

HOLIDAY HOME WORK (WORK SHEET)

CLASS :: IX

MATHEMATICS

Part – A (Topic : Number System & Polynomials)

1. Find the remainder when the polynomial : $4x^3 - 3x^2 + 2x - 4$ is divided by $x - 5$.
2. Find the value of m , if $(x - 1)$ is a factor of $2x^3 - 6x^2 + 5x + m$.
3. Factorise : $x^3 - 23x^2 + 142x - 120$
4. Factorise : $6x^2 + 17x + 5$
5. Factorise : $4(x - y)^2 + 12(x - y)(x + y) + 9(x + y)^2$
6. If $P(x) = x^2 + 4x + 3$ then evaluate $P(1) - P(-3) + P(0.5)$
7. If $x + \frac{1}{x} = \sqrt{5}$, then find the value of $x^4 + \frac{1}{x^4}$.
8. If $-\frac{1}{x} = -3$, then find the value of $x^2 + \frac{1}{x^2}$.
9. If $x + 3y = 8$ and $xy = 2$, find the value of $x^2 + 9y^2$.
10. If $x + y + z = 0$ and $xy + yz + zx = 18$, find the value of $x^2 + y^2 + z^2$.
11. If $-\frac{1}{m} = 5$, find the value of $m^3 - \frac{1}{m^3}$.
12. Simplify : $\frac{(x^2 - y^2)^3 + (y^2 - z^2)^3 + (z^2 - x^2)^3}{(x - y)^3 + (y - z)^3 + (z - x)^3}$.
13. Factorise : $a^{12}x^4 - a^4y^{12}$
14. Factorise : $x^2 + 7\sqrt{6}x + 60$
15. Factorise : $\frac{x^2}{2} + 6x + 18$
16. Find the period of decimals of $\frac{22}{7}$ and the length of its period.
17. Express $1.\overline{483}$ in the form of $\frac{p}{q}$.
18. Show that $\sqrt{5}$ is not a rational number.
19. Give an example of each, of two irrational numbers, whose
 - (i) product is an irrational number
 - (ii) product is a rational number.
20. Find three irrational numbers between $\sqrt{2}$ and $\sqrt{3}$.
21. Find the product of $(1 + 5\sqrt{3})$ and $(1 - 5\sqrt{3})$.
22. Simplify : $8\sqrt{5} - 12\sqrt{5} + 4\sqrt{5}$.
23. Construct $\sqrt{6.7}$ on the number line.
24. Find the value of p if $\left(\frac{6}{5}\right)^p \times \left(\frac{5}{6}\right)^{2p} = \frac{125}{216}$.
25. If $x = 3 + 2\sqrt{2}$ then find the value of $\left(x + \frac{1}{x}\right)^3$.
26. Simplify : $(2\sqrt{7} - 3\sqrt{3})^2$
27. Simplify : $2\sqrt{50} \times 3\sqrt{32} \times 4\sqrt{18}$
28. Simplify : (i) $\frac{4 + \sqrt{5}}{4 - \sqrt{5}} + \frac{4 - \sqrt{5}}{4 + \sqrt{5}}$
29. Simplify : $\left(\frac{x^b}{x^c}\right)^{b+c-a} \times \left(\frac{x^c}{x^a}\right)^{c+a-b} \times \left(\frac{x^a}{x^b}\right)^{a+b-c}$
30. Prove that : $\frac{a^{-1}}{a^{-1}+b^{-1}} + \frac{a^{-1}}{a^{-1}-b^{-1}} = \frac{2b^2}{b^2-a^2}$.

Part – B (Project Work)

1. **(For roll 1 to 20)** Take a rectangular sheet of dimensions 'x' unit and 'y' unit and make an open cuboid in form by removing four squares from each corner of side 'a' unit. Now find the
 - (i) Volume of the volume of the cuboid.

(ii) Area of sheet be used to make it.

(iii) Area of sheet be wasted.

2. **(For roll 21 to last)** Collect the data of main five parties legislative assembly election 2021 (West Bengal, Assam, Tamilnadu and Pandicherry). Now represent the information in (i) bar graph and

(ii) pie chart state wise.

Parameters :

1. Timely submission of work – 2 marks
2. Presentation (Neatness and cleanliness) -2 marks
3. Understanding - 1 mark

ENGLISH

PROJECT-

- Choose any five brain games played in our country and write about them. Also mention the values and life skills learnt from playing these games. Include pictures & illustrations.



