



B.M. BHARTI MODEL SCHOOL

(Senior Secondary School)
(Recognized and Affiliated to CBSE)

Majri, Delhi – 110081

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SUMMER VACATION HOLIDAY HOMEWORK SESSION 2024-25 CLASS-IX



Whenever we hear the word **VACATION**, lots of new hopes, endeavours and resolutions suddenly hit our mind and soul.

Here is the most awaited time of the year 'The Summer Vacation'.

Give flight to your wings and start with a happy and healthy daily routine.

Here is the list of some very effective and fruitful activities one must practice. Like:



Healthy Eating



Running and dancing 



Sowing seeds



Seeing motivational videos and shots

Most Important

Chant the Mantras of civilization

- THANK YOU
- SORRY
- EXCUSE ME
- MAY I HELP YOU

CLASS-IX

MATHEMATICS	<ul style="list-style-type: none">➤ Make a project: (using A4 size sheet)(8-10 pages)➤ Represent the volume of different types of food productions in Andaman and Nicobar for the year 2023 through pie chart. Activity➤ Show Irrational Numbers on number line by using Spiral Method on A3 size sheet.➤ Working Model on Parallel lines and their angles.➤ Do worksheet in holiday's homework notebook.
SCIENCE	<ul style="list-style-type: none">➤ Do exercise question answers of ch-2 (Is matter around us pure), ch_5 (Fundamental unit of life)(in fair notebook)➤ Do attached worksheet in class notebook.➤ Draw a well labelled diagram (A3 size sheet)i. Plant Cell- R.no(1 to 20)ii. Animal Cell- R.no(21 to 40) {including all organelles}➤ Revise ch-1,2,5,7 (PT-1 Syllabus)➤ Prepare a class-presentation on Ch-5 (Fundamental unit of life) OR On Ch-1 (Matter in our surroundings) (Time limit – 1 min to 2min)
HINDI	<ul style="list-style-type: none">➤ सामान्य निर्देश:- सभी प्रश्नों को ध्यानपूर्वक पढ़ें। सभी प्रश्नों को अपनी हिंदी की कक्षा-पुस्तिका में करें।प्रश्न-1. 'ल्हासा की ओर' पाठ के माध्यम से लेखक ने अपनी तिब्बत की यात्रा का वर्णन किया है, ठीक इसी प्रकार से आप भी अपने जीवन की किसी अविस्मरणीय यात्रा के बारे में यात्रा-वृतांत लिखिए।प्रश्न-2. 'इस जल प्रलय में' पाठ के आधार पर अपनी देखी-सुनी किसी प्राकृतिक आपदा का विस्तार से वर्णन कीजिए।प्रश्न-3. 'दो बैलों की कथा' पाठ के आधार पर सीखने योग्य बातें लिखिए तथा 'एकता में बल होता है' इस तथ्य को पाठ के आधार पर स्पष्ट कीजिए।प्रश्न-4. 'राष्ट्र निर्माण में विद्यार्थियों का योगदान' विषय पर 120 शब्दों में अनुच्छेद लिखिए।प्रश्न-5. कबीरदास की 'साखियाँ व सबद' की हिंदी में व्याख्या कीजिए।प्रश्न-5. कक्षा में करवाया गया संपूर्ण पाठ्यक्रम याद कीजिए।
IT	<ul style="list-style-type: none">➤ Communicate your friend or sibling and make a video and share with your teacher through whatsapp. Communication must be on the following topic :<ul style="list-style-type: none">• Self Regulation Roll No. 1-15• Qualities of self confident people Roll No. 16 onwards➤ Prepare a project on A4 size sheet as well a presentation on either of the following topics :<ul style="list-style-type: none">• How self reflection helpful in becoming more confident and goal driven .• Dressing or grooming standards and Personal hygiene practices .
SANSKRIT	<ul style="list-style-type: none">➤ Do worksheet in holidays homework notebook.
ENGLISH	<ul style="list-style-type: none">➤ Do worksheet in holidays homework notebook.
SOCIAL SCIENCE	<ul style="list-style-type: none">➤ Make a project on <u>DISASTER MANAGEMENT</u> on A4 size sheets (20 pages) including pages of art Integration of that particular state which will you choose for case study of disaster management on any one topic-<ul style="list-style-type: none">○ Flood

- Cyclone
- Tsunami
- Earthquake
- Medical disaster (Corona)
- Volcano
- Landslides
- Drought

Content of the project are as follows

Page 1-Front page contained Name Class and section and Topic

Page 2 Acknowledgement

Page 3-Index

Page 4-Introduction to disaster

- Introduction of your topics

-Details of your topic

-Case study

-Mitigation plans/Strategies/Measures

-Report on Project/Learning from Project

-Art Integration like food Culture, Tourism, Education

-Bibliography

➤ **ART INTEGRATED PROJECT**

• Prepare an art integrated project on Andaman & Nicobar islands on the topic given below according to your roll number.

- a. Historical Background(1-5)
- b. Elections 2024(6-10)
- c. Natural Resources(11-15)
- d. Sustainable Development Activities(16-20)
- e. Ethnic Composition(21-25)
- f. Culture and Traditions(26-30)
- g. Tribal Communities(31-35)
- h. Geographical Structure(36-40)

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➤ **Consumer Awareness**

"Empowering Consumer: Pathway to global harmony

Consumer protection is a key priority for India. A Pathway to Global Harmony suggests that by educating and empowering consumers to make informed choices about the products they buy, we can foster a more equitable and peaceful world. When consumers are aware of the impact of their purchases on social, environmental and economic issues, they can support ethical sustainable practices, ultimately contributing to a more harmony global society.

Keeping the above statement in mind conduct a survey in your locality by supplying the following questionnaire to people to get an idea as to how aware they are as consumers.

➤ Complete your PT-1 chapters in Notebook and Lab Manual.

For each question, tick one.

Always (A) Sometimes (B) Never (C)

- | | | | |
|---|---|---|---|
| 1. When you buy some item, do you insist on a bill? | A | B | C |
| 2. Do you keep the bill carefully? | A | B | C |
| 3. If you realize that you have been tricked by the shopkeeper,
have you bothered to complain to him? | A | B | C |
| 4. Have you been able to convince him that you've been cheated? | A | B | C |
| 5. Do you simply grumble to yourself reconciling that it is your?
fate that you are often being victimized so and it is nothing new? | A | B | C |
| 6. Do you look for ISI mark, Expiry date, etc.? | A | B | C |
| 7. If the expiry date mentioned is just a month or so away,
do you insist on a fresh packet? | A | B | C |
| 8. Do you weigh the new gas cylinder/ old newspapers yourself | A | B | C |

➤ **Do the given worksheet in your notebook**



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SUMMER VACATION HOLIDAY HOMEWORK

SESSION 2024-25

CLASS-IX

SUBJECT: MATHEMATICS

WORKSHEET- 1

CHAPTER-1

Q1. Let x and y be rational and irrational numbers, respectively. Is $x+y$ necessarily an irrational number. Give an example in support your answer.

