

# PRAYAG PUBLIC SCHOOL

## Holiday Homework (2024-25)

### CLASS 11 - ACCOUNTANCY

Section A																		
1	Explain the meaning of the following terms : 1. Assets 2. Capital 3. Goods 4. Drawings 5. Trade Receivables																	
2	Giving examples, explain each of the following accounting terms: 1. Fixed assets 2. Revenue 3. Expenses 4. Short - term liability 5. Capital																	
3	State the following: 1. Depreciation 2. Revenue 3. Trade Discount 4. Current Assets																	
4	Explain the following terms: 1. Account 2. Sales 3. Goods 4. Vouchers																	
5	Explain the meaning of any three of the following terms: 1. Liability 2. Stock 3. Business Transaction 4. Drawings																	
6	Develop an Accounting Equation from the following transactions: <table border="1"><thead><tr><th></th><th>₹</th></tr></thead><tbody><tr><td>(i) Manoj commenced business with cash</td><td>50,000</td></tr><tr><td>(ii) Purchased goods for cash</td><td>30,000</td></tr><tr><td>(iii) Purchased goods on credit</td><td>20,000</td></tr><tr><td>(iv) Sold goods (costing ₹ 10,000) for</td><td>12,000</td></tr><tr><td>(v) Bought furniture on credit</td><td>2,000</td></tr><tr><td>(vi) Paid cash to a creditor</td><td>15,000</td></tr><tr><td>(vii) Salary paid</td><td>1,000</td></tr></tbody></table>		₹	(i) Manoj commenced business with cash	50,000	(ii) Purchased goods for cash	30,000	(iii) Purchased goods on credit	20,000	(iv) Sold goods (costing ₹ 10,000) for	12,000	(v) Bought furniture on credit	2,000	(vi) Paid cash to a creditor	15,000	(vii) Salary paid	1,000	
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7	Mohit has the following transactions. Prepare Accounting Equation: 1. Business started with cash Rs 1,75,000 2. Purchased goods from Rohit Rs 50,000 3. Sold goods on credit to Manish (costing 17,500) Rs 20,000 4. Purchased furniture for office use Rs 10,000 5. Cash paid to Rohit in full settlement Rs 48,000 6. Cash received from Manish Rs 20,000																	
8	Prepare 'Accounting Equation' from the following: 1. Started business with cash ₹ 1,00,000. 2. Purchased goods for cash ₹ 20,000 and on credit ₹ 30,000 3. Sold goods for cash costing ₹ 10,000 and on credit costing ₹ 15,000 both at a profit of 20%.																	
9	Prove that the accounting equation is satisfied in all the following transaction of Sudhir 1. Started business with cash Rs 1,00,000 and goods Rs 40,000. 2. Bought goods on cash Rs 30,000 and on credit for Rs 20,000. 3. Goods costing Rs 48,000 sold at a profit of $33\frac{1}{3}$ %. Half the payment received in cash. 4. Purchased furniture for office use Rs 12,000 and for household use of Sudhir Rs																	

	8,000.	
10	Monika has the following assets and liabilities as on 31st March, 2013. Ascertain his capital. Cash Rs 50,000, bank Rs 95,000, debtors Rs 36,000, creditors Rs 44,000, plant and machinery Rs 1,60,000, building Rs 4,00,000, furniture Rs 48,000, bills receivable Rs 1,13,000, bills payable Rs 47,000.	
11	Define Accounting. Explain any two limitations of Accounting.	
12	State the steps involved in the process of accounting.	
13	Differentiate between Book keeping and Accounting.	
14	Distinguish between book - keeping, accounting, and accountancy.	
15	The definition of accounting brings to light various attributes of accounting. In context to this, define accounting and discuss any three attributes of accounting.	

### **Business Studies**

Q-1 Explain the characteristics of business?

