

# CLASS VII - ENGLISH

Annual Examination - Paper 4 (SOLVED)

Session: 2025-26 | Term-II

Math Love Institute | Excellence in Education

<b>Maximum Marks</b>	80
<b>Time Allowed</b>	3 Hours
<b>Date</b>	February 2026

## GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. This question paper is divided into Four Sections: A, B, C, and D.
3. Section A - Reading Comprehension (15 marks)
4. Section B - Writing Skills & Grammar (25 marks)
5. Section C - Literature (30 marks)
6. Section D - Long Answer Questions (10 marks)
7. Read each question carefully before answering.
8. Attempt all sections as per instructions.

## SECTION A - READING COMPREHENSION (15 MARKS)

Q1.

[8 Marks]

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

### **PASSAGE - 1**

Fire is one of the most useful discoveries made by man. It has been our friend and helper for thousands of years. Early man must have been frightened of fire when he first saw it, perhaps from lightning or volcanoes. But slowly, he learned to control it and use it for his benefit. Fire is the result of a chemical reaction. When fuel combines with oxygen from the air in the presence of heat, energy is released in the form of heat and light. This process is called combustion. To make fire, we need three things: fuel (like wood, coal, or gas), oxygen (from the air), and heat (to start the burning process). If any one of these three elements is missing, fire cannot start or continue. Fire serves many useful purposes in our daily life. We use it to cook our food, warm our homes in winter, and provide light. Industries use fire to manufacture various products. Fire is also used in generating electricity in thermal power plants. However, fire can also be very dangerous if it goes out of control. It can destroy forests, buildings, and even take lives. That is why we must always be careful with fire. Never leave burning candles unattended. Keep matchboxes and lighters away from children. Have fire extinguishers in homes and offices. If a fire accident occurs, immediately call the fire brigade. Remember, prevention is better than cure when it comes to fire safety.

**Answer the following questions:**

- a. How did early man first see fire? (1)
- b. What is combustion? What three things are needed to make fire? (3)
- c. Mention any two useful purposes of fire in our daily life. (2)
- d. Why must we be careful with fire? Give any one safety measure. (2)

Q2.

[7 Marks]

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

### **PASSAGE - 2**

Mr. Willy Wonka was a famous inventor who created many wonderful things. His most famous invention was Wonka-Vite, a medicine that made people younger. However, this medicine was too powerful. Some people who took it became so young that their ages went into minus numbers, and they disappeared! They would have to wait many years before being born again. Mr. Wonka realized he had made a mistake. He needed to invent something that would make people older instead of younger. So he set to work on a new invention called Vita-Wonk. To create this medicine, Mr. Wonka traveled all around the world in his Great Glass Elevator, collecting samples from the oldest living things he could find. He collected a pint of sap from a 4000-year-old Bristlecone pine tree, whiskers from a 36-year-old cat, tail of a 51-year-old horse, and many other ancient things. After boiling, mixing, and testing these ingredients in his laboratory, he created a small cupful of oily black liquid. When a brave volunteer swallowed just four drops of this invention, he instantly began to age and turned into a 75-year-old man!

**Answer the following questions:**

- a. What was the problem with Wonka-Vite? (2)
- b. Why did Mr. Wonka want to invent Vita-Wonk? (1)
- c. Name any two ancient things that Mr. Wonka collected. (2)
- d. What happened when the volunteer took four drops of Vita-Wonk? (2)

**SECTION B - WRITING SKILLS & GRAMMAR (25 MARKS)**

**Q3.**

**[5 Marks]**

**Article Writing:** Write an article on the topic "Fire Safety in Schools" in about 100-120 words. Include points like fire safety rules, fire drills, and precautions to be taken.

**Q4.**

**[5 Marks]**

**Diary Entry:** Imagine you are Mr. Wonka's assistant. Write a diary entry describing your experience of witnessing the Vita-Wonk experiment and how the volunteer transformed from a young man to an old man.

**Q5.**

**[10 Marks]**

**Grammar Section:**

**(a)** Fill in the blanks with appropriate articles (a, an, the): (2)

- i. Mr. Wonka was \_\_\_\_\_ famous inventor who lived in \_\_\_\_\_ chocolate factory.
- ii. Fire is \_\_\_\_\_ useful servant but \_\_\_\_\_ bad master.

**(b)** Change the following into Reported Speech: (2)

- i. The teacher said to the students, "Do not play with fire."
- ii. Charlie asked Mr. Wonka, "What happened to the volunteer?"

**(c)** Rewrite the sentences using the correct degree of comparison: (2)

- i. The Bristlecone pine is one of the \_\_\_\_\_ (old) trees in the world. (Use Superlative)
- ii. Fire is \_\_\_\_\_ (useful) than water for cooking. (Use Comparative)

**(d)** Fill in the blanks with suitable modals (can, could, may, might, should, must): (2)

- i. You \_\_\_\_\_ not play with matches. They are dangerous.
- ii. \_\_\_\_\_ I borrow your book for a day?

**(e)** Identify the type of sentences (Simple, Compound, Complex): (2)

- i. Mr. Wonka invented Vita-Wonk to make people older.
- ii. Fire is useful but it can be dangerous if not controlled.

Q6.

[5 Marks]

**Email Writing:** Write an email to your friend describing an interesting science experiment you performed in school related to fire or combustion. Include details about the experiment and what you learned from it.

**SECTION C - LITERATURE (30 MARKS)**

Q7.

