

History

1. Mention five steps that the French Revolution took to create collective identity.
2. Describe the event of the French Revolution which had influenced the people of other parts of Europe.
3. The 1830s were the years of great hardships in Europe? Explain.
4. The first clear expression of Nationalism came with the French revolution in 1789. Examine the statement.
5. How did Nationalism develop through culture in Europe? Explain.
6. How did culture play an important role in creating the idea of a nation? Explain in the context of European romanticism of the 19th century.
7. Describe the explosive conditions prevailed in Balkans after 1871 in Europe.
8. Napoleon had destroyed democracy in France but in the administrative field incorporated Revolutionary principles in order to make the whole system more rational and efficient. Analyse the statement with the arguments.
9. Describe in brief the process by which the British Nation came into existence.
10. Explain the process of unification of Italy.
11. Explain the term Liberal Nationalism in political and economic term.
12. What was the major changes that occurred in the political and constitutional scenario due to French revolution? .
13. In the years after 1848 the autocratic monarchies of Central and Eastern Europe began to introduce changes that had already taken place in Western Europe before 1815. Mention any two changes.
14. Case based question- Ideas of national unity in early-nineteenth-century Europe were closely allied to the ideology of liberalism. The term 'liberalism' derives from the Latin root liber, meaning free. For the new middle classes liberalism stood for freedom for the individual and equality of all before the law. Politically, it emphasised the concept of government by consent. Since the French Revolution, liberalism had stood for the end of autocracy and clerical privileges, a constitution and representative government through parliament. Nineteenth-century liberals also stressed the inviolability of private property. Yet, equality before law did not necessarily stand for universal suffrage. Men without property and all women were excluded from political rights.

1. Define Liberalism?
2. What was the meaning of liberalism for the new middle class in Europe?
3. What do you mean by universal suffrage?
4. Who were excluded from political rights?

19. Read the given extract and answer the questions that follow:

Economists began to think in terms of the national economy. They talked of how the nation could develop and what economic measures could help forge this nation together. Friedrich List, Professor of Economics at the University of Tübingen in Germany, wrote in 1834: 'The aim of the Zollverein is to bind the Germans economically into a nation. It will strengthen the nation materially as much by protecting its interests externally as by stimulating its internal productivity. It ought to awaken and raise national sentiment through a fusion of individual and provincial interests. The German people have realised that a free economic system is the only means to engender national feeling.

1. What was Zollverein? When was it formed?
2. "The aim of the Zollverein is to bind the Germans economically in to a nation. "Who expressed these words?
3. Mention two points on the importance of a Free economic system.

Political Science

1. You are a citizen of a country that has a democratic form of government. You want to ensure that the system of power-sharing in your country is effective and that no one branch of government has absolute power. Which of the following measures would best meet this goal?

- A. All power is concentrated in the hands of the legislature only
- B. Power is divided between the central government and the states or provinces, with each level having its own sphere of influence.
- C. Power is separated among the legislative, executive, and judicial branches, with each branch having its own responsibilities and powers. Power is shared among different levels of government, such as the national, regional, and local governments, with each level having some degree of autonomy.

1. Mention the idea of community government. How is power shared among different political parties?
2. Write two points of differences between the power sharing arrangements in Sri Lanka and Belgium.
3. Which system of power sharing called 'checks and balances? Who elects the community government in Belgium?
4. Which measures adopted by the democratically elected government to establish Sinhala supremacy?
5. Why is power sharing desirable? Describe any two reasons.
6. Why the system of checks and balances desirable in power sharing?
7. Sharing of powers makes a country more powerful and united.
8. What were the results of civil war in Sri Lanka between the two communities?
9. Case based question. Belgium is a small country in Europe, smaller in area than the state of Haryana. It has borders with France, the Netherlands, Germany and Luxembourg. It has a population of a little over one crore, about half the population of Haryana. The ETHNIC composition of this small country is very complex. Of the country's total population, 59 per cent lives in the Flemish region and speaks Dutch language. Another 40 per cent people live in the Wallonia region and speak French. Remaining one per cent of the Belgians speak German. In the capital city Brussels, 80 per cent people speak French while 20 per cent are Dutch speaking.
 - i. Where is Belgium is located?
 - ii. Name the countries bordering with Belgium.
 - iii. Why do you think the ethnic composition of Belgium is complex?
 - iv. Compare the country Belgium with the Indian state of Haryana.

