PYQ) → 40 or 41 or 42 years

No.	Title	Physical Chemistry	Inorganic Chemistry	Organic Chemistry
1	Some basic concepts of chemistry	Mole Concept - I	Structure of an atom	Bonding and Molecular Structure
2	Structure of Atom	Mole Concept - II	Periodic Table and Periodic Properties	Carbon Compounds Functional groups
3	Classification of Elements and Periodicity in Properties	Gaseous and Liquid States	Chemical Bonding	Organic Reaction Acids and Bases
4	Chemical Bonding and Molecular Structure	Solid State	Hydrolysis	Stereochemistry Chiral Molecules
5	States of Matter	Atomic Structure	Coordination Compounds	Alkanes and Cycloalkanes
6	Thermodynamics	Chemical Bonding	Metallurgy	Ionic Reactions Alkyl Halides
7	Equilibrium	Chemical Energetics	Qualitative Salt Analysis	Alkenes and Alkynes Alkyl Halides
8	Redox Reactions	Solutions	Hydrogen and the Hydrides	Alkenes and Alkynes 2 Addition Reactions
9	Hydrogen	Chemical Equilibrium	The s-Block Elements and their Compounds	Radical Reactions
10	The s-block Elements	Ionic Equilibrium	The p-Block Elements and their Compounds (11 and 12)	Alcohols and Ethers
11	The p-Block Elements	Electrochemistry	The d-Block Elements and some of their compounds	Alcohols and Carbonyl Compounds
12	Organic Chemistry - Some Basic Principles and Techniques*	Chemical Kinetics	The f-block elements and their properties	Conjugated Unsaturated Systems
13	Hydrocarbons	Surface Chemistry		Aromatic Compounds
14	Environmental Chemistry	Nuclear Chemistry		Aromatic Compounds Reactions
15	The Solid State			Aldehydes and Ketones
16	Solutions			Aldehydes and Ketones 2
17	Electrochemistry			Carboxylic Acids
18	Chemical Kinetics			Amines
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20	General Principles and Processes of Isolation of Elements			Carbohydrates
21	The p-Block Elements			Amino Acids and Proteins
22	The d-Block and f-Block Elements			Carbene and Carbenoids
23	Coordination Compounds			Nitrene and Electron Deficient Oxygen
24	Haloalkanes and Haloarenes*			Polymers
25	Alcohols, Phenols and Ethers			
26	Aldehydes, Ketones and Carboxylic Acids			
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30	Chemistry in Everyday Life			

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## **UNIT 3**

### **CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES**

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# Part 3

3.36 The size of isoelectronic species —  $F^-$ , Ne and  $Na^+$  is affected by

- (a) nuclear charge ( $Z$ )
- (b) valence principal quantum number ( $n$ )
- (c) electron-electron interaction in the outer orbitals
- (d) none of the factors because their size is the same.

3.37 Which one of the following statements is incorrect in relation to ionization enthalpy?

- (a) Ionization enthalpy increases for each successive electron.
- (b) The greatest increase in ionization enthalpy is experienced on removal of electron from core noble gas configuration.
- (c) End of valence electrons is marked by a big jump in ionization enthalpy.
- (d) Removal of electron from orbitals bearing lower  $n$  value is easier than from orbital having higher  $n$  value.

3.38 Considering the elements B, Al, Mg, and K, the correct order of their metallic character is :

(a)  $B > Al > Mg > K$

(b)  $Al > Mg > B > K$

(c)  $Mg > Al > K > B$

(d)  $K > Mg > Al > B$

3.39 Considering the elements B, C, N, F, and Si, the correct order of their non-metallic character is :

(a)  $B > C > Si > N > F$       (b)  $Si > C > B > N > F$

(c)  $F > N > C > B > Si$       (d)  $F > N > C > Si > B$

3.40 Considering the elements F, Cl, O and N, the correct order of their chemical reactivity in terms of oxidizing property is :

(a)  $F > Cl > O > N$       (b)  $F > O > Cl > N$

(c)  $Cl > F > O > N$       (d)  $O > F > N > Cl$

1. Consider the isoelectronic species,  $\text{Na}^+$ ,  $\text{Mg}^{2+}$ ,  $\text{F}^-$  and  $\text{O}^{2-}$ . The correct order of increasing length of their radii is \_\_\_\_\_.

- (i)  $\text{F}^- < \text{O}^{2-} < \text{Mg}^{2+} < \text{Na}^+$
- (ii)  $\text{Mg}^{2+} < \text{Na}^+ < \text{F}^- < \text{O}^{2-}$
- (iii)  $\text{O}^{2-} < \text{F}^- < \text{Na}^+ < \text{Mg}^{2+}$
- (iv)  $\text{O}^{2-} < \text{F}^- < \text{Mg}^{2+} < \text{Na}^+$

4. The first ionisation enthalpies of Na, Mg, Al and Si are in the order:

(i)  $\text{Na} < \text{Mg} > \text{Al} < \text{Si}$

(ii)  $\text{Na} > \text{Mg} > \text{Al} > \text{Si}$

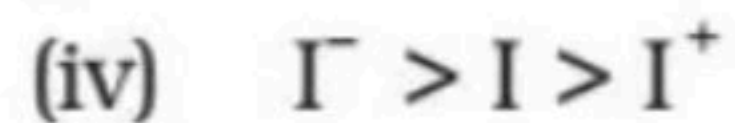
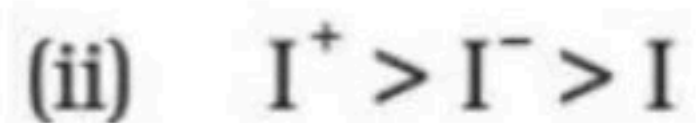
(iii)  $\text{Na} < \text{Mg} < \text{Al} < \text{Si}$

(iv)  $\text{Na} > \text{Mg} > \text{Al} < \text{Si}$

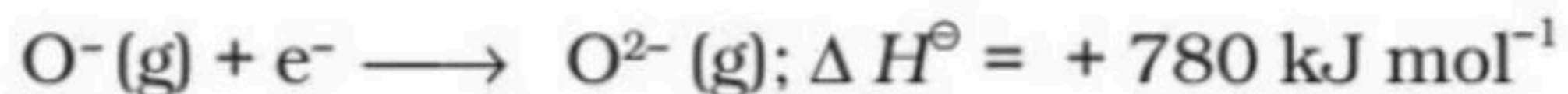
7. Among halogens, the correct order of amount of energy released in electron gain (electron gain enthalpy) is:

- (i)  $F > Cl > Br > I$
- (ii)  $F < Cl < Br < I$
- (iii)  $F < Cl > Br > I$
- (iv)  $F < Cl < Br < I$

**10.** Which of the following is the correct order of size of the given species:



**11.** The formation of the oxide ion,  $O^{2-}$  (g), from oxygen atom requires first an exothermic and then an endothermic step as shown below:



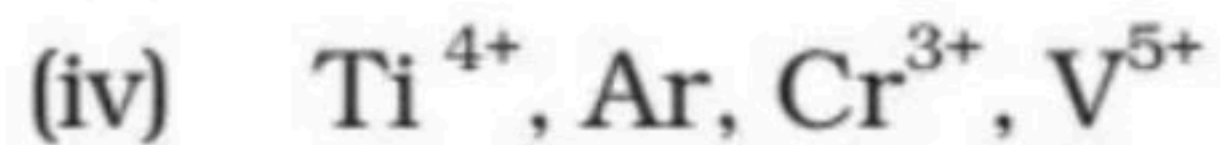
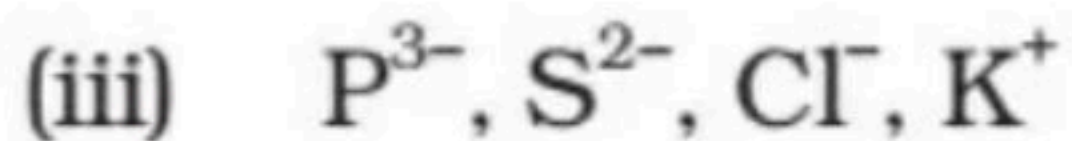
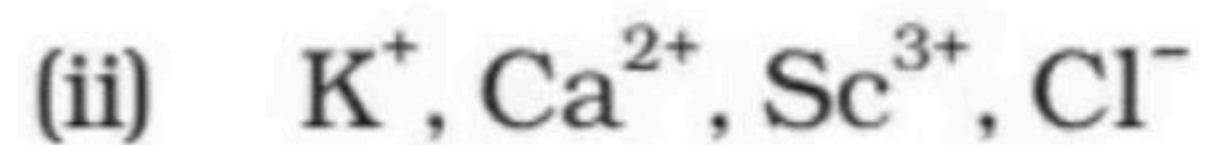
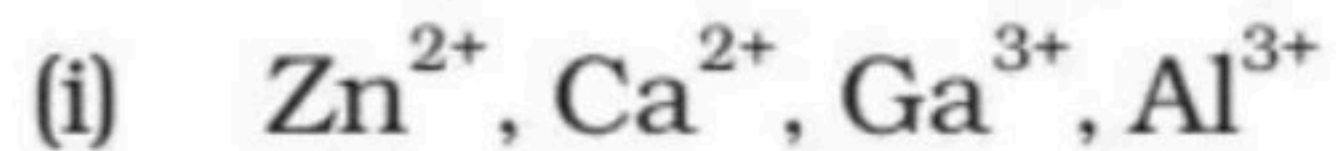
Thus process of formation of  $O^{2-}$  in gas phase is unfavourable even though  $O^{2-}$  is isoelectronic with neon. It is due to the fact that,

- (i) oxygen is more electronegative.
- (ii) addition of electron in oxygen results in larger size of the ion.
- (iii) electron repulsion outweighs the stability gained by achieving noble gas configuration.
- (iv)  $O^{-}$  ion has comparatively smaller size than oxygen atom.

