HOLIDAY HOMEWORK

HINDI

ग्रीष्मकालीन अवकाश
शैक्षणवर्ष - 2020-21

कक्षा - चौथी (4th class)

प्रश्न (1) दो मित्रों का आपसी संवाद का लगभग 250 शब्दों में वर्णन करें, जिसका शीर्षक है - भारत में तालाबन्दी (लॉक डाउन) के कारण उत्पन्न परिस्थितियाँ।

प्रश्न (2) केन्द्रीय विद्यालय संगठन में ऑनलाइन कक्षा की वर्तमान स्थिति के ऊपर निम्नलिखित बिन्दुओं के आधार पर लगभग 250 शब्दों में एक निबंध लिखें।

(क) भूमिका (ख) ऑनलाइन कक्षा को संचालित करने में उत्पन्न समस्याएँ
(ग) ऑनलाइन कक्षा की समस्या को दूर करने में विद्यालय प्रशासन की भूमिका
(घ) ऑनलाइन कक्षाओं का छात्रों के ऊपर प्रभाव
(ङ) उपसंहार

प्रश्न (3) 30 जून तक हिन्दी का जो पाठ्यक्रम है और उसमें जितने अध्याय है। प्रत्येक अध्याय का अलग-अलग लगभग 150 शब्दों में सारांश लिखें।

SOCIAL SCIENCE

INDIA AND THE CONTEMPORARY WORLD

I. Mention the meaning of the given terms or words.

1. Revolution
2. Livre
3. Clergy
4. Tithe
5. Taille
6. Subsistence Crisis
7. Anonymous
8. Chateau
9. Manor
10. Convent
11. Treason
12. Negroes
13. Emancipation

II. Write a brief account of the given concepts or themes.

1. French society during the 18th century
2. The ideas of – John Locke, Jean Jacques Rousseau, Montesquieu
3. Louis XVI
4. Mirabeau
5. Abbe Sieyes
6. The Constitution of 1791
7. Active Citizens and Passive Citizens
8. The Declaration of Rights of Man and Citizen
9. Jacobin Club
10. Maximillian Robespierre
11. The Reign of Terror
12. Directory rule in France
13. Role of Women in France
14. Olympe de Gouges
15. Triangular Slave Trade
16. The abolition of Censorship in 1789
17. Napoleon as a moderniser of Europe

CONTEMPORARY INDIA

I. Write in brief about the given topics or concepts.

1. Standard Meridian of India.
2. Brief account of Geographical features of India.
3. The central location of India in the Indian Ocean.
4. India's Neighbours.
5. Theory of Plate Tectonics
6. Convergent Boundary
7. Divergent Boundary
8. Transform Boundary
9. Gondwana Land
10. Major Physiographic Divisions
11. Features of Himalayan Mountains
12. Features of The Northern Plain
13. Features of The Peninsular Plateau
14. Features of Indian Desert
15. Features of The Coastal Plains
16. Features of The Island
17. Five Highest Peak of the Himalayas

II. Map work

1. Locate and label the following in the outline map of India.

   A. Latitudinal extent of India
   B. Longitudinal extent of India
   C. Length of India 3214 k.m
   D. Breadth of India 2933 k.m
   E. Standard Meridian of India
   F. Tropic of Cancer
   G.

2. Locate and label the following in the outline map of Indian Subcontinent.

   A. Afghanistan
   B. Pakistan
   C. China
   D. Nepal
   E. Bhutan
   F. Bangladesh
   G. Myanmar
   H. Sri Lanka
   I. Maldives

3. Locate and label the following in the outline map of India.
   A. All States and Union Territories
   B. Arabian sea
   C. Bay of Bengal

4. Locate and label the following in the outline map of India.

   A. Three ranges of the Himalayas- Greater, Middle and Lesser Himalayas/ Karakoram, Zaneskar and Shiwalik Ranges
   B. Vindhya Ranges
   C. Indian Desert/ Thar Desert
   D. Arawali hills
   E. Malwa Plateau
   F. Deccan Plateau
   G. Eastern Ghat
   H. Western Ghat
   I. Northern Plain
   J. Malabar Coast
   K. Coromandal Coast
   L. Konkan
   M. Northern Circar
   N. Anaimudi peak
   O. Mahendragiri Peak
   P. Chhotanagpur Plateau

