



DELHI PUBLIC SCHOOL, SAIL TOWNSHIP, RANCHI

SESSION – 2021-22

WINTER ASSIGNMENT

CLASS – X

English

- Q1. Mr. Weiherer pays a glowing tribute to Richard. What did he say? (Making of A Scientist)
- Q2. Coorgis are hospitable by nature. Explain.
- Q3. Was baking a profitable profession?
- Q4. ‘This is a tea country now’. Explain this with reference to Assam.
- Q5. What is the theme of the poem 'Amanda' ?
- Q6. “The poem ‘Animals’ is a satirical comment on man’s way”. Justify.
- Q7. Why was Mme Forestier shocked to hear Matilda’s story?
- Q8. What was the basic idea of the Buddha’s preaching?
- Q9. Mention any two Ebright contributions to the world of science.
- Q10. Do you think Amanda is sulking and is moody?

Maths

1. Find the real root of the quadratic equation $2x^2 - x - 6 = 0$.
2. What is the sum of first seven multiple of 7.
3. AB and CD ARE two common tangents to circles which touch each other at a point C.If D lies on AB such that $CD = 4 \text{ cm}$, find AB.
4. A metallic sphere of radius 10.5 cm is melted and then recast into small cones each of radius 3.5 cm and height 3 cm . Find the number of such cones .
5. Two poles of height 6 metre and 11 metre stand on a plane ground. If the distance between their foot is 12 metre, find the distance between their top.

6. Find the length of the tangent drawn from a point 8 cm away from the centre of a circle of radius 6 cm
7. What is the perimeter of a square whose diagonal is 20 cm ?
8. If the mean of a frequency distribution is 8.1 and $\sum f_i x = 132 + 5k$ and $\sum f_i = 20$, then find the value of k.
9. The 8th term of an AP is 17 and its 14th term is 29 . Find its common difference .

10. Determine k , so that $\frac{2}{3}$, k and $\frac{5k}{8}$ are the three consecutive terms of an AP .
11. A solid ball Is exactly fitted Inside the cubical Box Of side 'a' , Find the volume of ball .
12. Case Study

Labour suffer from Literacy

India's literacy rate has increased six times since the end of the British rule in 1947 . From 12% to 74% in recent times . Yet India has the world's largest population of illiterate people according to a report of Oxfam . Ram asks the labour to dig a well up to a depth 10 m. Labour charges Rs. 150 for first metre and Rs.50 For each subsequent metres. As labour was uneducated , he claims Rs. 550/- for the whole work .

- (a) What type of series is formed from the given statement ?
- | | |
|-------------|--------------------------|
| i. AP | iii. Do not say anything |
| ii. None AP | iv. None of the above |
- (b) What should be the actual amount to be paid to the labour ?
- | | |
|------------|-------------|
| i. Rs. 655 | iii. Rs.645 |
| ii. Rs.600 | iv. Rs.640 |
- (c) How much money did Ram will save , if he agree with Rs. 550?
- | | |
|-------------|-------------|
| i. Rs. 50/- | iii. Rs. 45 |
| ii. Rs. 40 | iv. Rs. 55 |
- (d) In AP Sequence If each term Is multiplied By constant K , Then The new Sequence Will be
- | | |
|------------|--------------------------|
| I. AP | III. Do not say anything |
| II. Non AP | IV. None of above |
- (e) If AP sequence has n terms then the third term from the last is given by (where l is the last term of a sequence)
- | |
|-------------|
| i. $l-2d$ |
| ii. $l-d$ |
| iii. $l-3d$ |
| iv. $l-4d$ |

13. If a, b and c are the sides of a right angled triangle , where c is hypotenuse , then prove that the radius r of the circle which touches the sides of the triangle is given by

$$r = (a+b+c)/2$$

14. Calculate the average of the following table

x : 4 6 9 10 15

f : 5 10 10 7 8

15. If -4 is a root of the equation $x^2 + px - q = 0$ and $x^2 + px + q$ has equal roots , then find the values of p and q .

16. A hollow sphere of internal and external radii 6 cm and 8 cm , respectively , is melted and recast into small cones of base radius 2 cm and height 8 cm . Find the number of cones .

17. The following frequency distribution gives the monthly consumption of electricity of 68 consumers of a locality. Find the median of the data.

Monthly Consumption (in units)	Number of Consumers
65-85	4
85-105	5
105-125	13
125-145	20
145-165	14
165-185	8
185-208	4

18. Which term of the given AP

2, -1,-4,-7, ... IS -40 ?