Q-2 Compare Business with Profession and Employment. [2013]

Q-3 Manoj and Kartik decide to start a manufacturing business of computer keyboards in partnership. Manoj emphasizes on having a written agreement for the same. In addition, the firm should also get registered. However, Kartik wants to have a verbal agreement. Manoj explained the consequences of non-registration to Kartik, after which he agreed on it.

State the consequences of non-registration of a firm which was explained by Manoj to Kartik.

Q-4 State the important privileges available to a private company?

Q-5 What are the benefits of entering into joint ventures? [2010]

Q-6 Explain briefly the following features of global enterprises:

1. Huge capital resources. 2. Foreign collaboration
3. Expansion of market territory. 4. Centralised control. [2008]

Q-7 Explain the main services of commercial banks. (Any four)

Q-8 Describe the various services offered by e-banking. [2011]

Q-9. State the benefits of e-business. [2009]

Q-10. Discuss any four limitations of the electronic mode of doing business. [2011]

Q-11 Explain the various elements of business ethics. [2015]

Q-12 Profit earning is not the only objective of the business. Give any four reasons to justify the statement. [2017]

Q-13 To meet the problem of short-term capital inadequacy, Tizen Ltd. borrowed Rs. 5 crores from Sky Ltd. which had surplus funds. Although Sky Ltd. charged higher interest rates as compared to bank borrowings, still Tizen Ltd. preferred this source as no security had to be given to raise funds.

Identify the source of finance is discussed in the given case. Also, state its three merits.

Q-14 Recently when Mosaic Ltd. was falling short of funds to meet the flotation cost of its upcoming issue of preference shares, the company raised deposits from Mosaic Ltd. which had surplus funds.

- 1) In the context of the above case, answer the following questions:
- 2) Identify and explain the source of finance being discussed above.
- 3) State any two limitations of the source of finance as identified in part (a) of the question.

Q-15. What is the investment limit in equipment for medium service enterprises?

Q-16. Avantika, after completing his studies of Engineering and MBA worked in the position of Manager in her father's business for five years. Now she wants to establish a new and risky business of her own with the hope of earning more profit. She is fully confident that despite the new business being risky will yield a huge profit. She integrated the resources of production with a view to establishing her business. Within a few days, she established the unit, under the name of 'Avantika Easymade Foods'. For six months after starting her business, she faced several problems. But afterwards, the business proved to be a profit-earning machine.

Identify the Entrepreneur, Entrepreneurship and Enterprise in the above paragraph.

Q-17 Folly is doing his business of buying and selling of garments products within India. He goes on business trips around his state even on very short notice. Sometimes through his own car. There are no or very few formalities involved in Folly's business. Payments are made and received in the home country currency only i.e. no exchange of currency is required.

Buying and selling goods within the geographical area of the country. Which type of trade is it?

Give any two examples of such trade.

Q- 18 How would you differentiate between street traders and street shops?

Q-19 The producers who have surplus production capacity can plan overseas expansion. In this way, on the one hand, they can utilise their idle production capacity and on the other hand, they can enjoy the benefits of large-scale production.

Q-20 World Trade Organisation: Organization that is concerned with the regulation of international trade between nations?

## History

### Practice sheet - 1

- 1) why is constantine remembered so in the Roman Empire?
- 2) who was the emperor of the Roman empire during 284-305 CE. and what changes did he bring in the Realm.?
- 3) What was the financial Condition of senate members in the Roman empire?
- 4) what do you understand by christianisation ?
- 5) write the names of deities worshipped by people under the Roman Empire ?
- 6) For what Pompeii is famous ?
- 7) what did the term 'Draconian' is added to the dictionary?
- 8) what was the manner of recruitment of soldiers In the Roman Empire ?
- 9) What was the nature of the republic during the regime of Augustus ?
- 10) Write the continental expansion of the Roman Empire.
- 11) outline the Roman administration the structures of Society, Gender, Literary, culture and economic expansion under the Roman empire.
- 12) How independent were women in Roman world? Compare the situation of the Roman family with the family of Indian today?
- 13) Discuss the Roman bureaucracy during early 5th Century CE.
- 14) Who were Humiliates ?
- 15) Describe the condition of the middle class under the Roman Empire.