Q2. Classify the following as numbers as rational or irrational.

(i) $\sqrt{196}$ (ii) $3\sqrt{18}$ (iii) $\sqrt{\frac{9}{27}}$ (iv) $\frac{\sqrt{28}}{\sqrt{343}}$
(v) $\sqrt{0.4}$

Q3. Rationalize the denominator:

(a) $\frac{2+\sqrt{3}}{2-\sqrt{3}}$ (b) $\frac{3+\sqrt{2}}{4\sqrt{2}}$
(c) $\frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$

Q4. Find the value of a and b in each of the following:

(i) $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7}{11}\sqrt{5}b$
(ii) $\frac{5+\sqrt{6}}{5-\sqrt{6}} = a + b\sqrt{6}$

Q5. Simplify:

(i) $2^{\frac{3}{3}} \times 2^{\frac{1}{3}}$ (ii) $\left(\frac{1}{3^5}\right)^4$ (iii) $\frac{7^5}{7^3}$

Q6. Simplify:

$$\left[5 \left(8^{\frac{1}{3}} + 27^{\frac{1}{3}} \right) \right]^{\frac{1}{4}}$$

Q7. Represent the following on the number line:

(a) $\sqrt{5}$ (b) $-\sqrt{7}$ (c) $\sqrt{9.3}$
 (d) $\sqrt{3}$

Q8. Express the following in the form p/q:

a) $0.\overline{245}$ b) $0.\overline{14}$ c) $3.\overline{17}$ d) $5.\overline{9}$

Q9. Find two irrational number between 2 and 2.5.

Q10. Find two irrational number between $2/5$ and $3/7$.

CHAPTER-2

Q1. Classify the following as linear Quadratic and Cubic:

(a) $x - 2x^3$ (b) $1 + 2x^2$ (c) $3p^2$
 (d) $5t - \sqrt{t}$ (e) $2 - 2t^2 + t^3$ (f) $\sqrt{2}x - 1$

Q2. If $p(x) = x^2 - 4x + 3$, evaluate $p(2) - p(-1) + p(1/2)$.

Q3. Find zeroes of the following polynomials:

- $P(x) = 5x$
- $P(x) = -cx - d$
- $P(x) = bx$
- $p(x) = -lx + m$

Q4. Verify whether 3 and 0 are zeroes of the polynomial $p(x) = x^2 - 3x$.

Q5. For what value of m is $x^3 - 2mx^3 + 16$ is divisible by $x + 2$.

Q6. Factories:

i. $ax^2-22x+18$

ii. $x^2-22x+120$

iii. $x^2-21x+108$

Q7. Factorize:

i. $2x^3-3x^2-17x+30$

ii. $x^2-6x^2+11x-6$

iii. $3x^3-x^2-3x+1$

iv. $Y^3+13y^2+31y-45$

Q8. Find the value of a, if $(x+a)$ is a factor of $x^3+ax^2-2x+a+4$

Q9. Solve the identities:

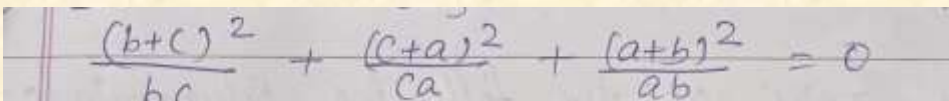
i. $(x+3)(x+6)$

ii. $(3x+2y)^3$

iii. $(x+ y/2 +1)^2$

iv. $125x^2-343y^3$

Q10. If $a+b+c =0$, then find the value of:


$$\frac{(b+c)^2}{bc} + \frac{(c+a)^2}{ca} + \frac{(a+b)^2}{ab} = 0$$

Q11. (a) If $4x^2+y^2=40$ and $xy=6$, Find the value of $2x+y$.

(b) If $3x-2y=11$ and $xy=6$, Find the value of $27x^3-8y^3$.

CHAPTER-10

Q1. If the area of an equilateral triangle is $16\sqrt{3}\text{cm}^2$. then find the perimeter of the triangle.

Q2. The sides of a triangle are 8cm, 15cm and 17cm, Find its area.

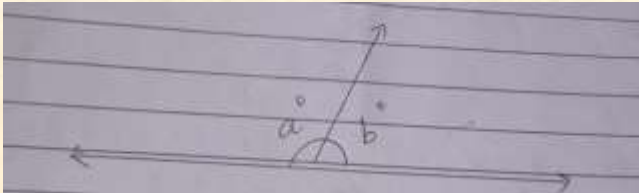
Q3. Using heron's formula, find the area of the triangle whose one side is 20cm, Perimeter is 110cm and other two sides are equal.

Q4. The lengths of the side of a triangle 5cm, 12cm, 13cm. find the length of the perpendicular from the opposite vertex to the side whose length of perpendicular from the opposite vertex to side whose length is 12cm.

Q5. The length of the sides of a triangle is in the ratio 4:5:6 and its perimeter is 150cm. Find the area of the triangle.

CHAPTER-6

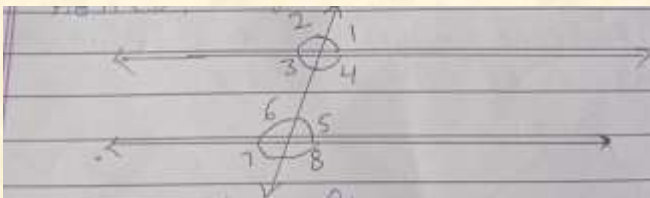
Q1. If $\angle AOB$ and $\angle COB$ form a linear pair if $a-b=70^\circ$, Find the value of a and b .



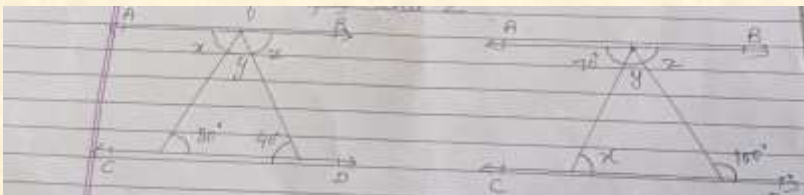
Q2.

- i. Two complementary angles are in the ratio 2:3, Find the angles.
- ii. Two supplementary angles are in the ratio 4:5, find the angles.

