



**LOYOLA CONVENT SCHOOL, RANCHI**  
**WINTER VACATIONHOLIDAY HOMEWORK (2025-26)**

**CLASS-IX**  
**ENGLISH**

1. " All of us know that nothing is permanent, then why do we suffer so much " Write a paragraph to express your opinion in about 80-100 words ( refer poem " A Slumber did my Spirit Seal" )
2. Imagine you are Johnsy, the young artist .You are dumbstruck when you are told by Sue about Behrman's sacrifice . Write a diary entry( 100- 120 words) about your feelings ( how you regret about your belief -feel guilty - sorrow - how his selfless efforts affected you )
3. What ideas do you get about the author from the extract " The Kathmandu" ? If you would have travelled with narrator , what else would you have captured , seen or heard or noted ? Bring out the natural beauty and other tourist attraction of the region .
- 4." Together With "- Integrated Assignment 4 and 5 ( Pg. 341 to 368)
5. Workbook - Unit 9 and 10 ( Pg. 127 to 164)

**HINDI**

- 1) अग्निपथ कविता का सारांश अपने शब्दों में लिखें।
- 2) किसी एक विषय पर **8-10 पंक्तियों** की कविता लिखें—
  1. सर्दी का मौसम
  2. मेहनत का महत्व
  3. मेरा भारत
- 3) कहानी में **कल्लू कुम्हार** की असफलता का कारण केवल एक मूर्ति अधूरी रह जाना नहीं था। उसके व्यक्तित्व की कौन-सी कमजोरियाँ उसकी असफलता के लिए ज़िम्मेदार थीं?
- 4) “अतिथि जितना अच्छा शुरू में लगता है, उतना ही बोझिल बाद में हो जाता है।” — ‘अतिथि तुम कब जाओगे’ पाठ के आधार पर स्पष्ट कीजिए।
- 5) निम्नलिखित संस्कृत शब्दों के **हिंदी पर्यायवाची (तीन)** लिखें—  
धर्म, मानव, ज्ञान, सत्य, पर्व, वन, जल, विश्व।
- 6) ‘गुण संधि’ और ‘वृद्धि संधि’ में क्या अंतर है? उदाहरण सहित लिखिए।
- 7) किसी दो अध्यायों का **विस्तृत विश्लेषण (150-180 शब्द)** लिखिए। इसमें ये बिंदु अवश्य शामिल हों—
  1. मुख्य घटना
  2. लेखक का उद्देश्य
  3. पात्रों की विशेषताएँ
  4. संदेश / सीख
  5. भाषा-शैली

**MATHS**

1. Maths L/M Activity - 8, 17, 18 and 20
2. Write all the theorems of the following Chapters - Triangles, Quadrilaterals and Circles
3. Make a list of all the formulae of the Chapter - Surface areas and Volumes

## **SCIENCE**

### **BIOLOGY**

Case Based Questions :

AI in Farming

In 2024, many Indian farmers began using Artificial Intelligence (AI) tools to improve farming. A company introduced three popular tools:

- i) AI Weather App – gives early warnings about rain, heat waves, or storms.
- ii) Smart Soil App – farmers click a photo of soil, and the app tells nutrients, pH, and best crops.
- iii) Drone Sprayer – sprays fertilizers and pesticides quickly and evenly, saving time and chemicals.

A group of farmers in Telangana used these tools and reported 10–15% increase in yield and less water use.

Activity Questions:

- 1) Explain in 4–5 lines how drones help increase crop productivity.
- 2) Interview one farmer (or search online) and write 5–6 lines about their experience using farming apps or digital tools.
- 3) Create your own AI farming tool—write its name, purpose, main features, and explain it with a diagram.

Case Based Study:

GM Mustard Debate

India has low mustard yield and high edible oil imports. To improve production, scientists developed GM Mustard (DMH-11) using genetic modification. It can produce more seeds and more oil, but its approval has created a national debate.

Arguments in Favour:

- Higher yield than normal mustard.
- Can reduce edible oil imports.
- Better income for farmers.

Arguments Against:

- May affect local mustard varieties and biodiversity.
- Long-term health effects are still debated.
- Beekeepers worry it may impact honeybees.

Activity Questions

- 1) What is a GM crop?
- 2) Give two arguments for and two against GM mustard.
- 3) Conduct a small survey (friends/family) asking if they support GM mustard. Present the results in a bar graph.