**18.** Which of the following statements are correct?

- (i) Helium has the highest first ionisation enthalpy in the periodic table.
- (ii) Chlorine has less negative electron gain enthalpy than fluorine.
- (iii) Mercury and bromine are liquids at room temperature.
- (iv) In any period, atomic radius of alkali metal is the highest.

**19.** Which of the following sets contain only isoelectronic ions?



**20.** In which of the following options order of arrangement does **not** agree with the variation of property indicated against it?

- (i)  $\text{Al}^{3+} < \text{Mg}^{2+} < \text{Na}^+ < \text{F}^-$  (increasing ionic size)
- (ii)  $\text{B} < \text{C} < \text{N} < \text{O}$  (increasing first ionisation enthalpy)
- (iii)  $\text{I} < \text{Br} < \text{Cl} < \text{F}$  (increasing electron gain enthalpy)
- (iv)  $\text{Li} < \text{Na} < \text{K} < \text{Rb}$  (increasing metallic radius)

**21.** Which of the following have no unit?

- (i) Electronegativity
- (ii) Electron gain enthalpy
- (iii) Ionisation enthalpy
- (iv) Metallic character

**22.** Ionic radii vary in

- (i) inverse proportion to the effective nuclear charge.
- (ii) inverse proportion to the square of effective nuclear charge.
- (iii) direct proportion to the screening effect.
- (iv) direct proportion to the square of screening effect.

**46. Assertion (A) :** Generally, ionisation enthalpy increases from left to right in a period.

**Reason (R) :** When successive electrons are added to the orbitals in the same principal quantum level, the shielding effect of inner core of electrons does not increase very much to compensate for the increased attraction of the electron to the nucleus.

- (i) Assertion is correct statement and reason is wrong statement.
- (ii) Assertion and reason both are correct statements and reason is correct explanation of assertion.
- (iii) Assertion and reason both are wrong statements.
- (iv) Assertion is wrong statement and reason is correct statement.

**47. Assertion (A) :** Boron has a smaller first ionisation enthalpy than beryllium.

**Reason (R) :** The penetration of a  $2s$  electron to the nucleus is more than the  $2p$  electron hence  $2p$  electron is more shielded by the inner core of electrons than the  $2s$  electrons.

- (i) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
- (ii) Assertion is correct statement but reason is wrong statement.
- (iii) Assertion and reason both are correct statements and reason is correct explanation for assertion.
- (iv) Assertion and reason both are wrong statements.

**48. Assertion (A) :** Electron gain enthalpy becomes less negative as we go down a group.

**Reason (R) :** Size of the atom increases on going down the group and the added electron would be farther from the nucleus.

- (i) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
- (ii) Assertion and reason both are correct statements and reason is correct explanation for assertion.
- (iii) Assertion and reason both are wrong statements.
- (iv) Assertion is wrong statement but reason is correct statement.

**43.** Match the correct atomic radius with the element.

**Element**

**Atomic radius (pm)**

Be

74

C

88

O

111

B

77

N

66

**44.** Match the correct ionisation enthalpies and electron gain enthalpies of the following elements.

<b>Elements</b>		$\Delta H_1$	$\Delta H_2$	$\Delta_{eg} H$
(i) Most reactive non metal	A.	419	3051	- 48
(ii) Most reactive metal	B.	1681	3374	- 328
(iii) Least reactive element	C.	738	1451	- 40
(iv) Metal forming binary halide	D.	2372	5251	+ 48

- 45.** Electronic configuration of some elements is given in Column I and their electron gain enthalpies are given in Column II. Match the electronic configuration with electron gain enthalpy.

<b>Column (I)</b>	<b>Column (II)</b>
<b>Electronic configuration</b>	<b>Electron gain enthalpy/kJ mol<sup>-1</sup></b>
(i) $1s^2 2s^2 sp^6$	(A) - 53
(ii) $1s^2 2s^2 2p^6 3s^1$	(B) - 328
(iii) $1s^2 2s^2 2p^5$	(C) - 141
(iv) $1s^2 2s^2 2p^4$	(D) + 48

3.9 What does atomic radius and ionic radius really mean to you?

3.10 How do atomic radius vary in a period and in a group? How do you explain the variation?

3.11 What do you understand by isoelectronic species? Name a species that will be isoelectronic with each of the following atoms or ions.

(i)  $F^-$

(ii)

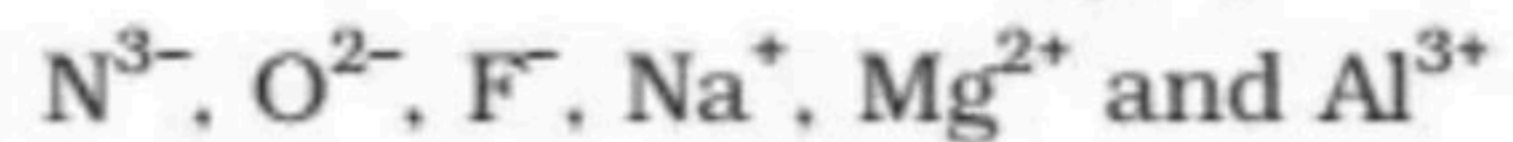
Ar

(iii)  $Mg^{2+}$

(iv)

$Rb^+$

3.12 Consider the following species :



(a) What is common in them?

(b) Arrange them in the order of increasing ionic radii.

3.13 Explain why cation are smaller and anions larger in radii than their parent atoms?

3.14 What is the significance of the terms — 'isolated gaseous atom' and 'ground state' while defining the ionization enthalpy and electron gain enthalpy?

**Hint :** Requirements for comparison purposes.

3.15 Energy of an electron in the ground state of the hydrogen atom is  $-2.18 \times 10^{-18} \text{J}$ . Calculate the ionization enthalpy of atomic hydrogen in terms of  $\text{J mol}^{-1}$ .

**Hint:** Apply the idea of mole concept to derive the answer.

3.16 Among the second period elements the actual ionization enthalpies are in the order  $\text{Li} < \text{B} < \text{Be} < \text{C} < \text{O} < \text{N} < \text{F} < \text{Ne}$ .

Explain why

- (i) Be has higher  $\Delta_i H$  than B
- (ii) O has lower  $\Delta_i H$  than N and F?

3.17 How would you explain the fact that the first ionization enthalpy of sodium is lower than that of magnesium but its second ionization enthalpy is higher than that of magnesium?

3.18 What are the various factors due to which the ionization enthalpy of the main group elements tends to decrease down a group?

3.19 The first ionization enthalpy values (in  $\text{kJ mol}^{-1}$ ) of group 13 elements are :

B	Al	Ga	In	Tl	
801		577	579	558	589

How would you explain this deviation from the general trend ?

3.20 Which of the following pairs of elements would have a more negative electron gain enthalpy?

(i) O or F (ii) F or Cl

3.21 Would you expect the second electron gain enthalpy of O as positive, more negative or less negative than the first? Justify your answer.

3.22 What is the basic difference between the terms electron gain enthalpy and electronegativity?

3.23 How would you react to the statement that the electronegativity of N on Pauling scale is 3.0 in all the nitrogen compounds?

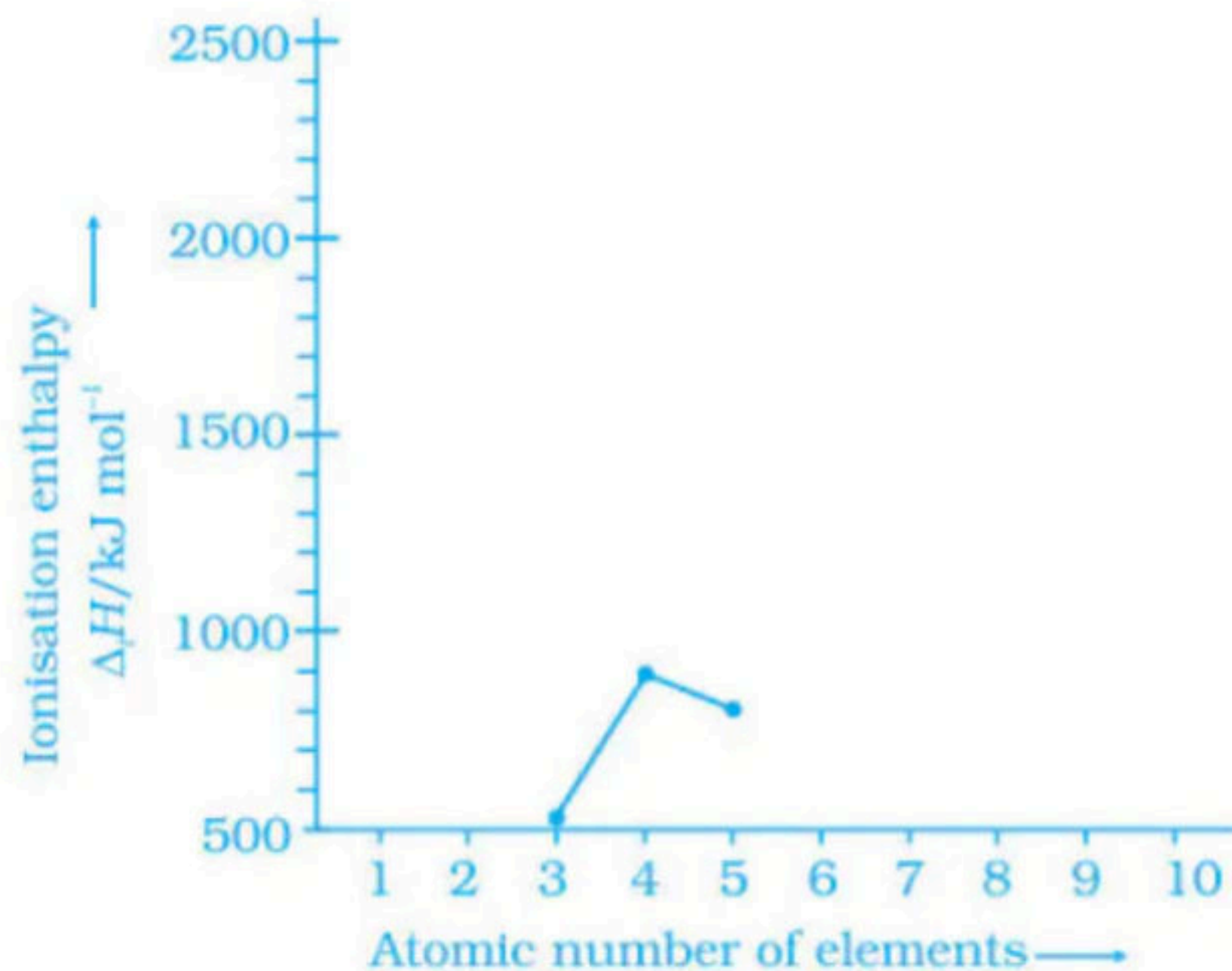
3.25 Would you expect the first ionization enthalpies for two isotopes of the same element to be the same or different? Justify your answer.

