

SUMMER BREAK ASSIGNMENT (2025-26) CLASS -9TH

SUBJECT: MATHEMATICS

General Instructions:

- 1. Do Holiday HW in Classwork copy (give heading SUMMER VACATION HW), no need to make separate copy.
- 2. Complete C.W. & H.W. studied
- 3. Students are directed to read Newspapers and Magazines daily and update themselves with the current affairs.

- Q.1) Conduct a survey of your friends to find which kind of Game (indoor/outdoor) they like the most. Represent the information in the form of
- (i) Bar graph
- (ii) Pie chart
- Q.2) Write and learn all formulas of chapter Number system and Polynomials.
- Q.3) Project work: (use A4 pages)
- (i) Make a project on history of Number π (pie).

(ii) Bring articles, amazing facts, riddles, recent discoveries in the field of Mathematics. (any 3)

Worksheet

Ch-2 Polynomial

- 1) Find the Values of a and b so that the polynomial x^3+10x^2+ax+b is exactly divisible by (x-1) and (x-2)
- 2) Factorize: $(a^2-b^2)^3+(b^2-c^2)^3+(c^2-a^2)^3$
- 3) Simplify: $(a^2-b^2)^3+(b^2-c^2)^3+(c^2-a^2)^3/(a-b)^3+(b-c)^3+(c-a)^3$
- 4) Factorize: i) $2a^2+2\sqrt{6}ab+3b^2$ ii) $5\sqrt{5}x^2+20x+3\sqrt{5}$
- 5) If a+b+c=6 and ab+bc+ca=11, find the value of $a^3+b^3+c^3-3abc$
- 6) If $x^4+1/x^4=119$, find the value if x^3-1/x^3
- 7) If $x-1/x=3+2\sqrt{2}$, find the value of x^3-1/x^3 .
- 8) MCQs
 - i) (399)2 is equal to
 - a)159159
 - b)159202
 - c)156734
 - d)159201
 - ii) If $x = \sqrt[3]{(2+\sqrt{3})}$, then $x^3 + 1/x^3 =$
 - a)2
 - b)4
 - c)8
 - d)9

SUBJECT: SUBJECT

PHYSICS:

Instructions -

1. Do the question no. 8 separately as project work.

- 2. Rest of the guestions can be done on the class notebook.
- 3. Keep your work neat and organized.
- 4. Use a ruler for drawing graphs or diagrams.
- 5. Show all your calculations step by step.
- 6. Use appropriate units for measurements.
- Q1 Define uniform and non uniform motion with an example.
- Q2 Differentiate (i) distance and displacement (ii) speed and velocity
- O3. Define acceleration and write its SI unit.
- Q4. Define average speed and uniform speed.
- Q5. When are the distance and magnitude of displacement equal?
- Q6. A cyclist completes n rounds of a circular track. What will be the distance covered and the displacement of the cyclist after completing n rounds if D is the diameter of the track?
- Q7. A truck driver slows down the truck from 66 km/h to 30km/h in 10 seconds. Find the retardation.
- Q8 Make a project on different types of graphs.

Draw the following in the project

- (i) distance-time graphs for uniform and non uniform motion.
- (ii) Velocity -time graph for uniform velocity or uniform motion
- (iii) Velocity –time graph for uniform acceleration
- (iv) Velocity time graph for non uniformly accelerated motion
- (v) Aryan and his sister Sushma go to school on their bicycles. Both of them start at the same time from their home but take different times to reach the school although they follow the same route. Following Table shows the distance travelled by them in different times. Plot the distance-time graph for their motions on the same scale and interpret.

Time	Distance travelled by Aryan	Distance travelled by
		sushma
08:00 A.M.	0	0
08:05 A.M.	1.0	0.8
08:10 A.M.	1.9	1.6
08:15 A.M.	2.8	2.3
08:20 A.M.	3.6	3.0
08:25 A.M.	-	3.6

Q9 - 8 A bus starting from rest moves with uniform acceleration of 0.1m/s2 for 2 minutes .Find (i) the speed acquired (ii)the distance travelled.

