

Class 12 Holiday H.W (summer vacation)

Solve the following numerical problems:

1. Vapour pressure of pure water at 298 K is 23.8 mm Hg. 50 g of urea ( $\text{NH}_2\text{CONH}_2$ ) is dissolved in 850 g of water. Calculate the vapour pressure of water for this solution and its relative lowering.

2. Boiling point of water at 750 mm Hg is 99.63°C. How much sucrose is to be added to 500 g of water such that it boils at 100°C.

3. Calculate the mass of ascorbic acid (Vitamin C,  $\text{C}_6\text{H}_8\text{O}_6$ ) to be dissolved in 75 g of acetic acid to lower its melting point by 1.5°C.  $K_f = 3.9 \text{ K kg mol}^{-1}$ .

4. Calculate the osmotic pressure in pascals exerted by a solution prepared by dissolving 1.0 g of polymer of molar mass 185,000 in 450 mL of water at 37°C.

5. A sample of drinking water was found to be severely contaminated with chloroform ( $\text{CHCl}_3$ ) supposed to be a carcinogen. The level of contamination was 15 ppm (by mass):

(i) express this in percent by mass

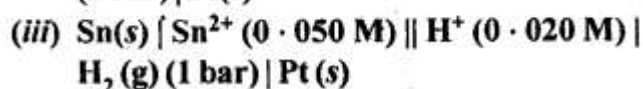
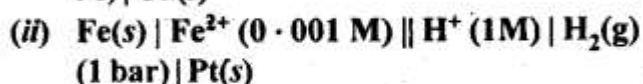
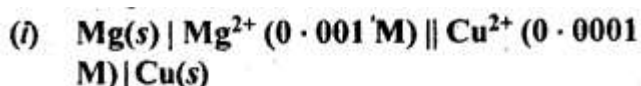
(ii) determine the molality of chloroform in the water sample.

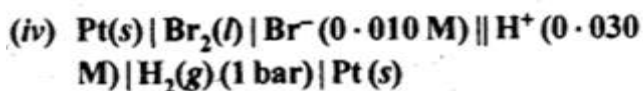
6. Two elements A and B form compounds having formula  $\text{AB}_2$  and  $\text{AB}_4$ . When dissolved in 20 g of benzene ( $\text{C}_6\text{H}_6$ ), 1 g of  $\text{AB}_2$  lowers the freezing point by 2.3 K whereas 1.0 g of  $\text{AB}_4$  lowers it by 1.3 K. The molar depression constant for benzene is  $5.1 \text{ K kg mol}^{-1}$ . Calculate atomic masses of A and B.

7. Determine the amount of  $\text{CaCl}_2$  ( $i = 2.47$ ) dissolved in 2.5 litre of water such that its osmotic pressure is 0.75 atm at 27°C.

8. Determine the osmotic pressure of a solution prepared by dissolving 25 mg of  $\text{K}_2\text{SO}_4$  in 2 litre of water at 25°C, assuming that it is completely dissociated.

9. Write the Nernst equation and emf of the following cells at 298 K:





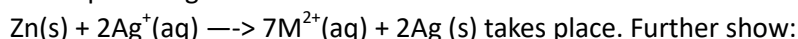
Given  $E^\circ_{\text{Mg}^{2+}/\text{Mg}} = -2.37 \text{ V}$ ,

$E^\circ_{\text{Cu}^{2+}/\text{Cu}} = +0.34 \text{ V}$ ,  $E^\circ_{\text{Fe}^{2+}/\text{Fe}} = -0.44 \text{ V}$ .

$E^\circ_{\text{Sn}^{2+}/\text{Sn}} = -0.14 \text{ V}$

$E^\circ_{1/2\text{Br}_2/\text{Br}^-} = +1.08 \text{ V}$

10. Depict the galvanic cell in which the reaction



(i) Which of the electrode is negatively charged?

(ii) The carriers of the current in the cell.

(iii) Individual reaction at each electrode.

Answer the following questions:

1. Some liquids on mixing form azeotropes. What are azeotropes?

2. Explain why aquatic species are more comfortable in cold water rather than in warm water.

3. How is the vapour pressure of a solvent affected when a non-volatile solute is dissolved in it?

4. (i) On mixing liquid X and liquid Y, volume of the resulting solution decreases. What type of deviation from Raoult's law is shown by the resulting solution? What change in temperature would you observe after mixing liquids X and Y?

(ii) What happens when we place the blood cell in water (hypotonic solution)? Give reason.

5. (i) Gas (A) is more soluble in water than Gas(B) at the same temperature. Which one of the two gases will have the higher value of  $K_H$  (Henry's constant) and why?

(ii) In non-ideal solution, what type of deviation shows the formation of maximum boiling azeotropes?

6. What is van't Hoff factor? What types of values can it have if in forming the solution, the solute molecules undergo (i) Dissociation (ii) Association?

7. What is meant by 'reverse osmosis'?

8. Define the terms, 'osmosis' and 'osmotic pressure'.

What is the advantage of using osmotic pressure as compared to other colligative properties for the determination of molar masses of solutes in solutions?

9. State Henry's law. What is the effect of temperature on the solubility of a gas in a liquid?

10. State Raoult's law for the solution containing volatile components.

11. What is meant by positive deviations from Raoult's law? Give an example. What is the sign of  $\Delta_{\text{mix}}H$  for positive deviation?

12. (i) Out of 1 M glucose and 2 M glucose, which one has a higher boiling point and why?

(ii) What happens when the external pressure applied becomes more than the osmotic pressure of solution?

13. Explain why on addition of 1 mol of glucose to 1 litre of water, the boiling point of water increases.
14. Blood cells are isotonic with 0.9% sodium chloride solution. What happens if we place blood cells in a solution containing
- (i) 1.2% sodium chloride solution?
  - (ii) 0.4% sodium chloride solution?
15. Write two differences between ideal solutions and non-ideal solutions.
16. Write the chemistry of recharging the lead storage battery, highlighting all the materials that are involved during recharging.
17. Predict the products of electrolysis in each of the following.
- (i) An aqueous solution of  $\text{AgNO}_3$  with silver electrodes.
  - (ii) An aqueous solution of  $\text{AgNO}_3$  with platinum electrodes.
  - (iii) A dilute solution of  $\text{H}_2\text{SO}_4$  with platinum electrodes.
  - (iv) An aqueous solution of  $\text{CuCl}_2$  with platinum electrodes.
18. What are fuel cells? Give its two advantages.
19. Write chemical reactions at anode and cathode of lead storage battery during discharging and charging.
20. Can you store copper sulphate solutions in a zinc pot? Give reason in support of your answer.