**24.** Explain why the electron gain enthalpy of fluorine is less negative than that of chlorine.

**27.** Ionisation enthalpies of elements of second period are given below :

Ionisation enthalpy/ k cal mol<sup>-1</sup> : 520, 899, 801, 1086, 1402, 1314, 1681, 2080.

Match the correct enthalpy with the elements and complete the graph given in Fig. 3.1. Also write symbols of elements with their atomic number.



**28.** Among the elements B, Al, C and Si,

(i) which element has the highest first ionisation enthalpy?

(ii) which element has the most metallic character?

Justify your answer in each case.

**30.** Choose the correct order of atomic radii of fluorine and neon (in pm) out of the options given below and justify your answer.

- (i) 72, 160
- (ii) 160, 160
- (iii) 72, 72
- (iv) 160, 72

**32.** Nitrogen has positive electron gain enthalpy whereas oxygen has negative. However, oxygen has lower ionisation enthalpy than nitrogen. Explain.

**35.** How would you explain the fact that first ionisation enthalpy of sodium is lower than that of magnesium but its second ionisation enthalpy is higher than that of magnesium?

**36.** What do you understand by exothermic reaction and endothermic reaction?  
Give one example of each type.

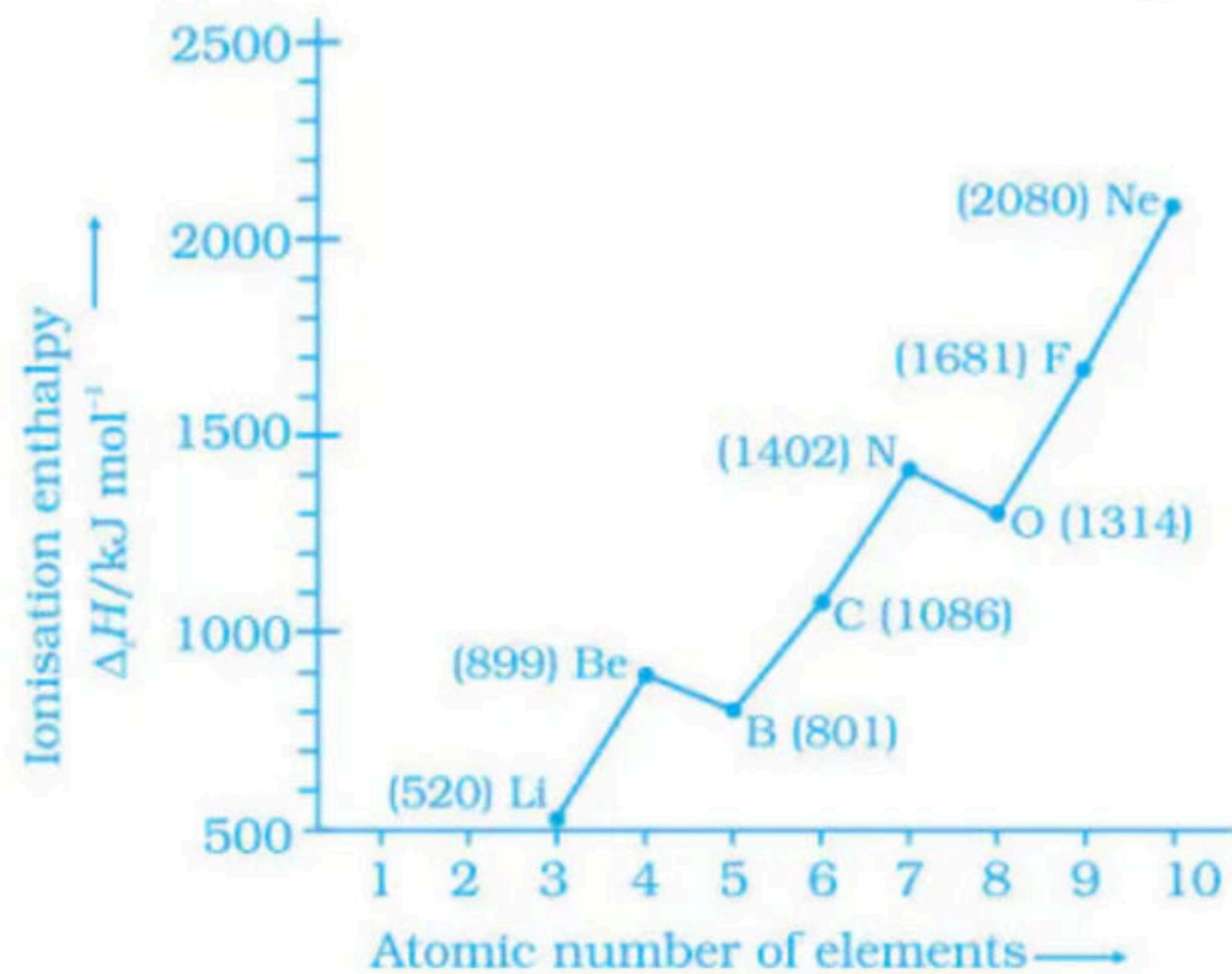
**37.** Arrange the elements N, P, O and S in the order of-

(i) increasing first ionisation enthalpy.

(ii) increasing non metallic character.

Give reason for the arrangement assigned.

**38.** Explain the deviation in ionisation enthalpy of some elements from the general trend by using Fig. 3.2.



**Fig. 3.2**

**39.** Explain the following:

- (a) Electronegativity of elements increase on moving from left to right in the periodic table.
- (b) Ionisation enthalpy decrease in a group from top to bottom?

**40.** How does the metallic and non metallic character vary on moving from left to right in a period?

**41.** The radius of  $\text{Na}^+$  cation is less than that of Na atom. Give reason.

**42.** Among alkali metals which element do you expect to be least electronegative and why?

3.24 Describe the theory associated with the radius of an atom as it

(a) gains an electron

(b) loses an electron

3.28 The increasing order of reactivity among group 1 elements is  $\text{Li} < \text{Na} < \text{K} < \text{Rb} < \text{Cs}$  whereas that among group 17 elements is  $\text{F} > \text{Cl} > \text{Br} > \text{I}$ . Explain.

3.31 The first ( $\Delta_1H_1$ ) and the second ( $\Delta_1H_2$ ) ionization enthalpies (in  $\text{kJ mol}^{-1}$ ) and the ( $\Delta_{\text{eg}}H$ ) electron gain enthalpy (in  $\text{kJ mol}^{-1}$ ) of a few elements are given below:

Elements	$\Delta H_1$	$\Delta H_2$	$\Delta_{\text{eg}}H$
I	520	7300	-60
II	419	3051	-48
III	1681	3374	-328
IV	1008	1846	-295
V	2372	5251	+48
VI	738	1451	-40

Which of the above elements is likely to be :

- (a) the least reactive element.
- (b) the most reactive metal.
- (c) the most reactive non-metal.
- (d) the least reactive non-metal.
- (e) the metal which can form a stable binary halide of the formula  $\text{MX}_2$  (X=halogen).
- (f) the metal which can form a predominantly stable covalent halide of the formula  $\text{MX}$  (X=halogen)?

**49.** Discuss the factors affecting electron gain enthalpy and the trend in its variation in the periodic table.

**50.** Define ionisation enthalpy. Discuss the factors affecting ionisation enthalpy of the elements and its trends in the periodic table.