Geography / Economics

- Q1. Distinguish between red soil and laterite soil.
- Q2. Land is a natural resource of utmost importance? justify the statement with appropriate arguments.
- Q3. Define the following terms -a) Current fallow land b) cultivable waste land
c) net sown area d) gross cropped area e) other than current fallow land.

Q 4. Write the characteristics of regur soil.

Q5. Describe alluvial soil under the following heads:

a) formation b) distribution c) nutrients

Q6. Distinguish between Khadar and Bangar soil.

Q7. Write any five characteristics of arid soil.

Q8. Which is the main cause of land degradation in Gujarat, Rajasthan and Madhya Pradesh? How can it be checked? Explain.

Q9. Which soil type is a result of intense leaching due to heavy rainfall. Write five features of this soil.

Q10. What is resource planning? Why is resource planning essential in India. Explain with example.

11. Suggest any two ways to maintain body mass index (BMI).

12. What is per capita income? How it is calculated?

13. Write any two development goals of a landless worker of a village.

14. What is the main criterion used by the World Bank in classifying different countries?

15. Our development is the earth's destruction. Do you agree with the given statement? Give 2 reasons.

16. It is true that if women are engaged in paid work, their dignity in household and society increases. What conditions can encourage women to get engaged in paid works?

17. Differentiate between material and non material goals.

18. Sustainability of development is the need of present time. Are you agree? Explain.

19. Describe any three factors of a developed country.

20. 'Conflicting goals can also be developmental goals'. Elaborate with examples.

21. Why do people look at a mix of goals for development? Explain.

22. What may be development for one may not be development for the other." Explain with a suitable example.

23. What are the development goals of the following: (i) Labourer (ii) Rich farmer (iii) Trade

24. Describe any three features of developed country.

25. Mention any THREE characteristics of development.

26. Development for one may be the destruction for other.' Do you agree with the statement? Justify your answer.

27. Read the source and answer the questions

The idea of development or progress has always been us. We have aspirations or desire about what we would like to do and how we would like to live. Similarly, we have idea about what a country should we like. What are the essential things that we require? Can life be better for all? How should people live together? Can there be more equality? Development involves thinking about these questions and about the ways in which we can work towards achieving these goals.

1. What is the definition of development?

2. People do not have same notion of development because

3. What can be the common development goals of all citizen? 4. Which of the concept is being discussed in the source?

Physics

1. Draw a labelled ray diagram to show the path of the reflected ray corresponding to an incident ray of light parallel to the principal axis of a convex mirror. Mark the angle of incidence and angle of reflection on it.

2. An object is placed at a distance of 30 cm in front of a convex mirror of focal length 15 cm. Write four characteristics of the image formed by the mirror.

3. Name the type of mirrors used in the design of solar furnaces. Explain how high temperature is achieved by this device.

4. List two properties of the images formed by convex mirrors. Draw ray diagram in support of your answer.

5. The linear magnification produced by a spherical mirror is +3. Analyse this value and state the (i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to show the formation of image in this case.

6. The image formed by a concave mirror is observed to be virtual, erect and larger than the object. Where should the position of the object be relative to the mirror? Draw ray diagram to justify your answer.

7. Draw ray diagrams for the following cases when a ray of light:

(i) passing through centre of curvature of a concave mirror is incident on it.

(ii) parallel to principal axis is incident on convex mirror.

(iii) is passing through focus of a concave mirror incident on it.

