# St. Mary's School, Dwarka <br> Holiday Homework <br> Class IX 

## Subject- English

Part A-Reading

## Read the passage carefully.

Marie Curie was one of the most accomplished scientists in history. Together with her husband, Pierre, she discovered radium, an element widely used for treating cancer, and studied uranium and other radioactive substances. Pierre and Marie's amicable collaboration later helped to unlock the secrets of the atom.

Marie was born in 1867 in Warsaw, Poland, where her father was a professor of Physics. At the early age, she displayed a brilliant mind and a blithe personality. Her great exuberance for learning prompted her to continue with her studies after high school. She became disgruntled, however, when she learned that the university in Warsaw was closed to women. Determined to receive a higher education, she defiantly left Poland and in 1891 entered the Sorbonne, a French university, where she earned her master's degree and doctorate in Physics.

Marie was fortunate to have studied at the Sorbonne with some of the greatest scientists of her day, one of whom was Pierre Curie. Marie and Pierre were married in 1895 and spent many productive years working together in the Physics laboratories. A short time after they discovered radium, Pierre was killed by a horse-drawn wagon in 1906. Marie was stunned by this horrible misfortune and endured heart-breaking anguish. Despondently she recalled their close relationship and the joy that they had shared in scientific research. The fact that she had two young daughters to raise by herself greatly increased her distress.
Curie's feeling of desolation finally began to fade when she was asked to succeed her husband as a Physics professor at the Sorbonne. She was the first woman to be given a professorship at the world-famous university. In 1911, she received the Nobel Prize in Chemistry for isolating radium. Although, Marie Curie eventually suffered a fatal illness from her long exposure to radium, she never became disillusioned about her work. Regardless of the consequences, she had dedicated herself to science and to revealing the mysteries of the physical world.

## On the basis of the reading of the passage, answer the questions that follow by choosing the most appropriate option: - <br> (1x5=5)

Q1. According to the passage, the Curies' friendly collaboration led to
a) discovery of structure of atom
b) revolution in scientific circles
c) unlocking the secrets of the atom
d) discovery of nuclear fission

Q2. What annoyed Marie when she went to pursue higher education in Warsaw?
a) women were not encouraged to become scientist
b) failure in the university entrance exams
c) the university in Warsaw was closed for women
d) constant failure in her experiments

Q3. Marie's $\qquad$ began to fade when she returned to the Sorbonne to succeed her husband.
a) misfortune
b) loneliness
c) anger
d) disappointment

Q4. "Marie Curie eventually suffered a fatal illness from her long exposure to radium, she never became disillusioned about her work."
Choose the correct option that highlights Marie's character in the above statement.
a) industrious nature
b) extreme dedication towards her work
c) fearful attitude towards life
d) courteous behavoiur

Q5. "Marie had a bright mind and a blithe personality."
The word 'blithe' in the above statement means the same as
a) strong
b) generous
c) carefree
d) strange

## Part B- Writing \&Grammar

Q6. You lost your beloved pet recently. Write a diary entry expressing your feelings of pain and grief in about 100 to 120 words.

Read the conversation between a father and his son and report it in your own words.

Father : Why did you return home late today?
Son: My motorbike brakes failed on the way.
Father : Why didn't you check your brakes before starting ?
Son : I was in a hurry. I didn't have the time.
Q7.The father asked (a) $\qquad$ . The boy replied (b) $\qquad$ .

Q8.On hearing this, the father (c) $\qquad$ The boy said that as (d) $\qquad$

Q9.Read the dialogue given below and fill in the blanks by using suitable words.

Amina. These two chairs look so shabby. Don't you think we need to get a (a) $\qquad$ of new ones?
Salim: We'll talk about it a (b) $\qquad$ later, I have (c) $\qquad$ important piece of work to complete tonight. I can't spare (d) $\qquad$ time right now.

Q10. Complete the passage by choosing the correct options from those given below.