### Practice sheet-2

- 1) Discuss the traditional religious culture of Greek under the Roman empire .
- 2) who were equities and what were their role in the Roman empire?
- 3) Discuss the sophistication trends in the Roman economy.
- 4) Describe some less - advanced states under the Roman empire.
- 5) who was the exception of labour Coercian?
- 6) what had resulted when debt- bondage did the attack on the labour instincts ?
- 7) who was Nero and why is he famous even today ?
- 8) what Period you would say on the contemporary historian had stated as 'late antiquity' . why would have this phrase used for explain.
- 9) what were Frankincense and its origin?
- 10) Describe the living standard of Aristocrat's during the Roman empire.
- 11) How was the economic scenario of Roman empire?
- 12) what was the policy of education in the Roman Empire ?
- 13) How was the reign of Augustus by 27 BC? Discuss.
- 14) who was considered the worst emperors of Rome?
- 15) What do you think about the importance of latin and Greek languages in the Roman Empire ?

**Project work:-** prepare a project work on one of the following topics.

- 1) Facets of the Industrialization in sixteenth- eighteenth centuries.
- 2) Crusades: causes; rationale; events; outcomes; Holy Alliance
- 3) Ancient History in depth: Mesopotamia
- 4) Greek Philosophy and City States
- 5) Contributions of Roman Civilization
- 6) The spirit of Renaissance: Manifestation in art; Literature; Sculpture; Influence on Trading Community; Social Fabric; Philosophy; Political Values; Rational Thinking; Existentialism
- 7) Aspects of Development -South American States /Central American States
- 8) Different schools of thoughts- Realism: Humanism: Romanticism
- 9) Piecing together the past of Genghis Khan
- 10) Myriad Realms of Slavery in ancient, medieval, and modern world
- 11) History of Aborigines - America/Australia
- 12) Facets of Modernization - China/Japan/Korea

**Prepare all taught chapters.**

## ECONOMICS

Section A																	
1	State one example of positive economics.																
2	What is meant by positive economics?																
3	State one example of normative economics.																
4	Define normative economics with a suitable example.																
5	What is meant by normative economics?																
6	Why does an economic problem arise? Explain.																
7	You are the Chief Minister of poor state with a excess population. You have received Rs. 2000 crore from the central government. How will you use this amount ? Explain with context to central problem of an economy.																
8	Why is Production Possibilities curve concave? Explain.																
9	Explain the meaning of opportunity cost with the help of production possibility schedule.																
10	Does production take place only on PPC?																
11	<p>Citizens of a country produce two goods, garlic and wool, according to the following production possibility schedule:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td><b>Garlic (Units)</b></td> <td>0</td> <td>150</td> <td>300</td> <td>450</td> <td>600</td> <td>750</td> <td>900</td> </tr> <tr> <td><b>Wool (Units)</b></td> <td>450</td> <td>375</td> <td>300</td> <td>225</td> <td>150</td> <td>75</td> <td>0</td> </tr> </tbody> </table> <p>Find the opportunity cost of producing additional garlic. Is it constant or increasing? Draw a suitable diagram.</p>	<b>Garlic (Units)</b>	0	150	300	450	600	750	900	<b>Wool (Units)</b>	450	375	300	225	150	75	0
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12	Given that no resource is equally efficient in producing all goods. Write name of such curve which shows production potential of an economy. Explain features of this curve along with the reasons?																
13	Using a diagram explains what happens to the PPC of Kashmir if the widespread floods have led to the destruction of human lives?																
14	What does a production possibility curve show? When will it shift to the right?																
15	Define Marginal Opportunity Cost.																