**HOLIDAY HOMEWORK WORKSHEETS**

**CLASS- XII - A, B & C**

**SUBJECT- ENGLISH CORE (301)**

## WOKSHEET-1 READING COMPREHENSION

The state of the world

Read an article about the state of the world to practise and improve your reading skills.

Before reading do the preparation task first. Then read the text and do the exercises.

Preparation task Match the definitions (a–h) with the vocabulary (1–8).

Vocabulary Definitions

1. .... to eradicate	a. to support
2. .... to sustain	b. to make something increase or become stronger
3. .... a civilian	c. methods of preventing pregnancy
4. .... life expectancy	d. to make something disappear forever
5. .... contraception	e. how long a person is expected to live
6. .... to fuel	f. positive thinking
7. .... to be down to	g. someone who is not a soldier
8. .... optimism	h. to be the result of

Reading text:

The state of the world If your view of the world comes from watching the news and reading newspapers, you could be forgiven for lying awake at night worrying about the future. Apparently, rising violence and population rates mean humans are both killing each other in ever larger numbers and being born at rates the world's resources can't sustain. To make matters worse, all the wealth is concentrated on a handful of people in the world's richest countries. People in low-income countries live in poverty while the West gets richer. Depressing, isn't it?

But do the statistics support our negative world view or is the world actually improving?

Let's take global population first. It's around 7 billion now, in line with figures predicted by the UN in 1958. By the year 2100, the same experts predict it will be around 11 billion. But did you know that 11 billion is probably as high as that number will get? The rate of increase will slow down in the second half of this century thanks to falling birth rates today.

Falling birth rates? Yes, that's right.

In the last two centuries, improvements in technology and health meant fewer children died young, fuelling rapid population growth. These large families produced even more children who survived into adulthood and had their own children. But with the wider availability of contraception in the 1960s, the global average number of babies per woman has declined from six babies per woman to as low as two.

The biggest factor in child mortality is poverty. And while it's still true that only 20 per cent of the world takes about 74 per cent of the world's income, 60 per cent of the world now falls into a middle-income group, with 11.6 per cent – the smallest amount of people in history – still living in conditions of extreme poverty. If the majority of the world's people have money, international aid could realistically achieve the UN target of eradicating poverty by 2030. As poverty goes down, life expectancy goes up, birth rates go down because parents can expect their existing children to survive, and the global population stabilises.

As for news stories that make us think the world is an increasingly violent place, there is cause for some optimism too. Between the end of World War II and 1990, there were 30 wars that killed more than 100,000 people. Today there are still civil wars, but countries are mostly coexisting more peacefully than in the past. However, terrorism has shot up in the last few years and, since World War II, wars have killed many more civilians than soldiers. Even for civilians, though, the statistics are not all bad. Although deaths are nine times more likely to be a result of violent crime than political conflict, the global murder rate fell slightly, from 8 per 100,000 people in 2000 to about 5.3 in 2015.

Of course, none of this means the world is perfect, and whether you personally are affected by war and poverty is often down to the lottery of where you're born. Also, we still face huge problems of our own making, particularly environmental ones like global warming, and wealth and natural resources need to be distributed more fairly. But not all the news is bad news, whatever the TV and newspapers might say.

Task 1 Match the numbers with the facts they represent.

60%	1. .... the expected peak global population
11.6%	2. ....the size of the richest group of people
20%	3. .... the amount of the richest group's income
11 billion	4. ....the amount of people who are neither rich nor poor
5.3	5. .... the amount of people with the least money
74%	6. .... the number of murders per 100,000 people in 2015

Task 2 Answer the following.

1. What does the word 'apparently' in the first paragraph tell us about the rise in violence we see in the news?
2. Which statement about population levels is correct?
3. Which factor does NOT cause the birth rate to fall?
4. What is the one of the UN's targets for 2030?
5. By whom are People more likely to be killed?
6. Mention the reason to be optimistic.

## **WOKSHEET-2 WRITING SKILLS**

### **NOTICE- CONTENTS**

1. Introduction
2. What is Notice?
3. Format of Notice
4. Content of Notice
5. Let Us Sum Up
6. References
7. Practice Questions

### **INTRODUCTION**

As a student, one of the important tasks you will need to perform is writing. You may have to write letters, notices, reports, advertisements, etc. to communicate information. Let me begin by asking you a couple of questions:

- How do you inform other students in the school that your class is organizing an event and you expect them to participate?
- How do you get to know that a book exhibition is going to be held at your school? Identify the correct tool from the options below:

- a. Letter
- b. Article
- c. Notice
- d. Magazine

If your answer is C (notice), then you have rightly identified it. A notice is a very convenient written tool for keeping the students and the staff informed. You can easily find it on the notice board of your school. It is a formal means of communication. But writing a notice is not easy as it should be written in a particular format and should include essential components. Let's first understand what a notice is and why we write it.

### **WHAT IS NOTICE?**

Notice is a short write up through which we announce or display information to a specific group of people. The information can be about an important event that has taken place or is going to take place. Some of the common topics of notice are blood donation, book exhibition, postponement of examination, inviting articles and sketches from students, invitation to a meeting, certain instructions, etc.

## Activity-1

Before you proceed with this section, take a minute to reflect on the notice board of your school. Make a list of the information your school notice board displays and write them in your notebook. Remember, there are no right or wrong answers. Think and write at least four.

a. .... d. .... b.  
..... e. .... c.  
..... f. ....

Did your list include a wide range of themes like academic announcements, cultural announcements, sports announcements, inauguration announcements, etc.? By now, you must have understood that each notice has a purpose, a particular theme and objectives. It is written to draw the attention of the readers to a particular announcement that needs immediate attention and active participation.