There are two kinds of hypertension: secondary and primary. Secondary hypertension has organic causes. It (a)
$\qquad$ be caused by either obstructive kidney disease, tumors of the brain, thyroid glands (b) $\qquad$ narrowing of the aorta. It is more common (c) $\qquad$ younger. Primary hypertension is a silent killer. It shows no obvious symptoms (d) $\qquad$ it is well- advanced.

Q11.Fill in the blanks with appropriate words:-

With (a) $\qquad$ traffic and poor facilities, pedestrians seem to be the most vulnerable to fatal accidents (b)
$\qquad$ road users. Even though in the last six years, the number of pedestrian subways in the city (c)
$\qquad$ almost doubled. Most of them are neither well maintained (d) $\qquad$ well designed. As a result, pedestrians avoid using them.

## Part C-Literature

Answer the following questions in 20 to 30 words: -
( $2 \times 2=4$ )
Q12.What kind of a person was Kalam's father?
Q13.How did George and Harris react to Jerome's offer to do the packing? Did Jerome like their reaction?

## Answer the following questions in $\mathbf{5 0}$ to $\mathbf{6 0}$ words: -

Q14.What actions of the writer's schoolmates change her understanding of life and people, and comfort her emotionally?
Q15.Do you think Behrman was a great artist or a great human being? Give reasons for your answer.

## Subject-Hindi

निम्नलिखित प्रश्नों के उत्तर सही विक्रल्प चुनक्रर दीजिए-
प्रश्न 1 हामिद खाँ कहाँ का नागरिक था ?
1 श्रीलंका का 2 पाकिस्तान का 3 भारत का 4 ईरान का
प्रश्न 2 एवरेस्ट पर चढ़ने वाली पहली भारतीय महिला का क्या नाम क्या है ?
1 प्रियंका गुलेनिया 2 चंद्रिका मुखर्जी 3 अदिति पाल 4 बचेंद्री पाल
प्रश्न 3 पाठ 'दुख का अधिकार' के लेखक कौन है ?
1 शरद जोशी
2 यशपाल
3 महादेवी वर्मा 4 धीरंजन मालवे

प्रश्न 4 'मानवीय' शब्द में किस प्रत्यय का प्रयोग किया गया है ?
1 ईंय 2 वीय 3 नवीय 4 य
प्रश्न 5 शब्द वाक्य में प्रयुक्त होते ही किस्सका रूप ले लेता है ?
1 संज्ञा का
2 शब्द का
3 पद का
4 वाक्य का

प्रश्न 6 निम्नलिखित शब्दों में संधि- विच्छेद कीजिए।
(1/2x4=2)
(1) दीक्षांत
(2) सुरेश
(3) भारतेंदु
(4) निष्पाप

प्रश्न 7 निम्नलिखित शब्दों में संधि कीजिए।
$(1 / 2 \times 4=2)$
(1) यथा+अर्थ
(2) चे+अन
(3) सु + आगत
(4) जगत + नाथ

प्रश्न 8 निम्नलिखित वाक्यों में उचित विराम -चिन्ह लगाकर लिखिए।
(1) डा साहब जल्दी आइए
(2) आप कब जाएँगो

प्रश्न 9 निम्नलिखित मुहावरो के अर्थ लिखिए व वाक्य में प्रयोग कीजिए।
(क) ऑख का तारा (ख) चंपत हो जाना
प्रश्न 10 रहीम जी ने नोती, मानुष और चून के संदर्भ में पानी का क्या महत्व्व बताया है?
(3x1=3)
प्रश्न 11 महात्मा गांधी के धर्म संबंधी विचारों पर प्रकाश डालिए। आपकी दृष्टि ने धर्म वार्तविक स्वरूप क्या होना चाहिए ?