QUESTION BANK-

Writing Section

- 1) You are Rohit/Rita, a student of class X of J.R. Public School, Sagarpur, New Delhi. Metro rail has become a very popular, comfortable and convenient mode of transport in your city. You also want to have the experience along with your classmates. Write an application to the principal of your school requesting her/him to arrange a metro ride for the students of your class.
- 2) You are Garima/ Chaitanya living at E-5/26 Sect-16 Rohini, New Delhi. Your streets and roads experience water logging during the monsoon season. The people of your area find it difficult to lead normal life and this adds to their problems. Write a letter to the commissioner of MCD. Delhi to take necessary steps to control the water logging and help the residents.

Grammar

1) **Complete the dialogues by choosing the correct alternative from those given below.**

1. Swati : Please tell me (a) _____. Sumedha : Can't you see (b) _____ ? Swati : I can also see (c) _____ .
- 2) Chaitanya : Could you tell me (a) _____ ? Garima : From the shop (b) _____. Chaitanya : I will go there and see (c) _____ .
- 3) Astha : Could you do me a favour (a) _____ ? Tammay : First tell me (b) _____. Astha : Please go to Jyoti's place and bring my book (c) _____ .
- 4) Teacher : You will have to explain (a) _____. Gaurav : Madam, last night power failed (b) _____. Teacher : This is the same excuse (c) _____ .
- 5) Chintu : Do you know (a) _____ ? Pintu : Yes, he is Mohit (b) _____. Chintu : Now I remember (c) _____ .

Literature

Answer the following questions in 40-50 words each :-

CH.1 THE FUN THEY HAD

1. Where had Tommy found the book? How was it different from the books Margie and Tommy were used to?
2. What things about the book did Margie and Tommy find strange?
- 3 “What a waste!” What is Tommy referring to as a ‘waste’? Is it really a waste? Why/Why not?
4. What do you think a telebook is?

CH. 2 THE LITTLE GIRL

1. What was Kezia’s father’s routine before going to office and after coming back in the evening?
2. Why did Kezia go slowly towards the drawing-room when mother asked her to come downstairs?
- 3 What was unusual about Kezia’ stuttering?
4. In what ways did Kezia’s grandmother encourage her to get to know her parents better?

CH 3 THE SOUND OF MUSIC Part-1

1. How could Evelyn able to express music so beautifully?
2. Why did Evelyn’s world became colourless?
3. How did Ron Forbes explain Evelyn to respond different types of sound?

THE SOUND OF MUSIC Part-1

1. How did Sehnaï different from Pungi?
2. How did Bishmilla Khan bring the Sehnaï on to the classical stage?

CH. THE LOST CHILD

1. Why does the child move on without waiting for his parents’ answer whenever he asked for things that attracted him?
2. Why does the lost child lose interest in the things that he had wanted earlier?
3. What tells us that the little boy was excited about going to the fair?
4. What was the boy engrossed in when his parents sat in the shade of a grove, near a well?

CH.2 THE ROAD NOT TAKEN

1. What did the narrator hope that he would do one day? Was he sure of doing so?
2. What does the poet mean when he says, -‘worn them really about the same’?
3. Why does the poet say he shall tell people “this with a sigh”? Why do you think the final stanza starts with a sigh?

CH.3 WIND

1. What damage does wind cause in the poet’s room?
2. How does wind make fun of weaklings?
3. What does ‘crumbling’ suggests in the poem ‘Wind’?

CH.4 RAIN ON THE ROOF

1. How does the sky look before the rain falls?
2. What is a ‘bliss’ for the poet in the poem ‘Rain on the Roof’?
3. When do the ‘thousand dreamy fancies’ begin to weave in the poet’s mind? What are these fancies?

CHEMISTRY

- Whole holiday homework of chemistry is divided into three parts .
- In part a only one project has to be made by each student
- Part b and c is compulsory for all the students
- Part b and c will be done in files or a 4 size sheets

PART – A

PROJECTS (ANY 1 PROJECT)

- PROJECTS WE CAN DIVIDE ACCORDING TO SECTIONS ALSO

Hands is Mind's on-Think and prepare two sample of true solution and two of colloidal solution from your kitchen which can help you to study, understand and tabulate the distinguishable properties of each of them in your register

OR

Draw 3D Charts on any one of the following topics: Fractional distillation , Chromatography , Sublimation , Evaporation , Separation funnel , Distillation , Interconversion of states of matter

OR

Make a pictonary of 50 new words related to chemistry from the chapters of NCERT and also paste pictures related to the topic.