[4 Marks]

**Answer the following questions from "The Invention of Vita-Wonk" (Any TWO):**

- a. Why did Mr. Wonka collect items from the oldest living things?
- b. What does "minus 87" mean in the story? Can anyone's age be a minus number?
- c. Describe the process of inventing Vita-Wonk.

Q8.

[6 Marks]

**Read the extract and answer the questions:**

*"Early man might have seen volcanoes or lightning and been frightened and awed by fire. But he learnt to make fire for himself, and then fire was no longer a mysterious element. Man learnt to control fire. Fire became man's friend and helper."*

- a. Name the chapter from which this extract is taken. (1)
- b. How did early man first see fire? (2)
- c. How did fire become man's friend? (2)
- d. Find a word from the passage that means 'filled with wonder and respect'. (1)

Q9.

[6 Marks]

Answer with reference to "An Alien Hand" (Supplementary Reader):

*"Tilloo's father was resting at home as his turn in the Control Room did not come till the next day. Tilloo managed to get hold of his father's security card and started on his forbidden mission."*

- a. Where did Tilloo and his family live? (1)
- b. What was Tilloo's forbidden mission? (2)
- c. Why was it called a 'forbidden' passage? (2)
- d. What happened when Tilloo pressed the red button? (1)

Q10.

[8 Marks]

Short Answer Questions (Answer ANY FOUR): (2 marks each)

- a. What are the three essential elements required for fire? Explain briefly. (from "Fire: Friend and Foe")
- b. Why did some people disappear after taking Wonka-Vite? (from "The Invention of Vita-Wonk")
- c. What is the moral lesson we learn from the story "The Invention of Vita-Wonk"?
- d. How did Tilloo's father handle the situation when Tilloo was caught? (from "An Alien Hand")
- e. Why do we call fire a "friend and foe"? Explain with examples.
- f. Which tree lives the longest according to Mr. Wonka? Where is it found?

Q11.

[6 Marks]

Match the following: (1 mark each)

Column A	Column B
(a) Wonka-Vite	(i) Underground passage
(b) Combustion	(ii) Made people younger
(c) Bristlecone pine	(iii) Mars
(d) Tilloo's home	(iv) Chemical reaction
(e) Forbidden passage	(v) 4000 years old
(f) Mechanical hand	(vi) Collected soil samples

**SECTION D - LONG ANSWER QUESTIONS (10 MARKS)**

Q12.

[5 Marks]

Answer ANY ONE of the following:

- How is fire both a friend and foe to mankind? Explain with suitable examples from the chapter "Fire: Friend and Foe".
- Mr. Wonka was a brilliant inventor but his inventions sometimes created problems. Discuss with reference to both Wonka-Vite and Vita-Wonk.

**Q13.**

**[5 Marks]**

**Creative Writing - Answer ANY ONE:**

- a. Imagine you are a scientist like Mr. Wonka. Write about an invention you would like to create that would help humanity. Describe what it would do and how it would work. (Word limit: 150-180 words)
- b. Write a story about a fire safety hero - a person (real or imaginary) who saved lives during a fire accident. Include details about the incident, the brave actions taken, and the lesson learned. (Word limit: 150-180 words)

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## ANSWER KEY WITH DETAILED SOLUTIONS

### SECTION A - READING COMPREHENSION ANSWERS

#### Answer 1: Passage-1 (Fire: Friend and Foe)

##### Solutions:

**(a) How did early man first see fire? (1 mark)**

Early man first saw fire from natural sources like lightning strikes and volcanic eruptions. These natural phenomena frightened him initially.

**(b) What is combustion? What three things are needed to make fire? (3 marks)**

Combustion is the chemical process that occurs when fuel combines with oxygen from the air in the presence of heat, releasing energy in the form of heat and light. This is what we call fire.

The three essential things needed to make fire are:

1. Fuel - such as wood, coal, gas, or any combustible material
2. Oxygen - which comes from the air around us
3. Heat - to start the burning process and reach the fuel's ignition temperature

If any one of these three elements is missing, fire

cannot start or continue burning. This is known as the Fire Triangle.

**(c) Mention any two useful purposes of fire in our daily life. (2 marks)**

Two useful purposes of fire in our daily life are:

1. Cooking food - We use fire to cook our meals, making food more digestible and safe to eat
2. Providing warmth - Fire helps us warm our homes during cold winter months, making life comfortable

(Other acceptable answers: providing light, generating electricity in thermal power plants, manufacturing industrial products)

**(d) Why must we be careful with fire? Give any one safety measure. (2 marks)**

We must be careful with fire because it can be very dangerous if it goes out of control. Uncontrolled fire can destroy forests, burn down buildings, cause severe injuries, and even take human lives. What starts as a small flame can quickly spread and cause massive destruction.

One important safety measure:

Never leave burning candles unattended or unsupervised. Always extinguish candles before leaving a room.

(Other acceptable safety measures: Keep matchboxes and lighters away from children, have fire

extinguishers in homes/offices, call fire brigade immediately if fire breaks out)

*Marking: (a) 1 mark, (b) 3 marks, (c) 2 marks, (d) 2 marks = Total 8 marks*

## **Answer 2: Passage-2 (The Invention of Vita-Wonk)**

### **Solutions:**

**(a) What was the problem with Wonka-Vite? (2 marks)**

The problem with Wonka-Vite was that it was too powerful and made people extremely young. Some people who took this medicine became so young that their ages went into minus numbers (like minus 87). When a person's age became negative, they disappeared completely from existence. They would have to wait invisibly for many years (equal to their minus age) before being born again in the future.