## FORMAT OF NOTICE

A formal notice begins with the name of the organisation on the top, in the center. It may be the letterhead of the organisation. After that, the word NOTICE appears, in capital letters. Then the subtitle of the notice comes, i.e., Inter House Debate Competition. The subtitle is the heading of the notice. Then the date of the issue of the notice is written followed by the content. The name and designation of the writer appear at the bottom, on the left-hand side. The notice must be placed in a box.

A well-drafted notice should include all the necessary details and answer the questions like

- **What** is the notice about? (that is, the event)
- **Who** is organising the event?
- **When** will it take place? (That is, the date and time)
- **Where** will it take place? (That is, the venue)
- **Who** are the expected participants?
- **Whom** do you have to contact? (That is, the issuing authority)



## Activity-2

The following is the layout of a notice. Fill in the blanks by choosing the right option given below:

.....1
.....2
.....3
.....4
.....5
.....6
.....7

Options:

1. (a) Notice (b) Heading (c) Date (d) Name of the organisation
2. (a) Date (b) Heading (c) Notice (d) Signature
3. (a) Notice (b) Heading (c) Date (d) Signature
4. (a) Date (b) Heading (c) Content (d) Name of the organisation
5. (a) Heading (b) Date (c) Notice (d) Content
6. (a) Name (b) Date (c) Designation (d) Heading
7. (a) Signature (b) Name (c) Date (d) Designation

Rajiv Dubey, secretary of Literary Club of Sagar Public School Bhopal drafts a notice for the notice board of the school inviting names of those who would like to participate in the proposed Inter-House Debate Competition.

<p style="text-align: center;"><b>SAGAR PUBLIC SCHOOL BHOPAL</b> <b>NOTICE</b></p> <p>5<sup>th</sup> August 2020</p> <p style="text-align: center;"><b><u>INTER HOUSE DEBATE COMPETITION</u></b></p> <p>All students of classes XI and XII are hereby informed that the Communication Club of the school is organizing an Inter House Debate Competition on August 18, 2020, in the school main hall from 9 am onwards. All the House Prefects are requested to submit five names from each House to the undersigned.</p> <p>(Rajiv Dubey) Secretary Communication Club</p>
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The format of the above-given notice systematically includes all the necessary details such as institute name, the word 'notice', title, date, and writer's name with the designation. Since a notice displays formal information or announcement, the details should be organised properly.

### Activity-3

Here is a notice put up by the Happy Valley School. The details in the notice are not in order. Rewrite the notice, arranging the details in the correct order.

- The school is hosting the inter-house Creative Writing Contest. • Contact the House Prefects for further details.
- All the events such as essay writing, Short Story writing, poetry writing, and so on will be organised in the school hall, Room No.1.
- Each genre will be judged by well-known experts in India.
- Happy Valley School Sikkim.
- Inter-house Writing Contest
- All the interested students are informed to register their names for this contest till 12th October 2020.
- NOTICE
- on 20th October from 10.00 AM to 4.00 PM
- Sagun Chaturvedi, Secretary, Happy Valley School

### CONTENT OF NOTICE

Apart from the format, the content of the notice is also important. While writing a notice, you should remember the following points:

1. Include only relevant details.
2. Write short and simple sentences.
3. Avoid the use of heavy words or jargon as they may create confusion for the readers.
4. Use passive sentences as far as possible.
5. Use a suitable eye-catching heading to make a notice appealing and attractive
6. Use third person, i.e., He, she, they, etc. The use of "I" and "you" should be avoided.
7. Adhere to the specified word limit of 50 words.

### Activity-4

Fill in the blanks by choosing the appropriate option from the list given below.

MEMORIAL SCHOOL, JAIPUR  
NOTICE

10<sup>th</sup> June 2020

INTER SCHOOL CRICKET MATCH

All the students are hereby (a) \_\_\_\_\_ that an inter school cricket match (b) \_\_\_\_\_ between our school and DPS school. The match (c) \_\_\_\_\_ on 16<sup>th</sup> august 2020 in our school sport grounds from 4pm onwards. All the students (d) \_\_\_\_\_ to assemble in the sport grounds (e) \_\_\_\_\_ the match and cheer the players.

Sunil Kumar

Sports Secretary

Options:

- (a) (i) will be informed (ii) informed (iii) are informing (iv) were informed
- (b) (i) will be organised (ii) is organised (iii) has organised (iv) was organised
- (c) (i) was played (ii) will be played (iii) is played (iv) has been played
- (d) (i) will be requested (ii) are requested (iii) are requesting (iv) were requested
- (e) (i) witnessed (ii) witnessing (iii) to witness (iv) witness

Now, as you are aware of the format and the content of the notice, try the next activity to draft a notice.

**Activity-5**

Draft a notice based on the details given in the box below:

Organization: School Literary Association

Address: Memorial School, Jaipur

Target Group: All the Students of Memorial school Jaipur Event: **Literary Fest, 2021** (poetry recitation & writing, story writing, JAM show, essay writing, composition, etc) Date & Day: 15 August 2021, Independence Day Time: 9.00am-5.00pm

Venue: Academic Building

Organizers: Members of Literary Association

Procedure for participation: Online registration

Place for contact: Students Community Hall

After you complete this activity, match your draft of notice with the one on the notice board of your school. You are also advised to look at the type of questions for notice writing that are asked in the exam.

## Activity-6

### PRACTICE QUESTIONS

1. Write a notice for the school notice board inviting contributions for the laborers who have lost their job in the COVID-19 pandemic crisis. Sign yourself as the secretary, student union, DPS Jaipur.
2. The Student Council of your school has decided to organize a tour to Goa for the students of classes XI & XII during summer vacation. As the president of the Council, write a notice informing the students about the tour and inviting their names for joining it.
3. The Principal of your school has asked you to write a notice for the school notice board requesting the students of the classes VI-IX to maintain silence during the forthcoming exams of the senior students. Write a notice in around 50 words.

### Letter to the Editor.....

#### - Purpose

- To express and share one's observation and views in a public forum, namely, magazine or newspaper
- To share such information on a wide range of social issues.
- That should still be a formal letter, but because it is for the public, it should show your opinion clearly or tell people something interesting or new. It can be direct and feel quite personal – you can use I, we and you.