## Physical Education

- Q-1 What is the aim of physical education?
- Q-2 What do you mean by sport journalism?
- Q-3 What is adaptive physical education?
- Q-4 When was sports Authority of India established?
- Q-5 Describe the principles if integrated and comprehensive physical education?
- Q-6 Discuss the programmes of the sports Authority of India?
- Q-7 What are the main objectives of physical education?
- Q-8 Which principal are required to be followed to make the adapted physical education effective? Explain.
- Q-9 Write a short note on the Olympic Flag?
- Q-10 What is Olympic oath?
- Q-11 Describe in brief the eligibility criteria for Dronacharya Award?
- Q-12 Write a short note on the origin of Para Olympic Games?
- Q-13 Explain the origin of Ancient Olympic Games?
- Q-14 Describe the formation and objectives of Indian Olympic Association?
- Q-15 Enlist the various Sports Awards and explain any one award in details?
- Q-16 Define Physical fitness?
- Q-17 What is meant by Lifestyle?
- Q-18 Mention the health threats in life?
- Q-19 List down the component of positive Lifestyle?
- Q-20 Discuss 'healthy diet' as a component of positive Lifestyle?
- Q-21 It is health which is real wealth, and not pieces of gold and silver comment?
- Q-22 What do you mean by the term physical fitness? Explain the component of physical fitness in detail?

Q-23 It provides protection to vital organs of the body-

A) Respiratory system. B) Skeletal system. C) Cardiovascular system. D) Muscular system

Q-24 What is the meaning of Psyche?

A) Science. B) Soul. C) Behaviour. D) Environment

Q-25 What is not come undergrowth?

A) Increase in Weight. B) Increase in Height.

C) Increase in size. D) Increase in obesity

Q-26 What is the meaning of development?

A)Change in size.B)All of these.C)Change in structure of body organ.D)Change in maturity

Q-27 Effective planning can help in

A) Improve Efficiency. B) reducing chances of mistake

C) All of these. D) Proper coordination

Q-28.National sports day in India is celebrated on:

A) 29th September. B) 21st August. C) 29th August D) 26th January

Q-29. Physical Education is the sum of changes in an individual caused by experience centering motor activity Who said this?

A) Prince Martin. B) Charls A.Butchar. C) Millions. D) Cassidy

Q30. Physical Education is the sum of men's physical activities selected as to kind and conducted as to outcomes who said this?

A) J.B. Nash. B) Charls A Butcha. C) C.C.Covel. D) Williams

### Political Science

**Question No. 1 to 5 are based on the given text. Read the text carefully and answer the questions:**

The constitution expresses the fundamental identity of the people. This means the people as a collective entity come into being only through the basic Constitution. It is by agreeing to a basic set of norms about how one should be governed, and who should be governed that one forms a collective identity. One has many sets of identities that exist prior to a constitution. But by agreeing to certain basic norms and principles, one constitutes one's basic political identity. The constitutional norms are the over arching framework within which one pursues individual aspirations, goals, and freedoms. The constitution sets authoritative constraints upon what one may or may not do. It defines the fundamental values that we may not trespass. So the constitution also gives one a moral identity.

1. **Who expresses the fundamental identity of the people?**
2. **How does one establish the basic political identity?**
3. **What are constitutional norms?**
4. **The people as a \_\_\_\_\_ entity come into being only through the basic constitution.**
5. **Which of the following proves that the constitution bestows moral identity to the citizens?**
6. **Which of the following amendment has made through political consensus?**
7. **Who among the following was the President of the Constituent Assembly?**
8. **The freedom of speech and expression falls under which article**
9. **Who was the chairman of the Review Commission for the Constitution of India?**
10. **India borrowed the provision of the First Past the Post system from the:**
11. **Which amendments are known as anti-defection amendments?**
12. **From which country did we borrow the process of amendment?**
13. **What is the composition of the finance commission? what are its functions?**
14. **Read the passage given below carefully and answer the questions that follow:**

One likes to ask whether there can be anything new in a Constitution framed at this hour in the history of the world... The only new things, if there can be any, in a Constitution framed so late in the day are the variations made to remove the faults and to accommodate it to the needs of the country."

i. Whose words have been referred here?

ii. What was the main new thing according to Dr. B.R. Ambedkar during the process of framing the Indian Constitution?