प्रश्न 12 मालाबार में हिदू मुसलमानों के संबंधों को अपने शब्दों में बताइए।
प्रश्न 13 'जीवन में संतुलित आहार का मह्त्त्व' विषय पर दिए गए संकेत बिंदुओं के आधार पर सुंदर
अनुच्छेद लिखिए।
(3x1=3)
स्रंकेत बिददु ः भोजन का स्वरूप, संतुलित मोजन की आवश्यकता, स्वर्थथ.
जीवन का मूल मंत्र ।
प्रश्न 14 स्रुंदर भविष्य की चर्चा करते हुष्ट दो मित्रो बीच हुष्ट वार्तालाप की लगभग 50 से 60 शब्दों में लिखिय।

प्रश्न 15 शिक्षा से संबंधित चार स्युंदर नारे लिखिए ।

## Subject: Mathematics

## Instructions:

(1) Q.no. 1-4 are multiple choice questions carrying 1 mark each.
(2) Q.no. 5 \& 6 are case study-based questions, each carrying 4 sub-parts of 1 mark each.
(3) Q.no. 7-10 are of 2 marks each.
(4) Q.no. 11-13 are of 3 marks each.
(5) Q.no. 14 and 15 are of 4 marks each.
Q. 1 ) What is the area of an equilateral triangle with side $2 \sqrt{3} \mathrm{~cm}$ ?
(a) $5.916 \mathrm{~cm}^{2}$
(b) $5.691 \mathrm{~cm}^{2}$
(c) $5.196 \mathrm{~cm}^{2}$
(d) $5.619 \mathrm{~cm}^{2}$
Q. 2 ) What is the length of the largest rod that can be put in a hall of dimensions $23 \mathrm{~m} \times 10 \mathrm{~m} \times 10 \mathrm{~m}$ ?
(a) 27 m
(b) 25 m
(c) 21 m
(d) 20 m
Q. 3 ) If surface area of a sphere is $616 \mathrm{~cm}^{2}$, then what will be its radius ?
(a) 5 cm
(b) 6 cm
(c) 7 cm
(d) 8 cm
Q. 4 ) What is the range of two -digit numbers ?
(a) 86
(b) 87
(c) 88
(d) 89
Q. 5 ) A survey was conducted by the students of class 9 as a part of their environment awareness programme. They were asked to collect data regarding the number of plants planted in 30 hours in a locality. They gathered the data from the people of that locality as follows :

| Number of hours | 4 | 5 | 6 | 7 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Number of plants | $0-3$ | $3-6$ | $6-9$ | $9-12$ | $12-15$ |

Read the table and answer the following questions:
(a) What is the probability of the number of hours having 12-15 plants?
(i) $4 / 15$
(ii) $2 / 15$
(iii) $1 / 5$
(iv) $1 / 15$
(b) What is the probability of the number of hours having less than 6 plants?
(i) $3 / 5$
(ii) $3 / 10$
(iii) $2 / 5$
(iv) $1 / 15$
(c) How many plants were planted in 4 hours?
(i) 0
(ii) 1
(iii) 2
(iv) 3
(d) What is the class mark of the group having number of plants 12-15?
(i) 12
(ii) 15
(iii) 27
(iv) $27 / 2$
Q. 6 ) Kamla has a triangular field with sides $240 \mathrm{~m}, 200 \mathrm{~m}, 360 \mathrm{~m}$ where she grew wheat. She has one more triangular field with sides $240 \mathrm{~m}, 320 \mathrm{~m}, 400 \mathrm{~m}$, adjacent to the previous field where she wanted to grow potatoes and onions. She divided the field in two parts by joining the mid-point of the longest side to the opposite vertex and grew potatoes in one part and onions in other part ( as shown in the figure ). Read the given situation and answer the following questions :

