



# DELHI PUBLIC SCHOOL, SAIL TOWNSHIP, RANCHI

SESSION – 2021-22

WINTER ASSIGNMENT

CLASS – IX

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## English

- Q.1. How was the packing affected due to Montmorency?
- Q.2. What happened when George and Harris were trying to pack the butter?
- Q.3. How did Santosh begin 'life in her own terms from the start'? Explain.
- Q.4. Give a brief character sketch of Maria Sharapova.
- Q.5. Write in detail about the deep-rooted relationship between the tree and the earth with reference to the poem 'On Killing a Tree'.
- Q.6. 'Animals also feel the pleasure of love and pain of separation.' support your view by giving examples from the chapter 'The Bond of Love'.
- Q.7. Why does the author say, 'It was a journey he would never forget'? Explain with reference to the chapter Weathering the Storm in Ersama.
- Q.8. 'His heart went cold', when Prasahant reached his village. Why ?
- Q.9. What is the significance of the title 'A House is not a Home'? Explain.
- Q.10. The author Zan Gaudioso found a change in the people he was surrounded by. What brought about that change?

## Project Based Question

**Give a brief information about writing style of Anton Chekhov, his works and his achievements. Explain how Chekhov represented the Russian Society with reference to the chapter "The Beggar".**

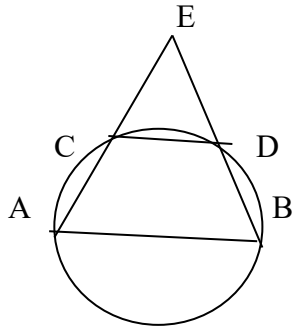
## Hindi

- 1.) 'आदर्श विद्यार्थी' विषय पर 100 शब्दों का अनुच्छेद लिखें।
- 2.) वार्षिक परीक्षा में कक्षा में प्रथम स्थान प्राप्त करने पर अपने मित्र को बधाई पत्र लिखें।
- 3.) निम्नलिखित उपसर्गों से दो-दो शब्द बनाएँ:  
वि, अवि, अनु, प्रति, आ
- 4.) कवि ने 'खुशबू रचते हैं हाथ' कविता में बहुवचन का प्रयोग अधिक क्यों किया है?
- 5.) "इनसे आप लोग त्याग और हिम्मत सीखें" - गाँधीजी ने यह किसके लिए किस संदर्भ में कहा?

## Maths

1. Prove that the bisector of angles of a parallelogram enclose a rectangle.
2. Show that if the diagonals of a quadrilateral are equal and bisect each other at right angle then it is a square.

3. Prove that the line segment joining the mid - points of the diagonals of a trapezium is parallel to the parallel sides and equal to half of their difference.
4. E and F are respectively the mid-points of the non –parallel sides AD and BC of a trapezium ABCD. Prove that  $EF \parallel AB$  and  $EF = \frac{1}{2} (AB + CD)$ .
5. In the adjoining figure, AB is a diameter of the circle, CD is a chord equal to the radius of the circle. AC and BD when extended intersect at point E. prove that  $\angle AEB = 60^\circ$ .



6. Two chords AB and CD of lengths 5 cm and 11 cm respectively of a circle are parallel to each other and are on opposite sides of its center. If the distance between AB and CD is 6 cm, find the radius of the circle.
7. Three girls Reshma, Salma and Mandee are playing a game by standing on a circle of radius 5 m drawn in a park. Reshma throws a ball to Salma, Salma to Mandee, Mandee to Reshma. If the distance between Reshma and Salma & between Salma and Mandee is 6m. each, what is the distance between Reshma and Mandee?
8. The lengths of two parallel chords of a circle are 6c.m. and 8 c.m. If the smaller chord is at a distance of 4 c.m. from the centre, what is the distance of other chord from the center.
9. If the non - parallel sides of a trapezium are equal, prove that it is cyclic.
10. Prove that quadrilateral formed (if possible) by internal angle bisectors of cyclic quadrilateral is also cyclic.
11. Bisectors of angle A, B and C of triangle ABC intersects its circumference at D,E and F respectively. Prove that angle of triangle DEF are  $90^\circ - \frac{A}{2}$ ,  $90^\circ - \frac{B}{2}$ ,  $90^\circ - \frac{C}{2}$ ,
12. Construct a triangle ABC in which  $BC = 7$  c.m.,  $\angle B = 75^\circ$  and  $AB + AC = 13$  c.m.
13. Construct triangle PQR in which  $QR = 6$  c.m.,  $\angle Q = 60^\circ$  and  $PR - PQ = 2$  c.m.
14. Construct a triangle ABC in which  $BC = 8$  c.m.,  $\angle B = 45^\circ$   $AB - AC = 3.5$  c.m.
15. Construct a triangle ABC in which  $\angle B = 30^\circ$ ,  $\angle C = 90^\circ$ , perimeter is 11 c.m.
16. The value of  $\pi$  upto 50 decimal places is given below  
3.141, 592, 653, 589, 793, 238,462, 643, 383, 279, 502,884, 197,169, 399,375,10
  - (i) make a frequency distribution table of the digits from 0 to 9 after the decimal point.
  - (ii) What are the most and the least frequently occurring digits ?

