Class 9th

SUBJECT: ENGLISH

SECTION: A (Reading)

Q1. <u>Read the given passage carefully</u>:

The Coliseum or Colosseum is an ancient stadium in the center of Rome. It is the largest of its kind. It is very old. They started building it in the year 70. It took ten years to build. It is still around today.

The Coliseum has been used in many ways. In ancient Rome, men fought each other in it. They fought against lions, tigers, and bears. Oh my! It was dreadful. But most of the people loved it. As many as 80,000 Romans would pack inside to watch. These gruesome events went on until 523.

The Coliseum has been damaged many times over the years. It was struck by lightning in the year 217. This started a fire. Much of the Coliseum is made of stone. But the fire damaged the upper levels. They were made of wood. This damage took many years to repair. It was not finished until the year 240.

The worst damage happened in 1349. A mighty earthquake shook Rome and the Coliseum. The south side of the building collapsed. Pieces of the arena were all over the ground. Many people took the fallen stones. Others took stones from the seating areas. They used them to repair houses and churches.

The Romans of those days were not connected to the Coliseum. It had last been used as a castle. Before that it was a graveyard. It has been hundreds of years since the games. The damage to the Coliseum was never repaired. It's a good thing the outer wall of it still stands strong.

Today the Coliseum is one of Rome's most popular attractions. People from all over the world come to Italy to see it. The Pope leads a big march around it every Good Friday. It is a symbol that many know. It has even appeared on the back of a coin. I guess that makes it a symbol that many people want too.

<u>Now answer the following questions:</u>

1. Which happened first? (.5)
   a. An earthquake damaged the Coliseum.
   b. The Coliseum was struck by lightning.
   c. The Coliseum appeared on the back of a coin.
   d. The Coliseum was used as a castle.
2. Which best defines the word gruesome as it is used in the second paragraph? (.5)
   a. Exciting b. Funny c. Horrifying d. Boring
3. Which best describes the main idea in the last paragraph? (.5)
   a. This is about all the things the Coliseum has been used for throughout history.
   b. This is about how the Coliseum is a popular place to visit today.
   c. This is about how the Coliseum is a symbol that many people know.
   d. This is about how the Coliseum is used today.
4. Which was not a way in which the Coliseum was damaged over the years? (.5)
   a. Earthquake b. Tornado c. Lightning d. Fire
5. What did the people do with the stones that they took from the Coliseum? (1)
6. Why is the Coliseum still important today? Use the text in your answer (2)

SECTION: B (Writing and Grammar)

Q2. You are Saharsh, a student of an International School, Hyderabad. It is a Tree Plantation Week. Study the information given below about the trees. Using the information given below,

along with your own ideas, make a Diary Entry on the importance of trees and their plantation in about 80-100 words. (4)

- Afforestation
- Prevents soil erosion
- Ecological balance
- Relationship between layers of environment
- More greenery-less pollution

Q4. Look at the words and phrases below. Rearrange them to form meaningful sentences.

(3)

(a) giving them / very much needed / is important / they are / an impression / that
(b) comes / naturally / it / to / children / involves / it / when / collaborative work
(c) is / it / important / protect / to / our / environment

SECTION: C (Literature)

Q5. Read the extract given below and answer the following questions: (2)

(i) I felt so very dependent and helpless. We are well-off, but what use is money when I cannot be independent?
  (a) Who is 'I' in these lines?
  (b) Why did she feel very dependent and helpless?

(ii) And out again I curve and flow
To join the brimming river,
For men may come and men may go
But I go on forever.
  (a) What is the poetic device used in these lines?
  (b) Who is the poet here?

Q6. Answer any one of the following questions in about 100 to 120 words: (3)

(i) How did the grandmother pass with flying colours? How did she prove that for learning there is no age bar?

(or)

(ii) Describe the journey of the brook in your own words.

MATHS

Q1. Visualise the representation of 5.3777… on a number line upto 5 decimal places.