PART - B

FEW MIND EXERCISE QUESTIONS

1. A sample of water under study was found to boil at 102°C at normal temperature and atmospheric pressure. Is the water pure? Will this water freeze at 0°C ? Comment.
2. With the help of a schematic diagram show the position and motion of particles in the three states of matter.
3. You want to wear your favourite shirt to a party, but the problem is that it is still wet after a wash. What steps would you take to dry it faster?
4. What is deposition? With the help of an activity explain the process of deposition in ammonium chloride.
5. Prepare a project report on various samples of a) a mixture b) a compound, c) an element (metal and non-metal), (3 of each category) highlighting the main characteristic features of element, compound and mixtures

PART C

ASSIGNMENT NO:1

Matter in our surroundings

1 Mark Questions:

1. Pressure on the surface of a gas is increased. What will happen to the inter particle forces?
2. Name the three states of matter.
3. What happens when a liquid is heated ?
4. A gas can exert pressure on the walls of the container. Assign reason.
5. Convert the following temperature to Kelvin Scale (a) 100°C (b) -100°C
6. What is meant by density?
7. Give the characteristics of the particles of matter.
8. Water droplets seen on the outer surface of a glass containing ice-cold water is due to _____.
9. Change of gaseous state directly to solid state without going through liquid state is called _____.
10. _____ is a surface phenomenon

2 Marks Questions:

1. Define Latent heat of vaporisation.

2. Explain why temperature remain constant during the change of state of any substance? 3. Define Sublimation with examples.
4. Do we sweat more on a dry day or humid day ? Justify your reason.
5. Why do we see water droplets on the outer surface of a glass containing ice cold water?
6. Convert the following temperature to the CELCIUS scale (a) 25K (b) 373K
7. List two properties that liquids have in common with solids.
8. List two properties that liquids have in common with gases.
9. What will happen to the melting point of ice if some common salt is added to it? Justify your answer.
10. How will you show that air has maximum compressibility?

3 Marks Questions:

1. Define the term (a) Latent heat of fusion (b) Latent heat of vaporization
2. State the effect of (i) surface area (ii) nature of the liquid on the rate of evaporation.
3. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Why?
4. What is the physical state of water at 250°C, 100°C, 0°C?

ASSIGNMENT NO : 2

1. Why do the doctors advise to put strips of wet cloth on forehead of a person having high fever?
2. The melting points of three solids X,Y,Z are 298K, 314K and 398K, respectively .Arrange these in increasing order of their inter-particle force of attraction.
3. Why do we feel comfortable under a fan when we are perspiring?
4. Why do solids have a regular geometrical shape?
5. Water as ice has cooling effect , whereas water as steam may cause severe burns. Explain these observations.
6. How does evaporation differ from boiling?
7. Why do we see water droplets on the outer surface of a glass containing ice cold water?
8. When 50g of sugar is dissolved in 100 m L of water ,there is no increase in volume .What characteristic of matter is illustrated by this observation?
9. Why do wet clothes dry quickly in sun than in shade?
10. Describe an activity to determine the boiling point of water.

BIOLOGY

- DO ALL Q/A WRITTEN WORK ON YOUR CW NB
- WATCH SOME GOOD ENGLISH MOVIES LIKE HOME ALONE, BABY'S DAY OUT, HAPPY FEET, MADAGASKAR AND LIST 5 REASONS TO WORTH WATCHING THEM.
- BE SAFE AT HOME.
- FIND OUT 5 MNEMONICS TO LEARN YOUR BIOLOGY CHAPTERS EASILY.

CH 5. FUNDAMENTAL UNIT OF LIFE

- Q1. Explain the types of Plastids in brief.
Q2. Explain the functions and structure of Golgi bodies.
Q3. What is nucleoid?
Q4. What is the difference between plant cells and animal cells?
Q6. What are suicidal bags (lysosomes)?
Q7. What is the function of chromosomes?
Q8. Name the smallest cell in human body?
Q9. Which is the largest cell in human body?
Q10. Why Plant cells are more rigid than animal cells?
Q11. Explain the process of osmosis in detail.
Q12. Draw and label diagrams of plant cell and animal cell.