**(b) Why did Mr. Wonka want to invent Vita-Wonk? (1 mark)**

Mr. Wonka wanted to invent Vita-Wonk to reverse the effects of Wonka-Vite and make people older instead of younger, so that those who had disappeared could come back.

**(c) Name any two ancient things that Mr. Wonka collected. (2 marks)**

Two ancient things that Mr. Wonka collected were:

1. A pint of sap from a 4000-year-old Bristlecone pine tree

2. Whiskers from a 36-year-old cat named Crumpets

(Other acceptable answers: tail of a 51-year-old horse from Arabia, egg from a 200-year-old tortoise, tail of a 207-year-old rat from Tibet)

**(d) What happened when the volunteer took four drops of Vita-Wonk? (2 marks)**

When the brave twenty-year-old volunteer swallowed just four drops of Vita-Wonk, he instantly began to age rapidly. He started wrinkling and shriveling all over his body. His hair started falling out and his teeth began dropping. Within moments, he transformed from a young twenty-year-old man into an old man of seventy-five years!

*Marking: (a) 2 marks, (b) 1 mark, (c) 2 marks, (d) 2 marks = Total 7 marks*

## SECTION B - WRITING SKILLS & GRAMMAR ANSWERS

### Answer 3: Article Writing (Fire Safety in Schools)

#### Solution:

FIRE SAFETY IN SCHOOLS

By: [Your Name]

Fire safety is of utmost importance in schools where hundreds of children study together. Every

school must implement strict fire safety measures to protect students and staff.

First and foremost, schools should have proper fire safety equipment. Fire extinguishers must be installed on every floor and in laboratories, especially in science labs and kitchens where the risk of fire is higher. Smoke detectors and fire alarms should be functional and tested regularly.

Regular fire drills are essential. Students must be trained on what to do in case of a fire emergency. They should know the evacuation routes, assembly points, and the importance of remaining calm. Teachers should conduct mock drills at least twice a year so that everyone knows the procedure.

Some important precautions include: keeping corridors and exits clear at all times, not overloading electrical sockets, storing chemicals properly in science labs, and never playing with matchboxes or lighters. Students should also know the basic rule - in case of fire, alert others immediately, evacuate quickly without panic, and call the fire brigade.

Fire safety awareness can save lives. Every student and teacher must understand their role in preventing fires and responding to emergencies. Prevention is always better than cure when it comes to fire safety in schools.

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*Marking: Content 2.5 marks, Expression and Organization 1.5 marks, Title and Relevance 1 mark = 5 marks*

#### **Answer 4: Diary Entry (Mr. Wonka's Assistant)**

##### **Solution:**

Date: [Date]

Time: 9:00 PM

Place: The Inventing Room

Dear Diary,

Today was the most extraordinary day of my life! I witnessed something that I will never forget - the testing of Mr. Wonka's new invention, Vita-Wonk.

After weeks of traveling around the world in the Great Glass Elevator and collecting ancient items, Mr. Wonka finally completed his experiment. This morning, he called all of us to the Inventing Room. The atmosphere was tense with excitement and nervousness.

Mr. Wonka had prepared a tiny cupful of oily black liquid - the Vita-Wonk. A brave twenty-year-old Oompa-Loompa volunteer named Timmy stepped forward to test it. We all held our breath as Mr. Wonka gave him exactly four drops of the dark liquid.

What happened next was both fascinating and frightening! The moment Timmy swallowed those drops, changes began appearing on his body. His

smooth skin started wrinkling rapidly. His thick hair began falling out strand by strand. His strong teeth started becoming loose and falling out one by one. Within just a few minutes, right before our eyes, young Timmy transformed into a seventy-five-year-old man!

Everyone gasped in amazement. Mr. Wonka's eyes sparkled with excitement - his invention had worked! Vita-Wonk could indeed make people older, exactly the opposite of what Wonka-Vite did. This means all those people who disappeared after taking too much Wonka-Vite can now be brought back by making them older with Vita-Wonk.

Though the transformation was successful, seeing a young man turn into an old person so quickly was quite unsettling. It made me realize how precious youth is and how we shouldn't interfere too much with nature.

What an incredible experience! I feel proud to be Mr. Wonka's assistant and witness such remarkable scientific achievements.

Charlie

Assistant to Mr. Willy Wonka

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*Marking: Format 2 marks, Content and Imagination 2 marks, Expression 1 mark = 5 marks*

**Answer 5: Grammar Section**

## Solutions:

**(a) Fill in the blanks with appropriate articles:**

**(2 marks)**

(i) Mr. Wonka was a famous inventor who lived in a/the chocolate factory.

Explanation: 'A' is used before 'famous' (consonant sound) and 'a' or 'the' before chocolate factory depending on context.

(ii) Fire is a useful servant but a bad master.

Explanation: 'A' is used before both 'useful' and 'bad' as they begin with consonant sounds.

**(b) Change into Reported Speech: (2 marks)**

(i) The teacher said to the students, "Do not play with fire."

Answer: The teacher advised/warned the students not to play with fire.

Explanation: Commands and warnings in direct speech change to advised/warned + not to + verb in indirect speech.

(ii) Charlie asked Mr. Wonka, "What happened to the volunteer?"

Answer: Charlie asked Mr. Wonka what had happened to the volunteer.

Explanation: Question words remain, 'asked' changes to reporting verb, 'happened' changes to 'had happened' (past perfect).

**(c) Correct degree of comparison: (2 marks)**

(i) The Bristlecone pine is one of the oldest trees in the world.

Explanation: Superlative degree is formed by adding -est to the adjective 'old'.

(ii) Fire is more useful than water for cooking.

