



DELHI PUBLIC SCHOOL SAIL TOWNSHIP, RANCHI

ASSIGNMENT

CLASS - IX 2024

ENGLISH

Q.1) From the book **Words and Expressions** answer the following:

Unit 1 - Text I and Text II

Unit 2 - Text I and Text II

Unit 3 - Text I

Q.2) Today is the first day in your college hostel and you are missing your parents. You love your parents and even appreciate them for all the little things they have done and still do for you, but have never had or taken time to express it to them. Make a diary entry regarding the same in 100-120 words. You are Puneet / Prisha.

Q.3) Answer the following questions in (100-120 words)

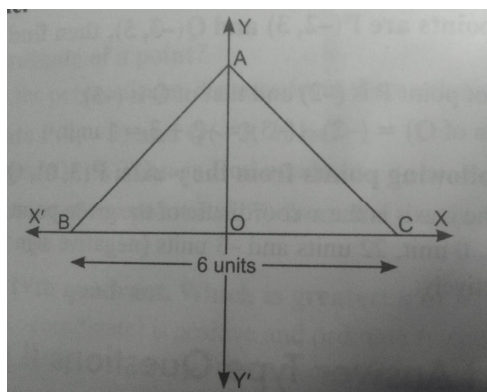
- (i) Evelyn Glennie gives free concerts in prisons and hospitals. Do you think music is a therapy? Why?
- (ii) Develop a dialogue (100-120 words) in form of an interview that you have conducted with Ustad Bismillah Khan.
- (iii) Do you think a robot should replace the human teacher ? Give reasons in support of your answer.
- (iv) Kezia decides that "there are different kinds of fathers". What kind of father was Macdonald and how was he different from Kezia's father?

Q.4) Fill in the blanks with suitable Determiners :

1. Sachin Tendulkar is referred to as ____ Bradman of Indian cricket. (a / an / the)
2. He received ____ help from his teachers. (many/more/much)
3. I can depend upon ____ friends I have. (few/ a few/the few)
4. My brother is studying in ____ European university. (a/an/the)
5. ____ of my friends helped much me in my distress. (few/ a few/the few)
6. I don't want ____ coffee, thank you. (some / any)
7. ____ union leader will address the workers. (a/an/the)
8. He gave me ____ one rupee note. (a/an/the)
9. Can you lend me ____ books? (few/ a few/the few)
10. He is ____ older than his wife. (many/more/much)
11. He will stay here for ____ while. (little/a little/the little)
12. ____ of the boys has done his work. (every/some/each)
13. I cannot give you ____ money. (any/some/a little)
14. Only ____ people came to watch the new film. (few / a few / the few)
15. ____ of the apples were rotten. (many/more/much)

MATHEMATICS

- Q1. Arrange $\frac{5}{8}$, $-\frac{3}{16}$, $-\frac{1}{4}$ and $\frac{17}{32}$ in the descending order of their magnitudes. Also, find the sum of the lowest and the largest of these rational numbers. Express the result obtained as a decimal fraction correct to two decimal places.
- Q2. Represent $2+\sqrt{2}$ and $3-\sqrt{2}$ on the number line
- Q3. Prove that $\sqrt{8}+5$ is an irrational.
- Q4. Insert a rational number and an irrational number between 3 and 5
- Q5. (a) Compare $\sqrt[4]{8}$ and $\sqrt[6]{22}$ (b) Find the least rationalizing factor of $\sqrt[3]{500}$
- Q6. Prove that $\frac{2^{30}+2^{29}+2^{28}}{2^{31}+2^{30}-2^{29}}$ is a rational number
- Q7. If $a^2-5a+1=0$ and a is not equal to 0 find $a^2+\frac{1}{a^2}$
- Q8. Let Ω and ϕ are the remainders when the polynomials $x^3+2x^2-5ax-7$ and $x^3+ax^2-12x+6$ are divided by $x+1$ and $x-2$ respectively. If $2\Omega+\phi=6$, Find the value of a .
- Q9. Prove that $a^2+b^2+c^2-ab-bc-ca$ is always non-negative for all values of a, b and c .
- Q10. If $a+b+c=0$, then prove that $a^4+b^4+c^4=2(b^2c^2+c^2a^2+a^2b^2)$
- Q11. If $x^4+\frac{1}{x^4}=47$, Check whether $x^3+\frac{1}{x^3}$ is rational or irrational.
- Q12. If $a+b+c=6$ and $ab+bc+ca=11$, find the value of $a^3+b^3+c^3-3abc$.
- Q13. The number x is 2 more than the number y . If the sum of the squares of x and y is 34. Find the product of x and y
- Q14. If the sum of two numbers is 5 and the sum of their cubes is 35; find the sum of their squares.
- Q15. If $x>0$ and $x^2+\frac{1}{9x^2}=\frac{25}{36}$, find $x^3+\frac{1}{27x^3}$
- Q16. Is $12-(x+x^2)(8-x-x^2)$ factorisable? If yes, factorise it.
- Q17. If $2^x=4^y=8^z$ and $\frac{1}{2x}+\frac{1}{4y}+\frac{1}{8z}=4$, find the value of x .
- Q18. Solve: $3(2^{x+1})-2^{x+5}+5=0$
- Q19. Write the coordinates of the following points;
- Lying on neither axes at a distance of 3 units from the x -axis and 5 units from the y -axis.
 - Lying on y -axis with the y -coordinate(-3)
 - Lying on the x -axis with x -coordinate 4.
- Q20. Point A is chosen on y -axis in such a way that ΔABC is an equilateral triangle. The base BC of the ΔABC is shown in the figure. Find the coordinates of (i) the mid-point of BC (ii) the area of the triangle (iii) the vertices of a triangle.