#### - It consists of four paragraphs.

1. Clear introduction of the topic and the writer's opinion.
2. Main point with reasons.
3. Further point to support main one, with reasons and / or examples.
4. Repeats the writer's opinion and offers a challenge.

#### Format: A LETTER TO THE EDITOR

Sender's \_\_\_\_\_ 22, Rock Garden  
Chandigarh

Date \_\_\_\_\_ 31/08/2012

(Receiver's) The Editor  
The Times of India  
Chandigarh

Subject-----

Dear Sir/Madam

Through the esteemed columns of your daily, I would like to draw your kind attention to the unfortunate fact that .....

.....  
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- I) Body of the letter  
Explain the issue (5 to 6 lines)  
ii) Suggestions to overcome the issue  
(4 to 5 points)

We hope the responsible citizen of this nation come forward to take the initiatives and the concerned authorities will rise from their stereo- type /vertical thinking and take immediate remedial measures to deal with the situation.

Yours Faithfully

- 1) You are Krishan/Kiran studying at Hindustan School, Chennai. The road leading to our school is full of potholes causing lot congestion. Students and parents are often caught in traffic jam. In spite of several representations the Chennai Corporation has not done anything to improve the condition. Write a letter to the Editor of The Hindu, Chennai, drawing the attention of the Corporation authorities to the problem. Also offer your suggestions for improvement.
- 2) National Book Trust organized a week long book fair at Anna Ground, Chennai. You visited the fair and bought a few books. You were pleased with the arrangements, enthusiasm of the visitors and the fact that books have not yet lost their relevance in the world of internet. Write a letter in 120-150 words to the editor of a local newspaper to express your feelings. You are Lalit/Latha, 112, Mount Road, Chennai.

## Worksheet – 3 literature

### The Last Lesson by Alphonse Daudet

1. Listen to the audio of the lesson from para from 1-8 of the lesson and fill in the blanks with correct details.

1. M. Hamel had said that he would question on \_\_\_\_\_
2. Franz wished to spend the day out of doors because \_\_\_\_\_
3. The outside was much more tempting than \_\_\_\_\_
4. Franz said that for the last two years all their bad news had come from \_\_\_\_\_

2. Read the lesson from para 1-8 and write short answer in one sentence: (4x1=4 marks)

1. What was Franz expected to be prepared with for school that day?
2. Where did Franz wish to run away and spend the day?
3. What was the crowd doing in front of the bulletin board?
4. What were the Prussians soldiers doing?

3. Write answers in about 30-40 words: (3 x 2 =6 marks)

1. What was the one thing that surprised Franz most about the school that day?
2. What were the attractions that tempted Franz to spend his day out of doors?
3. What did Franz notice that was unusual about the school that day?

2. Listen to the audio of the lesson from para from 9-18 of the lesson and tick the correct statements.

1. M.Hamel mounted the chair and spoke that was his last lesson that he was going to give.
2. M.Hamel informed the children that the order had come from Berlin to teach only German in the schools of Alsace and Lorraine.
3. The order from Berlin had been put up in the bulletin board at the Town Hall.
4. Franz did not know how to write in French.

2. Read the lesson from paras 9-18 and answer the questions in one sentence: (4x1=4 marks)

1. What did M.Hamel put on his fine Sunday clothes that day in the school?
2. What did Franz think when he heard from M.Hamel that was his last French lesson?
3. What did the parents do instead of sending the children to school?
4. What did M.Hamel do instead of making children learn the lesson?

3. Read the lesson from paras 9 -18 and answer the questions in about 30-40 words each. (3x2=6 marks)

1. Who did M.Hamel hold responsible for the children not learning French?
2. Why did the villagers come to school that day?
3. How did M.Hamel treat Franz when Franz was not able to recite the participles?

3. Listen to audio lesson from paras 19-26 and fill in the blanks with correct details.
  1. M.Hamel said that French language is \_\_\_\_\_
  2. M.Hamel had served in the school for \_\_\_\_\_ years.
  3. Whenever Franz looked up from my writing he saw M. Hamel sitting \_\_\_\_\_ in his chair.
  4. When old Hauser was reading the primer, his voice trembled with \_\_\_\_\_.

2. Read the lesson from paras 19-26 and answer the questions in one sentence: (4x1=4 marks)

1. What did M.Hamel say about the French language?
2. How did Franz feel about learning the lessons that day?
3. What did Franz think about the pigeons cooing on the roof?
4. How did M. Hamel look that day?

3. Read the lesson from paras 19 -26 and answer the questions in about 30-40 words each. (3x2=6 marks)

1. Why did M.Hamel say that the French language was a key to their prison?
2. How did the children behave in the class that day?
3. How did Franz's feelings about M. Hamel and school change at the end?

4. Based on your understanding of the lesson, write answer to the following questions: (2x5 =10marks)

- a) What did the French teacher tell his students in his last French lesson? What impact did it have on them?
- b) What do you understand about the characters of M.Hamel and Franz in the story?

Poem- My Mother at Sixty Six

#### APPRECIATION OF THE POEM.....

1. Audio of the poem...(link:<https://ciet.nic.in/pages.php?id=accesstoedu&In=en>)
2. Listen to the audio and watch the PPTs and solve the worksheets.
1. Match the following.

1. Poet compared her mother's face	a) pangs of separation
2. Poet's parting words	b) Merry children moving out and her mother sitting idle.
3. Sprinting trees	c) Smile and smile and smile...

4. Merry children spilling out 5. Put that thought away 6. Familiar ache 7. Childhood fear 8. Realized with pain 9. She was driving to 10. Her mother was sitting... 11. Simile 12. Alliteration/repetition 13. Contrast 14. Major theme	d) Signify time that has passed at a fast pace. e) Her face ashen like...as old as... f) as a late winter's moon g) Fear of being separated from her mother. h) cochin airport i) Fear of losing her mother as she was growing fast. j) ash, corpse and late winter's moon k) Beside her in a car. Dozing l) Her mother had grown old, would not live long. m) Her mother is in the last phase of life. n) Provides stark contrast to her idle mother sitting passively.
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2. Answer the following.