17. A class consists of 50 students out of which 30 are girls. The mean mark scored by girls in a test is 73 (out of 100) and that of boys is 71. Determine the mean score of the whole class.

**18. Project-Prepare on Chart Paper**

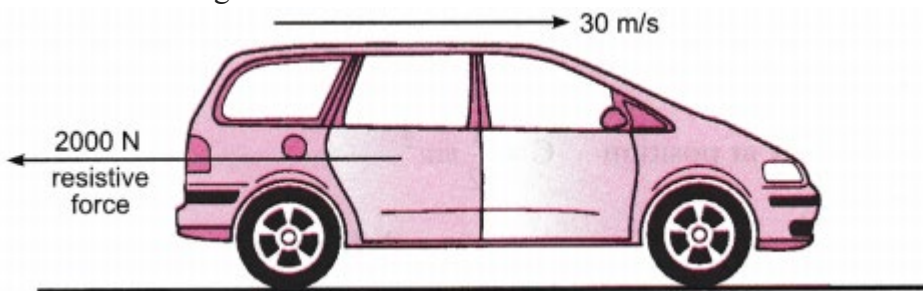
The length of 40 leaves of a plant are measured correct to one millimeter and the obtained data is represented in the following table

Length (in mm)	118- 126	127- 135	136-144	145-153	154-162	163-171	172-180
Number of leaves	3	5	9	12	5	4	2

- (i) Draw a histogram and a frequency polygon to represent the given data.  
 (ii) Is there any other suitable graphical representation for the same data? If yes, then draw  
 (iii) Is it correct to conclude that maximum length of leaves is 153mm long? why?

**Physics**

1. A car of mass 900 kg is travelling at a steady speed of 30 m/s against a resistive force of 2000 N, as illustrated in figure.



- (i) Calculate the kinetic energy of the car.  
 (ii) Calculate the energy used in 1.0 s against the resistive force.  
 (iii) What is the minimum power that the car engine has to deliver to the wheels?  
 (iv) What form of energy is in the fuel, used by the engine to drive the car?
- 2..Can any object have mechanical energy even if its momentum is zero? Explain
3. (a) Two masses in the ratio 1 : 4 have their speeds in the ratio 4 : 5. Find the ratio of their kinetic energy.  
 (b) The heart does 1.5 J of work in every beat. How many times per minute does it beat if its power is 2W?

Solution:

- (a) Let  $m_1$  and  $m_2$  are masses of two bodies. Their velocities are  $v_1$  and  $v_2$  respectively.

- 4 .A ball is dropped from a height of 10 m. If the energy of the ball reduces by 40 per cent after striking the ground, how high can the ball bounce back?

5. An automobile engine propels a 1,000 kg car A along a levelled road at a speed of 36 km h<sup>-1</sup>. Find the power if the opposing frictional force is 100 N. Now, suppose after travelling a distance of 200 m, this car collides with another stationary car B of same mass and comes to rest. Let its engine also stop at the same time. Now car B starts moving on the same level road without getting its engine started. Find the speed of the car B just after the collision.

6. Make a project model to show the energy transformation in Hydroelectricity power house.
7. The velocity of a body moving in a straight line is increased by applying a constant force  $F$ , for some distance in the direction of the motion. Prove that the increase in the kinetic energy of the body is equal to the work done by the force on the body.
8. Is it possible that an object is in the state of accelerated motion due to external force acting on it, but no work is being done by the force. Explain with an example.
9. A ball is dropped from a height of 10m. If the energy of the ball reduces by 40% after striking the ground, how much high can the ball bounce back? ( $g=10\text{ms}^{-2}$ )
10. If an electric iron of 1200W is used for 30 minutes everyday, find electric energy consumed in the month of April.

