



MOUNT COLUMBUS SCHOOL
DAKSHINPURI, NEW DELHI- 62
HOLIDAY HOMEWORK
CLASS –IX (2023-24)

ENGLISH

Q.1. Complete the worksheets from the book- PP PUBLICATIONS CBSE ENGLISH LANGUAGE AND LITERATURE.

<u>S.NO.</u>	<u>TOPIC</u>	<u>ASSIGNMENT/PAGE NO.</u>
1	UNSEEN PASSAGE	i. WORKSHEET 6-8 (Pg No. A-23- A-28) ii. WORKSHEET 6-8 (Pg No. A-39 - A-44)
2	DESCRIPTIVE WRITING	WORKSHEET 1 Q-13 & 14 (Pg No. B-15)
3	DIARY ENTRY	WORKSHEET 1 Q-13 & 14 (Pg No. B-25)
4	STORY WRITING	WORKSHEET 1 Q-9 & 10 (Pg No. B-33)
5	LITERATURE	Q-6 (PART 2 - Pg No. SP- 6), Q-6 (PART 1 AND 2 – Pg No. SP-15) and Q-7 (PART AND B – Pg No. SP-14)

- KINDLY WRITE THE ANSWERS IN THE BOOK ONLY.

HINDI

1. शब्द और पद में कोई दो अंतर लिखें।
2. पाँच ऐसे वाक्य लिखिए जिनमें अनुस्वार का प्रयोग हो।
3. पाँच ऐसे वाक्य लिखिए जिनमें अनुनासिक का प्रयोग हो।
4. निम्नलिखित उपसर्गों के प्रयोग से दो-दो शब्द बनाकर लिखिए।
आ, प्रति, सह, दुर्
5. निम्नलिखित शब्दों में से मूल शब्द और प्रत्यय अलग करके लिखिए।
दर्शनीय, दुनियादारी, लिखाई, मिठास
6. निम्नलिखित शब्दों में उपसर्ग और प्रत्यय पहचानें:
स्वतंत्रता, अनुपयोगी, मित्रता
7. निम्नलिखित शब्दों का संधि-विच्छेद करें:
सूर्यास्त, रामेश्वर, महेश्वर, जगदीश, विद्यालय
8. दिए गए शब्दों को संधि के नियमों के अनुसार जोड़ें:
देव + ईश, महा + ईश्वर, पृथ्वी + ईश, वाक् + अर्थ
9. निम्नलिखित वाक्यों के भेद बताएं।
 - (i) मोहन स्कूल जा रहा है।
 - (ii) क्या तुमने खाना खाया?
 - (iii) हमें देशभक्ति का परिचय देना चाहिए।
 - (iv) राजा ने दरबारियों को इनाम दिया।
 - (v) वाह! तुमने बहुत अच्छा काम किया।
10. अपने और अपने छोटे भाई/बहन के बीच "पढ़ाई के महत्व" पर आधारित संवाद लिखिए।
11. माता-पिता और उनके बच्चे के बीच "मोबाइल का अत्यधिक उपयोग" विषय पर संवाद तैयार कीजिए।
12. अपने और अपने पड़ोसी के बीच "रविवार को सफाई अभियान आयोजित करने" पर आधारित संवाद लिखिए।
13. अपने दादा-दादी को उनके स्वास्थ्य का ध्यान रखने और नियमित व्यायाम करने के लिए प्रेरित करते हुए पत्र लिखो।
14. अपने चाचा/मामा को गाँव में बिताई गई छुट्टियों के अनुभव के बारे में बताते हुए पत्र लिखो। अपने मित्र को अपने नए विद्यालय और उसके वातावरण के बारे में बताते हुए पत्र लिखो।
15. निम्नलिखित विषय पर लगभग 100 शब्दों में अनुच्छेद लिखें -
 - (क) भारत के युवा और उनकी भूमिका"
 - (ख) प्रौद्योगिकी का हमारे जीवन पर प्रभाव

MATHEMATICS

Q1. Draw a histogram for the given data.