15. **Indian Constitution contains some provisions for social justice. Examine.**

16. **What are the technical amendments? Explain with the examples.**

17. **Differentiate between Parliamentary and Presidential Forms of Government.**

18. **What was 'Objectives Resolution'? Explain.**

## Ch- 2 Election and Representation

Question No. 1 to 5 are based on the given text. Read the text carefully and answer the questions:

The true test of any election system is its ability to ensure a free and fair electoral process. If we want democracy to be translated into reality on the ground, it is important that the election system is impartial and transparent. The system of election must also allow the aspirations of the voter to find legitimate expression through the electoral results. Several efforts have been made in India to ensure a free and fair election system and process. Article 324 of the Indian Constitution provides for an independent Election Commission for the 'superintendence, direction and control of the electoral roll and the conduct of elections' in India. These words in the Constitution are very important, for they give the Election Commission a decisive role in virtually everything to do with elections.

1. Which of the following is a test of any elections?
2. In India, which body is responsible for conducting elections?
3. Which Article of the Indian Constitution lays the provision for independent Election Commission?
4. If the elections are transparent and impartial, \_\_\_\_\_ is considered successful.
5. Which of the following is not a duty of the election commission?
6. The minimum age limit for exercising Right to vote in India is
7. Which one of the following arguments is against the Universal Adult Franchise?
8. Which of these is not a good reason to say that Indian elections are democratic?
9. The country that follows FPTP electoral system is
10. How many seats are reserved for the Scheduled Caste in India in Lok Sabha?
11. Which article of the Indian Constitution gives the power to the election commission?
12. Explain any one test of good electoral system.
13. Mention four advantages of the Single Transferable Vote System.
14. What do you understand by Simple Majority Representation System?
15. What do you understand by Proportional Representation? Name any two countries. Were this system is functioning?
16. What is the importance of elections?
17. What is the electoral process in India?
18. Which four conditions are necessary for the successful functioning of the electoral system in India?

## Hindi

- 1 कबीर दास के पद का भावार्थ लिखिए और याद कीजिए।
- 2 कबीर दास के पद से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।
- 3 मीरा के पद का भावार्थ लिखिए और याद कीजिए।
- 4 मीरा के पद पाठ से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।
- 5 नमक का दारोगा पाठ का सारांश लिखिए।
- 6 नमक का दारोगा पाठ से संबंधित प्रश्नों को याद कीजिए और लिखिए।
- 7 मियां नसीरुद्दीन पाठ का सारांश लिखिए।
- 8 मियां नसीरुद्दीन पाठ से संबंधित प्रश्नों को याद कीजिए और लिखिए।
- 9 अपने किसी भी यात्रा का वर्णन लगभग 400 शब्दों में लिखिए।
- 10 अपने गांव के शिक्षा से वंचित बच्चों को शिक्षित करने के लिए आप क्या कर सकते हैं ? अपने विचारों को लगभग 150 शब्दों में लिखिए।
- 11 आप किस प्रकार की चुनाव प्रक्रिया से सहमत हैं ई वी एम अथवा बैलट पेपर?
- 12 जनसंचार और मध्यम विषय पर एक प्रोजेक्ट फाइल तैयार कीजिए।