19. Find the length of the tangent drawn from a point , whose radius of circle is 25 cm and distance from the centre of a circle is 25 cm .

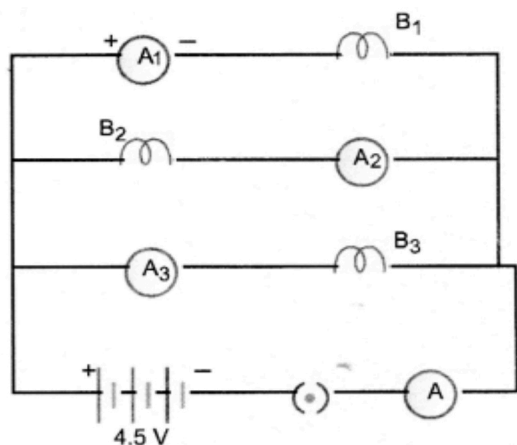
20. If mean = 31.04, median = 30.625 , find mode

Physics

(1) A current of 1 ampere flows in a series circuit containing an electric lamp and a conductor of 5Ω when connected to a 10 V battery. Calculate the resistance of the electric lamp.

Now if a resistance of 10Ω is connected in parallel with this series combination, what change (if any) in current flowing through 5Ω conductors and potential difference across the lamp will take place? Give reason.

(2) B_1 B_2 and B_3 are three identical bulbs connected as shown in figure. When all the three bulbs glow, a current of 3A is recorded by the ammeter A.



- (a) What happens to the glow of the other two bulbs when the bulb B_1 gets fused?
- (b) What happens to the reading of A_1 , A_2 , A_3 and A when the bulb B_2 gets fused?
- (c) How much power is dissipated in the circuit when all the three bulbs glow together?
- (3) Draw a circuit diagram of an electric circuit containing a cell, a key, an ammeter, a resistor of $2\ \Omega$ in series with a combination of two resistors ($4\ \Omega$ each) in parallel and a voltmeter across the parallel combination. Will the potential difference across the $2\ \Omega$ resistor be the same as that across the parallel combination of $4\ \Omega$ resistors? Give reason.
- (4) State Ohm's law? How can it be verified experimentally? Does it hold good under all conditions? Comment.
- (5) A wire of uniform cross-section and length L has a resistance of $16\ \text{ohm}$. It is cut into four equal parts. Each part is stretched uniformly to length L and all the four stretched parts are connected in parallel. Calculate the equivalent resistance of the combination so formed.
- (6) (a) What is electrical resistivity? In a series electrical circuit comprising a resistor made up of a metallic wire, the ammeter reads $5\ \text{A}$. The reading of the ammeter decreases to half when the length of the wire is doubled. Why?
- (b) A house hold uses refrigerator of rating $400\ \text{W}$ for 10 hours per day. The cost of consumption of one unit of electricity is Rs 3.00 . Calculate the energy consumed per day and cost of electricity used per day.
- (7) What are the values of two resistances when connected in parallel give an equivalent resistance of $2\ \text{ohm}$ and when connected in series give an equivalent resistance of $9\ \text{ohm}$?

Chemistry

Q1. Why are homologous series of carbon compounds so called? Write chemical formula of two consecutive members of a homologous series and state the part of these compounds that determine their (i) physical properties and (ii) chemical properties.

Q2. What are covalent compounds? List their three characteristic properties.

Q3. a) Why are most carbon compounds poor conductor of electricity?

b) Write the name and structure of a saturated compound in which the carbon atoms are arranged in a ring. Give the number of single bonds present in this compound.

Q4. Write the number of vertical columns in the modern periodic table. What are these columns called?

Q5. Write two reasons responsible for the late discovery of noble gases.

Q6. The modern periodic table has been evolved through the early attempts of Dobereiner, Newland and Mendeleev. List one advantage and one limitation of all the three attempts.

Q7. State Modern periodic law.

Biology

Q1. State any two advantages of variation .

Q2. What are genes ? Where are the genes located?

Q3. Why a mouse whose tail has been removed by surgery does not produce tailless mice ?

Q4. Which plant was chosen by Mendel for his experiment and why?

Q5. Genotype of a plant bearing purple flower is PP and one with white flower is pp . When these are crossed :

- a) What colour of the flower would you find in F₁ progeny.
- b) Give the percentage of white flowers if F₁ plants are self pollinated.
- c) In what ratio would you find PP and pp in F₂ progeny? Show by means of a flow chart .