8. A concave mirror is used for image formation for different positions of an object. What inferences can be drawn about the following when an object is placed at a distance of 10 cm from the pole of a concave mirror of focal length 15 cm?

(a) Position of the image

(b) Size of the image

(c) Nature of the image

Draw a labelled ray diagram to justify your inferences.

9. A concave mirror has a focal length of 20 cm. At what distance from the mirror should a 4 cm tall object be placed so that it forms an image at a distance of 30 cm from the mirror? Also calculate the size of the image formed.

10. The image of an object formed by a mirror is real, inverted and is of magnification -1. If the image is at a distance of 40 cm from the mirror, where is the object placed? Where would the image be if the object is moved 20 cm towards the mirror? State reason and also draw ray diagram for the new position of the object to justify your answer.

Chemistry

11. Can we stir silver nitrate solution with a copper spoon? Why or why not?

12. What type of reaction represented by the following?

(i) $A + B \rightarrow C$ (ii) $A + BC \rightarrow AC + B$

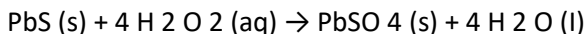
(iii) $AB + CD \rightarrow AD + CB$ (iv) $A \rightarrow B + C$

13. Why do we store silver chloride in dark coloured bottles?

14. Why does blue colour of copper sulphate solution start fading when a zinc rod is dipped in it?

15. Taking a suitable example, explain that oxidation and reduction take place side by side.

16. In the following reaction, name the substance oxidized and the substance reduced:



Which substance acts as oxidizing agent and which one as reducing agent?

17. A silver article generally turns black when kept in the open for a few days. The article when rubbed with toothpaste again starts shining.

(a) why do silver articles turn black when kept in the open for a few days? Name the phenomenon involved.

(b) name the black substance formed and give its chemical formula.

18. Give two examples from everyday life situations where redox reactions are taken place.

Biology

19. Which is the respiratory pigment in Human beings and how does it help in transport of gases in our body?

20. What do you understand by Double circulation represent it in a flow chart

21. Why do Birds and Mammals have a completely chambered heart?

22. Diffusion is insufficient to meet the oxygen requirement of multicellular organisms like human. State reason

23. Give reasons for the following:

(i) Lungs always contain residual volume.

(ii) Nostrils are lined with mucus.

24. Mention the substances that are transported by the following channels/vessels respectively.

(i) Xylem

(ii) Phloem

(iii) Pulmonary vein

(iv) Vena cava

(v) Pulmonary artery

(vi) Aorta

25. Draw structure of Human heart.

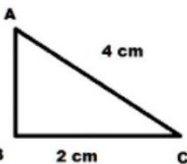
26. What prevents backward flow of blood inside the heart during contraction?

27. What are the three main types of blood vessels in the body? Differentiate between Artery and Vein

28. Write short note on Inhalation and Exhalation.

CHAPTER – 1 (Real Numbers)

- Given that $HCF(306, 1314) = 18$. Find $LCM(306, 1314)$.
- 2002 Cartons of Lassi bottles and 2618 cartons of Frooti are to be stacked in a storeroom. If each stack is of the same height and is to contain cartons of the same type of bottles, what would be the greatest number of cartons each stack would have?
- Find the largest number which divides 438 and 606 leaving remainder 6 in each case.
- Show that $2 + \sqrt{3}$ is an irrational number.
- Find the LCM and HCF of 336 and 54 and verify that $LCM \times HCF = \text{product of two numbers}$.
- If the HCF of 657 and 963 is expressible in the form of $657x + 963(-15)$, find the value of x .
- Prove that $\sqrt{11}$ is irrational number.
- If the HCF of 152 and 272 is expressible in the form $272 \times 8 + 152x$, then find x .
- Three sets of physics, chemistry and mathematics books have to be stacked in such a way all the books are stored topic wise and the number of books in each stack is the same. The number of physics books is 192, the number of chemistry books is 240 and the number of mathematics books is 168. Determine the number of stacks of physics, chemistry and mathematics books.
- Prove that the area of $\triangle ABC$ is irrational.