**55.** Discuss and compare the trend in ionisation enthalpy of the elements of group 1 with those of group 17 elements.

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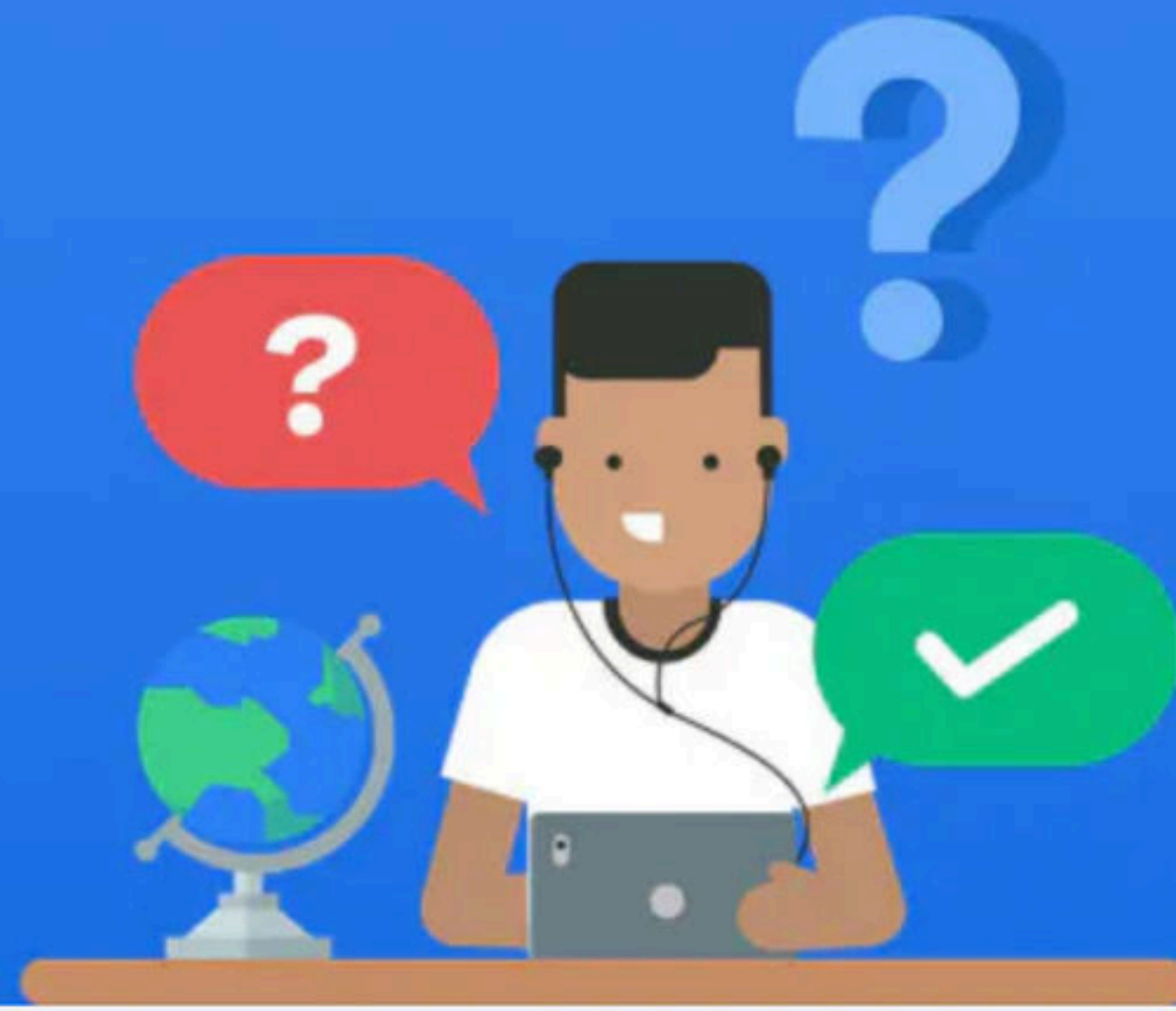
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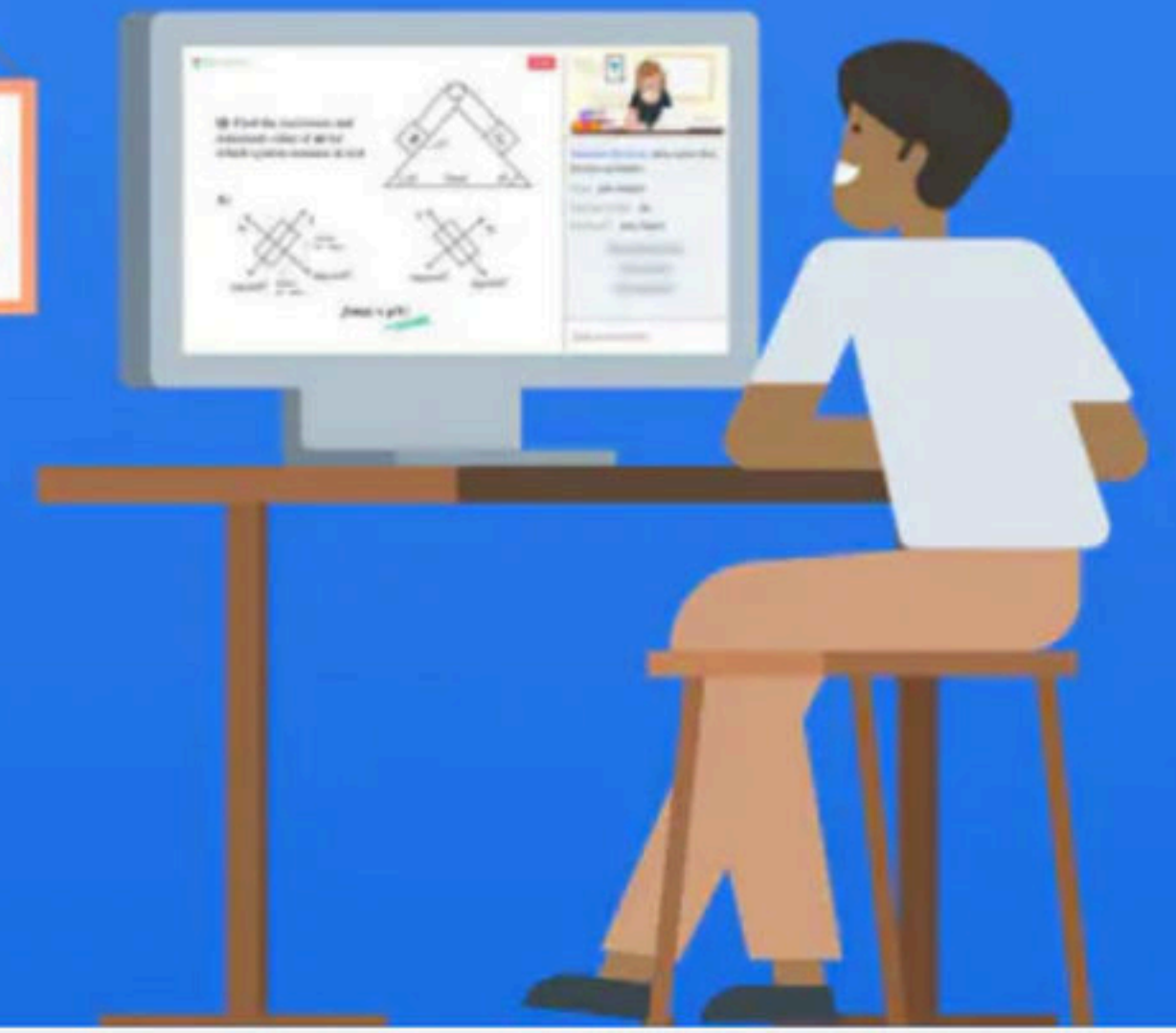
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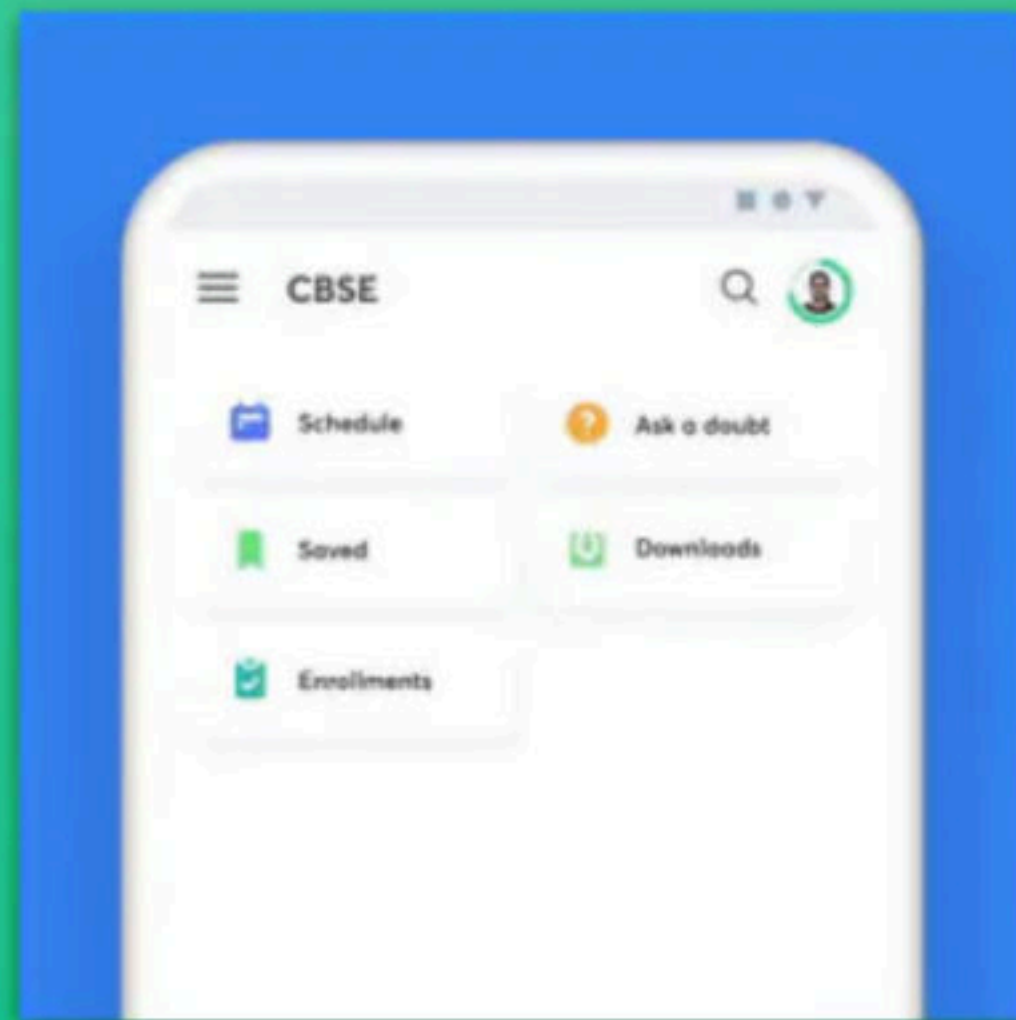
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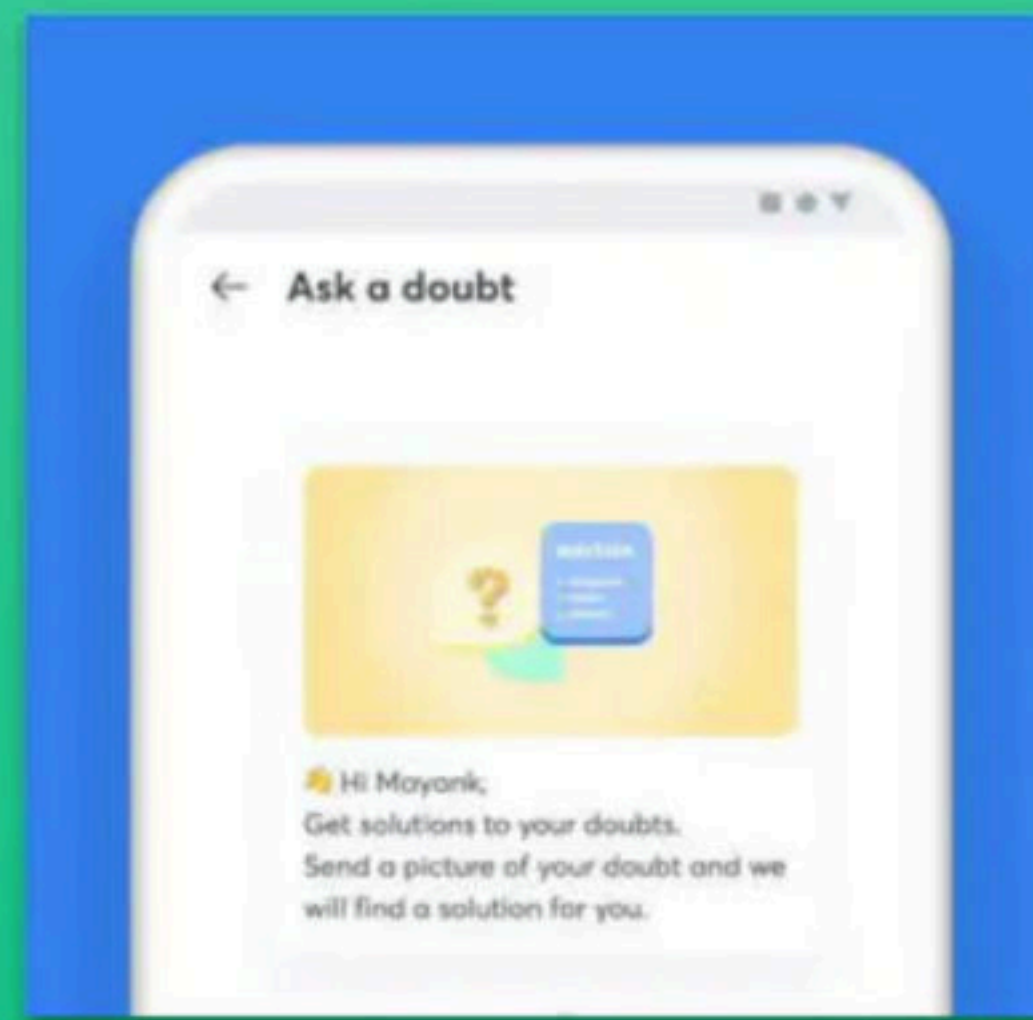