Q6. What is DNA ? How is the stability of a DNA of a species ensured ?

History/Political Science

1. Explain the reactions of the Indians against the Rowlatt Act.
2. Discuss the Salt March undertaken by Gandhiji.
3. How did the First World War help in the growth of National Movement in India?
4. How did the East India Company procure regular supplies of cotton and silk textiles from the Indian weavers?
5. Discuss the various problems faced by the Indian weavers in the 19th century.
6. What functions are performed by the political parties?
7. What is the role of the opposition party in democracy?
8. Which party system is better for any country ? Give reasons.
9. How does democracy produce an accountable, responsive and legitimate government?
10. Has democracy led to the development, security and dignity of the people?

Geography

1. What is manufacturing?
2. Name any two factors for the location of the industry.
3. Classify industries on the basis of source of raw materials.
4. How does textile industry occupy a unique position in the Indian economy?
5. How are integrated steel plants different from mini steel plants?

Economics

1. Why is money called as a medium of exchange?
2. What are the two forms of modern currency?
3. Why is modern currency accepted as a medium of exchange?

4. What are demand deposits?
5. Why do banks maintain cash reserve?

German

I. Lies den Text und beantworte die Fragen.

Camping Urlaub

Camping in Deutschland ist eine beliebte Art, den Urlaub zu verbringen. Es gibt mehr als 2000 Campingplätze überall in Deutschland. Besonders beliebt sind Orte am Meer oder an einem See. Im Süden verbringen die Menschen ihre Ferien auf einem Campingplatz um in den Bergen wandern zu gehen. Viele Deutsche besuchen auch Campingplätze in anderen Ländern.

Es gibt viele Arten des Campings. Manche haben einen Wohnwagen, der von ihnen gezogen wird. Einige kommen auch mit einem Wohnmobil, andere mit einem Kleinbus, in dem man schlafen kann oder neben dem Man ein Zelt aufstellt. Es gibt auch viele Camper, die immer auf den gleichen Platz fahren und dort einen Dauerstellplatz“ haben. Das heißt, dass sie ihre Wohnwagen für mehrere Monate dort stehen haben und die Oster-Pfingsten Sommerferien dort verbringen. Weil einige kein Auto haben, verreisen sie immer mit Rucksäcken und ihren Zelten. Sie bleiben zwei oder drei Wochen auf demselben Campingplatz und unternehmen von dort aus Wanderungen.

Viele Familien gehen campen, weil es eine günstige Alternative zu einem Urlaub im Hotel oder in einem Ferienhaus ist. Allerdings hat sich das in den letzten Jahren etwas verändert. Manche Campingplätze werden immer teuer und sind oft sehr groß und sehr voll. Deshalb suchen viele nach kleinen Campingplätzen, die einfach und günstig sind und auf denen, es nur wenige Wohnwagen gibt. Leute möchten gern an Orten zelten, wo sie das Gefühl haben, fast in der freien Natur zu sein. Auf den Komfort des Alltags verzichten sie gerne. Ihnen ist es wichtiger, Wanderungen in der Natur zu unternehmen.

Fragen:

- 1. Welche Orte sind für Camping beliebt?**
- 2. Wozu campen die Deutschen gern im Süden?**
- 3. Was für Arten des Campings gibt es in Deutschland? Nenne vier**
- 4. Warum gehen viele Familien heutzutage zum Campen? Nenne zwei Gründe.**
- 5. Was kann man während des Campingurlaubs machen? Worauf muss man verzichten?**

II. Schreib den Text im Präteritum um.

Alex und Gina suchen eine neue Wohnung in Köln. Die alte Wohnung ist leider sehr teuer. Sie lesen jeden Tag zusammen die Anzeigen und Alex fragt seine Kollegen danach. Gina will gerne eine Wohnung mit Balkon. Allerdings muss die Wohnung nicht direkt im Zentrum sein.

Stefanie kommt nach Hause. Niemand ist da. Sie hat Hunger und muss selbst etwas kochen. Um 15 Uhr ruft sie ihre Freundin Anetta an, weil sie mit jemandem sprechen will.