## Mathematics

- 1.** If  $f(1 + x) = x^2 + 1$ , then  $f(2 - h)$  is \_\_\_\_\_.
- 2.** Fill in the blanks: Let A and B be any two non-empty finite sets containing m and n elements respectively, then, the total number of subsets of  $(A \times B)$  is \_\_\_\_\_.
- 3.** If  $A \times B = \{(a, 1), (a, 5), (a, 2), (b, 2), (b, 5), (b, 1)\}$ , then find A, B and  $B \times A$ .
- 4.** Find the domain of the function  $f(x) = \frac{x^2 + 3x + 5}{x^2 + x - 6}$ .
- 5.** Let  $f, g: R \rightarrow R$  be defined, respectively by  $f(x) = x + 1$ ,  $g(x) = 2x - 3$ . Find  $f + g$ ,  $f - g$  and  $\frac{f}{g}$ .
- 6.** If  $A = (1, 2, 3)$ ,  $B = \{4\}$ ,  $C = \{5\}$ , then verify that  $A \times (B \cup C) = (A \times B) \cup (A \times C)$ .
- 7.** Let  $f: R \rightarrow R$  and  $g: C \rightarrow C$  be two functions defined as  $f(x) = x^2$  and  $g(x) = 2x$ . Are they equal functions?
- 8.** If  $A = \{2, 3\}$ ,  $B = \{4, 5\}$ ,  $C = \{5, 6\}$ , find  $A \times (B \cup C)$ ,  $A \times (B \cap C)$ ,  $(A \times B) \cup (A \times C)$
- 9.** If  $\left(\frac{x}{3} + 1, y - \frac{2}{3}\right) = \left(\frac{5}{3}, \frac{1}{3}\right)$  find the values of x and y.
- 10.** If  $A = \{a, d\}$ ,  $B = \{b, c, e\}$  and  $C = \{b, c, f\}$ , then verify that
  - i.  $A \times (B \cup C) = (A \times B) \cup (A \times C)$
  - ii.  $A \times (B \cap C) = (A \times B) \cap (A \times C)$
  
- 11.** Fill in the blanks:

The set of first elements of all the ordered pairs present in R is called the \_\_\_\_\_ of relation.
- 12.** Fill in the blanks:

If  $f(x) = x^2 + 2x + 3$ , then  $f(1)$  is \_\_\_\_\_.
- 13.** Write the relation  $R = \{(x, x^3): x \text{ is a prime number less than } 10\}$  in roster form.
- 14.** If  $X = \{0, \pm 2, 4\}$  and  $Y = \{0, 4, 5, 16\}$ , then represent the rule  $f: X \rightarrow Y$  given by  $f(x) = x^2$  by an arrow diagram.
- 15.** A function  $f: R \rightarrow R$  is defined by  $f(x) = x^2$ ,  $x \in R$ . Determine range of f.
- 16.** If  $A \subseteq B$ , show that  $A \times A \subseteq (A \times B) \cap (B \times A)$ .
- 17.** Find the domain of the function f defined by  $f(x) = \sqrt{4 - x} + \frac{1}{\sqrt{x^2 - 1}}$ .
- 18.** If h denotes the number of honest people and p denotes the number of punctual

people and a relation between honest people and punctual people is given as  $h = p + 16$ . If P denotes the number of people who progress in life and a relation between number of people who progress and honest people is given as

$$P = \left(\frac{h}{8}\right) + 5$$

Find the relation between number of people who progress in life and punctual people. How does the punctuality is important in the progress of life?

19. Find the domain and range of the function  $f(x) = \frac{x^2-9}{x-3}$

20. i. Let R be the relation on the set Z of all integers defined by  $R = \{(x, y): x - y \text{ is divisible by } n\}$ . Prove that

a.  $(x, y) \in R$

$$\Rightarrow (y, x) \in R \text{ for all } x, y \in Z.$$

b.  $(x, y) \in R$  and  $(y, z) \in R$

$$\Rightarrow (x, z) \in R \text{ for all } x, y, z \in Z.$$

ii. Find the domain and range of the function  $f(x) = \frac{x^2-9}{x-3}$ .

iii. Find the domain of the function  $f(x) = \frac{x^2+3x+5}{x^2+x-6}$ .