# How to Ask a Doubt



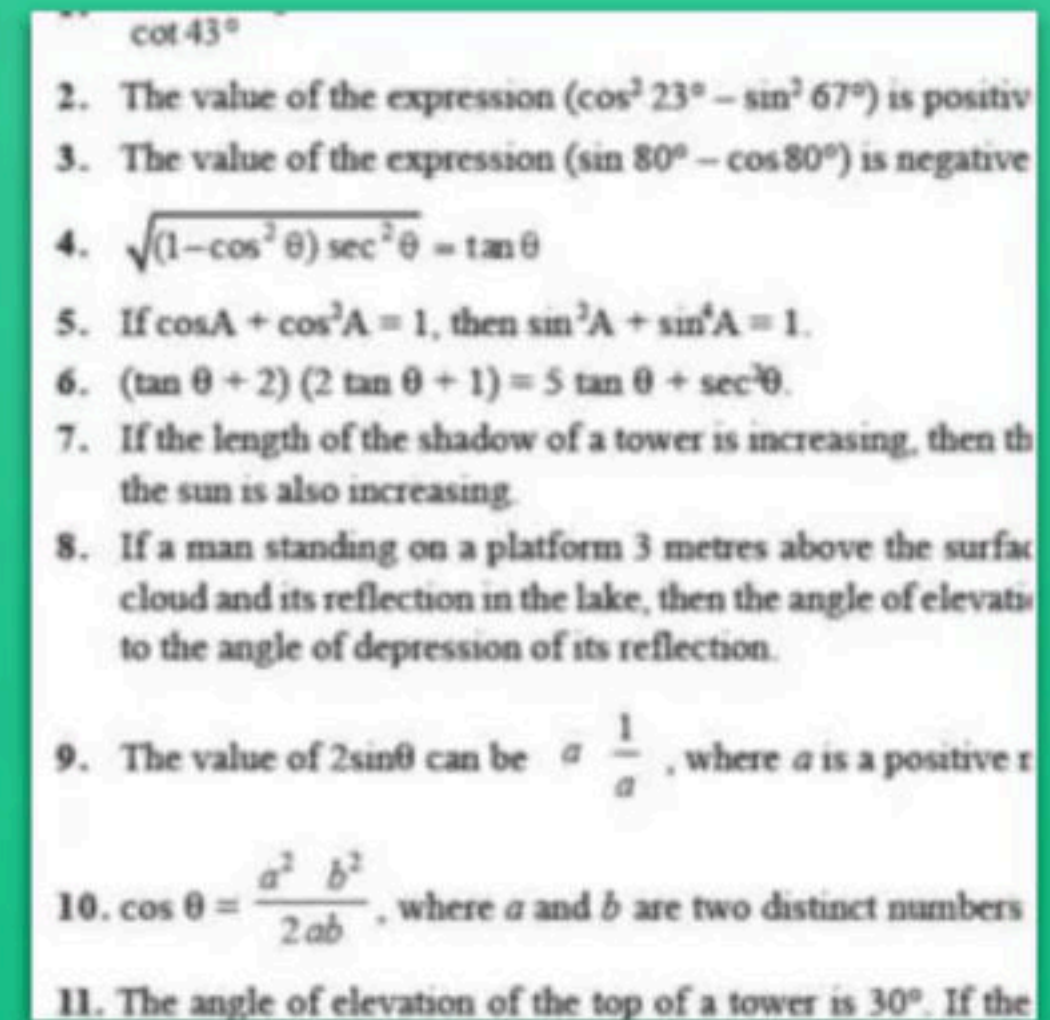
## Step 1

Click on 'Ask a Doubt'



## Step 2

Select 'Take a picture' or 'Choose from Gallery'