III. Ergänze die richtigen Konjunktionen und schreib den Text.

- Stefan liegt im Krankenhaus. Er hat sich das Bein gebrochen. (weil)
- Der Arzt sagt. Er muss zwei Wochen im Bett bleiben. (dass)
- Er ist sehr traurig. Er kann dieses Mal für seine Fußballmannschaft nicht spielen. (weil)
- Er kann in die Schule gehen. Es geht ihm besser. (wenn)

e. Er muss lange zu Hause bleiben. Er hat bald Prüfungen. (obwohl)

French

- 1. Expliquez pronoms possessif**
- 2. Expliquez plus que parfait**
3. Comment peut-on protéger notre environnement et notre planète.
4. Comment peut-on conserver de l'eau ?
5. Qu'est-ce que c'est protéger l'environnement ?
6. Qu'est-ce que « la biodiversité » ?
7. Protéger l'environnement: Est-ce que cela implique tous les gens du monde ?
8. Qu'est-ce que la Sécurité sociale ?
9. Qu'est-ce que « le Panchatantra »
10. Qui a écrit le poème « Le renard et les raisins » ?

Information Technology

1. Write in brief about DML with examples.
2. Define Primary Key with example.
3. Differentiate between Primary key and foreign key with example
4. What is Tuple in Database.
5. Differentiate between Query and Report in Database.
6. Explain about Relationships in tables in context with database.
7. Explain DDL with explain.
8. Differentiate between Update and Alter command in SQL.
9. Differentiate between Delete and Drop command in SQL.
10. Write all the SQL commands with example.

अभ्यास प्रश्न पत्र

प्रश्न 1. मञ्जूपायाः सहायतया संस्कृतेन पञ्च वाक्यानि लिखत

(1x5=5)

विषय : मम मातृभूमिः

(मञ्जूषा—अस्मामिः, पोषणम्, स्वर्गादपि, येनकेनप्रकारेण,
सत्यम्, मातृभूमिः, अहम्, माता, यच्छति, वन्दनीया, सुखम्)

प्रश्न 2. भावग्रहणम् कुरु –

अगाधजलसञ्चारी न गर्व याति रोहितः अंगुष्ठोदकमात्रेण शफरी फुर्फुरायते। ($\frac{1}{2} \times 4 = 2$)

भावार्थ – अस्य भावोऽस्ति यत् ये जनाः धैर्यशालिनः __ (i) _____ भवन्ति ते अगाधजले
सञ्चरन्तं __ (ii) _____ मत्स्यम् इव शान्ताः भवन्ति। परं अशान्ताः जनाः __ (iii) _____
प्रकृतेः भवन्ति ते सदैव अल्पामपि सफलतां प्राप्य शफरी मत्स्यमिव अल्पमात्रैव __ (iv) _____
भवन्ति।

प्रश्न 3. अन्वयं कुरु –

प्राणिनां जायते हानिः परस्परविवादतः

अन्योन्यसहयोगेन लाभस्तेषां प्रजायते ($\frac{1}{2} \times 4 = 2$)

अन्वय – परस्परं विवादतः __ (i) _____ हानिः __ (ii) _____ अन्योन्य __ (iii) _____ तेषां
__ (iv) _____ प्रजायते

(मञ्जूषा – लाभः, प्राणिनां, सहयोगेन, जायते)

प्रश्न 4. कथाक्रमानुसारेण वाक्यानि पुनः लिख्यताम् –

($\frac{1}{2} \times 8 = 4$)

(क) एकः सिंहः सुप्यति स्म।

(ख) मिलित्वा एव मोदध्वं रसमयं कुरुध्वम्।

(ग) सर्वे प्राणिनः परस्परं विवादं कुर्वन्ति योग्यं च कथयन्ति।

(घ) वानराः तम् तुदन्ति स्म।

(ड.) सर्वे प्राणिनः स्व स्वगुणस्य चर्चा कुर्वन्ति ।

(च) ततः प्रकृतिमाता प्रविशति ।

(छ) पशुराजा न भवितव्यम् अपितु कोऽपि पक्षी एवं राजेति निश्चेतव्यम् ।

(ज) सर्वेषाम् प्राणिनाम् एव यथासमयं महत्त्वम् विद्यते ।

प्रश्न 5. श्लोकं पठित्वा प्रश्नान् उत्तरत – (3)

प्रजासुखे सुखं राज्ञः, प्रजानां च हिते हितम् ।

नात्मप्रियं हितं राज्ञः, प्रजानां तु प्रियं हितम् ॥

एक पदेन उत्तरत –

(i) राज्ञः सुखं किस्मन् भवति?

(ii) प्रजानां हिते कस्य हितं भवति?