### Chemistry

Section A													
1	5.975 g of the higher oxide of metal gave 5.575 g of lower oxide on heating. The quantity of the lower oxide gave 5.175 g of metal on reduction. Prove that these results are in accordance with the law of multiple proportions.												
2	4 litres of water are added to 2L of 6 molar HCl solution. What is the molarity of resulting solution?												
3	Use the data given in the following table to calculate the molar mass of naturally occurring argon isotopes: <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Isotope</th> <th style="text-align: left;">Isotopic molar mass</th> <th style="text-align: left;">Abundance</th> </tr> </thead> <tbody> <tr> <td><sup>36</sup>Ar</td> <td>35.96755 g mol<sup>-1</sup></td> <td>0.337%</td> </tr> <tr> <td><sup>36</sup>Ar</td> <td>37.96272 g mol<sup>-1</sup></td> <td>0.063%</td> </tr> <tr> <td><sup>40</sup>Ar</td> <td>39.9624 g mol<sup>-1</sup></td> <td>99.600%</td> </tr> </tbody> </table>	Isotope	Isotopic molar mass	Abundance	<sup>36</sup> Ar	35.96755 g mol <sup>-1</sup>	0.337%	<sup>36</sup> Ar	37.96272 g mol <sup>-1</sup>	0.063%	<sup>40</sup> Ar	39.9624 g mol <sup>-1</sup>	99.600%
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<sup>40</sup> Ar	39.9624 g mol <sup>-1</sup>	99.600%											
4	The density of 3 molal solution of NaOH is 1.110 g mL <sup>-1</sup> . Calculate the molarity of the solution.												
5	Boron occurs in nature in the form of two isotopes having atomic mass 10 and 11. What are the percentage abundances of two isotopes in a sample of boron having average atomic mass 10.8?												
Section B													
6	If 4g of NaOH dissolves in 36 g of H <sub>2</sub> O, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1g mL <sup>-1</sup> ).												
7	Define the law of multiple proportions. Explain it with two examples. How does this law point to the existence of atoms?												
8	A flask P contains 0.5 mole of oxygen gas. Another flask Q contains 0.4 mole of ozone gas. Which of the two flasks contains greater number of oxygen atoms?												
9	Three oxides of nitrogen contained 63.6%, 46.7% and 30.4% nitrogen respectively. Show that these figures illustrate the law of multiple proportions.												
10	A sugar syrup of weight 214.2 g contains 34.2 g of sugar (C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> ). Calculate 1. molal concentration, and 2. mole fraction of sugar in the syrup												
11	Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> .												
12	Copper oxide was prepared by the following methods. 1. In one case, 1.75 g of the metal was dissolved in nitric acid and igniting the residual copper nitrate yielded 2.19 g of copper oxide. 2. In the second case, 1.14 g of metal dissolved in nitric acid were precipitated as copper hydroxide by adding caustic alkali solution. The precipitated copper hydroxide after washing, drying and heating yielded 1.43 g of copper oxide. 3. In the third case, 1.46 g of copper when strongly heated in a current of air yielded 1.83 g of copper oxide. Show that the given data illustrate the law of definite composition.												