Q2. Simplify the following a) $\left(\frac{16}{81}\right)^{\frac{-3}{2}}$ b): $\left(\frac{1}{81}\right)^{\frac{-1}{4}}$

Q3. Express the decimal in the form of $\frac{p}{q}$: 125.333…

Q3. Solve $(5\text{-}2\sqrt{3}\,)^2$

Q4. Rationalise the denominator: $\frac{10}{\sqrt{10}-\sqrt{5}}$

Q5. Represent$\sqrt{13}$on a number line.

Q6. Simplify by rationalising the denominator: $\frac{3-2\sqrt{5}}{3+2\sqrt{5}}$

Q7. Represent $\sqrt{6.3}$ on a number line.

Q8. Find the value of $\sqrt[5]{(32)^{-3}}$

Q9. Find the value of x : If $5^{x-3} \times 3^{2x-8} = 225.$

Q10. If $\frac{2\sqrt{6}-\sqrt{5}}{\sqrt{45}-\sqrt{24}} = a + b\sqrt{30}$,find the values of "a" and "b".

Q11. If $a = 2 + \sqrt{3} + \sqrt{5}$ and$b = 3 + \sqrt{3} - \sqrt{5}$, find$(a-2)^2 + 1(b-3)^2$.

Q12. If $a = \frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$ $and\ b = \frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}$ find a +b + ab .

Q13. Expand by using suitable identity: $(-2x + 3y + 2z)^2$

Q14. Simplify $(x + y + z)^2 - (x - y + z)^2$

Q15. Simplify $(ax + by)^2 + (ay - bx)^2$

Q16. Find the remainder when $3x^2 - 4x^2 + 7x - 5$ $is\ divided\ by\ (x-3) and\ (x+3).$

Q17. Check whether (p +1) is a factor of $p^{100} - 1$ $and\ p^{101} - 1$.

Q18. Factorise:$(x^2 - 2x)^2 - 2(x^2 - 2x) - 3.$

Q19. If a +b + c = 5 and ab + bc +ca =10, then prove that $a^3 + b^3 + c^3 - 3abc = -25$

Q20. Factorise $9a^3 - 27a^2 - 100a + 300, if\ it\ is\ given\ that (3a+10) is\ a\ factor\ of\ it$.

Q21. If x and y are two positive real numbers such that$8x^3 + 27y^3 = 730$ and $2x^2y + 3xy^2 = 15,$ $then\ evaluate : 2x + 3y$.

Q22. The parking charges of a car in a parking lot is Rs30 for the first two hours and Rs10 for subsequent hours .Taking total parking time to be x hours and total charge as Rsy , write a linear equation in two variables to express the above statements. Draw a graph for the linear equation and read the charge for five hours.

Q23. 4 years before , age of mother was 3 times the age of her daughter. Write a linear equation to represent this situation and draw its graph.

Q24. The food charges in a hostel are as follows: For the first day, the charge are Rs 100 and for the subsequent days it is Rs 50 per day. Taking the number of days as x and total charge as Rs y , write a linear equation for this information.

Q25. Determine the points on a graph of linear equation 2x +5y =19 whose ordinate is $1\frac{1}{2}$ times its abscissa.

Q26. Find a , if $\frac{a+3}{a-2} = \frac{a+2}{a-7}, a \neq 2, a \neq 7.$

Q27. solve for x : $\frac{7x-1}{4} - \frac{1}{3}(2x + \frac{x-1}{2}) = 6\frac{1}{3}$

Q28. After five years the age of father will be two times the age of son. Write a linear equation in two variable to represent this statement.

Q29. If (m, 2m+1) is a solution of the equation 3x+4y=26 Find the value of m.

Q30. If the point (3,4) lies on the graph of the equation 3y=ax+7 , find the value of a.

Q31. If the line 2x+βy=6 passes through the point(-3,2), the find the value of β.

Q32. How many linear equation s in x and y can be satisfied by x=-1 and y=-1?