एकवाक्येन उत्तरत – राज्ञः किं प्रियम् च किं प्रियं न भवति?

प्रश्न 6. म गद्यांशं पठित्वा प्रश्नान् उत्तरत

(वनस्य दृश्यम् समीपे एवैका नदी अपि वहति ।)

एकः सिंहः सुखेन विश्राम्यते तदैव एकः वानरः आगत्य तस्य पुच्छं धुनोति । क्रुद्धः सिंहः तं प्रहर्तुम् इच्छति । परं वानरः तु कूर्दित्वा वृक्षमारूढः । तदैव अन्यस्मात् वृक्षात् अन्यः वानरः सिंहस्य कर्णम् आकृष्य पुनः वृक्षमारोहति । क्रुद्धः सिंहः इतस्ततः धावति गर्जति च । पक्षिणः च तस्य दुर्दशां दृष्ट्वा हर्षमिश्रितं कलरवं कुर्वन्ति ।

I एकपदेन उत्तरत – (2) कस्य समीपे नदी वहति? (ii) वानराः के तुदन्ति? (1)

II एकपदेन उत्तरत – (2) क्रुद्धः सिंहः किं करोति? (ii) पक्षिणः किं कुर्वन्ति?

प्रश्न 7. नाट्यांशं पठित्वा प्रश्नान् उत्तरत –

सिंहः – (क्रोधन गर्जनं) भोः! अहं वनराजः किं भयेन जायते?

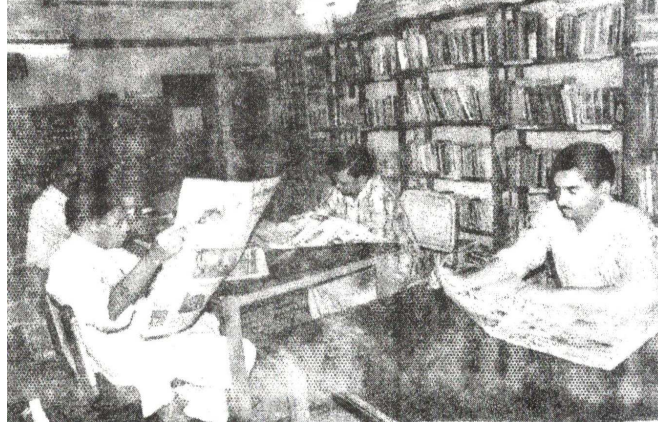
एकः वानरः – यतः त्वं वनराजः भवितुं सर्वथाऽयोग्यः। राजा तु रक्षकः भवति परं त्वं तु भक्षकः। अपि च स्वरक्षायां अपि समर्थः न असि तर्हि कथं अस्मान् रक्षिष्यसि?

I एक पदेन उत्तरत – (2) कः वनराजः कथ्यते? (ii) किं कुर्वन् सिंहः अवदत्?

II एक वाक्येन उत्तरत – (I) किमर्थं सिंहः वनराजपदाय योग्यः न मन्यते?

(ii) सिंहं किं कर्तुं असमर्थः अस्ति?

प्रश्न 8. अधोदत्तं चित्रं दृष्ट्वा प्रदत्तशब्दानां सहायतया पञ्च वाक्यानि लिखत।



मञ्जूषा:

समाचारपत्रम्, तूष्णीम्, पुस्तकालये, उपनेत्रम्, ग्रन्थाः पठन्ति, स्थातव्यम्, कपाटिकायम्, पुस्तकानि, आसन्दिका, हस्ते, ध्यानेन, आगच्छन्ति, उपविशन्ति, जनाः, पुरुषाः, पाठकाः

प्रश्न 9. अधोलिखितं पत्रं मञ्जूषायाः सहायताया पूरयत –

परीक्षाभवनं

____(i)____

तिथिः :

प्रिय ____ (ii) ____

____ (iii) ____

भवतः पत्रम् प्राप्तम्। इदं ज्ञात्वा प्रसन्नः अस्मि यत् त्वं मम विद्यालयविषये ज्ञातुम् इच्छसि।

अहम् अधुना स्वविद्यालयस्य वर्णनं करोमि। मम ____ (iv) ____ अतीव ____ (v) ____ अस्ति।

मम विद्यालये विशालं ___(vi)___ समृद्धा प्रयोगशाला सुन्दरः पुस्तकालयः च सन्ति ।
उपप्रधानाचार्यः अतीव कर्मठः ___(vii)___ च अस्ति ।