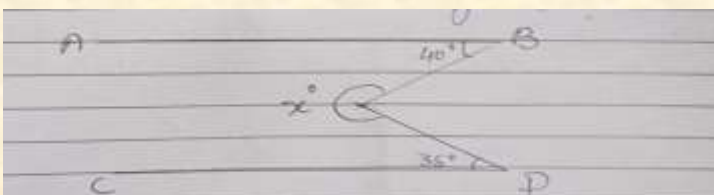
Q3. In the given figure $\angle 1=60^\circ$ and $\angle 6=120^\circ$, show that $AB \parallel CD$.



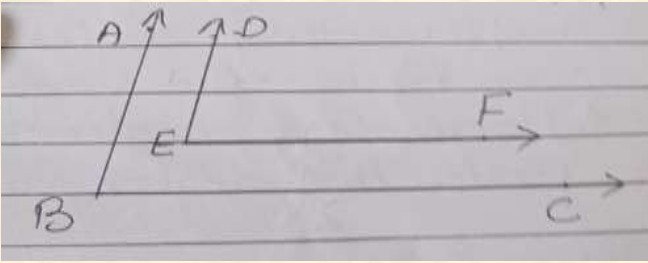
Q4. In the given figures, $AB \parallel CD$, Determine the value of x , y and z .



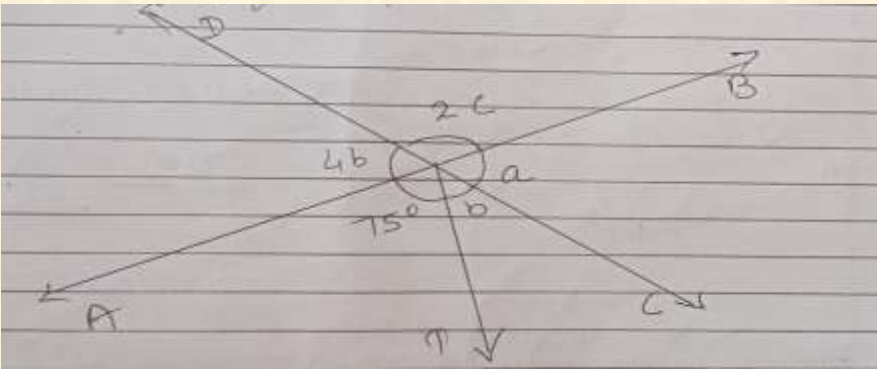
Q5. In the given figure, $AB \parallel CD$. Find the value of x .



Q6. In the given figure, BAIIED and BCIIIEF show that $\angle ABC = \angle DEF$.



Q7. In the figure, two straight lines AB and CD intersect each other at O. If $\angle AOT = 75^\circ$, Find the values of a, b and c.



SUBJECT: SCIENCE
WORKSHEET-1

1. Name the process which occurs when a drop of dettol is added to water.
2. Why water is called universal solvent?
3. Plasma membrane is made up of which two components?
4. What is hypotonic solution?
5. Name the state of matter in which particles can slip and slide over one another easily.
6. What is isotonic solution?
7. What indicates the motion of the earth?
8. What is the intracellular source of digestive enzymes?
9. Cell wall is made up of which component.
10. Where are genes located?
11. Write two examples for each:
 - i. Solution
 - ii. Suspension
 - iii. Colloidal solution

WORKSHEET-2

PHYSICS

1. A particle is moving in a circular path of radius r . The displacement after half a circle would be

- (a) Zero
- (c) $2r$
- (d) $2\pi r$
- (b) πr

2. A body is thrown vertically upward with velocity u , the greatest height h to which it will rise is,

- (a) u/g
- (b) $u^2/2g$
- (c) u^2/g
- (d) $u/2g$

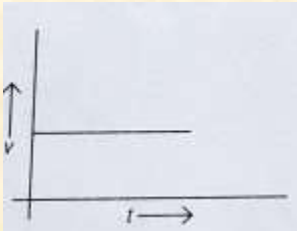
3. The numerical ratio of displacement to distance for a moving object is

- (a) always less than 1
- (b) always equal to 1
- (c) always more than 1
- (d) equal or less than 1.

4. If the displacement of an object is proportional to square of time, then the object moves with

- (a) uniform velocity
- (b) uniform acceleration
- (c) increasing acceleration
- (d) decreasing acceleration.

5. From the given v-t graph, it can be inferred that the object is

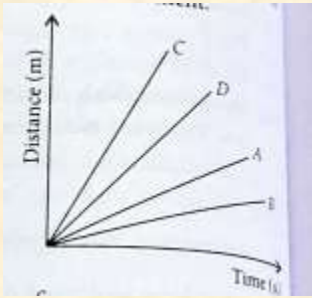


- (a) in uniform motion
- (b) at rest
- (c) in non-uniform motion
- (d) moving with uniform acceleration.

6. Suppose a boy is enjoying a ride on a merry-go-round which is moving with a constant speed of 10 m s^{-1} . It implies that the boy is

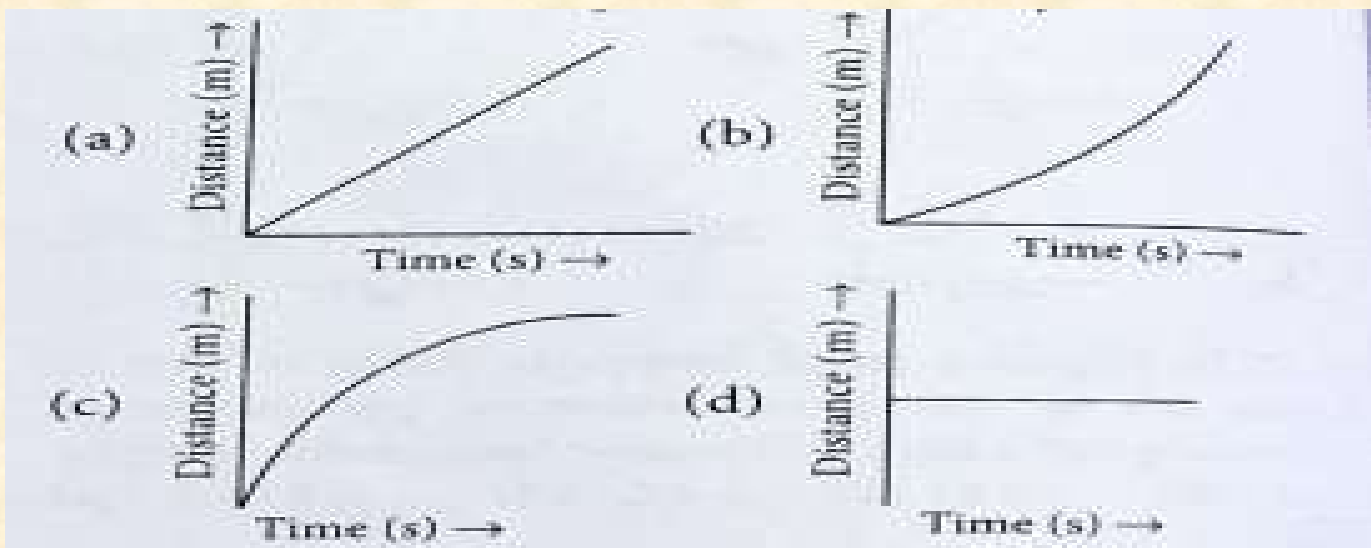
- (a) at rest
- (b) moving with no acceleration
- (c) in accelerated motion
- (d) moving with uniform velocity.