- Q10 A car has a uniform acceleration of 4 m/s2. What distance will it cover in 10 sec after start.
- Q11 (i) Convert 80km/hour into m/sec
 - (ii)Convert 10m/sec into km/hour
- Q12 A car accelerates uniformly from 18km/h to 36 km/h in 5 seconds. Calculate (i) acceleration and (ii) the distance covered by the car in that time.
- Q13 A train starting from rest attains a velocity of 72 km/h in 5 minutes. Assuming that the acceleration is uniform, find (i) the acceleration and (ii) the distance travelled by the train for attaining this velocity.
- Q14 A car is moving at a speed of 50 km/h. Two seconds thereafter it is moving at 60 km/h. Calculate the acceleration of the car.
- Q15 A toy is accidentally dropped by a kid from his roof. The final velocity of the toy before it reached the ground was 8m/sec. Find the height of the building.

BIOLOGY:

- Students will prepare a separate notebook for Biology subject for completing the holiday homework.
- Learn the syllabus of P T1.
- Students are expected to Complete their practical record as well portfolio record during the summer vacation.
- Prepare a well labelled 3-D model of either a plant cell or an animal cell.
- Make a project on the topic "Modern agricultural techniques enhancing crop yield and sustainability"

OR

On the topic "The impact of fertilizer on plant growth"

• Complete the assignment:-

Q-What are the different types of endoplasmic reticulum? Write the functions of each.

Q-Name the cell organelle in which the following structures are present

a) Cristae

b) Stroma

c) Centriole

d) Chromosome

Q-Why lysosomes are called as the "suicidal bags"?

Q-If cells of onion peel and RBC are separately kept in hypotonic solution, what among the following will take place? Explain the reason for your answer.

A) Both the cells will swell

b) RBC will burst easily while cells of onion peel will not burst.

c)RBC and onion peel cells behave similarly.

Q-Which kind of plastid is more commonly seen in-

a) Roots of plant

b) Leaves of plant

c) Flowers and fruits

CHEMISTRY:

1) Make a poster on A4 size sheet on Interconversion of states of matter.

2) Lakshadweep, Andaman and Nicobar Islands are exotic and beautiful locations, providing perfect inspiration for chemists. Write a short article about the types of mineral resources found in Andaman & Nicobar and Lakshadweep islands on an A4 size coloured sheet and paste relevant pictures.

SUBJECT: ENGLISH

1.Attempt worksheet no.-17,18 and 19 in your NCERT workbook

2. Attempt Diary Entry worksheet on Page no. - 28 in your NCERT workbook

3. 'Whenever you see darkness, there is extraordinary opportunity for the light to burn brighter'. Keeping this quote in mind make an account of a person who fought against physical disability and made life a success story.

4. Revise Periodic Test-1 Syllabus

SUBJECT: हिंदी

सूचना-दिया गया कार्य अपनी हिन्दी की नोटबुक में किजिए।

- 1. निम्नलिखित विषयों पर पत्र लिखिए –
- क) आपके मोहल्ले में मच्छरों के प्रकोप का वर्णन करते हुए उचित कार्यवाही के लिए स्वास्थ्य अधिकारी को पत्र लिखिए।
- ख) समाज में बढ़ती हुई असुरक्षा के संबंध में अपने विचार प्रकट करते हुए किसी दैनिक पत्र के संपादक को पत्र लिखिए।
- 2. निम्नलिखित अनुच्छेद 100 शब्दों में
 - क) वृक्षों का महत्व
 - ख) प्रदूषण एक समस्या
 - ग) विद्यालय का महत्व
 - घ) अनुशासन हमारे जीवन का प्राण
- 3. वाचन कौशल के लिए निम्नलिखित विषयों में से किसी एक विषय की तैयारी कीजिए। सभी विषयों पर अपने विचार लिखकर अवश्य बताएं।
 - क) विज्ञापन उपभोक्तावादी संस्कृति
 - ख) भ्रमण या देशाटन के लाभ
 - ग) सच्चा मित्र
- 4. प्रथम इकाई परीक्षा सम्पूर्ण पाठ्यक्रम याद कीजिए।
- 5.दिए गए चित्रों का वर्णन करते हुए कुछ पंक्तियाँ लिखिए।