हिन्दी

निम्नलिखित प्रश्नों के उत्तर दें –

- 1 पद किसे कहते हैं?
- 2 शब्द और पद में क्या अंतर होता है?
- 3 पाठ का शीर्षक 'दुख का अधिकार' हमें किस विडंबना से अवगत कराता है?
- 4 वृद्धा का बाजार में खरबूजे बेचना वहाँ खड़े लोगों को बेहयाई क्यों लगी?
- 5 लेखिका को गिलहरी का बच्चा कहाँ और किस अवस्था में मिला?
- 6 गर्मियों में गिल्लू लेखिका के निकट और ठंडक में रहने के लिए क्या करता था?
- 7 विद्यार्थी – जीवन पर सोशल मीडिया का क्या प्रभाव पड़ रहा है? इस विषय में पत्र लिखकर अपने मित्र को अवगत कराएँ।
- 8 निम्नलिखित विषय पर दिए गए संकेत – बिन्दुओं के आधार पर लगभग 120 शब्दों में अनुच्छेद लिखें –
लोकसभा निर्वाचन 2024
 - क्या , क्यों?
 - तैयारियाँ, प्रक्रिया
 - मतदाताओं के अधिकार एवं कर्तव्य

PHYSICS

1. A particle was at rest from 1 A.M. It moved at a uniform speed 36km/hr from 1.30 A.M. to 2:00 A.M. Find the average speed between
(a) 1.00 A.M. and 2.00 A.M. (b) 1.15 A.M. and 2.00 A.M. (c) 1.30 A.M. and 2.00 A.M.
2. An object moves along a circular path of diameter 14cm with constant speed. If it takes 4 min. to move from a point on the path to the diametrically opposite point. Find (a) The distance covered by the object (b) The speed (c) The displacement (d) average velocity.
3. A particle with a velocity of 5m/s at $t=0$ moves along a straight line with a constant acceleration of 0.2m/s^2 . Find the displacement of the particle in 15s?
4. A particle is pushed along a horizontal surface in such a way that it starts with a velocity of 15m/s. Its velocity decreases at a uniform rate of 0.5m/s^2 . (a) Find the time it will take to come to rest. (b) Find the distance covered by it before coming to rest?
5. A train accelerated from 30km/hr to 80km/hr in 5 minutes. How much distance does it cover in this period? Assume that the tracks are straight?
6. Derive the following linear equations of motion;

$$V=u + at$$

$$S= ut +0.5at^2$$

CHEMISTRY

1. State the characteristics of particles of matter.
2. Convert the following to Kelvin scale
 - a. 110 degree Celsius
 - b. 200 degree Celsius
3. Convert the following to Celsius scale
 - a. 378 K
 - b. 400 K
4. State the difference between evaporation and boiling .
5. What is the difference between gas and vapour?
6. Which material would you prefer to wear during summer?

7. Define sublimation
8. State the difference between element and compound.
9. How will you separate a mixture of Ammonium chloride and sodium chloride?
10. Mention the state of water present at
 - a. Zero degree Celsius
 - b. 30 degree Celsius
 - c. 100 degree Celsius

BIOLOGY

Chapter: The fundamental unit of life

Q.1 Write the following experiment in Biology Practical Notebook:

To prepare stained temporary mount of a) onion peel cells and b) human cheek cells and to record observations and draw labelled diagrams.