### Chemistry

1. Write the chemical formula of  
Magnesium sulphate  
Ammonium chloride  
Sodium bicarbonate  
Ferric Hydroxide.
2. Give one example each for  
An element with atomicity 3  
A compound with atomicity 2  
An ion which is polyatomic
3. Calculate the number of moles of Calcium carbonate present in 450 g of it.
4. Find the number of ions present in 95 g of Magnesium chloride.
5. State the observation of Rutherford's experiment which led to the conclusion that atom is largely an empty space.
6. Why can K not have the configuration of 2,8,9 ?
7. Specify clearly the number of sub atomic particles of Al-13 mass no 27 and Cl anion with mass no 37.
8. What is octet rule?
9. How do the valence electrons decide the chemical nature( electro positive, electro negative and inert ) if an element?
10. Define isotopes and give any two applications of isotopes.
11. Draw the schematic diagram of  
Protium, Deuterium and Tritium.

### Biology

- Q1. Name the tissue that smoothens bone surfaces at the joints. Describe its structure with the help of a diagram.
- Q2. Explain the structure of different parts of a neuron with the help of a labelled diagram.
- Q3. Why are cardiac muscles so called? Explain their structure with the help of a labelled diagram.
- Q4. Differentiate between striated and unstriated muscle fiber on the basis of their location, number of nuclei and the function they perform in a tabular form.
- Q5. Name the following:
  - a) Tissue that stores fat in our body-

- b) Tissue present in the brain-
- c) Tissue that connects muscle to bone in humans-
- d) Connective tissue with a fluid matrix-
- e) Tissue that fills the space inside the organs and supports internal organs

### PROJECT

Prepare a project on **Human diseases**. Based on your project answer the following case based questions:

#### CASE :

Immunisation is a simple and effective way to protect a child from serious diseases. By immunising a child we not only give them the best start to a healthy future but also help protect the broader community by minimising the spread of disease. By vaccinating a child, we prepare the immune system to fight by mimicking a natural infection.

The administration of a vaccine to help the system develop protection from a disease is known as vaccination. Pulse Polio Immunisation Programme forms the largest up to date immunisation project.

- Q6. The process of introduction of weakened pathogen into human body is called
1. Immunisation
  2. Vaccination
  3. Attenuation
  4. None of these
- Q7. Match the entries of Column I with those of Column II

Column I	Column II
A. Innate immunity	(i) Rheumatoid arthritis
B. Acquired immunity	(ii) Breast milk
C. Passive immunity	(iii) Natural infection
D. Active immunity	(iv) Interferons
E. Auto immunity	(v) Antibodies

1. A-(iv), B-(v), C-(ii), D-(iii), E-(i)
  2. A-(i), B-(ii), C-(iii), D-(iv), E-(v)
  3. A-(v), B-(iv), C-(iii), D-(ii), E-(i)
  4. A-(v), B-(iv), C-(ii), D-(iii), E-(i)
- Q8. Which of the following statement is true regarding vaccination?
1. Vaccination is a method of active immunisation
  2. Vaccination is a method of passive immunisation
  3. Vaccination is a method of artificial passive immunisation
  4. Vaccination is a method of natural passive immunisation
- Q9. A vaccine can be
1. Antigenic protein
  2. Weakened pathogen
  3. Live attenuated pathogen
  4. All of these

Q10. Pulse polio immunisation programme was launched with an aim to eradicate polio disease. It involves simultaneous administration of polio drops (polio vaccine) to the high risk population on a single day throughout the nation. What is the basic objective of pulse polio immunisation programme?

1. To immunise those children who are not earlier immunised or are partially immunised.
2. To boost the immunity of children already immunised.
3. To eradicate the polio-causing virus from the world.
4. All of the above

### **Political Science**

- 1) What are elections? Why are they considered essential for any representative democracy?
- 2) "The system of political competition is beneficial in the long run." Do you agree? Why?
- 3) What is the role of the Election Commission of India?

### **History**

- 4) What were the factors responsible for the rise of Nazism in Germany?
- 5) Explain the defects in the Weimar Republic that made it vulnerable to dictatorship.
- 6) What led to the Great Economic Depression? What were its consequences in Germany?
- 7) "The Nazis established a racial state after coming into power." Explain how.

### **Economics**

- 8) Discuss the major reasons for poverty in India.
- 9) What is a poverty line? How is it estimated in India?
- 10) Explain any three targeted anti - poverty programmes briefly.

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Question for project

Describe the 'process of polling in India'.

Cover the following key points.

- A. Minimum conditions for a democratic election.
- B. Election Campaign
- C. How are poll conducted
- D. EVM
- E. Challenges to free and fair election

### **Geography**

Q1. Why does the peninsular region not have a well defined cold season ?

Q2. Give an account of weather conditions and characteristics of the cold season.