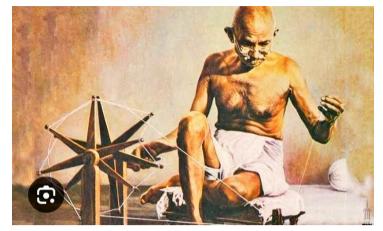


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SUBJECT: INFORMATION TECHNOLOGY

PART-A Unit 1- Communication Skills

♦ Objective Type / MCQs

- 1. What is communication?
- 2. Which of the following is a *barrier to communication*?
 - a) Active listening
- b) Noise
- c) Eye contact
- d) Feedback
- 3. Which type of communication uses gestures and facial expressions?
- 4. Which one is not a method of verbal communication?
- 5. Choose the correct example of **non-verbal communication**.
- 6. Which of these is an element of the communication cycle?
 - a) Sender
- b) Data
- c) Machine
- d) Computer
- 7. The process of interpreting the message is called:
- 8. Communication is a process.
- 9. A message can be transmitted through:
 - a) Speech
- b) Writing
- c) Body language
- d) All of these

♦ Short Answer Questions (2–3 Marks)

- 1. Define communication.
- 2. List any two types of communication.
- 3. What are the elements of the communication process?

- 4. What is feedback in communication?
- 5. Name any two barriers to communication.
- 6. Mention two differences between verbal and non-verbal communication.
- 7. Define verbal communication with an example.
- 8. Define non-verbal communication with an example.
- 9. How can one overcome communication barriers?
- 10. What is the importance of listening skills?

◆ Long Answer Questions (4–5 Marks)

- 1. Explain the types of communication with suitable examples.
- 2. Describe the communication cycle with a diagram.
- 3. What are the main barriers to effective communication and how can they be overcome?
- 4. Discuss the importance of communication skills in everyday life.
- 5. Explain the difference between verbal, non-verbal, and visual communication with examples.
- 6. What are the characteristics of effective communication?
- 7. How does active listening help in communication?
- 8. Describe any 5 tips for effective communication.

Short Answer Questions (2–3 Marks)

- 1. Define self-management.
- 2. What are the benefits of self-management?
- 3. Name any two self-management skills.
- 4. What is self-confidence?
- 5. Define goal setting.
- 6. What is the importance of time management?
- 7. Mention any two ways to improve your self-motivation.
- 8. Write two characteristics of a self-confident person.
- 9. List any two time management tools.
- 10. Define self-awareness with an example.

◆ Long Answer Questions (4–5 Marks)

- 1. Explain any five self-management skills with examples.
- 2. Describe the **SMART goal setting** technique.
- 3. What are the **benefits of time management** in a student's life?
- 4. What is self-confidence? How can it be developed?
- 5. What is self-motivation? Suggest five tips to stay motivated.
- 6. Differentiate between self-awareness and self-confidence.
- 7. How can students improve their time management skills?
- 8. Discuss any five qualities of a self-managed person.

PART-B

Unit 1: Introduction to IT & ITeS Industry

◆ Objective Type / MCQs

- 1. What does IT stand for?
- 2. What is the full form of ITeS?

3. Which of the following is an example of IT application?

a) Farming b) Online Banking c) Fishing d) Sewing

4. IT enables us to:

a) Communicate faster b) Play outdoor games

c) Ride a bike d) Cook food

5. ITeS includes:

a) Data Entry b) Call Center Services c) Medical Transcription d) All of the above

6. Which one is a **non-IT job**?

a) Software Developerb) Data Entry Operatorc) Carpenterd) Network Engineer

◆ Short Answer Questions (2–3 Marks)

1. What is Information Technology (IT)?

- 2. Define ITeS.
- 3. List any two uses of IT in our daily life.
- 4. Mention any two career options in the IT field.
- 5. How is IT used in the field of education?
- 6. What is the difference between IT and ITeS?
- 7. Write two examples of ITeS jobs.
- 8. How does IT help in healthcare?
- 9. What are the benefits of using IT in business?
- 10. Define BPO and give one example.