- 1 Where was she driving to?
- 2 How did her mother look like?
- 3 What was her mother doing?
- 4 What did she realize with pain?
- 5 What thought did she put away/drive away from her mind?
- 6 What did she see when looked out of the car?
- 7 What does the phrase "trees sprinting" signify?
- 8 Who looked pale and wan and why?
- 9 Why did the poet compare her mother with 'late winter's moon'?
- 10 What was the poet's familiar ache?
- 11 What was the poet's childhood fear?
- 12 What were the poet's parting words? Why did she repeat it?
- 13 What are the poetic devices used in the poem?
- 14 What things do you find that prove that her mother is too old to survive?



TASK-1

Name: \_\_\_\_\_

Date: \_\_\_\_\_

[https://elt.oup.com/elt/students/openforum/audio/of3\\_03.mp3?cc=global&sellLanguage=en](https://elt.oup.com/elt/students/openforum/audio/of3_03.mp3?cc=global&sellLanguage=en)

## 1. Preparing to Listen

**You are going to listen to a class discussion about viral video websites. Before you listen, think about the following questions.**

**Have you shared or watched video on the Internet?**

**Do you think that Internet video is replacing television and movies?**

## 2. Listening for Main Ideas

**Read questions 1 and 2. Listen to the discussion. Then choose the correct answer for each question.**

**1. What does the term “viral video” mean?**

- a. videos that spread computer viruses
- b. online videos that computer users send to each other
- c. online videos that are bad for computer users' health

**2. With which sector of the population is viral video most popular?**

- a. teenagers and young adults
- b. children
- c. older adults

**3. Listening for More Detail. Read questions 3–10. Listen to the discussion again and choose the correct answer for each question.**

**3. Who does not like online videos?**

- a. Student 1
- b. Student 2
- c. Professor

**4. From the context of the conversation, what does the word “fad” mean?**

- a. an important phenomenon
- b. a fashion that changes quickly
- c. a new invention

**5. Why does Deb use MTV (Music Television) as an example of a TV channel that is less popular than online video?**

- a. because MTV has always been very popular with young people
- b. because MTV is a cable television channel
- c. because there are a lot of ads on MTV

**6. Which of these sites is an example of “web 2.0”?**

- a. a newspaper website that allows you to read today's news
- b. a commercial website selling books and CDs

- c. an interactive website on which users post movie reviews
7. According to the article that the students read, why are young people turning away from traditional media?
- a. they don't trust people in authority
  - b. they don't have time to read the newspaper or watch television
  - c. they don't trust their parents
8. What problem with viral video is discussed?
- a. the necessary equipment is expensive
  - b. the quality is often poor
  - c. you need a fast Internet connection to make online videos
9. Why does one student quote the example of the invention of phonograph records?
- a. to argue that viral video will lose its popularity quickly
  - b. to show the difference between phonograph records and online video
  - c. to say that phonograph records were more entertaining than online video
10. Why are viral video websites important for a sociology class?
- a. There are many journal articles about them.
  - b. They are more interesting than other aspects of sociology.
  - c. Large communities are watching and discussing them.

## **TASK-2**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

LINK-

### **1. Preparing to Listen**

**You are going to listen to a book club discussion about Toni Morrison's *Beloved*. Before you listen, think about the following questions.**

**Have you ever read *Beloved* or another book by Toni Morrison?**

**What do you know about the history of slavery in the United States?**

### **2. Listening for Main Ideas**

**Read questions 1 and 2. Listen to the discussion. Then choose the correct answer for each question.**

**1. Which Nobel Prize did Toni Morrison win?**

- a. Peace**
- b. Economics**
- c. Literature**

**2. Which of the following sentences is the best summary of the plot of *Beloved*?**

- a. *Beloved* is a story about the fighting in the American Civil War.**
- b. *Beloved* is the story of an escaped slave and what happened to her dead daughter.**
- c. *Beloved* is the story of how a slave family escaped from the South.**

**3. Listening for More Detail**

**Read statements 3–12. Listen to the discussion again and write T for true or F for false for each statement.**

**3. Morrison won the Nobel Prize in 1983.**

**4. There have not been many African American winners of this prize.**

**5. All of Morrison's books are about slavery.**

**6. Sethe escapes from Kentucky to the North by herself.**

**7. Sethe has three children when she lives in Ohio.**

**8. Sethe's owner killed her oldest daughter.**

**9. The baby did not have a name when she died.**

**10. The novel clearly states that *Beloved* is the ghost of Sethe's dead daughter.**

**11. Morrison believes that it is impossible to fully describe slavery in a novel.**

**12. The book focuses on the emotions of the character, not the history of slavery.**

## WORKSHEET- 5 SPEAKING SKILLS

Use the following expression and compose a dialogue for the conversation with your friend. Make an audio /a video on it. (Any two)

s.	<u>Topic</u>	<u>Expressions</u>
1	<b>Hello</b>	Hi, Hello, Good morning / afternoon / evening, How are you? How do you do? Pleased / Good / nice to meet you
2	<b>Good Bye</b>	Bye / good bye, Night / goodnight, bye bye / night night, See you, Have a good weekend / a great trip / a nice time, Have a nice day, 'Take care ' also 'look after yourself'
3	<b>Thank You</b>	Thank you, Thanks, I can't thank you enough, It is good/nice/kind of you/that's kind of you, I appreciate, I am most grateful / deeply grateful, I would like to express my appreciation /gratitude, <u>Replying when someone says thank you</u> - Don't mention it / you're welcome / my pleasure, That's all right / anytime / no problem
4	<b>Request</b>	Can You, Will You, Could you/ would you/ do you think you could, Would you mind/I wonder if you would mind....., Could you possibly / is there any way you could.....I was wondering if you could / would it be possible for you to....., I would be grateful if you could / I would appreciate it if you could....., Would you be so kind as to .....We request that ..... / you are requested not to do sth .....
5	<b>Asking For Permission</b>	Can I, Is it all right if I/ is it OK if I, May I / could I / do you think I could, Do / Would you mind if I, If someone asks you – Do / Would you mind if I?  You can say – (No) Of course not .... ( When giving them permission)  If you don't want to give permission, you usually say  I'm afraid or I'm sorry but.. ( and then give a reason)