CHAPTER – 2 (Polynomials)

- Find all the zeros of $f(x) = x^2 - 2x$.

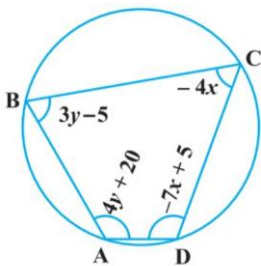
$\frac{1}{\beta}$

- If α and β are the zeroes of the polynomial $4x^2 - 2x + (k - 4)$ and $\alpha = \frac{1}{\beta}$ find the value of k .
- If α and β are zeroes of the polynomial $x^2 - p(x + 1) + c$ such that $(\alpha + 1)(\beta + 1) = 0$, then find the value of c .

- If α and β are the zeroes of the polynomial $p(x) = 6x^2 + 5x - k$ satisfying the relation $\alpha - \beta = \frac{1}{6}$, then find the value of k .
- If α and β are the zeroes of the polynomial $p(x) = 3x^2 + 2x + 1$, find the polynomial whose zeroes are $\frac{1-\alpha}{1+\alpha}$ and $\frac{1-\beta}{1+\beta}$.
- If α and β are the zeroes of the quadratic polynomial $p(x) = 4x^2 - 5x - 1$, find the value of :-
 - i) $\alpha^2 + \beta^2$
 - ii) $\alpha^3 + \beta^3$
 - iii) $\alpha - \beta$
 - iv) $\frac{1}{\alpha} + \frac{1}{\beta}$
- If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 5x + 4$, find the value of $\frac{1}{\alpha} \div \frac{1}{\beta} - 2\alpha\beta$.
- If α and β are the zeroes of the quadratic polynomial $f(x) = 6x^2 + x - 2$ find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$.
- If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - x - 2$, find the value of $\frac{1}{\alpha} - \frac{1}{\beta}$.
- If α and β are the zeroes of the quadratic polynomial such that $\alpha + \beta = 24$ and $\alpha - \beta = 8$, find a quadratic polynomial having α and β as its zeroes.

○ CHAPTER – 3 (Pair of linear equation in two variables)

- The ages of two friends Ani and Biju differ by 3 years. Ani's father Dharam is twice as old as Ani and Biju is twice as old as his sister Cathy. The ages of Cathy and Dharam differ by 30 years. Find the ages of Ani and Biju.
- One says, "Give me a hundred, friend! I shall then become twice as rich as you". The other replies, "If you give me ten, I shall be six times as rich as you". Tell me what is the amount of their (respective) capital? [From the Bijaganita of Bhaskara II] [Hint : $x + 100 = 2(y - 100)$, $y + 10 = 6(x - 10)$].
- A train covered a certain distance at a uniform speed. If the train would have been 10 km/h faster, it would have taken 2 hours less than the scheduled time. And, if the train were slower by 10 km/h; it would have taken 3 hours more than the scheduled time. Find the distance covered by the train.
- The students of a class are made to stand in rows. If 3 students are extra in a row, there would be 1 row less. If 3 students are less in a row, there would be 2 rows more. Find the number of students in the class.
- In a $\triangle ABC$, $\angle C = 3 \angle B = 2(\angle A + \angle B)$. Find the three angles.



- Draw the graphs of the equations $5x - y = 5$ and $3x - y = 3$. Determine the co-ordinates of the vertices of the triangle formed by these lines and the y axis.
- ABCD is a cyclic quadrilateral. Find the angles of the cyclic quadrilateral.
- Solve the following pair of linear equations:-

$$Px + qy = p - q$$

$$Qx - py = p + q$$

$$Ax + by = c$$

$$Bx + ay = 1 + c$$

$$(iii) \quad (A - b)x + (a + b)y = a^2 - 2ab - b^2$$

$$(a + b)(x + y) = a^2 + b^2$$

$$152x - 378y = -74$$

$$-378x + 152y = -604$$