Q3. Define "Kaal Baisakhi" and "Mango Showers". In which parts of India are they experienced ?

Q4. Differentiate between South-West Monsoon and North- East Monsoon.

- Q5. Give an account of rainfall distribution in India .
- Q6. “Breaks” in rainfall is an important phenomenon of the Indian monsoon. What does this mean ?
- Q7. Why are the delta regions of Eastern India frequently struck by cyclones ?
- Q8. Explain the characteristics and effects of the monsoon rainfall in India.
- Q9. Why is the monsoon considered a unifying bond ?
- Q10. Why have the western slopes of the Western Ghats covered with thick forests and not the eastern slopes ?

**PROJECT BASED QUESTION :**

- Q1. What precautionary measures will you take to prevent the loss in cyclone/flood prone area ?
- Suggest some ways to overcome the situations for the victims.

**German**

1. **Project:** Schreiben Sie einen Hamburg City Tour Plan, in dem Sie die sehenswerten Orte erwähnen.
2. **Bilde Infinitivsätze mit um...zu...**
  - a. Ich bin nach Paris gefahren. Ich will Französisch lernen.
  - b. Mutti geht in die Küche. Sie will kochen.
  - c. Ich gehe morgen ins Kaufhaus. Ich will mir Schuhe kaufen.
3. **Bilde die Fragen:**
  - a. \_\_\_\_\_ ?  
- Ich denke an das letzte Wochenende am Meer.
  - b. \_\_\_\_\_ ?  
- Ich träume von meinem neuen Freund.
  - c. \_\_\_\_\_ ?  
- Ich frage nach dem Weg zur Post.
4. Bekommst du regelmäßig Taschengeld? Wie viel und wie oft?
5. Bist du mit deinem Taschengeld zufrieden oder hättest du mehr? Warum?
6. Wofür gibst du das meiste Geld aus? Sparst du Geld? Wofür?
7. **Schreib Gegenteil**
  - a. Billig
  - b. Selten
  - c. Weniger
  - d. Älter
8. **Bilde Sätze**
  - a. Meistens
  - b. Diskutieren
9. **Bilde die Sätze im Perfekt:**
  - a. Wann beginnen die Ferien?
  - b. Ich besorge die Kinokarten.
10. **Ergänze das Verb „sein“ in Konjunktiv II**
  - a. Tina ist zu Dick. Sie \_\_\_\_\_ gern dünner.
  - b. Ihr seid 14. \_\_\_\_\_ ihr gern schon älter.

**French**

1. Que savaient les Giles autrefois ?
2. Qui est Gerard Depardieu ?

3. Dites la date de naissance de Rabindranath Tagore ? Quand est-il mort ?
4. Quels sont les moyens de transport en France ?
5. Qu'est-ce que "Aller-simple" ?
6. Decrivez les charmes du Vietnam.
7. Que savez-vous de Basilique de Fourviere ?
8. Qu'est-ce que c'est le theatre de Guignol ?
9. Qui est Naomi Campbell ?
10. Quelle saison preferez-vous et pourquoi ?

### **Information Technology**

- 1) What is spreadsheet? List a few features of it.
- 2) What do you mean by chart?
- 3) Explain the use of the following functions: - AVERAGE ( ), MAX ( ), SUM ( )
- 4) What do you mean by Autofill feature? When is it used?
- 5) Differentiate between mixed referencing and absolute referencing.
- 6) What is presentation? List few components of Impress screen.
- 7) What do you mean by slide layout?
- 8) Rakshit has been asked by her class teacher to maintain a testwise performance record for class IX.  
On the basis of this situation, answer the following questions.
  - a) Name the software he should use to meet his requirements.
  - b) What type of information can be stored in a spreadsheet.
  - c) Can he present such information in the form of charts.
- 9) Explain the different views of a presentation.
- 10) Practical based question:
  - a) Create a presentation on the topic "Awareness of Covid-19".
  - b) Collect all the information from the internet and other sources.
  - c) add as many slides required by you.
  - d) Apply all the features you have learnt to make it attractive.

### **Spanish**

- Q1. Describe las prendas del escaparate en una frase como ejemplo de cuestión 2 de página 41.
- Q2. "Para gustos hay colores" haz frases con cada uno de cinco colores de expresión en cuestión 3 .
- Q3. Escribe un anuncio corto y una oferta de un móvil.
- Q4. ¿Compraría un producto un poco más caro de comercio justo? ¿Por qué?
- Q5. En el diálogo hay varias expresiones para pedir y ofrecer comida en un restaurante en lección-7. ¿Cuáles son?
- Q6. Escribe tres mensajes de móvil para comunicar en español.
- Q7. Haz frases con los adjetivos 'estable, creíble, decible y bebible.
- Q8. Escribe una hoja de reclamación con las quejas de Susana, como si fueras ella.