DEMOCRATIC POLITICS-1

I. Write short note on the given topics-

1. Democracy
2. Features of Democracy
3. Merits and Demerits of Democracy
4. Broader Meaning of Democracy
5. Nelson Mandela
6. Apartheid in South Africa
7. Features of Rainbow Constitution of South Africa
8. Why do we need a Constitution?
9. Constituent Assembly of India

10. Role of B R Ambedkar, Pt. Jawaharlal Nehru and Dr. Rajendra Prasad in the making of Constitution of India.
11. Preamble of Indian Constitution

12. Meaning of the given terms in Preamble of the Indian Constitution-

A. We the people of India	F. Republic
B. Sovereign	G. Justice
C. Socialist	H. Liberty
D. Secular	I. Equality
E. Democratic	J. Fraternity

ECONOMICS

I. Write a brief note on the given points.
1. The four requirements for production of goods and services.
2. The modern farming methods
3. The Green Revolution
4. The land distribution pattern in Palampur
5. Difference between farm and non-farm activities.

ENGLISH

I. Read the following lessons from the textbooks

- The fun they had
- The sound of music
- The little girl
- The lost child (supplementary reader)

II. Write the character sketches of the following:

- Bismillah Khan
- Evelyn Glennie
- Margie

III. Write the summary of the following poems with the theme:

- The road not taken
- Wind
- Rain on the roof

III. Watch English news daily to equip yourself with the information and facts to be used as
content in the writing skills.

IV. Satish is asked to write an article for the school magazine on 'Climate Change'. Using your
ideas and the hints given below, write an article on his behalf in 120 words.

Human activities- burning fossil fuels – releases carbon dioxide-rise in Earth's

temperature- causes sea level changes – adversely affects precipitation,

seasons, flora and fauna.

V. Smartphone is one of the most important means of communication today. But it has also
become a nuisance for some. Write an article on the same in around 120 words and sign
yourself as Tarun/Taruna, a student of class X. You may take help from the following inputs:

Important means of communication – connects a person socially- keeps people

updated- has become a virtual companion- many disadvantages- disrupts peace of

mind- a constant source of disturbance- excessive usage leads to many health

disorders- cause of deadly accidents on road- the biggest distraction for students should

be used wisely- use to be minimised.

MATHS

NUMBER SYSTEM

Q.1: Find five rational numbers between 1 and 2.

Q.2: Find five rational numbers between 3/5 and 4/5.

Q.3: Locate $\sqrt{3}$ on the number line.

Q.4: Are the square roots of all positive integers irrational? If not, give an example of the square root of a number that is a rational number.

Q.5: Find the decimal expansions of 10/3, 7/8 and 1/7.

Q.6: Show that 0.3333… = 0.3- can be expressed in the form p/q, where p and q are integers and $q \neq 0$.

Q.7: What can the maximum number of digits be in the repeating block of digits in the decimal expansion of 1/17? Perform the division to check your answer.

Q.8: Find three different irrational numbers between the rational numbers 5/7 and 9/11.

Q.9: Visualise 3.765 on the number line, using successive magnification

Q.10: Add $2\sqrt{2}+ 5\sqrt{3}$ and $\sqrt{2} – 3\sqrt{3}$.

Q.11: Simplify: $(\sqrt{3}+\sqrt{7}) (\sqrt{3}-\sqrt{7})$.

Q.12: Rationalise the denominator of $1/[7+3\sqrt{3}]$.

Q.13: Represent $\sqrt{(9.3)}$ on the number line.