(a) What is the total area used for wheat?
(i) $22627.41 \mathrm{~m}^{2}$
(ii) $38400 \mathrm{~m}^{2}$
(iii) $19200 \mathrm{~m}^{2}$
(iv) $22276.62 \mathrm{~m}^{2}$
(b) What is the area of triangle ACE (in hectares) ?
(i) 2.26 ha
(ii) 1.13 ha
(iii) 1.92 ha
(iv) 0.96 ha
(c) What do we call CE in the given figure ?
(i) altitude
(ii) base
(iii) hypotenuse
(iv) median
(d) What is the total area of $\triangle \mathrm{ABD}$ in hectares?
(i) 6 ha
(ii) 6.1 ha
(iii) 6.2 ha
(iv) 6.3 ha
Q. 7 ) Find the product: $(x-3 y)(x+3 y)\left(x^{2}+9 y^{2}\right)$.
Q. 8 ) Construct the angle of measurement $150^{\circ}$ using compass and ruler.
Q.9) The numbers $2,3,4,4,2 \mathrm{x}+1,5,5,6,7$ are written in ascending order. If the median is 5 , find x . Also find mode.
Q. 10 ) In the given figure, $\mathrm{BD}=\mathrm{DC}$ and $\angle \mathrm{DBC}=25^{\circ}$, Find the measure of $\angle \mathrm{BAC}$.

Q. 11 ) Represent $\sqrt{8}$ on a number line and write steps of construction.
Q. 12 ) Draw a histogram for the following data:

| Marks | $10-15$ | $15-20$ | $20-25$ | $25-30$ | $30-40$ | $40-60-$ | $60-80$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 7 | 9 | 8 | 5 | 12 | 12 | 8 |

Q.13) Prove that the medians of an equilateral triangle are equal.
Q.14) If each edge of a cube is increased by $50 \%$, find the \% increase in the surface area.
Q.15) Find the value of $a$ and $b$ if, $\frac{7+\sqrt{5}}{7-\sqrt{5}}-\frac{7-\sqrt{5}}{7+\sqrt{5}}=a+\frac{7 \sqrt{5}}{11} b$.

## Subject: Science

## Objectives:

To ensure revision of concepts
To enhance skills to carry out research work and develop scientific aptitude
To encourage learning through experience
*Attempt the questions keeping in mind the weightage of each question.
(1) Answer the 1 mark questions in 5-10 words.
(2) Answer the 2 marks questions in 10-20 words.
(3) Answer the 3 marks questions in 20-30 words.

* Attempt your worksheets in the science notebook, scan the notebook and mail the pdf to the respective teachers.

The distance - time graph of two trains A and B is given below. The trains start simultaneously in the same direction. Study the given graph and answer the following questions.

The distance-time graph of two trains $A$ and $B$ is given below. The trains start simultaneously in the same direction.


Q1 The slope of the distance-time graph describing the motion of the two trains A and B gives which of the following quantity?
a) Acceleration
b) Speed
c) Deceleration
d) Displacement

Q2 Which among the following best defines the nature of motion exhibited by the two trains.
a) Uniform speed
b) Non uniform speed
c) Uniform acceleration
d) Uniform retardation

Q3 How much ahead of A is B when the motion starts?
a) 50 km
b) 100 km
c) 150 km
d) 200 km

Q4. What is the speed of $B$ ?
a) $75 \mathrm{~km} / \mathrm{h}$
b) $50 \mathrm{~km} / \mathrm{h}$
c) $25 \mathrm{~km} / \mathrm{h}$
d) $100 \mathrm{~km} / \mathrm{h}$

Q5.
Compare the energy possessed by the virtue of position for the 2 bodies shown below.

(a) By virtue of their positions, the energy possessed by body A is half the energy possessed by body B .
(b) By virtue of their positions, the energy possessed by body A is twice the energy possessed by body B .
(c) By virtue of theirpositions, the energy possessed by body A is 4 times the energy possessed by body B.
(d) By virtue of their positions, the energy possessed by both body A and body B is the same.

Q6.(a) What is the lining of blood vessels made up of?
(b) What is the lining of the small intestine made up of?
(c) What is the lining of kidney tubules made up of?
(d) Where are the epithelial cells with cilia found?