Class-interval	20-25	25-30	30-35	35-40	40-45	45-50	50-55
frequency	21	22	50	75	67	51	18

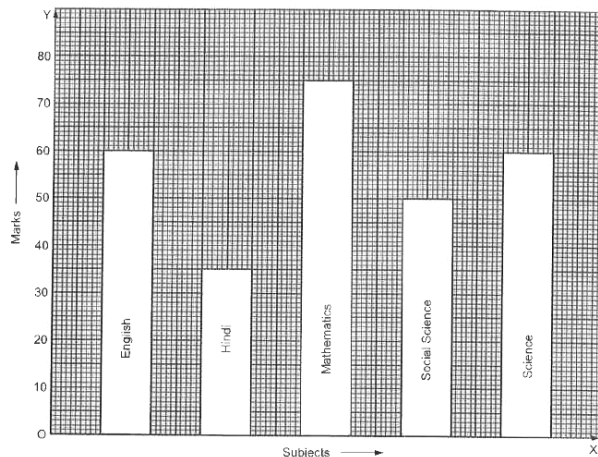
Q2. In a school marks obtained by 80 students are given in the table. Make a frequency polygon.

Marks obtained(mid-value)	305	315	325	335	345	355
Number of students	12	18	28	15	5	2

Q3. Look at the bar graph given below

Read it carefully and answer the following questions:

- (i) What information does the bar graph give.
- (ii) In which subject is the student very good.
- (iii) In which subject is he poor.
- (iv) What is the average of his marks.



Q4. In a grinding mill, there were installed 5 types of mills. These mills used steel balls of radius 5 mm, 7 mm, 10 mm, 14 mm and 16 mm respectively. All the balls were in the spherical shape. For repairing purpose mills need 10 balls of 7 mm radius and 20 balls of 3.5 mm radius. The workshop was having 20000 mm³ steel. This 20000 mm³ steel was melted and 10 balls of 7 mm radius and 20 balls of 3.5 mm radius were made and the remaining steel was stored for future use.

Based on the above information, answer the following questions:

- (i) What was the volume of 10 balls of 7mm radius?
- (ii) What was the volume of 20 balls of 3.5mm radius?
- (iii) How much steel was kept for future use?
- (iv) What was the surface area of 1 balls of 3.5 mm radius?
- (v) What is the ratio of surface area of a ball of radius 7mm and a ball of radius 3.5mm?

Q5. The difference between the two adjacent sides at a right-angled triangle is 14cm. The area of the triangle is 120 cm². Verify this area by using Heron's formula.

Q6. The sides of a triangular plot are in the rates of 2:5:6 and its perimeter is 520 m. Find its area.

Q7. Find the value of $x^3 + y^3 + z^3 - 3xyz$, if $x^2 + y^2 + z^2 = 83$ and $x + y + z = 15$.

Q8. Factorise: $8a^3 + b^3 + 12a^2b + 6ab^2$

Q9. What is the perpendicular distance of the point A(3,-4) from x-axis?

Q10. A point lies on x-axis at a distance of 9 units from y-axis in the positive direction. What are its co-ordinates? What will be its co-ordinates, if it lies on y-axis at a distance of 9 units from x-axis in the negative directions?

SCIENCE

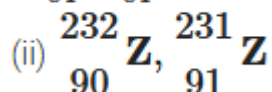
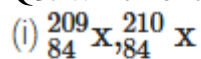
Portfolio Activity: Prepare a wall hanging on the timeline depicting the discovery in the field of atoms.

Complete the following questions in Chemistry notebook.

Q1. Write the electronic configuration of an element whose atomic number is 12.

Q2. Write the correct representation of an element 'X' which contains 15 electrons and sixteen neutrons.

Q3. Which of the following pairs are isotopes? Give reason.

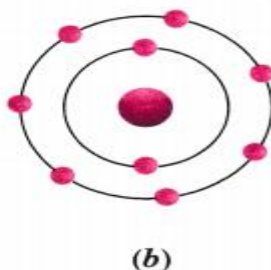
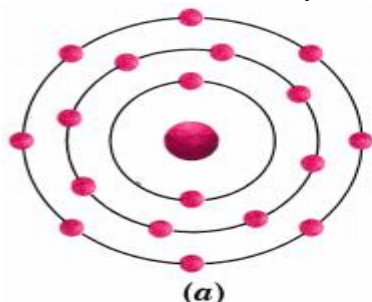


Q4. An element 'A' has valency +3, while another element 'B' has valency -2. Give the formula of their compound formed when 'A' reacts with 'B'.