अस्माकम् (viii) मनोयोगेन पाठयन्ति । सर्वे छात्राः अपि योग्याः सन्ति ।

विस्तरेण पुनः (ix)

तव मित्रम्

(x)

मञ्जूषा

नमो नमः, चेत्रईतः, दिनेशः, क्रीडाक्षेत्रम्, विद्यालयः, रमेश, शोभनः, सद्व्यवहारशीलः,
अध्यापकाः, लेखिष्यामि

प्रश्न 10. अधोलिखितम् अनुच्छेदं पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि लिखत । (10)

भारतभूरस्माकं देशः, स्वदेशं प्रति अस्माकम् अनुरागः, आदरश्च स्वाभाविक एव ।
सर्वे जनाः अद्यत्वे स्वदेशोन्नत्यै संलग्नाः दृश्यन्ते । स्वदेशोन्नयनम् अस्माकं परमो धर्मः । अद्य
अस्माकं देशः स्वतन्त्रोऽस्ति । तस्योन्नति रक्षा च अस्माकं धर्मः । देशं प्रति भक्तिः देशोन्नत्याः
मूलकारणम् । देशभक्तिभावनाया प्रेरितो मानवः देशोन्नयनाय चेष्टते, समाजोद्धाराय प्रयतत,
देशदारिद्र्यं दूरीकरोति, अशिक्षितान् शिक्षयति, व्यापारमुन्नयति, मातृभूमिरक्षणाय च स्वप्राणान्
त्यजति । ये हि स्वार्थसिद्ध्यर्थं देशस्योपकुर्वाणा इव दृश्यन्ते ते हि मिथ्याभक्ताः देशापकारिणः ।
अतो निस्स्वार्था देशभक्तिभावना भाव्या न तु विपरीता । महाराणाप्रतापस्य, दुर्धषायाः
लक्ष्मीदेव्याः, तेजस्विन्याः दुर्गावत्याश्च पराक्रमवृत्तान्ताः अस्मान्नुत्साहयन्ति । ते खलु अस्माकं
पथप्रदर्शनायालम् ।

I. एकपदेन उत्तर :-

(1x2=2)

(i) स्वदेशं प्रति केषाम् अनुरागः?

(ii) अस्माकं परमं धर्मः कः?

II. एकवाक्येन उत्तरत :-

(2x2=4)

(i) केषाम् पराक्रमवृत्तान्ताः अस्मान् उत्साहयति?

(ii) देशापकारिणः के?

III. गद्यांशस्य उचित शीर्षक लिखत :-

(1x3=3)

(i) ये एतत् सर्वनामपदं कस्मै प्रयुक्तम् अस्ति?

(ii) 'चेष्टते' क्रियायाः कर्तृपदं किं अस्ति?

(iii) उन्नतिः इत्यर्थे गद्यांशे किम् पदं प्रयुक्तम् अस्ति?



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
WINTER ASSIGNMENT

Class –X

Subject – Hindi

सभी प्रश्नों के उत्तर लिखिए।

1. कवि ने कौसी मृत्यु को सुमृत्यु कहा है? (2)
 2. कवि ने दधीचि, कर्ण आदि महान व्यक्तियों का उदाहरण देकर 'मनुष्यता' के लिए क्या संदेश दिया है? (2)
 3. 'मनुष्य मात्र बंधु है' – से कवि का क्या तात्पर्य है? स्पष्ट कीजिए। (5)
 4. मनुष्यता कविता का प्रतिपादय क्या है? (5)
 5. व्यक्ति को किस प्रकार का जीवन व्यतीत करना चाहिए? (5)
 6. "विरुद्धवाद बुद्ध का दया-प्रवाह में बहा" – पंक्ति से कवि का क्या आशय है? (5)
 7. पीटी साहब की 'शाबाश' फौज के तमगों-सी क्यों लगती थी? स्पष्ट कीजिए। (3)
 8. 'सपनों के से दिन' पाठ के आधार पर उदाहरण देकर लिखिए कि कोई भी भाषा आपसी व्यवहार में बाधा नहीं बनती है? (3)
 9. हेडमास्टर शर्मा जी ने पीटी साहब को क्यों मुअत्तल कर दिया? (3)
 10. पढ़ाई के साथ खेलों का छात्र जीवन में क्या महत्त्व है और इससे किन जीवन-मूल्यों की प्रेरणा मिली है? स्पष्ट कीजिए। (3)
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