Q7. Differentiate between voluntary and involuntary muscles. Give one example of each type.
Q8. How are messages conveyed from one place to another within the body?
Q9.A boy is moving on a straight road against a frictional force of 5 N . After travelling a distance of 1.5 km , he forgot the correct path at a roundabout of radius 100 m as shown in the figure.


However, he moves on the circular path for one and half cycle and then he moves forward upto 2.0 km .
Calculate the work done by him.
Q10.Depict the energy conversions in daily life of any 4 gadgets/human actions in the form an infographic.

Q11(i) Why do helium, neon and argon have a zero valency?
(ii) An element X has atomic number 3. Write it's valency with reason.
(iii) Write the electronic configurations of oxide ion and magnesium cation.

Q12.Draw the schematic diagrams of the following atoms and their respective ions -
(i) Sodium (ii) Chlorine (iii) Oxygen

Q13. Differentiate between the following (two differences each)-
(i) Lithium atom and Lithium cation.
(ii) Oxygen atom and oxide ion.
(iii) Isotopes and isobars

Q14.Amit released a pendulum bob from position A and its movement is shown in the diagram given below.

a) At which position $(\mathrm{A}, \mathrm{B}$ or C$)$ does the pendulum bob have the greatest amount of kinetic energy? (1+2)
b) After a while, the pendulum bob was observed to swing to position C at a height lower than its height of release at position A. Give reason.
Q15. Calculate the electricity bill amount for a month of 31 days, if the following devices are used as specified:
(a) 3 bulbs of 40 W for 6 hours
(b) 4 tube lights of 50 W for 8 hours
(c) A TV of 120 W for 6 hours. Given the rate of electricity is Rs 2.50 per unit.

## SUBJECT - SOCIAL SCIENCE

Q1. Elections and institutions need to be combined with third element, to make a government democratic. (1)
a). Denial of Rights
b). Suppression of Rights
c). Enjoyment of Rights
d). Restricted Rights

Q2. Who could enter Jungvolk?
(a) Ten-year-old boys
(b) Twelve-year-old boys
(c) Fourteen-year-old boys
(d) Eighteen-year-old boys

Q3. The Treaty of Versailles (1920) signed at the end of World War I, was harsh and humiliating for Germany, because
(a) Germany lost its overseas colonies, and 13 per cent of its territories
(b) It lost $75 \%$ of its iron and $26 \%$ of its coal to France, Poland, Denmark and Lithuania, was forced to
pay compensation of 6 billion pounds
(c) The western powers demilitarised Germany and they occupied resource-rich Rhineland in the 1920s
(d) All the above

Q4. What generally happens to air temperature as we move from the equator to the poles?
(a) it decreases
(b) it increases
(c) it remains constant
(d) None of the above

Q5. The Green Revolution introduced the farmers to
(a) cultivation of wheat and rice
(b) cultivation of green vegetables
(c) cultivation of sugar cane
(d) cultivation of forests

Q6. Write short answers for the following.
(i). Where is Guantanamo Bay and who controls it?
(ii). What is Amnesty International?

Q7. Make a G.O. of the Fundamental Rights guaranteed by the Constitution of India.
Q8. What steps were taken by Hitler to reconstruct Germany?
Q9. Distinguish between climate and weather.
Q10. Why is the soil in the Northern Plain fertile?
Q11. How were the prisoners tortured by the US in Guantanamo Bay prison?
Q12. Explain any three components of the ideology of Hitler.
Q13. "Unemployment leads to low income and low savings and hence low demand and low production. This is the identification of a depressed economy." Support the statement with three arguments.
Q14.
Graph : Poverty Ratio in Selected Indian States 1999-2000

i) Identify the three states where the poverty ratio is the highest.
ii) Identify the three states where poverty ratio is the lowest.
iii) Why the states named by you in part (i) have a high poverty ratio?
iv) Why the states named by you in part (ii) have a low poverty ratio? Mention one reason.