Q33. Divide the polynomial $3x^4 - 4x^3 - 3x - 1$ by $x - 1$

Q34. Find the remainder if g(x)=x+a divides p(x)=$x^2 + 2ax + 3a^2$

Q35. Check whether the polynomial q(t)=$4t^3 + 4t^2 - t - 1$ is a multiple of $2t + 1$.

Q36. Use Factor theorem to factorise$2y^3 + y^2 - 2y - 1$

Q37. Thrice the cost of a kettle is equal to five times the cost of an oven .Write this statement in two variable to represent this statement.

Q38. Age of 'x' exceeds age of 'y' by 7 years. Write this statement as a linear equation in two variable.

Q39. Cost price of pen isRs 6 less than one-third of the cost price of notebook. Write this statement as a linear equation in two variables.

Q40. If (3,7) is a solution of the equation px + y=13, then find the value of 'p'.

Q41. The autorickshaw fare in a city is charged Rs 10 for the first kilometer and at a rate of Rs 4per kilometrefor the subsequent distance covered. Write the linear equation to express the above statement. Draw the graph of linear equation.

Q42. Give brief note on Euclid and his treatise.

Q43. John is of the same age as mohan .Ram is also of the same age as mohan .State the Euclid's axioms that illustrates the relative ages of John and Ram

Q44. It is known that if x + y=10, then x + y + z = 10 + z. State the Euclid axioms which illustrate this statement.

Q45. Q is a mid –point of PR and R is a mid- point of QS, then show that $QR = \frac{1}{3}\ PS$.

Q46. If C is the mid- point of the line segment AB . L and M are the mid-points of the line segment AC and BC respectively. Prove that $AL = LC = CM = MB = \frac{1}{4}AB$.

Q47. Solve the equation a -15=25 and state which axiom do you use here.

Q48. write Euclid 's fifth postulate . Does Euclid's fifth postulate imply the existence of parallel lines? Explain.

Q49. Two salesmen make equal sales during the month of August . In September, each salesman doubles his sale of the month of August. Compare their sales in September.

Q50. Plot the points A(1,3), B(1,-1), C(7,-1) and D(7,3) in a Cartesian plane . Join them in order and name the figure so formed.

Q51. Find the distance of the points C(-3,-2) AND (5,2) from x- axis and y- axis.

Q52. Plot the following points on a graph paper and join them in order B(-5,3), E(-3,-2),S(4,-2) ,T(2,3). Also , mention the quadrant in which the points lie.

Q53. Plot the points (x,y) given by the following table:

X	2	4	-3	-2	3	0
Y	4	2	0	5	-3	0

Q54. If the perpendicular distance of a point A from the x – axis be 4 units along the negative direction of the y- axis , then write the ordinate of A.

Q55. A point lying in the fourth quadrant has its abscissa a positive real number. Is the statement true or false?

Q56. Plot the points P(1,3),Q(1,-1), R(7,-1), S(7,3). Join these points. Name the figure . Find its area.

Q57. Plot the following points, join them in order and identify the figure thus formed: A(1,3) ,B(1,-1),C(7,-1) and D(7,3) . Write the coordinate of the point of intersection of the diagonals.

Q58. write the coordinate of the vertex of a square which is 5 units long and one of its vertex is at the origin.

Q59. Plot the points E(3,3) ,N(9,3) and D(9,11) .Join EN, ND and DE . Name the figure so formed.

Q60. On which axis do the given points lie?

(0,4),(-5,0),(0,-4),(3,0)

Q61. Find K and p , if (x+1) and(x+2) are factors of $x^3 + 3x^2 - 2kx + p$.

Q62. Find the value of k if (x-3) is a factor of $k^2x^3 - kx^2 + 3kx - k$.

Q63. Find the value of p and q , if $a^2 - 1$ is a factor of $pa^4 - 7a^3 + 9a^2 + qa - 10$

Q64. If $x + y + z = 1,\ xyz = -1\ and\ xy + yz + zx = -1\ find\ the\ value\ of x^3 + y^3 + z^3$

Q65. Factorise$a^{12}x^4 - a^4x^{12}$

Q66. Evaluate:$(999)^2 - (99)^2$

Q67. Find the sum of remainders when$x^3 - 3x^2 + 4x - 4\ is\ divided\ by\ (x + 2)\ and\ (x - 1)$.