◆ Long Answer Questions (4–5 Marks)

- 1. Explain the role of IT in different sectors like **education**, **banking**, **healthcare**, **and governance**.
- 2. What is ITeS? Describe its categories and give suitable examples.
- 3. Write a short note on career opportunities in the IT and ITeS industry.
- 4. How has IT changed the way businesses work?
- 5. Describe five areas where **IT** is widely used today with examples.
- 6. What are the advantages and limitations of using IT in daily life?
- 7. Write a note on the **importance of IT in the modern world**.
- 8. Differentiate between IT-enabled services and core IT services.
- Do all questions in IT Notebook.
- Project should be send on mail id.

Project Title: My Dream City - Using LibreOffice Suite

D Objective:

To create a project using various components of **LibreOffice (Writer, Calc, and Impress)** demonstrating the student's understanding of basic ICT skills.

Software Used:

- LibreOffice Writer
- LibreOffice Calc

LibreOffice Impress

Project Description:

♦ Part A: LibreOffice Writer

- Create a document titled "My Dream City".
- Describe your dream city in about 300–400 words.
- Use the following formatting:
 - o Heading: Font Size 16, Bold, Underlined
 - o Paragraphs: Justified, 1.5 line spacing
 - Use bullets or numbering for listing facilities (schools, hospitals, transport, etc.)
 - Insert an image or shape representing your dream city

₱ Part B: LibreOffice Calc0

- Create a **budget plan** for your dream city.
- Include items like:
 - o Roads
 - o Schools
 - Hospitals
 - Water supply
 - o Renewable energy
- Add columns for Item, Estimated Cost, and Notes
- Use formulas to calculate:
 - Total Budget
 - Average cost per item
- Apply cell formatting (borders, colors, bold headings)

♦ Part C: LibreOffice Impress

- Make a presentation (4–5 slides) titled "Welcome to My Dream City"
 - Slide 1: Title Slide (with your name and project title)
 - Slide 2: Overview of your city
 - Slide 3: Key features (use bullet points and images)
 - Slide 4: Budget summary from Calc (insert a chart or table)

SUBJECT: SST

HISTORY/CIVICS:

MULTIPLE CHOICE QUESTIONS

- 1. The word 'Democracy' comes from the Greek word -
- (a) Democracia
- (b) Demokratia
- (c) Demos
- (d) Kratia
- 2. What kind of government is there in Myanmar?
- (a) Government elected by the people
- (b) Communist government

(c) Army rule

- (d) Monarchy
- 3.The head of the government in Nepal is the:

(a) President	(b) Prime Minister	(c) King	(d) Vice President
4. Who led a military (a) Benazir Bhutto the above	coup in Pakistan in 19 (b) Nawaz Sharif	99? (c) Pervez Musharraf	(d) None of
representatives? (a) India in Sri Lanka	·	(b) US in Iraq	he locally elected
(c) USSR in Commun 6. 'One person, one of (a) One person is to b (b) One person has of (c) A person can vote (d) Both (a) and (c)	vote' means be voted by all one vote and each vote	(d) Both (b) and (c)	
7. How many members (a) 3050	ers are elected to the N (b) 3000	National People's Congress fro (c) 4000 (d) 20	
elections are held th (a) Army participates (b) Government is no (c) Some parts of Chi	ere?	d at all	nent even though
9.Which party always (a) Revolutionary Par (c) Institutional Revo	rty	ico since its independence in (b) Mexican Revolutionary F (d) Institutional Party	
10. Democracy must (a) One-party system (c) Choice from only		(b) Free and fair election the above	
11. When did Zimbal (a) 1970, from Black (c) 1980, from Ameri	•	ice and from whom? (b) 1880, from White mino (d) 1980, from White minor	•
(a) ZANU-PF, Robert		its independence and who is (b) ZANU-PF, Kenneth Kaundela (d) Zimbabwe Party	da
13. Which of these fe (a) Citizens should be (c) Should be free to	e free to think	ry to provide the basic rights t (b) should be free to form a (d) All the above	