		<p><b>‘Do you mind if I stay a Few more minutes?’</b></p> <p><b>‘I’m sorry but I have another appointment’.</b></p> <p><b>More Formal ways of asking for permission</b></p> <p><b>I was wondering if I could / I was wondering if it might be possible For me to</b></p> <p><b>Would it bother you if I .....</b></p> <p><b>With your permission, I’d like to ...</b></p>
6	<b>Suggestion</b>	<p><b>Why don’t you / we....., Let’s....., If I were you, I would or I’d....., How about / what about, What do you think about....., You could always / we could always / there’s always, What if / suppose –, May-be we could / perhaps you could, You might like to / you may want to –</b></p>
7	<b>Apologizing</b>	<p><b>Sorry / I’m sorry</b></p> <p><b>Excuse me / Pardon me</b></p> <p><b>I beg your pardon ....</b></p> <p><b>Forgive me</b></p> <p><b>I owe you an apology</b></p> <p><b>I feel bad / terrible / awful about sth</b></p> <p><b>I apologize / we would like to apologize</b></p> <p><b>Please accept my / our apologies for sth</b></p> <p><b>I / we regret sth</b></p> <p><b>Don’t worry / that’s OK / that’s all right</b></p> <p><b>It doesn’t matter / it’s not a problem / No problem / no worries</b></p>
8	<b>Agreeing</b>	<p><b>You’re right / that’s right</b></p> <p><b>I agree</b></p> <p><b>I know</b></p> <p><b>Share sb’s view / concern / Fear etc</b></p> <p><b>Be of the same opinion / view</b></p> <p><b>Subscribe to a view / theory</b></p> <p><b>Concur with sb/ sth</b></p> <p><b>Sb makes a good / valid point</b></p> <p><b>Sb‘it is generally / widely accepted that’ also ‘there is a widely-held view / belief that .....’s point is</b></p>
9	<b>Strongly Agreeing</b>	<p><b>I agree entirely / wholeheartedly also I am entirely in agreement with sb.</b></p> <p><b>Absolutely! / Definitely! / Exactly!</b></p> <p><b>I agree up to a point / to some extent</b></p> <p><b>I have some sympathy with sb / sth</b></p> <p><b>There is some / a lot of truth in sth</b></p>

		<b>I suppose so / I guess so</b>
<b>10</b>	<b>Disagreeing</b>	<b>I don't agree / I disagree</b> <b>No it isn't / no she doesn't etc</b> <b>That's not true / that is not the case</b> <b>I / sb would dispute sth</b> <b>I / sb would take issue with sb / sth</b> <b>I don't / can't accept sth</b> <b>I (would) beg to differ</b> <b>I'm not so sure / Are you sure?</b> <b>I wouldn't say that....</b> <b>I take / see your point, but.../you may have a point, but...</b>  <b>Yes, but..... / I know, but.....</b>  <b>Sb is mistaken.....</b>  <b>Sb is entitled to their opinion/everyone</b>  <b>is entitled to their opinion.....</b> <b>With all (due) respect / with the greatest of respect</b> <u><b>Strongly agreeing</b></u> <b>How can you say that? / I can't believe that</b>  <b>You've just said that</b>  <b>Don't be ridiculous / You've got to be kidding! Rubbish!</b>
<b>11</b>	<b>Opinions</b>	<b>I think ( that)</b> <b>I believe ( that )</b> <b>I Feel (that )</b> <b>Personally / as far as I'm concerned</b> <b>It seems to me ( that ) also the way I see it</b>  <b>(spoken)/if you ask me (spoken)</b> <b>In my opinion / view</b> <b>Speaking as</b> <b>As sb points out / notes / remarks</b> <b>express the view / opinion that</b> <b>according to sb –</b> <b>Be of the opinion that / take the view that</b> <b>It is sb's belief that –</b> <b>For sb</b> <b>From sb's point of view/ standpoint.</b>

Class 12	Holiday H.W (summer vacation)
ASSERTION-REASON QUESTIONS	
CHAPTER: SOLUTIONS	
Read the Assertion and Reason statements and choose the appropriate option from below:	
A) Both A and R are true and R is the correct explanation of A	
B) Both A and R are true and R is not the correct explanation of A	
C) A is true but R is false	
D) A is false but R is true	
1. Assertion: Colligative properties depend on the nature of the solute, not its chemical identity.	
Reason: Colligative properties are related to the number of solute particles in the solution.	
Ans	
2. Assertion: Henry's law is not applicable to solutions with high solute concentrations.	
Reason: Henry's law assumes the solute concentration is low, and the solution behaves ideally.	
Ans	
3. Assertion: The boiling point of a solution is always higher than the boiling point of the pure solvent.	
Reason: Boiling point elevation is a colligative property, and it depends on the concentration of solute particles in the solution.	
Ans	
4. Assertion: Adding more non-volatile solute to a solution will increase its osmotic pressure.	
Reason: Osmotic pressure is directly proportional to the molality of the solute.	
Ans	
5. Assertion: Solutions with positive deviations from Raoult's law exhibit ideal behavior.	
Reason: In such solutions, the interactions between the solute and solvent are weaker than between solute-solute and solvent-solvent.	
Ans	
6. Assertion : Azeotropic mixtures are formed only by non-ideal solutions and they may have boiling points either greater than both the components or less than both the components.	
Reason: The composition of the vapour phase is same as that of the liquid phase of an azeotropic mixture.	
Ans	
7. Assertion: When methyl alcohol is added to water, boiling point of water increases.	
Reason: When a non-volatile solute is added to a volatile solvent elevation in boiling point is observed.	
Ans	
8. Assertion: Molarity of a solution in liquid state changes with temperature.	
Reason : The volume of a solution changes with change in temperature.	
Ans	
9. Assertion : If a liquid solute more volatile than the solvent is added to the solvent, the vapour pressure of the solution may increase i.e., $p_s > p^\circ$ .	
Reason : In the presence of a more volatile liquid solute, only the solute will form the vapours and solvent will not.	
Ans	
10. Assertion : When a solution is separated from the pure solvent by a semi- permeable membrane, the solvent molecules pass through it from pure solvent side to the solution side	
Reason : Diffusion of solvent occurs from a region of high concentration solution to a region of	