7. Four cars A, B, C and D are moving on a level road. Their distance versus time graphs are shown in figure. Choose the correct statement.



- (a) Car A is faster than car D.
- (b) Car B is the slowest.
- (c) Car D is faster than car C.
- (d) Car C is the slowest.

8. Which of the following figures represents uniform motion of a moving object correctly?



9. Slope of a velocity-time graph gives

- (a) the distance
- (b) the displacement
- (c) the acceleration
- (d) the speed.

10. In which of the following cases of motion the distance moved and the magnitude displacement are equal?

- (a) If the car is moving on straight road.
- (b) If the car is moving in circular path.
- (c) The pendulum is moving to and fro.
- (d) The earth is revolving around the sun.

CHEMISTRY

1. Which one of the following sets of phenomena would increase on raising the temperature?

- (a) Diffusion, evaporation, compression of gases

- (b) Evaporation, compression of gases, solubility
- (c) Evaporation, diffusion, expansion of gases
- (d) Evaporation, solubility, diffusion, compression of gases

2. Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions

- (a) Low temperature, low pressure
- (b) High temperature, low pressure
- (c) Low temperature, high pressure
- (d) High temperature, high pressure

3. The property to flow is unique to fluids. Which one of the following statements is correct?

- (a) Only gases behave like fluids.
- (b) Gases and solids behave like fluids.
- (c) Gases and liquids behave like fluids.
- (d) Only liquids are fluids.

4. During summer, water kept in an earthen pot becomes cool because of the phenomenon of

- (a) diffusion
- (c) osmosis
- (b) transpiration
- (d) evaporation.

5. A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement?

- (a) Water, air, wind
- (b) Air, sugar, oil
- (c) Oxygen, water, sugar
- (d) Salt, juice, air

5. On converting 25°C, 38°C and 66°C to Kelvin scale, the correct sequence of temperature will be

- (a) 298 K, 311 K and 339 K
- (b) 298 K, 300 K and 338 K
- (c) 273 K, 278 K and 543 K
- (d) 298 K, 310 K and 338 K

6. Choose the correct statement of the following:-

- (a) Conversion of solid into vapours without passing through the liquid state is called vaporisation.
- (b) Conversion of vapours into solid without passing through the liquid state is called desublimation.
- (c) Conversion of vapours into solid without passing through the liquid state is called freezing
- (d) Conversion of solid into liquid is called sublimation.

8. The boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C, 56°C and 118°C respectively. Which one of the following correctly represents their boiling points in Kelvin scale?

- (a) 306 K, 329 K, 391 K
- (b) 308 K, 329 K, 392 K
- (c) 308 K, 329 K, 391 K
- (d) 329 K, 392 K, 308 K

9. Which condition out of the following will increase the evaporation of water?

- (a) Increase in temperature of water
- (b) Decrease in temperature of water

- (c) Less exposed surface area of water
- (d) Adding common salt to water

10. In which of the following conditions, the distance between the molecules of hydrogen gas would increase?

- (i) Increasing pressure on hydrogen contained in a closed container.
 - (ii) Some hydrogen gas leaking out of the container.
 - (iii) Increasing the volume of the container of hydrogen gas.
 - (iv) Adding more hydrogen gas to the container without increasing the volume of the container.
- (a) (i) and (iii)
 - (b) (i) and (iv)
 - (c) (ii) and (iii)
 - (d) (ii) and (iv)

11. Which of the following statements are true for pure substances?

- (i) Pure substances contain only one kind of particles.
 - (ii) Pure substances may be compounds or mixtures
 - (iii) Pure substances have the same composition throughout.
 - (iv) Pure substances can be exemplified by all elements other than nickel.
- (a) (i) and (ii)
 - (b) (i) and (iii)
 - (c) (iii) and (iv)
 - (d) (ii) and (iii)

12. Rusting of an article made up of iron is called

- (a) corrosion and it is a physical as well as chemical change
- (b) dissolution and it is a physical change
- (c) corrosion and it is a chemical change
- (d) dissolution and it is a chemical change.

13. A mixture of sulphur and carbon disulphide is

- (a) heterogeneous and shows Tyndall effect
- (b) homogeneous and shows Tyndall effect
- (c) heterogeneous and does not show Tyndall effect
- (d) homogeneous and does not show Tyndall effect

14. Tincture of iodine has antiseptic properties. This solution is made by dissolving

- (a) iodine in potassium iodide
- (b) iodine in vaseline
- (c) iodine in water
- (d) iodine in alcohol.

15. Which of the following are homogeneous in nature?

- (i) Ice
- (ii) Soil
- (iii) Wood
- (iv) Air

- (a) (i) and (ii)
- (b) (ii) and (iv)
- (c) (i) and (iv)
- (d) (iii) and (iv)

16. Which of the following are physical changes?

- (i) Melting of iron metal
- (ii) Rusting of iron
- (iii) Bending of an iron rod
- (iv) Drawing a wire of iron metal

- (a) (i), (ii) and (iii)
- (b) (i), (ii) and (iv)
- (c) (i), (ii) and (iv)
- (d) (ii), (iii) and (iv)

17. Which of the following are chemical changes?

- (i) Decaying of wood
- (ii) Burning of wood
- (iii) Sawing of wood
- (iv) Hammering of a nail into a piece of wood

- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (ii) and (iv)
- (d) (i) and (iv)

18. Two substances, A and B were made to react to form a third substance. A^2B according to the following reaction:
 $2A + B \rightarrow A_2B$

Which of the following statements concerning this reaction are incorrect?

- (i) The product A_2B shows the properties of substances A and B.
- (ii) The product will always have a fixed composition.
- (iii) The product so formed cannot be classified as a compound.
- (iv) The product so formed is an element.