Q.14: Simplify:

(i) $7^{2/3}.7^{1/5}$
(ii) $10^{1/2}/10^{1/4}$

POLYNOMIALS

1. If $x + y = 12$ and $xy = 32$, Find the value of $x^2 + y^2$.
2. If $3x + 2y = 12$ and $xy = 6$, find the value of $9x^2 + 4y^2$.
3. Write the following cubes in the expanded form:
   (i) $(3a + 4b)^3$
   (ii) $(5p – 3q)^3$
4. If $x2 + \frac{1}{x^2} = 27$, find the values of each of the following:

   (i) $x + \frac{1}{x}$

   (ii) $x - \frac{1}{x}$

5. If $x - \frac{1}{x} = 4$, then evaluate $x^2 \frac{1}{x^2}$ and $x^4 \frac{1}{x^4}$.

6. If $a + b + c = 15$ and $a^2 + b^2 + c^2 = 83$, find the value of $a^3 + b^3 + c^3 – 3abc$.

7. Factorize:
   (i) $6ab – b^2 + 12ac – 2bc$
   (ii) $9(2a – b)^2 – 4(2a – b) – 13$

8. If $x^3 + ax^2 – bx + 10$ is divisible by $x^2 – 3x + 2$, find the values of a and b.

9. Using factor theorem, factorize each of the following polynomials:
   (i) $x^3 – 6x^2 + 3x + 10$
   (ii) $2y^3 – 5y^2 – 19y + 42$

10. Which one is not a polynomial
   (a) $4x^2 + 2x – 1$

   (b) $y + \frac{3}{y}$

   (c) $x^3 – 1$

   (d) $y^2 + 5y + 1$

11. The number of zeros of $x^2 + 4x + 2$
   (a) 1

(b) 2
(c) 3
(d) none of these

12. The value of k, if (x – 1) is a factor of $4x^3 + 3x^2 – 4x + k$, is
(a) 1
(b) 2
(c) -3
(d) 3

13. Give an example of a monomial and a binomial having degrees as 82 and 99 respectively.

14. Find the value of $x^3 + y^3 + z^3 – 3xyz$ if $x^2 + y^2 + z^2 = 83$ and $x + y + z = 15$

15. Find the remainder when $t^3 – 2t^2 + t + 1$ is divided by t – 1.

16. Check whether x+3 is a factor of $x^3 + 3x^2 + 5x +15$?

17. Factorize $x^2 + 5x + 6$

18. Find the zeroes of the polynomial $x^2 + 2x -15$

19. Find value of polynomial $2x^2 + 5x + 1$ at x = 3.

20. Check whether at x = -1/6 is zero of the polynomial p(a) = 6a + 1.

21. Divide $3a^2 + x – 1$ by a + 1.

22. Find value of k, if (a – 1) is factor of p(a) = ka2 – 3a + k.

23. Factorise each of the following:

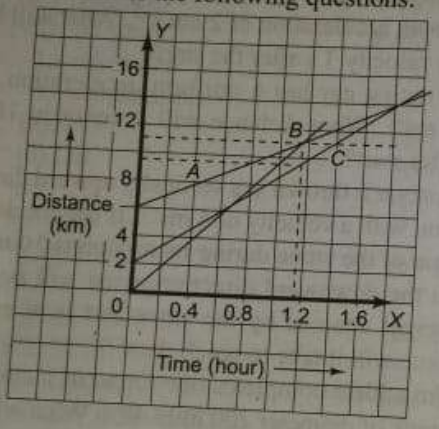
- $4x^2 + 9y^2 + 16z^2 + 12xy – 24yx – 16xz$
- $2x^2 + y^2 + 8z^2 – 2\sqrt{2}xy + 4\sqrt{2}yz – 8xz$