Explanation: Comparative degree of 'useful' (more than two syllables) is formed using 'more useful'.

**(d) Fill in the blanks with suitable modals: (2 marks)**

(i) You must not play with matches. They are dangerous.

Explanation: 'Must not' expresses strong prohibition/forbiddance.

(ii) May/Can I borrow your book for a day?

Explanation: 'May' is used for formal permission, 'Can' for informal permission.

**(e) Identify the type of sentences: (2 marks)**

(i) Mr. Wonka invented Vita-Wonk to make people older.

Answer: Simple sentence

Explanation: Contains one main clause with one subject and one predicate.

(ii) Fire is useful but it can be dangerous if not controlled.

Answer: Compound sentence

Explanation: Contains two independent clauses joined by coordinating conjunction 'but'.

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*Marking: Each part carries 2 marks, Total = 10 marks*

## **Answer 6: Email Writing**

### **Solution:**

To: friend@email.com

From: yourname@email.com

Subject: Amazing Fire Experiment in School!

Dear Rahul,

How are you? I hope you're doing well. I wanted to share something really exciting that happened in our school today!

We had a special science class where our teacher, Mr. Sharma, demonstrated a fascinating experiment about combustion and fire safety. He showed us the Fire Triangle concept - explaining how fire needs three things: fuel, oxygen, and heat.

The experiment was really interesting. First, he lit a candle and covered it with a glass jar. Within seconds, the candle went out because the oxygen inside the jar got used up. Then he showed us how removing any one element of the fire triangle stops the fire. He also demonstrated what happens when you try to extinguish oil fire with

water - the oil floats and spreads the fire! That's why we should use fire blankets or sand for kitchen fires.

The best part was when he explained different types of fire extinguishers - water, foam, CO<sub>2</sub>, and dry powder - and which ones to use for different types of fires. We also learned that in case of fire, we should never panic, alert others immediately, evacuate calmly, and call the fire brigade.

This experiment taught me that fire science is not just interesting but also very important for our safety. I now understand why we have fire drills in school and why we should never play with matches or lighters.

I wish you could have seen it too! Our teacher said next week we'll learn about electrical safety. I'll tell you all about it.

Take care and write back soon!

Your friend,

[Your Name]

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*Marking: Format 2 marks (To, From, Subject, Salutation, Closing),*

*Content 2 marks, Expression 1 mark = 5 marks*

## SECTION C - LITERATURE ANSWERS

**Answer 7: Questions from "The Invention of Vita-Wonk" (Any TWO)**

## **Solutions:**

**(a) Why did Mr. Wonka collect items from the oldest living things?**

Mr. Wonka collected items from the oldest living things because he wanted to create a medicine that would make people older. His logic was that if he used ingredients from ancient things that had lived for hundreds or thousands of years, he could extract their "age" or "oldness" and transfer it to people.

Since Vita-Wonk was meant to reverse the effects of Wonka-Vite (which made people younger), Mr. Wonka needed to find the secret of longevity and aging. He believed that by studying and using parts from the oldest creatures and plants on Earth, he could create a formula to make people age. This was his scientific approach - to understand what makes things old by examining the oldest specimens available.

**(b) What does "minus 87" mean in the story? Can anyone's age be a minus number?**

In the story, "minus 87" means that a person's age has gone 87 years into negative. This happened because some people took too much Wonka-Vite and became so young that they went past zero years of age into minus numbers.

In real life, no one's age can be a minus number

because age is calculated from the moment of birth. Once you are born, you can only grow older, never younger. Age can be zero (at birth) but cannot be negative.

However, in this fictional story, "minus 87" means that the person has disappeared and will have to wait for 87 years before being born again. It's a creative way of saying the person needs to wait 87 years in a state of non-existence before they can come back to the world. This is purely imaginary and meant to show the comic disaster caused by Mr. Wonka's too-powerful medicine.

**(c) Describe the process of inventing Vita-Wonk.**

The invention of Vita-Wonk was an adventurous and elaborate process:

First, Mr. Wonka identified the problem - people who had taken too much Wonka-Vite had disappeared into minus ages. He realized he needed to create the exact opposite of Wonka-Vite.

Second, he asked himself two crucial questions: "What is the oldest living thing in the world?" and "What lives longer than anything else?" The answer led him to trees, specifically the Bristlecone pine.

Third, he embarked on a worldwide journey in his Great Glass Elevator to collect samples from the oldest living things. He gathered:

- Sap from 4000-year-old Bristlecone pine trees
- Whiskers from a 36-year-old cat
- Tail of a 51-year-old horse from Arabia
- Egg from a 200-year-old tortoise
- And many other ancient items

Fourth, in his Inventing Room, he boiled, bubbled, mixed, and tested all these ingredients together. After much experimentation, he finally produced one tiny cupful of oily black liquid.

Finally, he tested it on a brave twenty-year-old Oompa-Loompa volunteer. Just four drops transformed the young man into a seventy-five-year-old! Thus, Vita-Wonk was successfully invented.

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*Marking: Each answer carries 2 marks, Total for ANY TWO = 4 marks*

### **Answer 8: Extract from "Fire: Friend and Foe"**

#### **Solutions:**

**(a) Name the chapter from which this extract is taken. (1 mark)**

Chapter: Fire: Friend and Foe

**(b) How did early man first see fire? (2 marks)**

Early man first saw fire through natural phenomena in nature:

- He might have witnessed volcanoes erupting with fire and lava flowing down mountains

- He might have seen lightning strikes during thunderstorms that set trees and grass on fire

These natural occurrences of fire frightened early man. He was awed (filled with wonder and respect) by the power and mystery of fire. He didn't understand what fire was or how it worked, which made it seem magical and dangerous to him.