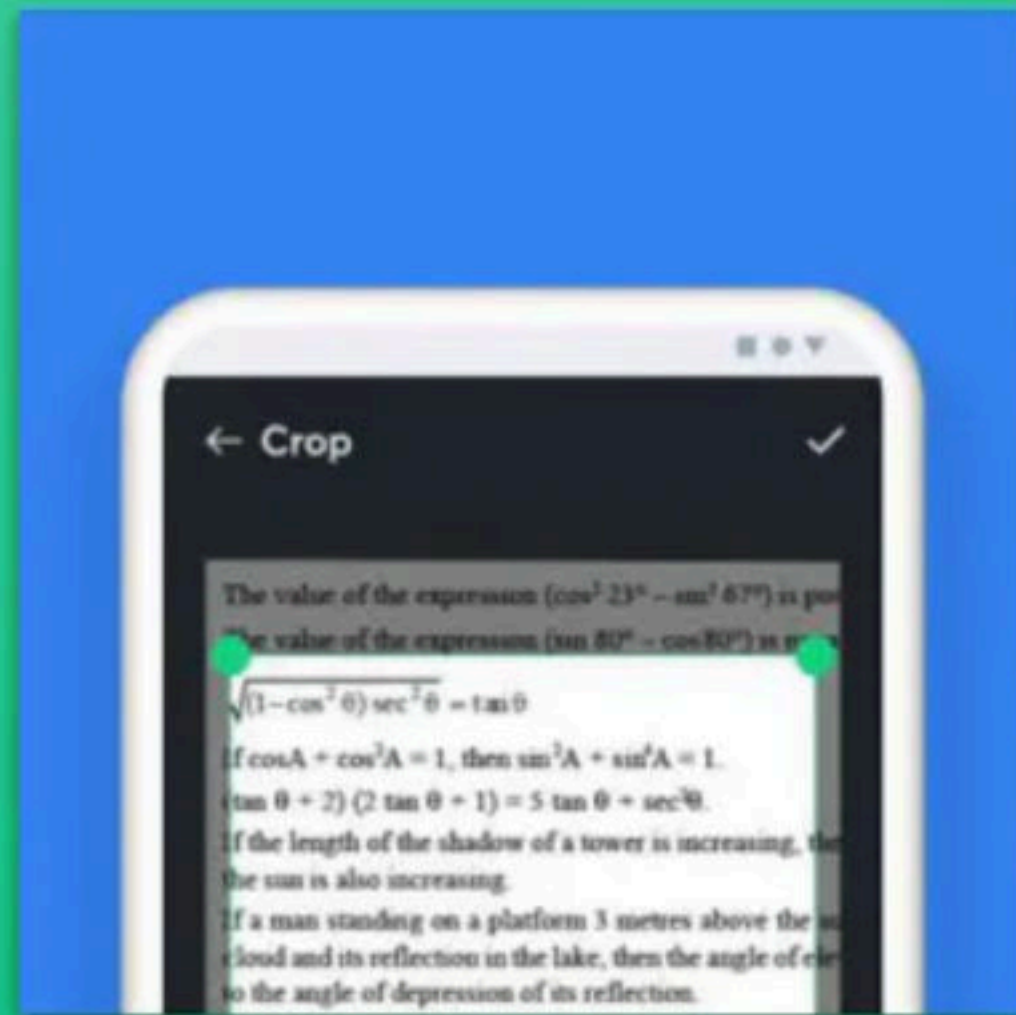


## Step 3

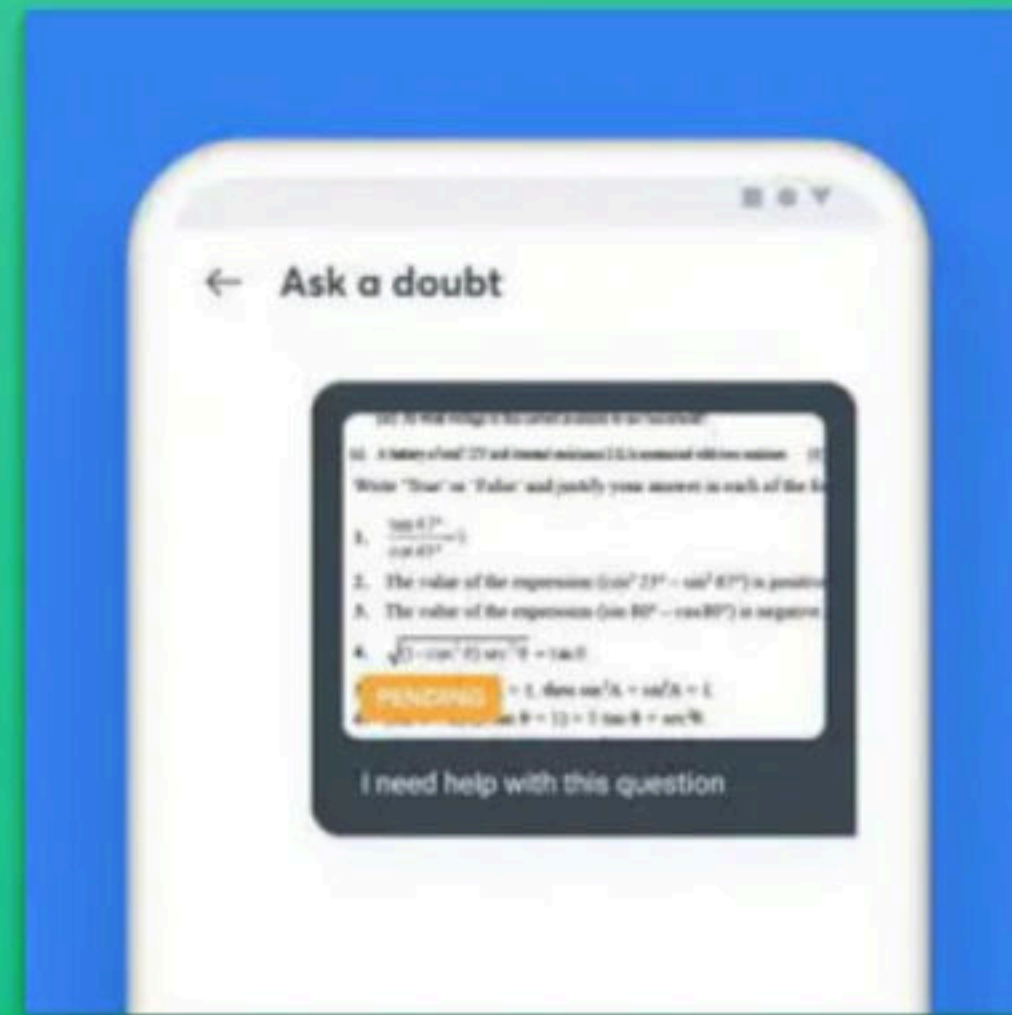
Click/select a picture of your question



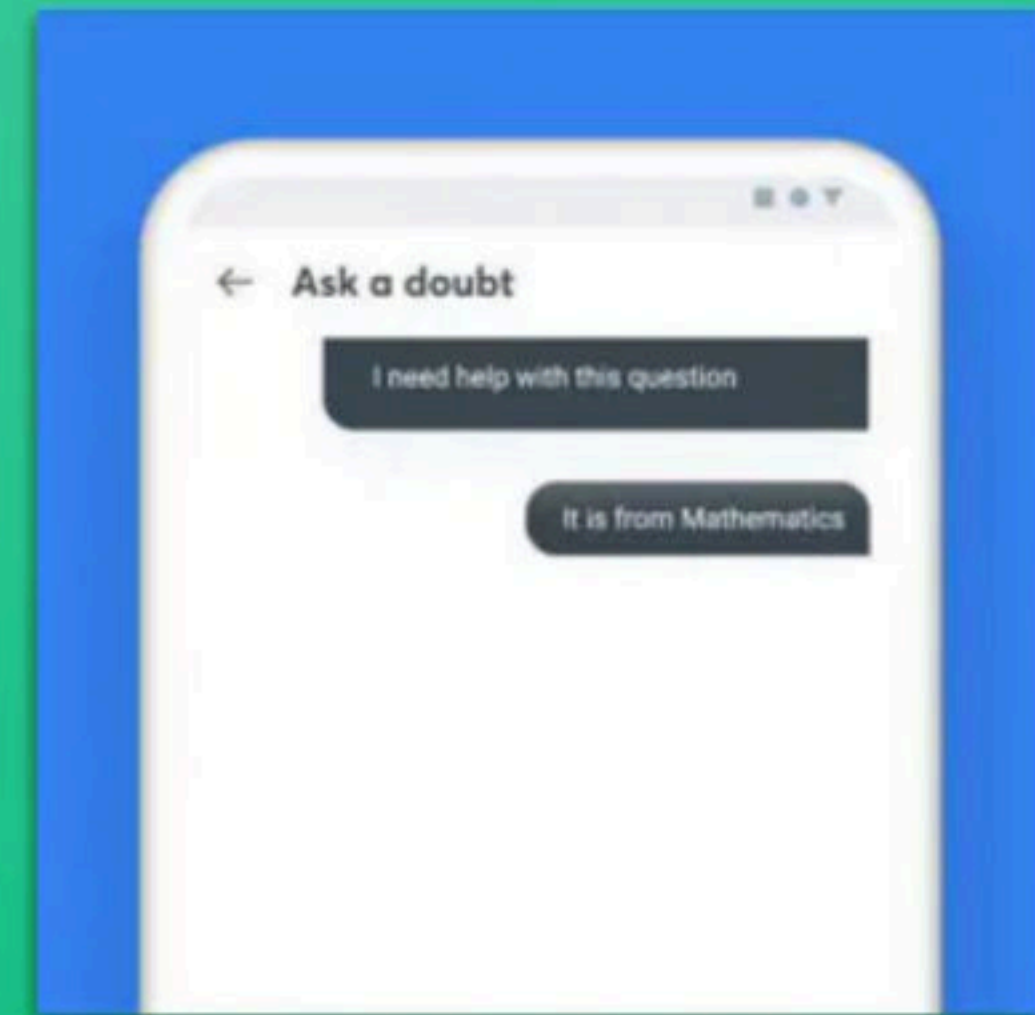
# ? How to Ask a Doubt



**Step 4**  
Crop to highlight one specific question



**Step 5**  
Choose the subject that the question falls under



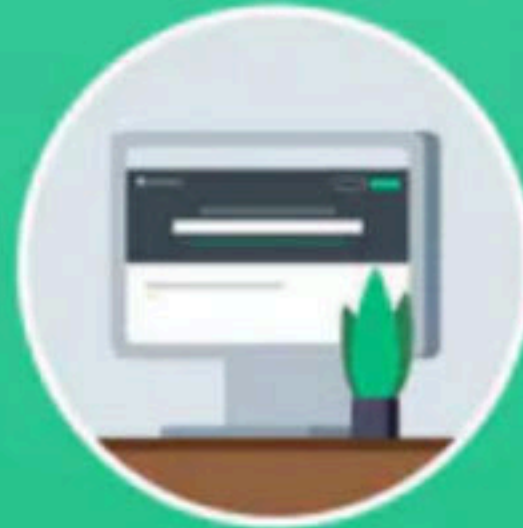
**Step 6**  
Sit tight, you'll receive the solution soon!



# Unacademy Subscription Features



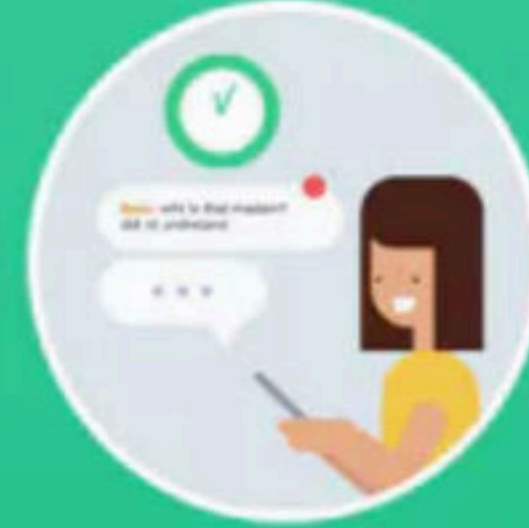
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Regular doubt-clearing and Answer writing sessions