CH 6. TISSUES

1. Give four differences between bone and cartilage.
2. Give the functions of cartilage.
3. Give difference between xylem and phloem.
4. What is stomata?
5. Why does epidermal tissue have no intercellular space?
6. Name and give the function of each cell of xylem.
7. Why is blood called connective tissue?
8. State the difference between simple tissues of plants.
9. Explain the structure, function and location of nervous tissue.
10. Describe 'epidermis' in plants.

COMPUTER APPLICATION

Write a short note on the followings terms-

- (i) Application Software
- (ii) Operating System/ Language Processor
- (iii) Compiler & Interpreter
- (iv) Need of computer Networks
- (v) Characteristics of a Computer (any three points)

ACTIVITY/PROJECT

1. Create Your own bio data in MS Word.
2. Make a power point presentation on latest computer peripherals and gadgets and Covid 19.
3. Solve all question answer given in book.

Economics

- ***Make a poster on any topic from the chapter(The Story of village Palampur)***

ASSIGNMENT OF STORY OF VILLAGE PALAMPUR

SECTION – A(1 MARKS)

Q1.Which of the following is grown in the rainy season?

- (a) Jowar (b) Wheat (c)Rice (d)Soyabean

Q2. Which of the following is a Rabi crop?

- (a) Wheat (b) Rice (c) Cotton (d) Jowar and bajra

Q3. Which of the following is fixed capital?

- (a) Tools and machines (b) Fertilizers and pesticides (c) Soil (d) Seeds

Q4. Which of the following is a standard unit of measurement of land?

- (a) Bigha (b) Hectare (c) Acre (d) Guintha

Q5. The minimum wages for a farm labourer set by the government is

- (a) Rs. 50 (b) Rs. 60 (c) Rs. 70 (d) Rs. 80

Q6. Money in hand is an example of

- (a) Human capital (b) Fixed capital (c) Working capital (d) Physical capital

Q7. HYV seeds stands for

- (a) Heavy yielding variety seeds (b) High yielding variety seeds (c) Half yielding variety seeds (d) None

Q8. What is the main production activity in Palampur village?

- (a) Farming (b) Animal husbandry (c) Transport (d) Small-scale manufacturing

Q9. Multiple cropping means growing

- (a) Only two crops (b) Only three crops (c) Up to four crops (d) More than one crop

Q10. Land under cultivation (in million hectares) in India in the year 2000 was

- (a) 120 (b) 130 (c) 140 (d) 150

Q11. Which area in India has a low level of irrigation?

- (a) Deccan plateau (b) Coastal regions (c) Riverine plains (d) Both (a) and (b)

Q12. Modern farming methods were tried in India for the first time in

- (a) Punjab (b) Western U.P. (c) Haryana (d) All the above

Q13. Which of the following is a modern farming method?

- (a) Multiple cropping (b) Use of HYV seeds (c) Use of chemical fertilizers (d) Both (b) and (c)

Q14. Production of pulses (in million tonnes) in India during 2000-01 was

- (a) 10 (b) 11 (c) 14 (d) 12

Q15. Which one is a natural resource?

- (a) Labour (b) Raw materials (c) Mineral (d) None of the above

Q16. High yielding variety seeds (HYV) were introduced to Indian farmers as a result of

- (a) White Revolution (b) Green Revolution (c) IT Revolution (d) None of the above

Q17. Which Kharif crop is used for cattle feed?

- (a) Sugarcane (b) Potato (c) Jowar and bajra (d) Wheat

Q18. The activities such as small manufacturing, transport, shop keeping are referred to as

- (a) Non-economic activities (b) Non-farming activities
(c) Non-traditional activities (d) Non-market activities

Q19. High Yielding Variety (HYV) seeds are developed in

- (a) Research institutes (b) Factories (c) Krishak Bharati Cooperatives (d) None of the above

Q20. The concept of White Revolution is associated with

- (a) Food crops (b) milk (c) cotton (d) pesticides

Q21. Who is a person who puts together land, labour and capital?

- (a) Moneylender (b) Entrepreneur (c) Zamindar (d) Manager

Q22. A farmer who works on a piece of 1 hectare of land is treated as

- (a) Medium farmer (b) small farmer (c) large farmer (d) none of the above

Q23. Scope of farming activity is limited in Palampur due to

- (a) Fixed amount of land (b) lack of irrigation (c) lack of labour (d) none of the above

Q24. What is done to surplus wheat in Palampur?