**(c) How did fire become man's friend? (2 marks)**

Fire became man's friend through a gradual process:

- First, man learned to make fire for himself using methods like rubbing stones together or using friction
- Once he could create fire on his own, it was no longer a mysterious and frightening element
- Man learned to control fire and use it for his benefit
- He used fire to cook food, keep warm, protect himself from wild animals, and light up dark places

By mastering the art of making and controlling fire, man transformed it from a fearful natural phenomenon into a useful tool and helper in his daily life.

**(d) Find a word from the passage that means 'filled with wonder and respect'. (1 mark)**

Answer: awed

The word "awed" in the phrase "frightened and awed

by fire" means filled with wonder, amazement, and respect.

*Marking: (a) 1 mark, (b) 2 marks, (c) 2 marks, (d) 1 mark = Total 6 marks*

### **Answer 9: Questions from "An Alien Hand"**

#### **Solutions:**

**(a) Where did Tilloo and his family live? (1 mark)**

Tilloo and his family lived underground on the planet Mars. They had created an entire civilization beneath the surface of Mars to protect themselves from the harsh conditions above.

**(b) What was Tilloo's forbidden mission? (2 marks)**

Tilloo's forbidden mission was to reach the surface of Mars and see what was happening above ground. He wanted to go through the forbidden passage that led from the underground city to the surface of the planet.

His father had strictly forbidden him from going to the surface because the conditions there were dangerous - no air to breathe, extreme temperatures, and harmful radiation. But Tilloo was a curious child and wanted to see the sun, stars, and the surface world for himself.

**(c) Why was it called a 'forbidden' passage? (2 marks)**

It was called a 'forbidden' passage for several important reasons:

- The passage led from the underground city to the dangerous surface of Mars
- The surface had no air to breathe and conditions were not suitable for survival
- It was restricted to only authorized personnel who worked in the Control Room monitoring spacecraft from Earth
- Common citizens, especially children, were not allowed to use this passage for their own safety
- Going to the surface without proper authorization and equipment could be fatal

The passage was secured with special security cards, and only people like Tilloo's father who worked in the Control Room had access to it.

**(d) What happened when Tilloo pressed the red button? (1 mark)**

When Tilloo pressed the red button, he stopped the mechanical hand that was collecting soil samples on the Martian surface. The damage was done - the spacecraft's mechanical arm became inactive and stopped working.

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*Marking: (a) 1 mark, (b) 2 marks, (c) 2 marks, (d) 1 mark = Total 6 marks*

## **Answer 10: Short Answer Questions (ANY FOUR)**

**Solutions:**

**(a) What are the three essential elements required for fire? Explain briefly.**

The three essential elements required for fire form what is called the "Fire Triangle":

1. Fuel - Any combustible material that can burn, such as wood, paper, coal, petrol, gas, or cloth. Fuel provides the material that burns.

2. Oxygen - Available in the air around us (air contains about 21% oxygen). Oxygen supports the burning process and helps the fuel combust.

3. Heat - The initial energy needed to raise the fuel to its ignition temperature or "flash point." This is the temperature at which the fuel starts burning.

All three elements must be present together for fire to start and continue burning. If any one element is removed, the fire will go out. This principle is used in fire extinguishing - we either remove the fuel, cut off oxygen supply, or cool down the heat.

**(b) Why did some people disappear after taking Wonka-Vite?**

Some people disappeared after taking Wonka-Vite because the medicine was too powerful and made them extremely young. When people took large doses of Wonka-Vite, they became younger and younger, going

past their birth age of zero years into minus numbers.

For example, if someone became minus 87 years old, it meant they had gone 87 years before their birth. In such a state, they disappeared from existence because they technically hadn't been born yet. They became invisible and would have to wait for those minus years to pass before being born again in the future. This was the serious problem that led Mr. Wonka to invent Vita-Wonk.

**(c) What is the moral lesson we learn from the story "The Invention of Vita-Wonk"?**

The story teaches us several important moral lessons:

- We should not interfere with nature's natural processes - trying to make people unnaturally young or old can have serious consequences
- Every scientific invention should be properly tested before use, as even well-intentioned inventions can have dangerous side effects
- Accepting our natural age and aging process is important
- While science can do wonderful things, we must be careful not to play with fundamental aspects of life like age
- Problems created by one invention (Wonka-Vite) sometimes require another invention (Vita-Wonk) to solve, showing that tampering with nature creates complications
- We should appreciate what God has given us and

not try to change everything artificially

**(d) How did Tilloo's father handle the situation when Tilloo was caught?**

When Tilloo was caught using his father's security card and escorted back home by security personnel, his father handled the situation with a mixture of firmness and understanding:

- He took responsibility for his son's actions since Tilloo had used his security card
- He likely explained to the authorities that it was a childish curiosity and not a deliberate security breach
- He didn't punish Tilloo too harshly because he understood his son's natural curiosity about the surface world
- However, he seriously explained to Tilloo why the surface was dangerous and why the passage was forbidden
- He made Tilloo understand the importance of following rules and not taking things without permission
- His father's calm handling prevented Tilloo from getting into serious trouble while also teaching him an important lesson

**(e) Why do we call fire a "friend and foe"? Explain with examples.**

Fire is called both a "friend" and a "foe" because it has two completely opposite aspects:

Fire as a FRIEND:

- It helps us cook our food and make it digestible and safe to eat
- It provides warmth during cold weather, making our homes comfortable
- It gives us light in darkness
- Industries use fire to manufacture countless products we use daily
- Thermal power plants use fire to generate electricity
- Fire helped early civilizations advance and progress

Fire as a FOE:

- Uncontrolled fire can destroy entire forests (forest fires)
- It can burn down houses, buildings, and property worth millions
- Fire accidents can cause severe burns, injuries, and loss of human lives
- Industrial fires can lead to massive disasters and environmental damage
- Fire spreads rapidly and can get out of control within minutes

Therefore, fire is a wonderful servant when controlled and used properly, but becomes a dangerous master when it goes out of control. We must always treat fire with respect and caution.