### **PHYSICS**

Ch - Motion , VK Pg - 76 CBQ 1 and 2

Ch - Force and laws of motion, VK Pg - 123 CBQ 2

Ch - Gravitation, VK Pg - 161 CBQ 1

Ch - Floatation, VK Pg - 188 CBQ 1

Ch - Work and Energy , VK Pg - 236 CBQ 2

Ch - Sound , VK Pg - 276 CBQ 2

### **CHEMISTRY**

1. Name the elements present in the following compounds and also find the ratio of the elements present.

Calcium oxide, Magnesium chloride, Sodium sulphide, Zinc sulphate, Cupric carbonate

2. How many compounds can be formed from the following

Sodium ion , Calcium ion , Barium ion , Potassium ion , Ammonium ion , Ferric ion

Carbonate , Zincate , Phosphate , Nitrate , Sulphate , bicarbonate , bisulphite

3. Write the molecular mass of the following compounds  
Sulphuric acid , Nitric acid , Magnesium sulphate , cupric oxide , potassium chloride

### **SOCIAL SCIENCE**

#### **HISTORY/GEOGRAPHY:-**

- Q1. Explain the pastoral Nomads of mountain of Jammu and Kashmir, Uttarakhand and in Western ghats of their movement, animals reared and problems faced and paste relevant pictures.  
Q2. On the political outline map of India label different pastoralists group. Q3) Enlist the different types of forests found in India and explain monsoon forest in detail.  
Q4. Show the density of population on the outline political map of India.  
Q5. Complete 'map book' upto page number-70.

**CIVICS:-** 1.Explain various procedure of conducting an election in India. Q2) Explain about national political parties of India.

**ECONOMICS:-** Q. Collect information about any FIVE major government schemes related to poverty alleviation and food security in India. Prepare a short report highlighting their objectives, target groups, key features, and effectiveness.

### **SANSKRIT**

- (अ) 1. दूगैदर विद पुस्तकात् अभ्यास प्रश्नपत्र 1-5 खंड 'घ' अभ्यास पुस्तिकायाम् एव कुरुत।  
(आ) मणिकाव्याकरण पुस्तिकायाम् अभ्यास प्रश्नपत्र 1&2 खंड- 'ख' पुस्तिकायाम् एव कुरुत।

### **COMPUTER**

#### **Unit 3 – ICT Skills – I**

1. What do you understand by the term ICT? Write its importance at home and in the workplace.
2. Draw the icons and write the functions of:  
Bluetooth, Wi-Fi, Cellular Network Connectivity.
3. Explain the characteristics of a computer.
4. Write the difference between RAM and ROM.
5. Draw a table of memory units.
6. Explain the following ports:  
Serial Port, Parallel Port, USB Port, Ethernet Port, HDMI Port, Power Port, Audio Ports.
7. What is an operating system? Write its examples.
8. Write the file extensions of:  
Writer, Calc, Impress, WordPad, MS Paint.
9. Write any eight uses of the Internet.
10. Define:  
a. Bandwidth   b. Web Browser   c. World Wide Web   d. Cookies  
e. DNS   f. ISP
11. What is the use of protocols on the Internet? Write the names of any five important protocols.
12. Write any four advantages of e-mail.
13. What are the different components of an e-mail address? Explain with an example.
14. Write the difference between Cc and Bcc in e-mail.

#### **Unit 4 – Entrepreneurial Skills – I**

1. Who is a businessman? Give a few examples.
2. What is entrepreneurship?
3. Explain any five qualities of an entrepreneur.
4. Explain the importance of entrepreneurs and their role in the country's and society's growth.
5. Write the difference between a businessman and an entrepreneur.
6. Write the difference between product-based business and service-based business.
7. What is the entrepreneurship development process?
8. List any two characteristics of wage employment.
9. What are the three types of business activities? Explain with examples.

#### **Unit 5 – Green Skills – I**

1. What are the five sources of energy available to us? Give two examples of each source.
2. What are the sources of pollution?
3. Classify the following under three categories of natural resources:  
Air, iron, sand, petroleum, wind, clay, fish, forest, gold, pearls.
  - Inexhaustible
  - Renewable
  - Non-renewable
4. Write any three actions you can take to conserve energy.
5. Describe any three methods of water conservation.
6. What is the purpose of soil conservation?
7. State any three ways by which we can save energy.
8. What are green skills?
9. Give two examples of green skills that you can start learning from now.

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