- (a) (i), (ii) and (iii)
- (b) (ii), (iii) and (iv)
- (c) (i), (iii) and (iv)
- (d) (iii) and (iv)

19. Two chemical species X and Y combine together to form a product P which contains both X and Y. $X + Y \rightarrow P$. X and Y cannot be broken down into simpler substances by simple chemical reactions. Which of the following concerning the species X, Y and P are correct?

- (i) P is a compound.
- (ii) X and Y are compounds
- (iii) X and Y are elements.
- (iv) P has a fixed composition.

- (a) (i), (ii) and (iii)
- (b) (i), (ii) and (iv)
- (c) (ii), (iii) and (iv)
- (d) (i), (iii) and (iv)

BIOLOGY

1. Which of the following can be made into crystal?

- (a) A bacterium
- (b) An Amoeba
- (c) A virus
- (d) A sperm

2. A cell will swell up if

- (a) The concentration of water molecules in the cell is higher than the concentration of water molecules in surrounding medium
- (b) The concentration of water molecules in surrounding medium is higher than water molecules concentration in the cell
- (c) The concentration of water molecules is same in the cell and in the surrounding medium
- (d) Concentration of water molecules does not matter.

3. Chromosomes are made up of

- (a) DNA
- (b) Protein
- (c) DNA and protein
- (d) RNA

4. Which of these options are not functions of ribosome?

- (i) It helps in manufacture of protein molecules.
- (ii) It helps in manufacture of enzymes.
- (iii) It helps in manufacture of hormones.
- (iv) It helps in manufacture of starch molecules.

- (a) (i) and (ii)
- (b) (ii) and (in)
- (c) (iii) and (iv)
- (d) (iv) and (i)

5. Which of these is not related to endoplasmic reticulum?

- (a) It behaves as transport channel for proteins between nucleus and cytoplasm.
- (b) It transports materials between various regions in cytoplasm.
- (c) It can be the site of energy generation.
- (d) It can be the site for some biochemical activities of the cell.

6. Following are a few definitions of osmosis. Read carefully and select the correct definition.

- (a) Movement of water molecules from a region of higher concentration to a region of lower concentration through a semi-permeable membrane.
- (b) Movement of solvent molecules from the concentration to lower concentration.
- (c) Movement of solvent molecules from concentration to lower concentration solution through a permeable membrane
- (d) Movement of solute concentration concentration to higher solution through a semi-permeable member

7. Plasmolysis in a plant cell is defined as

- (a) breakdown (lysis) of plasma membrane hypotonic medium
- (b) shrinkage of cytoplasm in hypertonic medium
- (c) shrinkage of nucleoplasm
- (d) none of these.

8. Which of the following are covered by a single membrane?

- (a) Mitochondria
- (b) Vacuole
- (c) Lysosome

(d) Plastid

9. Find out the false sentence

- (a) Golgi apparatus is involved with the formation of lysosomes.
- (b) Nucleus, mitochondria and plastid have DNA; hence they are able to make their own structural proteins.
- (c) Mitochondria is said to be the power house of the cell as ATP is generated in them.
- (d) Cytoplasm is called as protoplasm.

10. Find out the correct sentence.

- (a) Enzymes packed in lysosomes are made through RER (rough endoplasmic reticulum).
- (b) Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively.
- (c) Endoplasmic reticulum is related with the destruction of plasma membrane.
- (d) Nucleoid is present inside the nucleoplasm of eukaryotic nucleus.

11. Which cell organelle plays a crucial role in detoxifying many poisons and drugs in a cell?

- (a) Golgi apparatus
- (b) Lysosomes
- (c) Smooth endoplasmic reticulum
- (d) Vacuoles

12. The proteins and lipids, essential for building the cell membrane, are manufactured by

- (a) rough endoplasmic reticulum
- (b) Golgi apparatus
- (c) plasma membrane
- (d) mitochondria

13. the undefined nuclear region of prokaryotes are also known as

- (a) nucleus
- (b) nucleolus
- (c) nucleic acid
- (d) nucleoid

14. The cell organelle involved in forming complex sugars from simple sugars are

- (a) endoplasmic reticulum
- (b) ribosomes
- (c) plastids
- (d) Golgi apparatus.

15. Which out of the following is not a function of vacuole!

- (a) Storage
- (b) Providing turgidity and rigidity to the cell
- (c) Waste excretion
- (d) Locomotion

16. Amoeba acquires its food through a process!

- (a) exocytosis
- (b) endocytosis
- (c) plasmolysis
- (d) exocytosis and endocytosis both.

12. Cell wall of which one of these is not made up of cellulose?

- (a) Bacteria
- (b) Hydrilla

- (c) Mango tree
- (d) Cactus

18. Silver nitrate solution is used to study

- (a) endoplasmic reticulum
- (b) Golgi apparatus
- (c) nucleus
- (4) mitochondria.

19. Organelle other than nucleus, containing DNA is

- (a) endoplasmic reticulum
- (b) Golgi apparatus
- (c) mitochondria
- (d) lysosome.

20 Kitchen of the cell is

- (a) mitochondria
- (h) endoplasmic reticulum
- (c) chloroplast
- (d) Golgi apparatus.

21. Lipid molecules in the cell are synthesised by

- (a) smooth endoplasmic reticulum
- (b) rough endoplasmic reticulum
- (c) Golgi apparatus
- (d) plastids

22. Cell arises from pre-existing cell was stated by

- (a) Haeckel
- (b) Virchow
- (c) Hooke
- (d) Schleiden

23. Cell theory was given by

- (a) Schleiden and Schwann
- (b) Virchow
- (c) Hooke
- (d) Haeckel.

24. The only cell organelle seen in prokaryotic cell is

- (a) mitochondria
- (b) ribosomes
- (c) plastids
- (d) lysosomes

24. The only cell organelle seen in prokaryotic cell is

- (a) mitochondria
- (b) ribosomes
- (c) plastids
- (d) lysosomes.

25. Organelle without a membrane is

- (a) ribosome

- (b) Golgi apparatus
- (c) chloroplast
- (d) nucleus.

26. 1 μm is
- (a) 10⁻⁶ m
 - (b) 10⁻⁹m
 - (c) 10⁻¹⁰ m
 - (d) 10⁻³ m.