Q68. factorise $x^8 - y^8$

Q69. Prove that $(x + y)^3 + (y + z)^3 + (z + x)^3 - 3(x + y)(y + z)(z + x) = 2(x^3 + y^3 + z^3 - 3xyz)$

SCIENCE

Q. 1. What are 'intermolecular forces'? How are these related to the three states of matter ?
Q. 2. Give one similarity between a liquid and a gas and one dissimilarity.
Q. 3. Which of the following substances is most compressible ?
Q. 4. How a mixture is classified on the basis of their physical properties ?
Q. 5. Some mixtures are given below. Arrange them according to solutions, colloids and suspensions :
Lime water, milk, mud water, aerated water, writing ink, sand water, sugar in water, blood, common salt in benzene, gold ornaments, jellies, wheat flour in water, vinegar, butter, lemonade, aluminium paint, coke, mist.
Q. 6. Give evidence in support of your answer that air is a mixture not a compound.
Q.7. A car accelerates at 1.5 m/s2 on a straight road. How much is the increase in velocity in the next 6 seconds?
Q. 8. Give two examples of uniform and non-uniform motion.
Q. 9. The odometer of a car reads 2000 km at the start of a trip and 2400 km at the end of the trip. If the trip took 8 hrs, calculate the average speed of the car in km per hr and m per sec.
Q. 10. An artificial satellite is moving in a circular orbit of radius 42250 km. Calculate its speed if it takes 24 hours to revolve around the earth.
Q. 11. What is ozone layer? Why is it very important for us? Where is it actually situated?
Q. 12. List all the human activities leading to water pollution and air pollution.
Q. 13. Explain the water cycle, nitrogen cycle, and carbon cycle with a neat and clean diagram.
Q. 14. Name two diseases caused due to burning of fossil fuels.
Q. 15. What are CFCs? What are their adverse effects?

विषय- हिंदी

प्रश्न

1-जीवन के लिए सारे अनिवार्य तत्व मिट्टी से ही मिलते हैं?स्पष्ट कीजिए।

2-गाँव के बच्चों के बचपन और शहर के बच्चों के बचपन में क्या अन्तर है?

3-आपके विचार से पोशाक जीवन में क्या महत्त्व रखती है?

4-अपने परिवार का भरण -पोषण करने के लिए भगवाना क्या करता था?

5-लड़के को बचाने के लिए बुढ़िया माँ ने क्या-क्या उपाय किए?

6-रैदास के दोनों पदों का प्रतिपाद्य लिखिए।

7-रहीम के अनुसार मूल (जड़) को सींचने से क्या-क्या लाभ होता है?

8-रहीम ने पशु से भी तुच्छ किसे माना है और क्यों?

9-लेखिका और गिल्लू के आपसी संबंधों पर प्रकाश डालिए।

10-पितृपक्ष में हमारे पुरखे किस रूप में प्रकट होते हैं और क्यों?

SOCIAL SCIENCE

Q1: What does direct democracy imply? Why can it not be practiced in present day world?
Q2: What is the significance of rule of law and respect for rights in a democratic country?
Q3: A study of democracy must focus on democratic politics. Explain.
Q4: Though democracy is considered to be the best form of Govt. It is not an ideal form of Govt. Give 5 arguments to prove the above statement.
Q5: What is Representative democracy? Discuss its significance in the contemporary world.
Q6: How democracy helps in promoting the basic human values in the society? Explain.
Q7: ”Democracy is all about political competition and power play there is no scope for morality”. Justify the statement by giving arguments against democracy.
Q8: Why is democracy called a Govt. by discussion?
Q9: Democracy is better than other forms of Govt. because it allows us to correct its own mistakes. Explain.
Q10: Write some common features of Non-democratic countries.
Q11: “There are some conditions that apply to the way a Govt. should be run after the elections”. Explain.