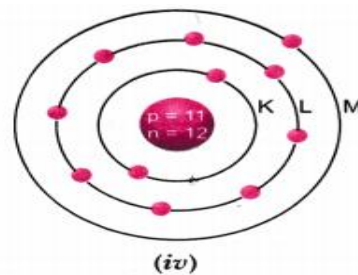
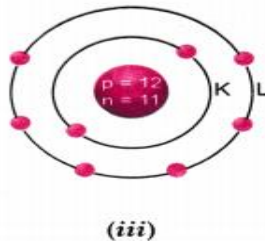
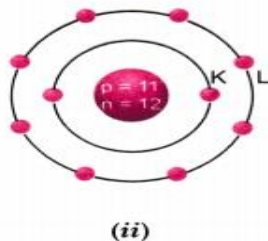
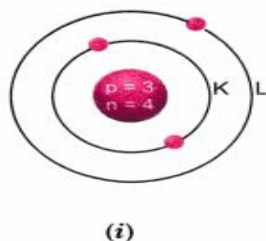
Q5. Write the electronic configuration of a positively charged sodium ion (Na^+). Atomic number of sodium is 11

Q6. The atomic number of Al and Cl are 13 and 17, respectively. What will be the number of electrons in Al^{3+} and Cl^- ?

Q7. Find out the valency of the atoms represented by the Figs. (a) and (b).



Q8. Identify the Na^+ ion from the following figures. What is the valency of sodium atom? Give reason.



Q9. An element 'Z' forms the following compound when it reacts with hydrogen, chlorine, oxygen and phosphorous.

ZH_3 , ZCl_3 , Z_2O_3 and ZP

(a) What is the valency of element 'Z'?

(b) Element 'Z' is metal or non-metal?

Q10. List any three distinguishing features between the models of an atom proposed by J.J. Thomson and Ernest Rutherford.

SOCIAL SCIENCE

Complete the following worksheets in the workbook of Social Science:

History

1. Chapter 2: Socialism in Europe and the Russian Revolution: Pages H-19 to H-25

Geography

1. Chapter 5: Natural Vegetation and Wildlife - Map-based questions: Pages G-58 and G-59

Political Science

1. Chapter 4: Working of Institutions: Pages P-30 to P-36

Economics

1. Chapter: Food Security in India: Pages E-35 to E-42

For Portfolio Activity - Map Work: Bind all the maps securely with a folder or a file.

CLASS IX LIST OF MAPS

S. No.	Subject	Name of the Chapter	List of Areas to be located /labeled/identified on the map
I	History	French Revolution	Outline political map of France. Locate/label/identify. • Bordeaux, Nantes, Paris and Marseille
		Socialism in Europe and the Russian Revolution	Outline political map of the World. Locate/label/identify Major countries of First World War: Central Powers: Germany, Austria-Hungary, Turkey (Ottoman Empire). Allied Powers – France, England, Russia and USA
		Nazism and the Rise of Hitler	Outline Political Map of World. Locate/label/identify Major countries of Second World War Axis: Powers – Germany, Italy, Japan Allied Powers – UK, France, Former USSR, USA
II	Geography	India : size and location	<ul style="list-style-type: none"> • India – States and Capitals • Tropic of Cancer, Standard Meridian (Location and Labeling) • Neighbouring Countries
		India physical features	<ul style="list-style-type: none"> • Mountain Ranges : The Karakoram, The Zaskar, The Shivalik, The Aravali, The Vindhya, The Satpura, Western and Eastern Ghats • Mountain Peaks – K2, Kanchan Junga, Anai Mudi • Plateau – Deccan Plateau, Chota Nagpur Plateau, Malwa Plateau • Coastal Plains – Konkan, Malabar, Coromandel & Northern Circar (Location and Labelling)
		Drainage system	Rivers (Identification only) <ul style="list-style-type: none"> • The Himalayan River Systems – The Indus, The Ganges and The Sutlej • The Peninsular Rivers – The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi • Lakes – Wular, Pulicat, Sambhar, Chilika
		Climate	• Annual rainfall in India, Monsoon wind direction
		Population	<ul style="list-style-type: none"> • Population density of all states • The state having highest and lowest density of population