27. Lysosome arises from
- (a) endoplasmic reticulum
 - (b) Golgi apparatus
 - (c) nucleus
 - (d) mitochondria.

28. Living cells were discovered by
- (a) Robert Hooke
 - (b) Purkinje
 - (c) Leeuwenhoek
 - (d) Robert Brown.

29. Select the odd one out.

- (a) The movement of water across a semi- permeable membrane is affected by the amount of substances dissolved in it.
- (b) Membranes are made of organic molecules like proteins and lipids.
- (c) Molecules soluble in organic solvents can easily pass through the membrane.
- (d) Plasma membranes contain chiti plants.

SUBJECT: SOCIAL SCIENCE
Worksheet

HISTORY

- Que1. How was the French society organized? What privileges did certain sections of the society enjoy? Describe.
- Que2. Evaluate the importance of the following years in concern with French Revolution, 1774, 1789, 1791, 1804 and 1815.
- Que3. Describe the conditions of women during the period of French Revolution.
- Que4. How was slavery abolished in France?
- Que5. Who was Robespierre? Describe any four steps taken by him to bring equality.

GEOGRAPHY

- Que1. Explain the significance of India's eminent position in the Indian Ocean.
- Que2. Which mountain bounds India in northwest?
- Que3. What is the importance of Standard Meridian of India?
- Que4. Why is India called a subcontinent?
- Que5. What was the contribution of land routes to India in ancient times? Explain.

CIVICS

- Que1. Pakistan under General Pervez Musharraf was a democratic country or non-democratic. Give reasons.
- Que2. How is the dignity of citizens enhanced in democracy?
- Que3. Write features of Democratic government.
- Que4. Why is representative democracy necessary? How is it different from modern democracy?
- Que5. "Democracy improves the quality of decision making". Explain.

ECONOMICS

- Que1. Describe the condition of landless farmer like Dala, of Palampur village.
- Que2. What is the main constraint on land?
- Que3. Briefly explain the four factors of production.
- Que4. What are the merits and demerits of the Green Revolution?
- Que5. What do you mean by working capital?

WORKSHEET
SUBJECT: ENGLISH

Que 1. Fill in the blanks with the correct form of the article.

1. Murty is ___ old friend of mine. (an/a)
2. I had ___ weirdest day yesterday. (the/a)
3. I spoke to ___ teacher yesterday after class. (the/a)
4. There is ___ storm coming soon this way. (a/the)
5. ___ baby gorilla sleeps on its mother's lap all day. (the/an)
6. India is ___ South Asian country. (a/the)
7. Samar might be poor, but he is ___ honest man. (an/a)
8. Paris is one of ___ most beautiful cities in the world. (a/the)
9. The teacher asked me ___ question that I could not answer. (a/the)
10. The man who was injured in ___ accident was my uncle. (the/a)
11. The Chinese restaurant is ___ hour away from our house. (the/an)
12. Can you give me ___ glass of water? (a/an)
13. Bring me ___ board markers. (an/the)
14. This is ___ tallest building in ___ area. (a/the)
15. Do you have ___ umbrella? (an/a)

Que2. Fill in the gaps with 'would' or 'should.'

1. ___ you like to go with me to the prom?
2. Timmy ___ listen to his parents.
3. The doctor ___ like to examine you.
4. ___ the culprit try to run, arrest him immediately.
5. Parents ___ take care of their children's diet.
6. Penny ___ love to go shopping with you.
7. How ___ you like your pizza base?
8. ___ he fail the test, he ___ be demoted.
9. The dogs ___ keep coming for more treats.
10. Hina ___ be late if she doesn't hurry.
11. Manisha ___ be here in some time.
12. Neetu and Rita ___ not be able to make it.
13. ___ Danny be able to accompany Jibin to the hospital?
14. Did someone say something? ___ we carry our ID cards?
15. Bring me the books, ___ you?

Qus3. Choose the correct option to complete the blanks.

1. The gardener ___ his job efficiently. (do/did)
2. The children ___ playing in the garden. (were/was)
3. Either of the boys ___ broken the glass. (has/have)
4. The planets ___ on their own axis. (rotate/rotates)
5. Trees ___ an important part of our ecosystem. (were/are)
6. Yusuf and Rasid ___ brothers. (are/is)
7. The poet and novelist ___ dead. (is/are)
8. The horse and carriage ___ arrived. (has/have)
9. I ___ an orchard full of apple trees. (has/have)

10. The team ____ developing a new robot. (is/are)
11. The committee members ____ not agreeing with one another. (are/is)
12. The jury ____ found the man innocent. (have/has)
13. Our solar system ____ to the Milky Way galaxy. (belong/belongs)
14. The girls ____ quite early. (arrive/arrived)
15. _____ the door. (closes/close)

Que4. Fill in the blanks by choosing the most suitable preposition from the list given below. Make sure to use each of the given prepositions only once.

(across, from, on, to, by, between, for, on top of, opposite, under, at, into, around, with, in front of, in)

1. The cat is lying _____ the bed.
2. The little boy kept running _____ the table.
3. I walked _____ the street.
4. When are you going ____ your grandparents' house?
5. I will meet you ____ the park.
6. Put the clothes _____ the bed.
7. Kevin is going _____ Kannan.
8. Sanju will be sitting _____ you and Raswanth.
9. Make sure to collect the books _____ the store.
10. My brother had kept the remote _____ the fridge and forgot all about it.
11. My mom baked a cake _____ my birthday.
12. We were standing _____ the railway station.
13. The dog ran straight _____ the swimming pool.
14. The students were asked to assemble ____ the auditorium ____ 11 a.m.
15. The grocery store _____ the school was shut down.

Que5. Go through the following sentences and punctuate them appropriately.

1. mahesh is my uncle
2. we met the president
3. did you finish the project
4. my brother and i are going to buy some clothes
5. who is that
6. what a wonderful movie
7. ashraff the new manager is from delhi
8. i will prepare lunch you do the dishes
9. you will be visiting us wont you
10. Raniya Ramzan and suhaid are best friends
11. she said i am going to paris for the holidays
12. the cafe around the corner is new

13. the man who is wearing a white shirt and black pants is my brothers friend

14. the taj mahal one of the wonders of the world is located in india

15. what is the time

Que6. Read the passage given below and answer the questions that follow.

What exercise is to the body, reading is to the mind. There are different purposes for reading. One of them is deriving pleasure. Children reading for their pleasure rarely stop to ask about the words. They want to get on with the story. If the word is important, they can usually make a good guess about what it is. "He drew an arrow from his quiver". Easy to see that a quiver is some sort of gadget to put arrows in. More complicated words they figure out by meeting them in different contexts. People learn to read well and get a good vocabulary from books, not workbooks or dictionaries. As a kid, I read years ahead of my age, but I never looked up words in dictionaries and didn't even have a dictionary. In my lifetime, I don't believe I have looked at even as many as fifty words – neither have most good readers. Most people don't know how dictionaries are made. Each new dictionary starts from scratch. The company making the dictionary employs thousands of 'editors', to whom they give a list of words. The job of the editor is to collect as many examples as possible of the ways in which these words are actually used. They look for the words in books, newspapers, and so forth and every time they find one, they cut out or copy that particular example. Then after reading these examples, they decide 'from the context' what the writer in each case had meant by the words. From these, they make definitions. A dictionary, in other words, is a collection of people's opinions about what words mean as other people use them.