13	If two elements can combine to form more than one compound, the masses of one element that combine with a fixed mass of the other element, are in the whole - number ratio. 1. Is this statement true? 2. If yes, according to which law? 3. Give one example related to this law.
14	What is the concentration of nitrate ions if equal volumes of 0.1M AgNO <sub>3</sub> and 0.1M NaCl are mixed together?
15	What is the normality of a 1M solution of H <sub>3</sub> PO <sub>4</sub> ?
16	Does 20 g NaOH in 200 mL of solution and 0.5 mol of KCl in 200 mL have the same concentration?
17	Write is the difference between molality and molarity.
<b>Section C</b>	
18	Calculate the number of moles in each of the following: 1. 392 g of sulphuric acid 2. 44.8 litres of sulphur dioxide at N.T.P. 3. 6.022 × 10 <sup>22</sup> molecules of oxygen 4. 8g of calcium
19	A compound made up of two elements A and B has A = 70 %, B = 30 %. Their relative number of moles in the compound are 1.25 and 1.88. Calculate 1. atomic masses of the elements A and B 2. molecular formula of the compound, if its molecular mass is found to be 160.
20	1. Give an example of a molecule in which a. The ratio of the molecular formula and the empirical formula is 6: 1. b. Molecular weight is two times of the empirical formula weight. c. The empirical formula is CH <sub>2</sub> O and the ratio of molecular formula weight and empirical formula weight is 6. 2. 1.615 g of anhydrous ZnSO <sub>4</sub> was left in moist air. After a few days its weight was found to be 2.875 g. What is the molecular formula of hydrated salt? (At. masses: Zn= 65.5, S= 32, O=16, H= 1)
21	250 ml of 0.5 sodium sulphate (Na <sub>2</sub> SO <sub>4</sub> ) solution are added to an aqueous solution containing 10.0 g of BaCl <sub>2</sub> , resulting in the formation of white precipitate of BaSO <sub>4</sub> , How many moles and how many grams of barium sulphate will be obtained?
22	Commercially available concentrated hydrochloric acid contains 38% HCl by mass. 1. What is the molarity of the solution (density of solution = 1.19 g mL <sup>-1</sup> )? 2. What volume of concentrated HCl is required to make 1.0 L of an 0.10 M HCl?

## English Core

### Section A

- Whose photograph is mentioned in the poem **A Photograph**?
- What does the word **cardboard** denote in the poem **A Photograph**? Why has this word been used?
- What are the losses of the poet's mother and the poet? Answer in the context of **A Photograph**.
- What is the meaning of the line, 'Washed their terribly transient feet'? (**A Photograph**)
- The poet's mother laughed at the snapshot. What did this laugh indicate? Answer in the context of **A Photograph**.
- The three stanzas of the poem **A Photograph** depict the three different phases. Name them.
- What is the significance of the **sea holiday** here? Answer in the context of **A Photograph**.
- Explain: The sea holiday was her past, mine is her laughter. (**A Photograph**)
- How did the three girls face the camera?
- Who had dressed the speaker? What was funny about the dress? Answer in the context of **A Photograph**.
- As President of Lion's Club of Vasundhara City, design a poster in not more than 50 words for promoting good health through 'Health Mela' to be held at Central Community Hall of the city. Mention some of its attractions.
- You were very upset about the reports on communal riots in various parts of the country. As a concerned social worker, design a poster in not more than 50 words, highlighting the importance of communal harmony. You are Vinay/Vineeta.

### Section B

13. Write a speech in 150-200 words on the topic, 'Discipline shapes the future of a student'. It is to be delivered in the morning assembly. You are Karuna/Karan.
14. Every year there are floods or droughts in the country. Victims suffer a lot. The government does a lot to help the people, but it is not enough. Society also must do its bit. Write a speech in 150-200 words to be delivered in the school morning assembly describing how the students can also help by collecting clothes, money and medicines from their neighbourhoods. You are Arun/Aruna.
15. You are Ankit/Ankita. You have to deliver a speech on the topic of Education Gives One Power. You have jotted down the following notes:  
Education trains mind—sharpens skill and abilities—Education: a source of power—improve self—be independent—earn money—ignorance to knowledge—removes superstition—develops a free spirit—important for women: gives them freedom from social ills—independent—responsible.  
Write your speech in 150-200 words.

### Section C

16. Write a brief character sketch of the author's grandmother. Answer in the context of The Portrait of a Lady.
17. Have you known someone like the author's grandmother? Do you feel the same sense of loss with regard to someone whom you have loved and lost? (The Portrait of a Lady)
18. Gradually the author and the grandmother saw less of each other and their friendship was broken. Was the distancing in the relationship deliberate or due to the demand of the situation? (**The Portrait of a Lady**)