14.Which organ of the (a) Executive	e government is (b) Legislature		otect the rights ependent judic		s? (d) Police
15. What is Constitut (a) Provisions given in (c) Law to set up Cons	n the Constitutio		(b) Law to mak (d) none of the		
16.Which of these is p (a) Prime Minister can (b) Police has a right to (c) Women can be pa (d) President can rule	n be punished fo to kill anybody id lesser salarie	or violating the			
17. Some of the draw (a) Instability and delation (c) Politicians fighting	ays	•	(b) corruption (d) all the abov	,, ,	
18. In which of these (a) Removing poverty (c) Giving jobs to all		ocracy not prov	rides a completo (b) Providing e (d) All the abor	ducation to all	
19. In which period d (a) 1932-36	id China face on (b) 1958-61		famines that ha	ave occurred in (d) 2004-2001	
20 A democratic gove (a) It may or may not (b) It always responds (c) It is a more account (d) None of the above	be accountable s to the needs o ntable form of g	f the people	emocratic gove	ernment becau	se
21. Democracy impro (a) Decisions are take (b) Decisions are take (c) Decisions are take (d) All decisions are a	n by educated pen by consultation n over a long pe	people on and discussi eriod of time	_		
22.How does democr (a) Mistakes are hidde (b) Re-electing the sa (c) The rulers can be	en and cannot b me government	e corrected t to enable it to		takes	
23.The most commor (a) Limited democrac (c) Maximum democr	У	•	tive democracy		
Subjective question	ns-				

- 24- Why did People of France hate Bastille?
- 25- What was Tithe and Taille?
- 26- Write few lines on Reign of Terror.
- 27- Describe the condition of Women during French Revolution.
- 28- Differentiate between Democratic and Non-democratic forms of government.
- 29-Define Universal Franchise
- 30- Are free and fair elections held in China.

SUGGESTIVE—1- WATCH "ONE NATION, ONE KING "(2018)- A FRENCH FILM THAT DEPICTS THE REVOLUTION IN PARIS FROM THE STORMING OF BASTILLE TO THE EXECUTION OF KING. 2- "A TALE OF TWO CITIES" (1935) A classic adaptation of Charles Dickens Novel, A glimpse into the lives of the people affected by the revolution.

Enjoy holidays but do your Holiday Home work

GEOGRAPHY:

Disaster Management

Objectives: The main objectives of giving project work on Disaster Management to the students are to:

- Create awareness in them about different disasters, their consequences and management
- 2. Prepare them in advance to face such situations
- 3. Ensure their participation in disaster mitigation plans
- 4. Enable them to create awareness and preparedness among the community.

Prepare a project on any one of the following disaster:

- Earthquake
- Landslide
- Fire
- Industrial hazards
- Flood

The project must contain the following:

- Introduction
- Preparedness
- Do's and Don'ts
- Steps to mitigate the impact of disaster

ECONOMICS:

Part A: Competency-Based One-Mark Questions

(Tick the correct option)

- 1. Identify the main economic activity in the village of Palampur.
 - a) Manufacturing b) Farming c) Transport d) Fishing
- 2. What is meant by multiple cropping?
 - a) Growing one crop on a piece of land
 - b) Using more fertilizers
 - c) Growing more than one crop on the same land in a year
 - d) Growing crops and vegetables together
- 3. Which of the following is an example of working capital?
 - a) Tractors b) Pumpsets c) Fertilizers d) Land
- 4. Why do medium and large farmers have a higher income than small farmers?
 - a) They get government support
 - b) They produce only one crop
 - c) They use more labor
 - d) They have more land and capital
- 5. Which sector do non-farming activities in Palampur fall under?
 - a) Primary b) Secondary c) Tertiary d) Both b and c

Part B: Short Answer Questions

(Answer the following questions briefly)

- Q1. What are the main economic activities of the people of Palampur?
- Q2. Explain the role of modern farming methods in improving farm production.
- Q3. Why are small farmers at a disadvantage compared to large farmers?
- Q4. Name two non-farming activities in Palampur and explain any one.
- Q5. What are the factors of production used in farming in Palampur?