**(f) Which tree lives the longest according to Mr. Wonka? Where is it found?**

According to Mr. Wonka, the Bristlecone pine tree lives the longest among all living things. Some Bristlecone pine trees are over 4000 years old!

These ancient trees are found on the slopes of Wheeler Peak in Nevada, USA. Mr. Wonka mentioned that to confirm the age of these trees, one should consult a dendrochronologist - a scientist who studies tree rings to determine the age of trees.

Mr. Wonka collected a pint of sap from these 4000-year-old Bristlecone pine trees as one of the main ingredients for his Vita-Wonk invention.

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*Marking: 2 marks each × 4 = 8 marks (Any FOUR to be attempted)*

### **Answer 11: Matching**

#### **Solution:**

Correct Matches:

(a) Wonka-Vite → (ii) Made people younger

Explanation: Wonka-Vite was Mr. Wonka's first invention that made people younger but was too powerful.

(b) Combustion → (iv) Chemical reaction

Explanation: Combustion is the chemical reaction that produces fire when fuel combines with oxygen and heat.

(c) Bristlecone pine → (v) 4000 years old

Explanation: The Bristlecone pine trees mentioned by Mr. Wonka are over 4000 years old.

(d) Tilloo's home → (iii) Mars

Explanation: Tilloo and his family lived in an underground city on the planet Mars.

(e) Forbidden passage → (i) Underground passage

Explanation: The forbidden passage was an underground tunnel leading from the city to the surface of Mars.

(f) Mechanical hand → (vi) Collected soil samples

Explanation: The mechanical hand from the spacecraft was designed to collect soil samples from Mars to detect signs of life.

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*Marking: 1 mark each = 6 marks*

## SECTION D - LONG ANSWER QUESTIONS ANSWERS

### Answer 12: Option 1 - Fire: Friend and Foe

#### Solution:

Fire: Both Friend and Foe to Mankind

Fire is one of the most important discoveries in human history, playing a dual role in our lives. It can be our best friend and worst enemy, depending on how we use and control it. This dual nature makes fire a perfect example of how powerful tools

require responsible handling.

#### Fire as a Friend:

Since ancient times, fire has been humanity's faithful companion. Early man's discovery of fire marked a turning point in human civilization. Before fire, humans lived in darkness after sunset, ate raw food, and suffered in cold weather. Fire changed everything.

First and foremost, fire revolutionized cooking. Cooked food is easier to digest, safer to eat, and tastes better. Cooking with fire made a wider variety of foods edible and helped prevent diseases caused by consuming raw meat and vegetables.

Fire provides warmth during cold seasons. In winter months and cold regions, fire keeps our homes comfortable and protects us from freezing temperatures. Without fire and heating systems, life in many parts of the world would be impossible.

Fire gives us light. Before electricity was discovered, fire in the form of candles, torches, and lamps lit up our nights. Even today, in areas without electricity, fire remains the primary source of light.

Industries depend heavily on fire. Manufacturing processes for metals, ceramics, glass, and countless other products require high temperatures

that only fire can provide. Thermal power plants use fire to generate electricity that powers our modern world.

Fire also played a crucial role in human protection. Early humans used fire to keep wild animals away from their settlements. The fear of fire among animals gave humans a survival advantage.

Fire as a Foe:

Despite its many benefits, fire can become extremely dangerous when it goes out of control. Every year, millions of rupees worth of property is destroyed, and countless lives are lost due to fire accidents.

Forest fires are among the most devastating examples. Once started (often by lightning or human carelessness), forest fires can spread rapidly, destroying thousands of acres of forest, killing wildlife, and threatening nearby human settlements. The loss of forests affects the entire ecosystem and contributes to climate change.

Residential and commercial building fires cause immense damage. A small cooking fire left unattended can quickly engulf an entire house. Office buildings, factories, and shopping complexes have suffered massive fires, resulting in loss of lives and property worth crores of rupees.

Industrial fire accidents can be catastrophic. Factories dealing with chemicals, petroleum products, and inflammable materials face constant fire hazards. Major industrial fires have caused environmental disasters and claimed numerous lives.

The destructive power of fire is enormous. It spreads rapidly, consumes everything in its path, and is difficult to control once it grows large. Fire doesn't discriminate - it destroys homes, memories, businesses, and lives with equal ruthlessness.

The Balance We Must Maintain:

The key to living with fire lies in understanding and respecting it. We must always remember that fire is a wonderful servant but a terrible master. When controlled and used properly, fire serves humanity in countless ways. But when neglected or misused, it becomes a destructive force.

Fire safety measures are essential. Having fire extinguishers in homes and workplaces, conducting regular fire drills, keeping flammable materials safely stored, and never leaving fire sources unattended are basic precautions everyone must follow.

Education about fire safety should start from childhood. Children must be taught never to play with matches, lighters, or candles. They should know what to do in case of fire - raise an alarm,

evacuate safely, and call the fire brigade.