low concentration solution.
Ans
<b>Multiple Choice Questions</b>
1. Which of the following condition is not satisfied by an ideal solution?
(a) $\Delta H_{\text{mixing}} = 0$
(b) $\Delta V_{\text{mixing}} = 0$
(c) Raoult's Law is obeyed
(d) Formation of an azeotropic mixture
Ans
2. The van't Hoff factor (i) accounts for
(a) degree of solubilisation of solute.
(b) the extent of dissociation of solute.
(c) the extent of dissolution of solute.
(d) the degree of decomposition of solution.
Ans
3. Which relationship is not correct?
$(a) \Delta T_b = \frac{K_b \cdot 1000 \cdot W_2}{M_2 \cdot W_1} \quad (b) M_2 = \frac{K_f \cdot 1000 \cdot W_1}{W_2 \cdot \Delta T_b}$ $(c) \pi = \frac{n_2}{V} \quad (d) \frac{p^o - p_s}{p^o} = \frac{W_2}{M_2} \times \frac{M_1}{W_1}$
Ans
4. Mole fraction of glycerine $\text{C}_3\text{H}_5(\text{OH})_3$ in solution containing 36 g of water and 46 g of glycerine is
(a) 0.46
(b) 0.40
(c) 0.20
(d) 0.36
Ans
5. Isotonic solution are the solutions having the same.
(a) surface tension
(b) concentration
(c) osmotic pressure
(d) viscosity
Ans
6. In case of electrolyte which dissociates in solution the Van't Hoff's factor, i is
(a) $> 1$
(b) $< 1$
(c) $= 1$
(d) $= 0$
Ans
7. Low concentration of oxygen in the blood and tissues of people living at high altitude is due to
(a) low temperature
(b) low atmospheric pressure
(c) high atmospheric pressure
(d) both low temperature and high atmospheric pressure
Ans
8. Which of the following aqueous solution should have the highest boiling point?



(a) 1.0M NaOH (b) 1.0M Na<sub>2</sub>SO<sub>4</sub>

(c) 1.0M NH<sub>4</sub>NO<sub>3</sub> (d) 1.0 M KNO<sub>3</sub>

Ans

9. An unripe mango placed in a concentrated salt solution to prepare pickle, shrivels because

(a) it gains water due to osmosis

(b) it loses water due to reverse osmosis

(c) it gains water due to reverse osmosis

(d) it loses water due to osmosis

Ans

10. At a given temperature, osmotic pressure of a concentrated solution of a substance

(a) is higher than that of a dilute solution

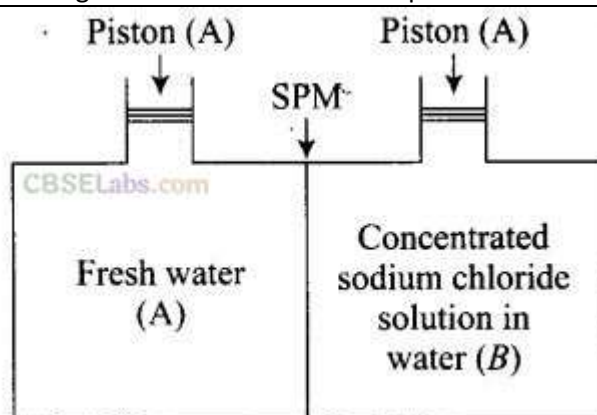
(b) is lower than that of a dilute solution

(c) is same as that of a dilute solution

(d) cannot be compared with osmotic pressure of dilute solution

Ans

11. Consider the figure and mark the correct option.



(a) Water will move from side (A) to side (B) if a pressure lower than osmotic pressure is applied on piston (B).

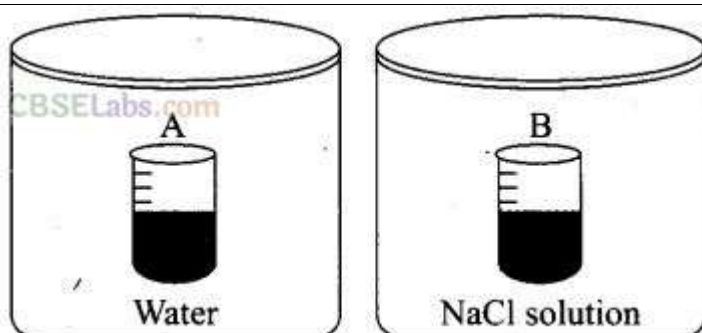
(b) Water will move from side (B) to side (A) if a pressure greater than osmotic pressure is applied on piston (B).

(c) Water will move from side (B) to side (A) if a pressure equal to osmotic pressure is applied on piston (B).

(d) Water will move from side (A) to side (B) if pressure equal to osmotic pressure is applied on piston (A)

Ans

12. Two beakers of capacity 500 mL were taken. One of these beakers, labelled "A", was filled with 400 mL water whereas the beaker labelled "B" was filled with 400 mL of 2 M solution of NaCl. At the same temperature both the beakers were placed in closed containers of same material and same capacity as shown in figure.



At a given temperature, which of the following statement is correct about the vapour pressure of pure water and that of NaCl solution.

- (a) Vapour pressure in container (A) is more than that in container (B).
- (b) Vapour pressure in container (A) is less than that in container (B).
- (c) Vapour pressure is equal in both the containers.
- (d) Vapour pressure in container (B) is twice the vapour pressure in container (A).

Ans

13. The value of van't Hoff factors for KCl, NaCl and  $K_2SO_4$ , respectively, are

- (a) 2, 2 and 2 (b) 2, 2 and 3 (c) 1, 1, and 2 (d) 1, 1 and 1

Ans

14. Considering the formation, breaking and strength of hydrogen bond, predict which of the following mixture will show a positive deviation from Raoult's law?

- (a) Methanol and acetone (b) Chloroform and acetone
- (c) Nitric acid and water (d) Phenol and aniline

Ans

15. The value of Henry's constant  $K_H$  is

- (a) greater for gases with higher solubility
- (b) greater for gases with lower solubility
- (c) constant for all gases
- (d) not related to the solubility of gases

Ans

**Read the following passage and answer the questions that follow:**

Solutions are a homogeneous mixture of two or more substances. The ideal solution follows Raoult's law. The vapour pressure of each component is directly proportional to their mole fraction if both solute and solvent are volatile. The relative lowering of vapour pressure is equal to the mole fraction of solute if the only solvent is volatile. Non-ideal solution form azeotropes which cannot be separated by fractional distillation. Henry's law is a special case of Raoult's law applicable to gases dissolved in liquids.