Q (i). How do children find out meanings when they are reading for pleasure?

Q (ii). Does the passage suggest that a dictionary is essential for a good vocabulary? Why or why not?

Q (iii). Write any one step in the process of making a dictionary.

Q (iv). Define a dictionary in your own words.

Q (v). Find the phrase in the passage which means 'calculate/think about until one understands.'

Que7. Read the unseen passage below and answer the questions that follow:

Cataract is the major cause of blindness, which is also caused by damage to the cornea. It occurs more often in old age. As one starts growing old, the lens of the eye hardens, loses its transparency and becomes opaque. It obstructs the light rays from entering the eye.

The onset of cataract blurs the vision. Sometimes, the cataract patient sees multiple images instead of a single object image. Because of the gradual development of cataract, the afflicted person loses his/her vision, and the world becomes dark to him/her.

The development of cataract is a complex process. However, the following factors can be attributed to its formation. Cataract generally develops in old age but sometimes, children are born with cataract because of hereditary defect. Eye injuries too, can cause cataracts.

People exposed to sun rays for longer periods develop cataract earlier than others. Researchers opine that the smoke inhaled while smoking carries substances internally damaging the eyes.

Ultraviolet radiation, invisible to the human eye, is linked to skin cancer. The victim loses vision and the world becomes dark to him.

On the basis of your understanding of the above passage, answer the questions that follow:

- (a) What is the major cause of blindness?
- (c) Why does the lens of the eye become opaque in old age?
- (f) How does cataract affect its victim ultimately?
- (d) How does one detect cataract in the early stages?
- (e) Give any two factors which are responsible for the formation of cataract.
- (i) Find the word from para 1 that means 'that through which light cannot enter'.
- (g) Which type of cancer is caused by ultraviolet radiation?
- (b) When does cataract generally occur?
- (h) How is smoking responsible for the development of cataract?

CREATIVE WRITING

DIARY ENTRY

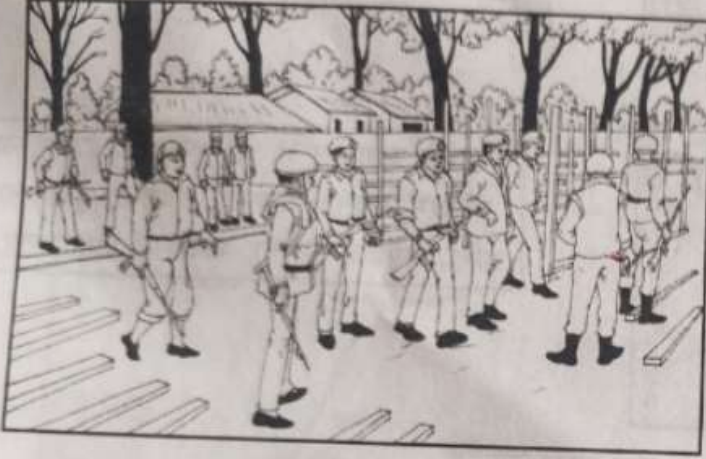
1. Imagine you are the grandfather who owns a private zoo in the chapter adventure of Toto. Write a diary entry expressing your feelings on selling Toto back.
2. You won the Best student of the year award this year. Make a diary entry in 80-100 words expressing your feelings.
3. Make a diary entry on any 5 memorable days of your summer vacation also do not forget to mention the memory associate with the day.

LETTER WRITING

1. Write a letter to the editor of The Times News, highlighting how do wars effect the lives of civilians. You can take the references from the news of war between 'Israel vs Philistine'/Ukrain vs Russia.
2. Everyday you are late for school by 10 or 15 minutes. Your school bus is stucked in traffic jam near temple crossing. Along with own ideas, write a letter to the editor of newspaper, highlighting the problem and sugget some remedies for the same.You are Bhuvik/ Bhavika living at Karol Bagh, New Delhi.
3. Write a letter to the editor of Times News, highlighting serious irregularities in the conduct of general elections. You are Nivedita/ Navam of Panchkula, Haryana.

NOTE: Prepare well for your upcoming PT-1 exams.

SANSKRIT
WORKSHEET-1



मञ्जूषा

इदम् चित्रम्, वनस्य, अस्ति, अनेके सैनिकाः,
अधिकांरिणः च, सन्ति, ते सुरक्षाम्, अवलोकयन्ति,
वृक्षाः, लताः, पक्षिवद्धाः जनाः, गच्छेयुः

चित्राधारितम् वर्णनम् 39

112. अयं संवादः उचितैः अव्ययपदैः पूरणीयः । अव्ययपदानि अधोदत्तायाः मञ्जूषायाः ग्रहीतव्यानि-
मञ्जूषा

बहिः, यदा-कदा, शनैः, इति, किमर्थम्, यावत्

- विभुः - एतत् उपवनम् । एषः मालाकारः तत्र (i) गच्छति (ii) अहं
रश्मिः - अहं तु जानामि । एषः मालाकारः (iii) मालाः विक्रीणितुं गच्छति ।
विभुः - उपवने जनाः (iv) एव अष्ट वादनं (v) प्रमन्ति ।
रश्मिः - परम् अहं पश्यामि यद् वृद्धाः तु (vi) चलन्ति ।
विभुः - पश्य, तत्र महिलाः अपि भ्रमन्ति ।

113. अयं संवादः उचितैः अव्ययपदैः पूरणीयः । अव्ययपदानि अधोदत्तायाः मञ्जूषायाः ग्रहीतव्यानि-
मञ्जूषा

यत्, श्वः, सम्प्रति, बहिः, यावत्, कुतः

- अध्यापकः - अनिल! अत्र आगच्छ ।
अनिलः - आगतः अस्मि, श्रीमन्तः! कक्षायाः (i) केचित् छात्राः किं कुर्वन्ति?
अध्यापकः - अहं न जानामि (ii) ते तत्र कथं तिष्ठन्ति ।
अनिलः - यद् भवन्तः कथयिष्यन्ति तदेव (iii) करिष्यामि ।
अध्यापकः - एतं पाठम् एकहोरां (iv) पठ । एतं पाठम् (v) अ
अनिलः - आम्, गुरुवर! अहं (vi) एतं पठित्वा नूनम् आगमिष्यामि ।