- (a) Sold in the market (b) Destroyed (c) Stocked by self (d) Given in charity

Q25. Consumption of chemical fertilizers is highest in which state of India?

- (a) Punjab (b) Haryana (c) Rajasthan (d) Himachal Pardesh

Q26. People of Palampur sell milk in the nearby large village named:

- (a) Pitampura (b) Siliguri (c) Shahpur (d) Raiganj

Q27. Out of the total cultivated areas in the country, how much area is irrigated today:

- (a) Less than 40% (b) less than 30% (c) less than 60% (d) less than 70%

Q28. 'Operation Flood' is related to:

- (a) Control flood (b) produce fish (c) milk production (d) grain production

Q29. Green Revolution is related to:

- (a) Milk Production (b) Grain production (c) Fish production (d) none of these

Q30. Where do most of the small farmers borrow money to arrange for the capital in Palampur?

- (a) Banks (b) Co-operative Societies (c) Village money lenders (d) Friends and relatives

Q.31 Which one among the following is not fixed capital?

- (a) Machines (b) Buildings (c) Tools (d) Raw materials

Q.32. Why do the farmers of Palampur follow multiple cropping? Choose the correct answer.

- (a) Because the water consumption is less in this method
(b) Because this method consumes less chemical fertilizers
(c) Because this method doesn't require fertile soils
(d) Because this method is the most common way of increasing production

Q.33. Which of the following transformed the system of irrigation in Palampur?

- (a) Tubewells (b) Persian wheel (c) Rainwater harvesting (d) None of these

Q.34. How many families live in Village Palampur?

- (a) 150 (b) 250 (c) 350 (d) 450

Q.35. Which one among the following is a non-farm activity?

- (a) Multiple cropping (b) Crop rotation (c) Dairy farming (d) Modern farming

Q.36. Which one of the following is not an effect of the modern farming?

- (a) Soil degradation (b) Deforestation (c) Decrease in groundwater (d) Water pollution

Q.37. Marginal farmers are those:

- (a) Who use modern methods for farming (b) Who practice crop rotation for farming
(c) Who did not have sufficient land for farming (d) Who use modern methods of irrigation

Q.38. Working capital stands for:.....

Q.39. Which is the most abundant factor of production in India?

- (a) Land (b) Capital (c) Labour (d) Tools and machines

Q.40. Multiple Cropping refers to:

- (a) Cultivation of wheat and rice
(b) Cultivation of two crops in alternate rows
(c) Cultivating more than one crop on the same field each year
(d) Cultivating crops and rearing animals on the same farm

SECTION – B(3 MARKS)

Q.1. Which capital can be considered as the best – land, labour, physical capital or human capital and why?

Q.2. Explain the term physical capital. Mention the different types of physical capital with examples.

Q.3. What is the full form of HYV? Write any one merit and one demerit of using HYV seeds.

Q.4. State any three differences between traditional and modern methods of farming.

Q.5. 'Irrigation is necessary in modern methods of agriculture'. In the context of this statement, explain why is it necessary to increase the area under irrigation.

Q.6. Define the meaning and aim of production.

Q.7. What is the multiple cropping system?

Q.8. State any three efforts which can be made to increase non-farming production activities in villages

Q.9 Define a) HYV seeds b) Fixed capital c) Human capital

Q.10. What are the harmful effects of chemical fertilizers?

Q.11. How do the medium and large farmers obtain capital for farming? How is it different from the small farmers?

SECTION – C(5 MARKS)

Q.1. What do you mean by Green revolution? State and explain any 2 merits and 2 demerits of the green revolution.

Q.2. What do you mean by land? Explain any 3 ways to sustain it.

Q.3. Distinguish between the condition of a farmer working on his own farm and a landless labourer.

Q.4. State any 5 reasons which indicate that Palampur is a developed village.

Q.5. Explain the role of transport and electricity in rural development.

Q.7 Which farmers have surplus wheat and are able to sell in the market? What do they do with their savings?

Q.8. Explain any five non-farm production activities undertaken in village Palampur.

Q.9. What are the different ways of increasing production on the same piece of land? Explain.

Q.10. State the main factors for production of goods and services. Explain the same with the help of a flowchart.