Q15. Features are marked by numbers in the given political map of India. Identify these features with the help of the following information and write their correct names on the lines marked in the map.
(A) 1 A bird sanctuary in Tamil Nadu.

2 A wildlife sanctuary in Kerala.
3 A national park in Jammu and Kashmir.
4 A wildlife sanctuary in Rajasthan.
(B) On the political map of India, locate and label the following:

5 The state which shares its boundaries with China, Nepal and Bhutan.
6 The state which shares its boundaries with both China and Pakistan.


## Subject: Information Technology (402)

## Multiple Choice Questions (1-5)

Q1 Grooming is a term associated with
(a) time management
(b) problem solving
(c) neat and clean appearance
(d) self-management

Q2 A steel factory burns firewood and charcoal for heating and melting the steel? What are the possible effects on the environment?
(a) Increase in global temperature
(b) Decrease in global temperature
(c) Increase in air pollution
(d) Decrease in air pollution

Q3 Why do we send emails?
(a) To reach on time
(b) To share documents and files
(c) To talk to each other
(d) To meet each other

Q4 Which of the following is not a self-management skill?
(a) Problem solving
(b) Bargaining
(c) Understanding self
(d) Confidence building

Q5 In the Rapid typing tutor, which of the following is not true?
(a) Green letters denote right inputs.
(b) Yellow letters stand for right inputs in extra time.
(c) Red letters denote wrong inputs within time.
(d) Orange letters indicate wrong inputs with in time.

Q6 Name the following:
a) Which type of a software is AVG?
b) Mr. Imran writes program in C++ and want to compile the whole program at one time and generate reports of all the errors of the program along with line number. Which language processor does he need to use for this?
c) Mr. Iyer is an accountant. He normally has to make balance sheet profit and loss statement and needs lots of calculation moreover he has to make analysis reports using the data in the account sheet. Which application software would you suggest you would use to do his work easily and effectively?
d) Ram purchased a new computer hardware from the market what all software does he need to install on the computer to start it?

Q7 What is an e-mail signature? Give an example of it.
Q8 Compare Cc and BCc with reference to email.
Q9 Explain the two components of an email address. Support your answer with the help of an example.
Q10 Write the formula for the following based on the spreadsheet given below:

| A | B | C | D | E | F | G |  |
| :--- | ---: | :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | ITEM CODE | ITEM DISCRIPTION | TYPE | UNIT PRICE | QUANTITY | AMOUNT | REBATE |
| 2 | 101 | Pencil | Consumable | 75 | 2000 |  |  |
| 3 | 102 | Mini Photo Copier | Non-consumable | 120000 | 12 |  |  |
| 4 | 103 | Binding Machine | Non-consumable | 3200 | 35 |  |  |
| 5 | 104 | Eraser | Consumable | 54 | 8400 |  |  |

a) To calculate the amount for each item
b) To calculate the rebate as $7 \%$ of amount for each item

Q11 Cell Al contains the number 16 and B 1 contains 4 . What will be the contents of cell C 1 , if the formula $=\mathrm{A} 1+\mathrm{B} 1 * 2 / 8$ is entered in cell C 1 ?
The contents of Cell A1, B1, C1 and D1 are 5, $-10,50 \&-30$ respectively. What will be the value displayed in cell El and E 2 which contains the formula $=\operatorname{Min}(\mathrm{A} 1: \mathrm{D} 1)$ and $=\operatorname{Sum}(\mathrm{A} 1: \mathrm{D} 1)$

Q12 What do you understand by the term IT and ITeS?

Q13 Name and explain the buttons from a) to e) in the given Rehearse Timings button:


Q14 Compare slide transition and custom animation features of PowerPoint.
Q15 Define the following terms:
a) Cell address
b) Autofill
c) Legends
d) X-axis or category axis