Conclusion:

Fire exemplifies the principle that any powerful tool can be beneficial or harmful depending on its use. Our responsibility is to harness fire's benefits while protecting ourselves from its dangers. Respect for fire, proper safety measures, and constant vigilance are essential to ensure that fire remains our friend and never becomes our foe.

As the saying goes, "Fire is a good servant but a bad master." We must always keep fire under our control, use it wisely, and never let our guard down around it. Only then can we enjoy its benefits while staying safe from its destructive potential.

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*Marking: Content and Examples 3 marks, Expression and Vocabulary 1.5 marks, Organization and Conclusion 0.5 marks = 5 marks*

## **Answer 12: Option 2 - Mr. Wonka's Inventions**

**Solution:**

Mr. Wonka: A Brilliant Inventor Whose Creations Created Problems

Mr. Willy Wonka was undoubtedly a brilliant inventor with extraordinary imagination and scientific skills. However, his story teaches us an important lesson: even the most brilliant inventions can create serious problems if they are

not properly tested, controlled, or if their side effects are not fully understood. Both Wonka-Vite and Vita-Wonk demonstrate this principle.

#### Wonka-Vite: The Problem-Creating Invention

Mr. Wonka's first major invention was Wonka-Vite, a medicine designed to make people younger. On the surface, this seems like a wonderful idea. Who wouldn't want to reverse aging and feel young again? The elderly could regain their youth, energy, and vitality. It appeared to be a miracle drug that could solve one of humanity's greatest challenges - aging.

However, Mr. Wonka's brilliance was not matched by adequate caution. He created Wonka-Vite without fully testing it or understanding its proper dosage. The medicine worked - it did make people younger - but it was far too powerful.

The disaster occurred when people started taking Wonka-Vite. Instead of making them just a few years younger, the medicine made them extremely young. Some people became so young that they went past zero years of age into minus numbers. A person might become minus 87 years old, which meant they literally hadn't been born yet!

When people's ages became negative, they disappeared completely. They entered a state of non-existence and would have to wait invisibly for years (equal to their minus age) before being born

again. Imagine the chaos - families losing their loved ones who vanished into thin air, having to wait decades before they could return!

This shows Mr. Wonka's first major mistake: creating something powerful without proper safety testing and dosage control. His enthusiasm for innovation overshadowed his responsibility for safety.

Vita-Wonk: Solving One Problem by Creating Another

Realizing his mistake, Mr. Wonka set out to create Vita-Wonk, the exact opposite of Wonka-Vite. This medicine would make people older, thereby reversing the effects of Wonka-Vite and bringing back those who had disappeared into minus ages.

The process of creating Vita-Wonk showed Mr. Wonka's determination and resourcefulness. He traveled the world in his Great Glass Elevator, collecting samples from the oldest living things - 4000-year-old tree sap, whiskers from ancient cats, tails from old horses and rats, eggs from century-old tortoises, and more. His scientific approach was creative and ambitious.

After much experimentation, he successfully created Vita-Wonk. When tested on a brave twenty-year-old volunteer, just four drops transformed the young man into a seventy-five-year-old within moments. The invention worked!

But once again, Mr. Wonka created a medicine that was too powerful. While Vita-Wonk could solve the Wonka-Vite problem, it introduced new risks. What if someone took too much Vita-Wonk? They could age rapidly and become extremely old, perhaps even dying of old age instantly!

The Pattern of Problems:

Both inventions reveal a troubling pattern in Mr. Wonka's approach to science:

First, he creates powerful medicines without adequate safety testing. He seems to think of the idea, execute it brilliantly, but then discover the problems only after testing on volunteers.

Second, his inventions work - but work too well. Both medicines are overly powerful, making people dramatically younger or older instead of allowing gradual, controlled changes.

Third, he solves one problem by creating another. Wonka-Vite caused people to disappear, so he made Vita-Wonk. But Vita-Wonk itself could cause rapid aging. He's essentially playing catch-up with the consequences of his own creations.

Fourth, there's a lack of proper dosage control. Both medicines show dramatic effects from just a few drops, suggesting they should have been diluted or their strength reduced before human testing.

The Broader Lesson:

Mr. Wonka's story illustrates important principles about scientific innovation:

Scientists must balance creativity with responsibility. While innovation is valuable, safety should never be compromised. New medicines and inventions should undergo rigorous testing before human trials.

Understanding side effects is crucial. Mr. Wonka focused on whether his inventions worked, but didn't sufficiently consider all possible consequences and side effects.

Some things shouldn't be tampered with. Aging is a natural process. While helping people live healthier lives is good, artificially manipulating age in such dramatic ways interferes with nature's fundamental processes.

Quick fixes can create bigger problems. Instead of one well-designed, safe medicine for aging, Mr. Wonka ended up needing two powerful and potentially dangerous medicines to counteract each other.

Conclusion:

Mr. Willy Wonka was indeed a brilliant inventor with remarkable scientific abilities. His imagination and creativity were extraordinary. However, his story serves as a cautionary tale

about the responsibilities that come with great scientific ability.

True brilliance in science requires not just creative ideas and technical skills, but also wisdom, caution, ethical consideration, and thorough testing. Mr. Wonka's inventions created problems precisely because he lacked these elements. While his intentions were good, his methods were reckless.

The story teaches us to respect nature's processes, test innovations thoroughly, consider all possible consequences, and remember that some things - like the natural process of aging - perhaps shouldn't be dramatically altered by artificial means. Science should help humanity, but not at the cost of creating new and potentially worse problems than the ones it tries to solve.