Colligative properties depend upon a number of particles of solute. Relative lowering of vapour pressure, elevation in boiling point, depression in freezing point, and osmotic pressure are colligative properties that depend upon mole fraction of solute, molality, and molarity of solutions. When solute undergoes either association or dissociation, molecular mass determined by a colligative property will be abnormal. van't Hoff factor is used in such cases which is the ratio of normal molecular mass over observed molar mass.

(a) 50 ml of an aqueous solution of glucose (Molar mass 180 g/mol) contains  $6.02 \times 10^{22}$  molecules. What is molarity?

Ans

(b) Identify which liquid has a lower vapour pressure at 90°C if the boiling points of liquid 'A' and 'B' are 140°C and 1800 °C respectively.

Ans

(c) What type of azeotropes are formed by non-ideal solution showing negative deviation from Raoult's law?

Ans

(d) For a 5% solution of urea (molar mass 60 g mol<sup>-1</sup>), calculate the osmotic pressure at 300 K (R = 0.0821 L atm K<sup>-1</sup>)

Ans

(e) Predict the van't Hoff factor (i) CH<sub>3</sub>COOH dissolved in water, (ii) dissolved in benzene.

Ans

(f) Why meat is preserved for a longer time by salting?

Ans

(g) Why 0.1 M KCl has a higher boiling point than 0.1 M glucose solution?

Ans

## ग्रीष्मकालीन अभ्यास कार्यपत्रक (50 दिन)

कक्षा 12

विषय - हिंदी आधार (302)

**उद्देश्य:** छात्रों में भाषा के चारों कौशलों (वाचन, लेखन, श्रवण, पठन) एवं सृजनात्मक लेखन क्षमता का विकास।

### **\*\*सप्ताह 1-2: वाचन कौशल (Reading Comprehension)\*\***

1. एक समाचार पत्र या पत्रिका से सामाजिक मुद्दे पर लेख पढ़कर 100 शब्दों में सारांश लिखिए।
2. किसी प्रेरणादायक व्यक्ति की जीवनी पढ़ें व 5 प्रमुख बातें लिखिए।
3. आरोह / वितान की किसी गद्य रचना को पढ़कर उत्तर दीजिए:
  - लेखक की भाषा-शैली कैसी है?
  - पाठ का मुख्य उद्देश्य क्या है?
4. 'भक्तिन' पाठ पढ़कर निम्नलिखित प्रश्नों के उत्तर लिखिए:
  - भक्तिन की प्रमुख चार विशेषताएँ लिखिए।
  - लेखक की दृष्टि में भक्तिन की महानता किस प्रकार प्रकट होती है?

### **\*\*सप्ताह 3-4: लेखन कौशल (Writing Skill)\*\***

5. निम्न में से किसी एक विषय पर 150 शब्दों का रचनात्मक लेख लिखिए:
  - डिजिटल शिक्षा का प्रभाव
  - पर्यावरण संरक्षण
  - एक आदर्श विद्यार्थी
6. संवाद लेखन:

- विषय: परीक्षा की तैयारी को लेकर दो मित्रों के बीच संवाद (8-10 पंक्तियाँ)

**\*\*सप्ताह 5-6: श्रवण कौशल (Listening Skill)\*\***

7. एक प्रेरणात्मक भाषण सुनकर उत्तर दें:

- वक्ता का मुख्य संदेश क्या था?
- किस उदाहरण ने आपको प्रेरित किया?

8. कविता श्रवण:

- हरिवंशराय बच्चन की कविता सुनें और उसका भावार्थ व मुख्य भाव लिखिए।
- 'आत्मपरिचय' कविता सुनकर आत्मबोध पर 5 पंक्तियाँ लिखिए।

**\*\*सप्ताह 7-8: पठन कौशल (Loud Reading & Expression)\*\***

9. पाठ्यपुस्तक की किसी कविता का सस्वर वाचन करें, रिकॉर्ड करें, सुनें और:

- उच्चारण की त्रुटियाँ पहचानें
- सुधार लिखें

10. नाट्य रूपांतर:

- 'भक्तिन' पाठ का नाट्य रूपांतरण करते हुए एक कॉमिक के रूप में प्रस्तुत कीजिए।

**\*\*सप्ताह 9-10: सृजनात्मक लेखन (Creative Writing)\*\***

11. कहानी लेखन:

- विषय: 'एक ऐसा सपना जो सच हो गया...'
- शब्द सीमा: 150-200 शब्द

12. कविता लेखन:

- विषय: 'वक्त का महत्व' / 'माँ की ममता'

- पंक्तियाँ: 8-10

13. चित्र पर आधारित लेखन:

- दृश्य: गाँव / मेला

- शब्द सीमा: 100 शब्द

14. 'दिन जल्दी-जल्दी ढलता है' कविता के आधार पर एक अनुच्छेद लिखिए:

- समय का महत्व और जीवन की क्षणभंगुरता विषय पर 100 शब्दों में।

15. उपर्युक्त प्रश्नों के अतिरिक्त आप सभी को प्रत्येक 15 दिनों में आरोह व वितान के पाठों से संबंधित एक कार्यपत्रक दिया जाएगा। आप सभी उसका प्रिंट लेकर उसे हल करेंगे व एक फाइल में रखेंगे।

16. सभी छात्रों को परियोजना कार्य हेतु जो भी विषय दिए जा रहे हैं, आप सभी उस विषय पर ग्रीष्मकालीन अवकाश के दौरान अपना परियोजना कार्य पूर्ण करेंगे। परियोजना कार्य हेतु जो भी निर्देश दिए गए हैं उनका अनुसरण करें।

**नोट - ग्रीष्मकालीन अवकाश के उपरांत विद्यालय खुलने पर आप सभी उपर्युक्त कार्य पूर्ण करके अपनी उत्तरपुस्तिका व फाइल लेकर उपस्थित होंगे।**