Political Science

Answer the following (1 Mark Each)

- Q1. A democratic government is a better government because it is a more accountable form of government. True or False?
- Q2. An Army is the most disciplined and corruption-free organization in the country. Therefore the army should rule the country. Write a response to this argument against democracy.
- Q3. What does a candidate need before contesting elections in China?
- Q4. The one of the main features of a democratic government is that it rules within the limits set by the constitutional law above _____ .
- Q5. Who led a military coup in Pakistan in 1999?
- Q6. How many members are elected to the National People's Congress from all over China?**
(a) 3050 (b) 3000 (c) 4000 (d) 2000
- Q7. Democracy improves the quality of decision-making because**
(a) Decisions are taken by educated people
(b) Decisions are taken by consultation and discussion
(c) Decisions are taken over a long period of time
(d) All decisions are approved by judiciary
- Q8. The below represent the situation of which country?

Geography

Project on Disaster Management

Significance of doing a project on disaster management in social sciences As students of social sciences and as conscious citizens, doing a project on disaster management is going to give you a first-hand experience and opportunity to get yourself familiarise not only with the meaning, factors, etc. of disasters but also to learn the essentials of disaster preparedness and ways to collect relevant information pertaining to disasters and its effective dissemination.

- A. Make a project on earthquake prone areas in India – causes, impact on life and property seismic zones , mitigation strategies used to reduce the impact in earthquake prone areas. **(Roll No. 1-20)**
- B. Collect information on areas prone to cyclones in India –warning systems, effects of cyclones, mitigation strategies to be used while construction of buildings **(Roll. No. 21-40)**

GUIDELINES FOR THE PROJECT

- a. Project to be done on A-4 size sheet
- b. Project should be hand written & comprise of not more than 15 pages.
- c. On the first page student Performa to be given- Name, Class, Roll no., Name of the school, year of submission and topic.
- d. Include the following points in the project in the sequence
- Acknowledgement
 - Content or Index
 - Introduction
 - Consequences and management
 - Disaster mitigation plans

- what steps can be taken to create awareness and preparedness among the community.
- At the last Bibliography or references
- Newspaper cuttings ,maps , diagram , illustrations are must

e. Project should be strictly based on India

f. Use your Disaster Management book for reference .Its available online .

g. You can Refer to class 9th online Disaster management book . (Together , towards a safer India- Part II)

Link of the book

http://cbseacademic.nic.in/web_material/publication/archive/natural%20hazards%20&%20disaster%20management.pdf

h. The distribution of marks over different aspects relating to Project Work is as follows:

S. No.	Aspects	Marks
a	Content accuracy, originality and analysis	2
b	Presentation and creativity	2
c	Viva Voce (Oral Test)	1

i. If possible, different forms of art may be integrated in the project work. (poem, slogan, painting , poster ,skit etc)

j. Note :- It is to be noted here by all the students that the project prepared should be made from eco-friendly products without incurring too much expenditure.

History

Q1 Draw up a list of democratic rights we enjoy today whose origins could be traced to the French Revolution .

Q2 Name the European countries which share common boundaries with France.

Q3 Answer the following

- A fortress prison stormed by the people of France in 1789.
- Port of France related to the slave trade
- A region not affected by the the Great Fear in France.

Q4 Match the following items given in Column A with those in Column B:

Column A	Column B
A. Broken chains	1. Strength lies in unity
B. Snake biting its tail to form a ring	2. eternity
C. Bundle of rods	3. Slave becoming free
D. Red Phrygian cap	4. Act of becoming free

Q5 Study the picture and answer the question that follows.



Which of the following option best signifies this image?

- i) Representatives of the third estate
- ii) The Tennis Court Oath
- iii) The emancipation of slaves.
- iv) Human civil rights

NOTE : All the work of History has to be done in class notebook only

PHYSICS

Chapter-8 Motion (Physics)

1. Plot the following graphs:
 - (a) distance –time graph for an object with uniform speed
 - (b) distance –time graph for an object with non- uniform speed
 - (c) velocity –time graph for uniform motion of a car
 - (d) Velocity –time graph for a car moving with uniform accelerations.
 - (e) Velocity –time graph for a car moving with non- uniform accelerations.
 - (f) A body at rest
2. Name the physical quantity which
 - (i) changes
 - (ii) remains constant during uniform circular motion.
3. A particle is moving with a uniform speed. Is it necessary that it is moving along a straight line?
4. Name the physical quantities measured by
 - area under v-t graph
 - slope of s-t graph
 - slope of v-t graph
5. In your everyday life you came across a range of motions in which
 - a) acceleration is uniform
 - b) acceleration is non uniform. Identify one example of each of the type.
6. A car travels a certain distance with a speed of 50 km/h & returns with a speed of 40 km/h. Calculate (i) the average speed & (ii) average velocity of car for the whole journey.
7. A train travels 20 km at a uniform speed of 60 km/h and the next 20 km at a uniform speed of 80km/h. Calculate its average speed.
8. A car is traveling with a speed of 36km/h. the driver applies the brakes and retards the car uniformly. The car is stopped in 5s. Find (i) the retardation of the car
Distance traveled before it is stopped after applying the brakes.
9. A train is traveling at a speed of 72km/h. The driver applies brakes so that a Uniform acceleration of -0.2ms^{-2} is produced. Find the distance traveled by the train before it comes to rest.