INFORMATION TECHNOLOGY

OBJECTIVE TYPE QUESTIONS

- i. Response to the received message is called _____.
- a. Reply b. Reply all c. Both a) and b) d. Feedback
- ii. Doing only the tasks we like and ignoring the important ones is called _____.
- a. Priority b. Procrastination c. Mismanagement d. Rescheduling
- iii. *Assertion (A): A paragraph or a line in a word processor can be selected at once by mouse click.*
Reason (R): A swift triple click with left mouse button selects a paragraph or a line in a word processor.
- a. Both A and R are correct and R is the correct explanation of A
b. Both A and R are correct but R is NOT the correct explanation of A
c. A is correct but R is not correct
d. A is not correct but R is correct
- iv. Which of the following business types has the characteristics of corporation and partnership?
- a. Sole proprietorship b. Cooperative c. LLC d. Partnership
- v. Write the shortcut keys to move a file to Recycle Bin.
- a. Shift+Delete b. Ctrl+X c. Delete d. Ctrl+Delete
- vi. *sales@mycompany.com* – this is an example of _____.
- a. Email ID b. URL c. Both a) and b) d. Commercial web site

SUBJECTIVE TYPE QUESTIONS

- Q1. List any 3 scenarios where written communication is most effective.
- Q2. Why is self-management important for us?
- Q3. How can you say that operating system functions as an interface between the user and the computer system?
- Q4. How is BPO different from BPM?
- Q5. Describe the function of any three Special keys of a keyboard.
- Q6. How is justified text different from center aligned text?
- Q7. How are data and labels different from each other? Give example.
- Q8. What are the three image modes?
- Q9. How is a function different from a formula?

IT practical file

Q1. Demonstrate how to create, save, and format a Word document. What formatting options did you use to enhance the document's appearance?

Q2. Create a spreadsheet in Excel that tracks your monthly expenses. Include formulas to calculate the total expenses and the average cost per category.

Q3. Design a simple presentation using PowerPoint. Include at least five slides with text, images, and bullet points. What features did you use to make your presentation engaging?

Q4. Prepare a report on safe internet practices. What measures can individuals take to protect their personal information online?

Q5. Create a professional email to request information or assistance regarding a school project. What elements did you include to ensure clarity and professionalism?

Dear Students,

For your **Information Technology (402)** practical file, you are required to complete the above tasks on your computer. Please ensure that you follow these instructions carefully:

1. **Complete Your Assigned Project:**

- Work on the project using appropriate software or tools (such as Microsoft Word, Excel, PowerPoint, or any other relevant application).
- Ensure that your work is well-organized and visually appealing.

2. **Documentation:**

- Write a brief description of your project, including the objectives, tools used, and the process you followed to complete it.
- Include any challenges faced and how you overcame them.

3. **Printout:**

- Once you have completed your project, take a printout of your final work along with the documentation.
- Ensure that the printouts are clear and well-formatted.

4. **Maintain Your Practical File:**

- Organize your printouts in a practical file.
- Label each section clearly and include a table of contents at the beginning of the file.
- Ensure that all pages are numbered and that the file is neat and tidy.

5. **Submission:**

- Submit your practical file by the assigned deadline. (10th January 2025)
- Be prepared to present your project in class and discuss your findings.

ARTIFICIAL INTELLIGENCE

Instructions:

- + Complete all assignments neatly.
- + Submit electronically by to (naushad.mtcolumbus@gmail.com)
- + Use subject: AI_YourName_Class9th_Section
- + Clarify doubts via email.

Assignments:

1. Research & Presentation:
 - Research an AI application (Healthcare, Education, Environment).
 - Create a presentation (slides/video) and submit as a file.
2. Choose ONE:

Option 1: Coding Challenge

- + Develop a simple AI program (Python).
 - + Ideas: Chatbot, Image Recognition, Game AI.
- + Submit your code (.py file).

Option 2: SDG-Based Project

- + Research an SDG and explore AI's role in achieving it.
- + Create a presentation/report and submit as a file.

Project Tips:

- + Start early.
- + Utilize online resources.
- + Communicate effectively.
- + Be creative.

Remember: This homework aims to enhance your understanding of AI and develop 21st-century skills. Enjoy the learning process!