114. अयं संवादः उचितैः अव्ययपदैः पूरणीयः । अव्ययपदानि अधोदत्तायाः मञ्जूषायाः ग्रहीतव्यानि-
मञ्जूषा

किमर्थम्, सम्प्रति, बहिः, इति, कदापि, मा

- मोहनः - राम! त्वं गृहात् (i) गच्छ ।
रामः - अहं त्वां गुरुः (ii) मन्ये ।
मोहनः - त्वं (iii) एतत् कथयसि?
रामः - (iv) रात्रिः अस्ति । तमसि बहिः (v) गन्तव्यम् ।
मोहनः - अहं तु (vi) न त्रस्यामि अतः त्वया सह गमिष्यामि ।

छात्रावासः

(i)

तिथिः

प्रिय अनुज,

(ii)

ह्यः एव तव पत्रं प्राप्तम् । तव पत्रेण ज्ञायते यत् छात्रावासे तव मनः अस्थिरं वर्तते । अतः परीक्षायां (iii)

अपि त्वया उत्तमाः अङ्काः न प्राप्ताः । अनुज! एतदुत्तमम् न वर्तते । त्वं छात्रावासम् उत्तम-अध्ययनार्थम् एव अगच्छः । अतः सम्यक्तया

(iv) कुरु । पठनेन एव जीवनं (v) भविष्यति । यतः पठनस्य महिमा सर्वत्र अस्ति । विद्यावान्

(vi) एव सफलः भवति । विद्यया धैर्यम्, (vii) प्रसन्नता कुशलता च आगच्छन्ति । कवितम्

अपि- (viii) "..... सर्वत्र पूज्यते ।" अपठितस्य जनस्य भाग्ये असफलता एव आगच्छति । अतः ध्यानं दत्त्वा स्वस्यचित्तेन अध्ययनं कुरु ।

(ix) सह ।

भवतः अग्रजः

(x)

मञ्जूषा

विद्वान्, शुभकामनाभिः, गुरुविरजानन्दविद्यालयः, मयुरा, सत्यव्रतः, अध्ययनम्, शुभकामनाः, सुखमयम्, नरः, सम्प्रीति, उत्साहः

मञ्जूषा-प्रथमम्, तत्रास्तु, ज्ञात्वा, साधुवादान्, अस्माकम्, कथयतु, परिश्रमम्, सादरम्, अभिन्नम्, कथनस्य।

3. अर्पितेन स्वमित्राय स्वभगिन्याः विवाहस्य निमन्त्रण-पत्रं लिखितम्। मञ्जूषायां दत्तपदैः अस्य रिक्तस्थानानि पूरयित्वा पत्रमिदं पुनः लिखत। $\frac{1}{2} \times 10 = 5$

अर्पित ने अपने मित्र को अपनी बहन के विवाह का निमन्त्रण भेजा है। मञ्जूषा में दिए पदों की सहायता से इस पत्र के रिक्तस्थानों को भरकर पत्र को पुनः लिखें। (Arpit has invited his friend for the marriage of his sister. So, rewrite this letter filling its blank spaces with the help of words given in the box.)

छात्रावासतः
केन्द्रीयः विद्यालयः

नवा दिल्ली

तिथिः 29.9.2014

प्रिय मित्र अर्चित!

सस्नेहं नमस्काराः। अत्र _____ तत्रास्तु त्वमिदं _____ अतीव प्रसन्नः भविष्यसि यत् मम भगिन्याः

_____ दिसम्बरमासस्य दशम्यां तिथौ _____ जातः। वरयात्रा _____ आगमिष्यति। अतः

भवान् अस्मिन् _____ सपरिवारमत्र _____ कार्यक्रमस्य शोभा _____।

स्वमातृपितृचरणयोः मे सादरं _____ कथयतु।

तव _____ मित्रम्

अर्पितः

मञ्जूषा-ज्ञात्वा, कुशलम्, सुनिश्चितः, शुभविवाहः, आगराप्रदेशात्, आगत्य, वर्धयतु, शुभावसरे, प्रणामान्, प्रियम्।

4. जगमोहनः स्वमित्रं विद्यालयस्य वार्षिकोत्सववर्णनपरकं पत्रं लेखितुम् इच्छति। एतदर्थं मञ्जूषायां दत्तपदानां सहायतया रिक्तस्थानानि पूरयित्वा पत्रमिदं पुनः लिखत। $\frac{1}{2} \times 10 = 5$

जगमोहन अपने विद्यालय के वार्षिकोत्सव का वर्णन-परक पत्र अपने मित्र को लिखना चाहता है। अतः मञ्जूषा में दिए पदों की सहायता से रिक्तस्थानों को भरकर पत्र को पुनः लिखिए। (Jagmohan wants to write a letter to his friend describing the annual function of his school. Rewrite this letter by filling its blank-spaces with the help of words given in the box.)

केन्द्रीयः विद्यालयः

नवा दिल्ली

तिथिः 29.9.2014

प्रिय मित्र आनन्दमोहन!

सस्नेहं नमस्काराः। अत्र कुशलं ¹ _____ अहं विद्यालयस्य वार्षिकोत्सवे ² _____ आसम्, अतः

उत्तरप्रेषणे विलम्बं जातम्। ह्यः वार्षिकोत्सवः सम्पन्नः जातः। अस्मिन् अवसरे सम्पूर्णः विद्यालयः विशेषतः

³ _____ आसीत्, अनेके कार्यक्रमाः च आयोजिताः आसन्। सर्वप्रथमम् ⁴ _____ अतिथीनां च

माल्यार्पणेन ⁵ _____ कृतम्। ततः सरस्वतीवन्दनया कार्यक्रमः ⁶ _____। पुरस्कारवितरणेन

_____ सम्पन्नः जातः। मुख्यातिथिः कार्यक्रमं विशेषेण ⁷ _____। आगामिनि वर्षे त्वयापि

_____ द्रष्टुम् अत्रागन्तव्यम्। गृहे सर्वेभ्यः मम प्रणामाः। अस्तु।

भवतः ⁸ _____ मित्रम्।

जगमोहनः

मञ्जूषा-² व्यस्तः, ¹ तत्रास्तु, ³ सुसज्जितः, ⁵ स्वागतम्, ⁴ अध्यक्षमहोदयस्य,
⁶ आरब्धः, ⁷ कार्यक्रमः, ⁸ प्राशंसत्, ⁹ अभिन्नम्, ¹⁰ वार्षिकोत्सवम्।