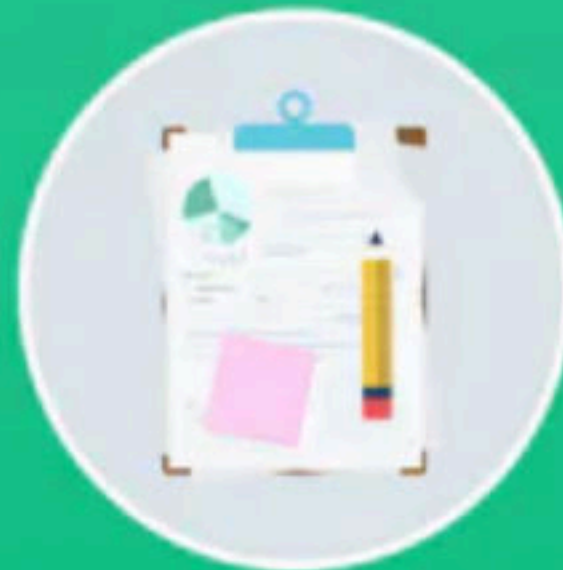
Exhaustive coverage of syllabus



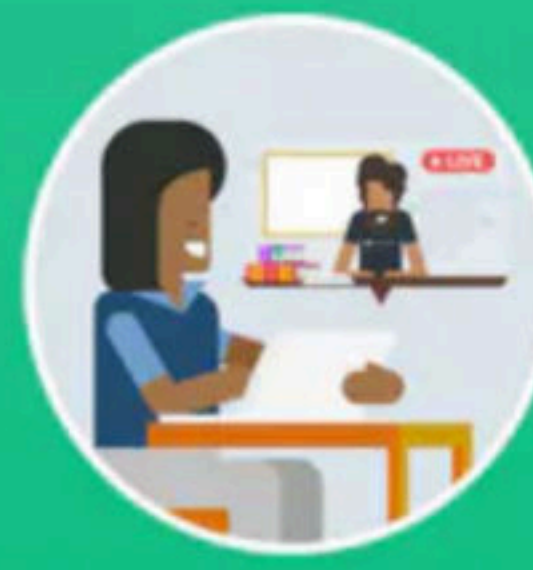
Mentorship and guidance



Study Material (PDF format)



Practice Tests



Live Test Series



Batch Courses

+ Daily Practice Section, Weekly Mock Test Series, Live Quizzes, Daily MCQ & Subjective Test Series

# Unacademy Test series



The banner features the Unacademy logo at the top center. Below it, a chalkboard contains the text: "CBSE CLASS 11 Science, Commerce & Humanities Weekend MCQs test series". The start date is "8th May 2021" and the timing is "9 AM - 1 PM". A green "Enroll Now" button is prominently displayed. The chalkboard also includes handwritten formulas like  $PH\ddot{7}$  and  $E = mc^2$ , and a bar chart. A male teacher character stands to the left of the chalkboard, and a desk with books, a calendar, a laptop, and a smartphone is at the bottom right. The background is a light yellow pattern of dots.

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CBSE CLASS 11

**Science, Commerce & Humanities**

Weekend MCQs test series

Start date: 8th May 2021 | Timing: 9 AM - 1 PM

**Enroll Now**

$PH\ddot{7}$   $E = mc^2$





## Question

from Dr Zeus

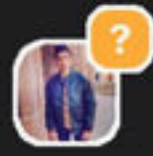
sir Stricutre of Atom me ka skip part important hai bcoz Mai  
abhi tak usko nh i padha



## Question

from Yaseen

sir physics ke liye konsi book best hai for solving jee level questions. please suggest any question .



## Question

from Sameer Siddhartha

Sir, kya aap ek day concept ke saath aur ek day questions ke saath jaa sakte hai kya, kyuki first day questions karne pe josh tha, but second day boring lag raha- request.



## Question

from Ayush kumar

NCERT , EXEMPLAR , HC VERMA AMD MODULES IS  
ENOUGH FOR PHYSICS



# Unacademy Subscription

## Class 11, 12 subscription

PLUS ICONIC

No cost EMI available on 6 months & above subscription plans

<input checked="" type="checkbox"/>	24 months	50% OFF	₹22,500 Total	₹938 per month
<input type="checkbox"/>	18 months	54% OFF	₹18,000 Total	₹1,000 per month
<input type="checkbox"/>	15 months	52% OFF	₹16,200 Total	₹1,080 per month
<input type="checkbox"/>	12 months	50% OFF	₹13,500 Total	₹1,125 per month
<input type="checkbox"/>	6 months	33% OFF	₹9,000 Total	₹1,500 per month
<input type="checkbox"/>	3 months		₹6,750 Total	₹2,250 per month

Awesome! You got 10% off Proceed to pay

## Class 12 subscription

PLUS ICONIC

No cost EMI available on 6 months & above subscription plans

<input checked="" type="checkbox"/>	12 months	50% OFF	₹13,500 Total	₹1,125 per month
<input type="checkbox"/>	6 months	33% OFF	₹9,000 Total	₹1,500 per month
<input type="checkbox"/>	3 months		₹6,750 Total	₹2,250 per month

To be paid as a one-time payment

Awesome! You got 10% off Proceed to pay





# Unacademy Iconic Subscription

## Features

'Iconic Subscription' redefines mentorship and ensures hands-on learning.

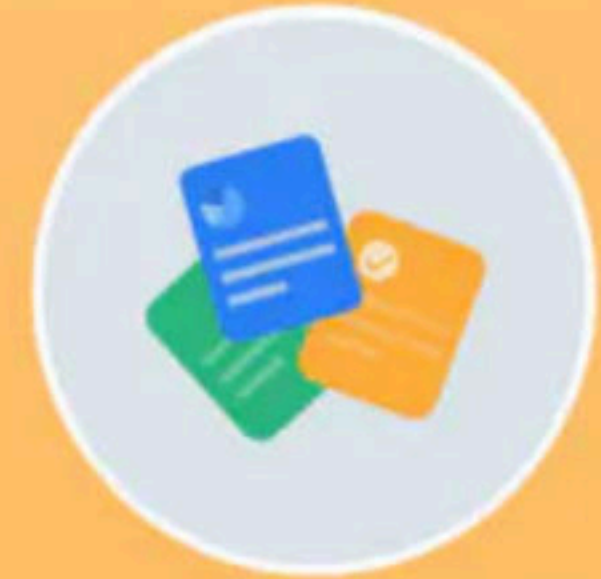
We are happy to present a 360 degree support system that gives you all the assistance you need.



**Personal Mentor:** Get one-on-one guidance from Top Educators for all your concerns



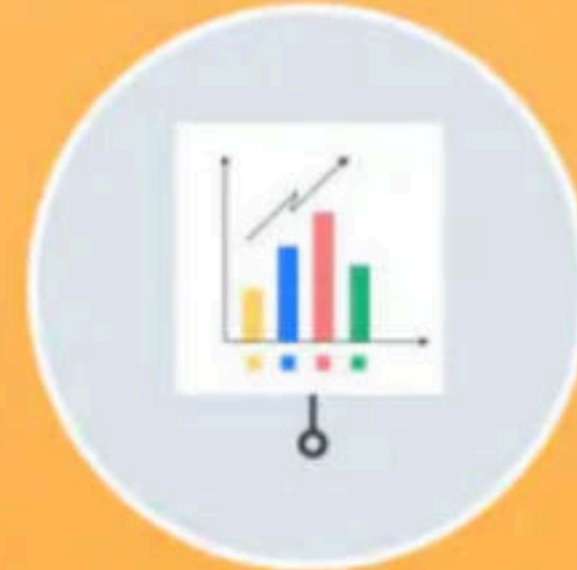
**Live Doubt Solving:** Attend exclusive doubt-solving classes to discuss your academic doubts



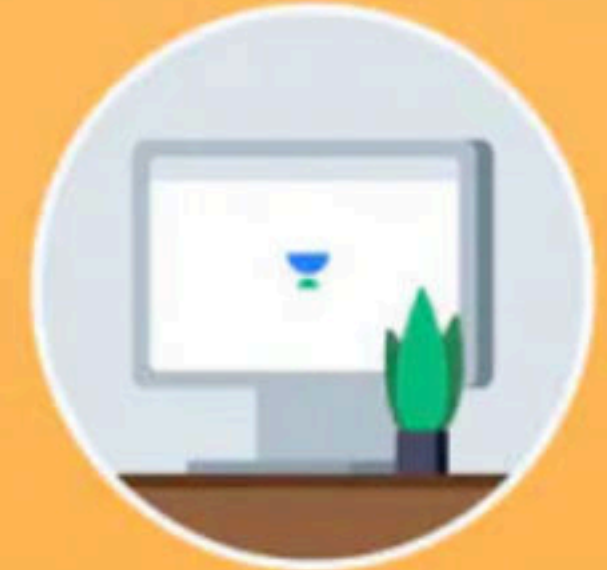
**Weekly Report:** Get detailed report on classes attended and performance in tests and quizzes



**Parent Connect:** Regular open hours available for parents to discuss concerns with your personal mentor



**Study Planner:** Study tracker plan with monthly reviews that highlight your progress



**All benefits of Unacademy Subscription:** Live classes from Top Educators, Mock Tests and Quizzes, structured Batch Courses as per the exam syllabus



# Unacademy Iconic Subscription

## Class 11, 12 subscription

PLUS

ICONIC

No cost EMI available on 6 months & above subscription plans

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<input type="checkbox"/>	18 months	21% OFF	₹31,500 Total	₹1,750 per month
<input type="checkbox"/>	15 months	17% OFF	₹28,800 Total	₹1,920 per month
<input type="checkbox"/>	12 months	12% OFF	₹25,200 Total	₹2,100 per month
<input type="checkbox"/>	6 months	7% OFF	₹15,300 Total	₹2,550 per month
<input type="checkbox"/>	3 months		₹10,800 Total	₹3,600 per month