Q9. Haz frases con tres palabras de expresiones de lugar.

Q10. Haz cinco frases con uso de pronombres CD y pronombres CI

Project :-

Haz un proyecto sobre obra de arte de Picasso con dos de sus pinturas muy famosas del mundo "el Guernica" y "La Femme qui pleure (The weeping woman)"

# दिल्ली पब्लिक स्कूल सेल टाउनशिप राँची

गृहकार्यम् (शीतावकाशे)

कक्षा – नवमीं

विषय : संस्कृतम्

## 1. अधोलिखितम् अनुच्छेदं पठित्वा प्रश्नानाम् उत्तराणि लिखत ।

वसन्तोत्सवः 'वसन्तपञ्चमी' इति नाम्ना अपि प्रसिद्धो वर्तते। माघमासस्य शुक्लपक्षस्य पञ्चम्यां तिथौ अयम् उत्सवः भवति। अस्मिन् दिने क्षेत्रेषु सर्वत्र पीतं सर्षपं विकसितं दृश्यते। जनाः पीतवस्त्राणि धारयित्वा इतस्ततः भ्रमन्ति। विद्यालयेषु छात्राणां अध्ययनं तु न भवति परं ते सर्वे समवेताः नगरात् ग्रामात् वा वहिः गच्छन्ति तत्र एकस्मिन् क्रीडाक्षेत्रे विविधासु क्रीडास्पर्धासु रममाणाः भवन्ति। मधुराणि गीतानि गीयन्ते। वीररसपूर्णाः देशभक्ति भावरहिताः देशहिताय बलिदानस्य प्रेरणां सञ्चारयन्त्यः कविताः पठ्यन्ते।

## 1. एकपदेन उत्तरत :-

- (i) सर्वत्र कीदृशं सर्षपं दृश्यते?
- (ii) जनाः कीदृशानि गीतानि गायन्ति?

## 2. पूर्णवाक्येन उत्तरत :-

- (i) जनैः कीदृशाः कविताः पठ्यन्ते?
- (ii) वसन्तोत्सवः कदा मन्यते?

## 3. भाषिक कार्यम् :-

- (i) 'पठनम्' इत्यस्य पर्यायवाची पदम् अनुच्छेदात् चित्वा लिखत।
- (ii) 'विविधासु क्रीडास्पर्धासु' अनयोः पदयोः विशेष्य पदं किम्?
- (iii) परं ते सर्वे समवेताः नगरात्, इति वाक्ये 'ते सर्वे' केभ्यः कथितम्?
- (iv) अस्य अनुच्छेदस्य कृते समुचितं शीर्षकं लिखत।

## 2. मित्रं प्रति लिखितम् पत्रं मञ्जूषायां दत्तैः पदैः पूरयत

रञ्चीतः

(i) ..... पंकज

सस्नेहं (ii) .....

अत्र कुशलं (iii) ..... । यद्यपि वार्षिक परीक्षायां व्यस्ताया (iv) ..... मम  
जन्म दिवसोत्सवस्य आनन्दः न लब्धः तथापि आशासे यत् तस्य वर्णनं (v) .....  
भवान् तस्य आनन्दं अवश्यमेव लप्स्यते । केक—कृन्तनस्य आधुनिकरीतिं विहाय  
यज्ञहोमादिकस्य (vi) ..... अवलम्ब्य अयुमत्सवः मानितः । पुरोहितमहोदयेन  
(vii) ..... अहम् अनुगृहीतः । अस्मिन् बहवः बन्धु—बान्धवाः अपि भागं गृहीतवन्तः ।  
(viii) ..... चिन्तया विस्तरेण (ix) ..... बोधयिष्यामि इति ।

भवतः, प्रिय, परस्परं, अलम् नमस्कारः तत्रास्तु आशीर्वचसा, भवता, पठित्वा, भारतीयसरणिम्
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## 3. संस्कृत भाषायाम् अनुवादं कुरुत ।

(i) हमलोग कल घूमने जाएँगे ।

(ii) इस कक्षा में छात्र चित्र बनाते हैं ।

(iii) उसे खेल अच्छा लगता है ।

(iv) तुम पुस्तक ले आओ ।

## 4. उपवनस्य चित्रं रचयित्वा तदाधारित पञ्चवाक्यानि संस्कृतेन लिखत ।