10. A child drops a ball from a height of 10m. Assume that its velocity increases uniformly at the rate of 10m/s^2 . Find (i) the velocity with which the ball strikes the ground (ii) the time taken by the ball to reach the ground.
- (a) A bullet moving with velocity of 10m/s is brought to rest after penetrating the wooden plank of 4 cm thickness. Calculate the acceleration of the bullet.
- (b) A driver of a car traveling at 52km/h applies brakes and accelerates uniformly in the opposite direction. The car stops in 5s. Plot speed-time graph and calculate the distance traveled by the car after the brakes were applied.
- (c) A car starts from rest and accelerates uniformly at the rate of 1m/s^2 for 5s. It then maintains a constant velocity for next 30s. Then brakes are applied and the car is uniformly retarded to rest in 10s. find the maximum velocity attained by the car and the total distance traveled by it. Also plot v-t graph for the motion of the car

A boy leaves his house at 9:30 am for his school. The school is 2 km away and classes start at 10:00 am. If he walks at a speed of 3km/h for the first km, at what speed should he walk the second km to reach just in time?

Hindi

1. यात्रा वर्णन (निबंध लेखन/पोस्टर)

उद्देश्य – प्रकृति के प्रति आत्मिक जागरूकता, सृजनात्मक चिंतन, संवेदनशीलता, प्राकृतिक सौंदर्य के प्रति विस्तृत दृष्टिकोण, आत्मचिंतन प्रक्रिया :-

1. किसी भी स्थान की यात्रा के विषय में निम्नलिखित बिंदुओं पर विचार करते हुए निबंध लेखन कीजिए, 'पर्यावरण संरक्षण' पर पोस्टर बनाइए व यात्रा वर्णन से जुड़े विभिन्न आकर्षक चित्रों से कोलाज बनाइए।
2. आप जब यात्रा पर जाते हो तो किन स्थलों को देखकर भाव विभोर हो जाते हो ?
3. किन दृश्यों को देखकर आश्चर्यचकित रह जाते हो या कौन से दृश्य आपको कुछ सोचने पर विवश करते हैं?
4. प्रकृति आपको अपनी तरफ आकर्षित कर क्या संदेश देती हैं ?

मूल्यांकन के आधार बिंदु –

विषय वस्तु – 2, विचारों की क्रमबद्धता – 1, भाषा – शैली – 1, प्रस्तुतीकरण – 1

2. प्रदत्त कार्य – उपन्यास समीक्षा

उद्देश्य – मानवीय संवेदना जगाना, आत्म – विश्वास, तार्किक शक्ति, समीक्षा लिखना, सृजनात्मक चिंतन कौशल का विकास प्रक्रिया –

1. मुंशी प्रेमचंद जी का कोई उपन्यास पढ़े (गोदान, कर्मभूमि, रंगभूमि, सेवासदन) और निम्नलिखित प्रश्न सूची पर गौर करते हुए अपने उत्तर लिखें और उपन्यास समीक्षा करें।
- 2) उपन्यास के मुख्य पात्र कौन हैं उनकी चार – चार चरित्रिक विशेषताएँ लिखिए।
- 3) उपन्यास की कथा का सार संक्षेप लिखिए।
- 4) मुख्य पात्रों की जीवन शैली और सह कलाकारों की जीवन शैली में क्या अंतर है ?
- 5) किस पात्र का चरित्र आपके दिल को छू गया – लिखिए।
- 8) आपको मुख्य पात्र व अन्य पात्रों के चरित्र में क्या भिन्नता लगी ? लिखिए।

मूल्यांकन के आधार बिंदु

समीक्षा के तत्वों की समीक्षा – 2

शब्द चयन व सटीक वाक्य रचना – 2

शुद्ध वर्तनी – 1