To be paid as a one-time payment



Awesome! You got 30% off

Proceed to pay

## Class 12 subscription

PLUS

ICONIC

No cost EMI available on 6 months & above subscription plans

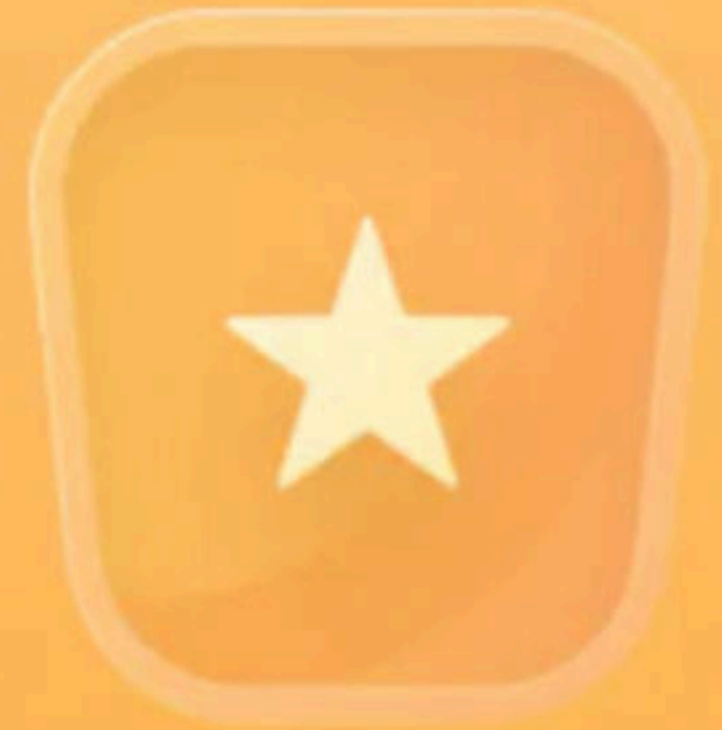
<input checked="" type="checkbox"/>	12 months	12% OFF	₹25,200 Total	₹2,100 per month
<input type="checkbox"/>	6 months	7% OFF	₹15,300 Total	₹2,550 per month
<input type="checkbox"/>	3 months		₹10,800 Total	₹3,600 per month

To be paid as a one-time payment



Awesome! You got 10% off

Proceed to pay





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# Upcoming Events



UNACADEMY  
EMERGE



# Unacademy Emerge

India's Largest FREE Aptitude Test

Classes **6 to 12**

Test Date & Time:

**June 20 | 12 PM**



- **30** Aptitude Questions
- **60** Minutes Challenge
- Absolutely no preparation required
- Attempt & Win Prizes Worth **5 Crore**



# Win Prizes Worth **5 CRORE**

**WIN** Scholarships and Mega Prizes like MacBook, iPhone, iPads, exciting Goodies, Certificates, Trophies and much more worth INR 5 Crore

**7 Lucky Winners** to win exciting goodies every day

*Offer valid till 7th June*

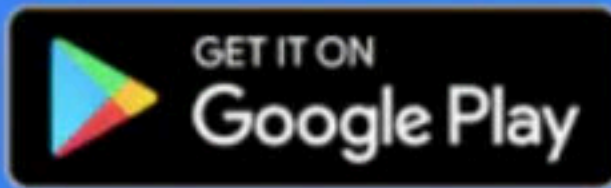
**Enroll Now**

**Link pinned in chat**





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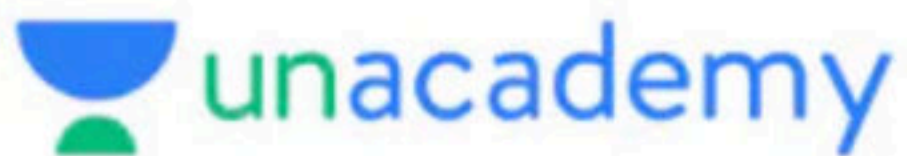


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**LET'S CRACK IT!**

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# Mid-Day Batch for Half Yearly Exams - **SCIENCE**

Start Date - 14th June 2021 | Duration : 2.5 months | Mode of delivery : Hindi

**PHYSICS**



**Manoj Kumar**

- Completed B.Tech and PGDM
- 6+ Years of Teaching Experience

**MATHS**



**Rahul Mohnani**

- Completed B.Tech
- 7+ Years of Teaching Experience

**CHEMISTRY**



**Vivek Gupta**

- Completed B.Tech (Automobile Engineer)
- 12+ Years of Teaching Experience

**BIOLOGY**



**Juhi Mishra**

- Completed M.Sc (Gold Medalist) and Cracked UPPSC with 6th Rank in 2019, Qualified TGT and PGT Exams
- 10+ Years of Teaching Experience

CBSE Class 12

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# Mid-Day Batch for Half Yearly Exams - **SCIENCE**

Start Date - 14th June 2021 | Duration : 2.5 months | Medium of delivery : Hindi

**MATHS**



**Tushar Singhal**

- Completed B.Tech in Computer Science
- 10+ Years of Teaching Experience

**PHYSICS**



**Zaki Qureshi**

- Completed BE (CE) Mentored 4 Lakh+ Students
- 3+ Years of Teaching Experience

**CHEMISTRY**



**Rahul Dudi**

- Completed B.Tech from NIT Jaipur
- 7+ Years of Teaching Experience

**BIOLOGY**



**Saurabh Shukla**

- Completed B.Ed and M.Sc, Mentored 2k+ Learners
- 14+ Years of Teaching Experience

# Answer Writing Batch for Half Yearly Exams - Science

Start Date - 7th June 2021 | Duration : 3 months

Maths



**Tushar Singhal**

- Completed B.Tech in Computer Science
- 10+ years of Teaching Experience

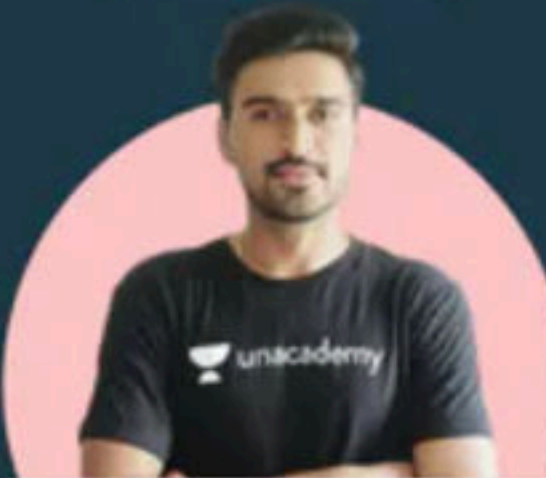
Physics



**Manoj Kumar**

- Completed B.Tech and PGDM.
- 6+ years of Teaching Experience

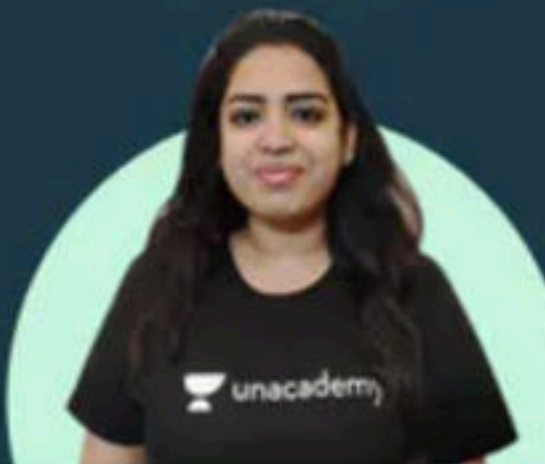
Chemistry



**Rahul Dudi**

- Completed B.Tech from NIT Jaipur
- 7+ years of Teaching Experience

English



**Dr. Kritika Sabharwal**

- Completed B.D.S, B.Ed.
- 5+ Years of Teaching Experience

Biology



**Tamsa Tyagi**

- Completed MSc (Biochemistry)
- 5+ Years of Teaching Experience

CBSE Class 12

# PRIME Batch for Half Yearly Exams

Start Date - 7th June 2021 | Duration : 3 months

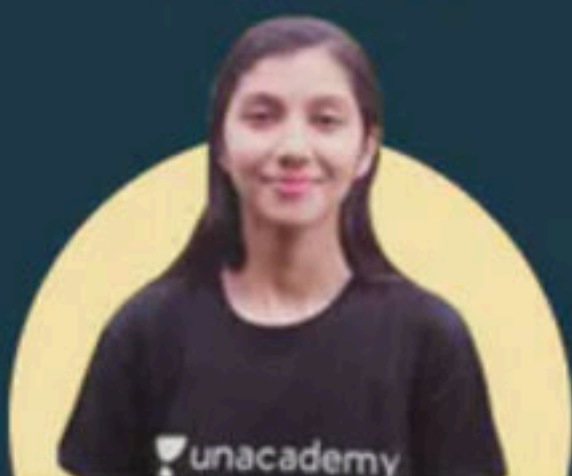
Maths



**Rahul Mohnani**

- Completed B.Tech.
- 10+ years of Teaching Experience

Physics



**Arshpreet Kaur**

- GATE Physics 2019 Qualified, MSc in Physics
- 3+ years of Teaching Experience

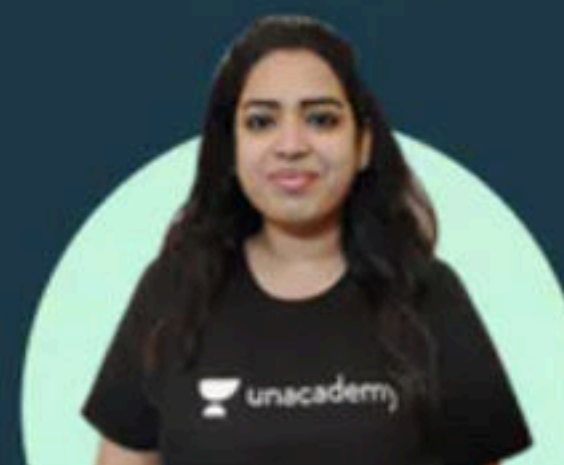
Chemistry



**Dr. Monica Bedi**

- Among top 30 NET (CSIR-JRF), SLET Qualified. PhD. Chemistry with fellowship
- 15 + years of Teaching Experience

English



**Dr. Kritika Sabharwal**

- Completed B.D.S, B.Ed.
- 5+ Years of Teaching Experience

Biology



**Tamsa Tyagi**

- Completed MSc (Biochemistry)
- 5+ Years of Teaching Experience