Q.2. Why does the skin of your finger shrink when you wash hands for a long time?

Q.3 Draw labelled diagram of a prokaryotic cell and mention four points of differences between a prokaryotic and eukaryotic cell in a tabular form.

HISTORY/POLITICAL SCIENCE

1. What compelled Louis XVI to raise taxes in France?
2. What is subsistence crisis? Explain.
3. Which period in French history is known as the Reign of Terror? Give reasons.
4. Explain the impact of the French Revolution on the life of people of France.
5. Explain triangular slave trade carried on during 18th and 19th century.
6. "Elections in China do not represent people's verdict." Analyse the statement.
7. How elections in India are different than Mexico?
8. Why the following countries cannot be called democratic? Give reasons.
 - a) Saudi Arabia
 - b) Estonia
 - c) Fiji
9. Why do we prefer democracy better than any other form of the government?
10. Explain the major arguments against democracy.

GEOGRAPHY

1. What is the longitudinal extent of India? What is its implication?
2. Why is the difference between the durations of day and night hardly felt at Kanyakumari but not so in Kashmir?
3. How has India developed relationships with the world through the land route?
4. What is the significance of India's central location?
5. Why is the north south distance of India is larger than east west distance?

INFORMATION TECHNOLOGY

1. What are the elements of communication cycle? Explain.
 2. Write any 2 advantages and 2 disadvantages of visual communication.
 3. How to build self-confidence and self-esteem?
 4. What do you mean by port? Explain different types of ports.
 5. What are the basic functions can be performed by using a Mouse? Explain.
 6. What is an E-mail? Write any four advantages of E-mail.
 7. Explain about the role of ICT in daily life.
 8. What is the benefit of Search Engine?
 9. Why HTTP is considered as Stateless Protocol?
 10. Differentiate between:
 - (i) Web Server and Web Client
 - (ii) Absolute URL and Relative URL
 - (iii) RAM and ROM
 - (iv) Primary Memory and Secondary Memory
 11. Write Short notes on:
 - (i) Top Level Domain
 - (ii) Blog
 - (iii) Virtual Class
 - (iv) Digilocker
 12. Expand these abbreviations:
 - (i) HTTP
 - (ii) URL
 - (iii) TCP
 - (iv) DNS
 - (v) ICT
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ARTIFICIAL INTELLIGENCE

1. Identify and enlist the AI application being used around you.
 2. Do you think your city is smart? What are the Possible AI applications that can make your city smart
 3. Do you think that everyone will be impacted by AI? What are the positive and negative impacts of AI in our society?
 4. Describe the components of a computer and their functions, using a labeled diagram.
 5. Differentiate between RAM and ROM.
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FINANCIAL MARKET

- Q1) What is the evolution of money?
- Q2) used beans as early money.
- Q3) used butter for money.
- Q4) The were even traders throughout the Mediterranean region.
- Q5) had been used as money earlier in China.
- Q6) The in India introduced paper money and silver coin was the original 'Rupaya'.
- Q7) Define trade with example.
- Q8) What do you mean by the barter system?
- Q9) Define specialization. Why is it needed?
- Q10) Draw the diagram of today's division of labour.

Q11) Name the currency and sign of...

a) United Kingdom

b) Germany

c) France

Q12) What do you mean by standard of value?

Q13) Explain the characteristics of money.

Q14) Write steps in financial planning.

Q15) How do taxes and other deductions affect your income? Explain.

संस्कृत

1 संस्कृत भाषायाम् अनुवादं कुरुत –

क) मैं अपना काम करता हूँ।

ख) तुम कब घर जाओगे?

ग) घोड़ तेज दौड़ता है।

घ) तालाब में मछलियाँ तैरती हैं।

ङ) हिमालय पर्वतों का राजा है।

2 उचितैः शब्दरूपैः रिक्तस्थानानि पूरयत –

क) सरोवरेविकसन्ति। (कमल)

ख) ताः गृहं गच्छन्ति। (बालिका)

ग) एकः फलं खादति। (वानर)

घ) बालकः नमति। (शिक्षक)

3 उचितैः धातुरूपैः रिक्तस्थानानि पूरयत –

क) वानरः फलानि.....। (खाद् – लट्)

ख) अहं विधालयं। (गम् – लृट्)

ग) बालकाः चित्राणि। (दृश् – लङ्)

घ) छात्राः शिक्षकं। (नम् – लोट्)

4 'मम परिचयः' – इति विषये संस्कृते पंचवाक्यानि लिखत।

(संस्कृत के पाँच वाक्य में अपना परिचय प्रदान करें।)