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*Marking: Content and Analysis 3 marks, Expression and Vocabulary 1.5 marks, Organization and Conclusion 0.5 marks = 5 marks*

### **Answer 13: Option 1 - My Invention to Help Humanity**

#### **Solution:**

The Clean Air Generator: An Invention for a Healthier World

If I were a scientist like Mr. Wonka, I would invent a "Clean Air Generator" - a revolutionary device that could purify polluted air and convert

harmful gases into clean, breathable oxygen.

My invention would be a compact machine, about the size of a small refrigerator, that could be installed in homes, schools, offices, and public places. The device would work using advanced filtration technology combined with special catalysts.

Here's how it would work: The Clean Air Generator would have powerful intake fans that pull in polluted air from the surroundings. Inside, the air would pass through multiple stages. First, a HEPA filter would remove dust particles, smoke, and allergens. Second, activated carbon filters would absorb harmful chemicals and odors. Third, and most importantly, a special bio-chamber containing genetically modified algae would convert carbon dioxide into oxygen through rapid photosynthesis, powered by LED lights that mimic sunlight.

The machine would also have sensors that detect pollution levels and automatically adjust its working speed. It would display real-time air quality readings on a digital screen, showing people exactly how much cleaner their air is becoming.

The benefits of my invention would be enormous. In cities with terrible air pollution like Delhi, these machines could significantly improve air quality and reduce respiratory diseases. People with asthma and allergies would breathe easier.

Children could play outside without fear of pollution. Elderly people would have better health.

I would also design a larger version for industrial use, installing them near factories and power plants to clean emissions before they reach the atmosphere. This would help combat global warming and climate change.

Unlike Mr. Wonka's inventions that sometimes created new problems, my Clean Air Generator would have safety features built in from the start. It would undergo years of testing before being released to the public. The algae chamber would be sealed to prevent any biological contamination. The device would have automatic shutdown features if any malfunction is detected.

My dream is to make this invention affordable so that even poor families could access clean air. I would work with governments to install these generators in public spaces, parks, and schools free of cost.

Just as fire transformed human civilization, the Clean Air Generator could transform how we deal with one of the biggest challenges of the modern world - air pollution. It would be my gift to humanity, helping billions of people breathe easier and live healthier lives.

This invention represents my vision of how science should work - not creating powerful but dangerous

tools like Wonka-Vite and Vita-Wonk, but developing safe, tested, and truly beneficial innovations that solve real problems without creating new ones.

*Marking: Creativity and Content 3 marks, Scientific Logic and Expression 1.5 marks, Coherence and Vision 0.5 marks = 5 marks*

### **Answer 13: Option 2 - Fire Safety Hero**

#### **Solution:**

The Brave Watchman: A Fire Safety Hero

Ramu Kaka was a simple night watchman who worked in a five-story apartment building in Mumbai. He was 55 years old, quiet, and dedicated to his job. Nobody paid much attention to him as he made his rounds every night, checking doors and windows. But one terrifying night, Ramu Kaka became a hero whose bravery saved forty-two lives.

It was 2 AM when Ramu noticed smoke coming from the third floor. He immediately rang the fire alarm bell loudly and started banging on doors, shouting "Fire! Fire! Everyone evacuate!" Most residents were sleeping, but his persistent knocking woke them up.

While some residents panicked, Ramu Kaka kept his composure. He guided frightened families to the staircase, making sure everyone moved quickly but safely. "Don't use the lift!" he shouted. "Take the stairs! Cover your nose and mouth with wet cloth!"

He noticed that the fire was spreading rapidly from a short circuit in Flat 302. The smoke was getting thicker, making it difficult to breathe and see. Despite the danger, Ramu Kaka ran back upstairs three times - first to rescue an elderly couple who couldn't walk fast, then to save a mother with two small children who were trapped, and finally to check if anyone was still inside.

On his third trip, he found Mrs. Sharma unconscious in her bathroom. The brave watchman carried her on his shoulders through the smoke-filled corridor and brought her to safety just as the fire brigade arrived.

Thanks to Ramu Kaka's quick thinking and selfless courage, all forty-two residents escaped safely. Only he suffered - he had severe burns on his hands and smoke inhalation injuries. When reporters called him a hero at the hospital, he simply said, "I was just doing my duty. These people are like my family."

The building management and residents honored Ramu Kaka with awards and raised money for his treatment. More importantly, they learned vital lessons about fire safety. The building installed better fire alarms, kept fire extinguishers on every floor, conducted regular fire drills, and fixed all faulty electrical wiring.

This incident taught everyone that fire safety is

not just about having equipment - it's about awareness, quick action, and selfless courage. Ramu Kaka proved that heroes don't wear capes; sometimes they wear a simple watchman's uniform and carry nothing but a brave heart and a sense of duty.

His story reminds us all: in case of fire, every second counts, panic kills more than flames, helping others before ourselves is true heroism, and prevention through proper fire safety measures is the best protection of all.

Today, that apartment building has Ramu Kaka's photo in the lobby with the words: "Our Hero - He saved 42 lives." His bravery continues to inspire residents to take fire safety seriously, conduct regular drills, and never take safety for granted.

Fire may be a dangerous foe, but human courage and quick thinking can overcome even the fiercest flames.

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*Marking: Story and Creativity 3 marks, Lesson and Message 1.5 marks, Expression and Impact 0.5 marks = 5 marks*

**END OF QUESTION PAPER**

**Total Marks: 80**

**All Questions Solved with Detailed Explanations**

Best wishes for your examination!

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