SCIENCE

Part A

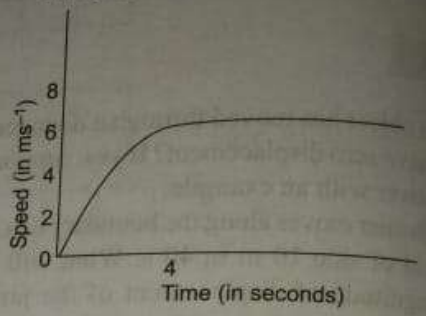
1. An object has moved through a distance. Can it have zero displacement? If yes, support your answer with an example.
2. A farmer moves along the boundary of a square field of side 10 m in 40 s. What will be the magnitude of displacement of the farmer at the end of 2 minutes 20 seconds?
3. Under what condition(s) is the magnitude of the average velocity of an object equal to its average speed?
4. What does the odometer of an automobile measure?
5. What does the path of an object look like when it is in uniform motion?
6. During an experiment, a signal from a spaceship reached the ground station in five minutes. What was the distance of the spaceship from the ground station? The signal travels at the speed of light, that is, 3×10^8 ms^{-1}.
7. When will you say a body is in (i) uniform acceleration? (ii) non-uniform acceleration?
8. A bus decreases its speed from 80 km h^{-1} to 60 km h^{-1} in 5 s. Find the acceleration of the bus.
9. A train starting from a railway station and moving with a uniform acceleration attains a speed of 40 km h^{-1} in 10 minute. Find its acceleration.
10. What is the nature of the distance-time graphs for uniform and non-uniform motion of an object?
11. What can you say about the motion of an object whose distance-time graph is a straight line parallel to the time-axis?
12. What is the quantity which is measured by the area occupied below the velocity-time graph?
13. A bus starting from rest moves with a uniform acceleration of 0.1 ms^{-2} for 2 minutes. Find (a) the speed acquired, (b) the distance travelled.
14. A train is travelling at a speed of 90 km h^{-1}. Brakes are applied so as to produce a uniform acceleration of –0.5 ms^{-1}. Find how far will the train go before it is brought to rest?
15. A trolley, while going down an inclined plane has an acceleration of 2 cm s^{-2}. What will be its velocity 3 s after the start?
16. A racing car has a uniform acceleration of 4 ms^{-2}. What distance will it cover in 10 s after start?
17. A stone is thrown in a vertically upward direction with a velocity of 5 ms^{-1}. If the acceleration of the stone during its motion is 10 ms^{-2} in the downward direction, what will be the height attained by the stone and how much time will it take to reach there?
18. An athlete completes one round of a circular track of diameter 200 m in 40 s. What will be the distance covered and the displacement at the end of 2 minutes and 20 s?
19. Joseph jogs from one end *A* to the other end *B* of a straight 300 m road in 2 minutes 50 seconds and then turns around and jogs 100 m back to point *C* in another 1 minute. What are Joseph's average speeds and velocities in jogging (a) from *A* to *B* and (b) from *A* to *C*?
20. Abdul, while driving to school, computes the average speed from his trip to be 20 km h^{-1}. On his return trip along the same route, there is less traffic and the average speed is 40 km h^{-1}. What is the average speed for Abdul's trip?

21. A motor boat starting from rest on a lake accelerates in a straight line at a constant rate 3.0 ms^{-2} for 8.0 s. How far does the boat travel during this time?
22. A driver of a car travelling at 52 km h^{-1} applies the brakes and accelerates uniformly in the opposite direction. The car stops in 5 s. Another driver going at 3 km h^{-1} in another car applies his breaks slowly and stops in 10s. On the same graph paper plot the speed versus time graphs for the two cars. Which of the two cars travelled farther after the brakes were applied?
23. Figure shows the distance-time graphs of three objects *A*, *B* and *C*. Study the graphs and answer the following questions:

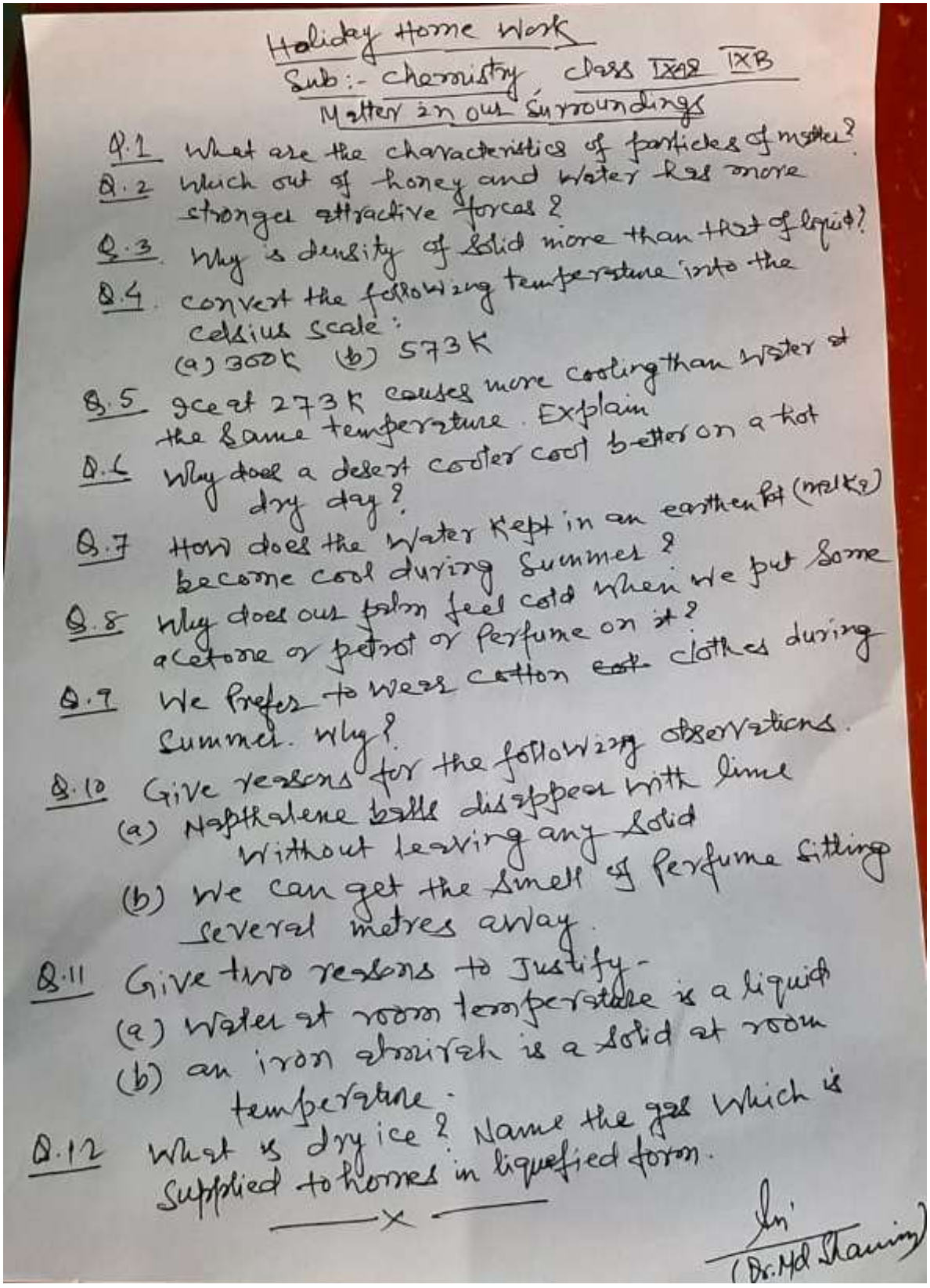


(a) Which of the three is travelling the fastest?
(b) Are all three ever at the same point on the road?
(c) How far has *C* travelled when *B* passes *A*?
(d) How far has *B* travelled by the time it passes *C*?

24. A ball is gently dropped from a height of 20 m. If its velocity increases uniformly at the rate of 10 ms^{-2}, with what velocity will it strike the ground? After what time will it strike the ground?
25. The speed-time graph for a car is shown in figure.
(a) Find how far does the car travel in the first four seconds.
Shade the area on the graph that represents the distance travelled by the car during the period.
(b) Which part of the graph represents uniform motion of the car?



26. State which of the following situations are possible and give an example for each of these:
(a) an object with a constant acceleration but zero velocity.
(b) an object moving a certain distance with acceleration in the perpendicular direction.
27. 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.
28. How will the equations of motion for an object moving with a uniform velocity change?
29. Draw a velocity versus time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.
30. An object is dropped from rest at a height of 150 m and simultaneously another object is dropped from rest at a height 100 m. What is the difference in their heights after 2 s if both the objects drop with same acceleration? How does the difference in heights vary with time?
31. An object starting from rest travels 2 m in first 2 s and 160 m in next 4 s. What will be the velocity after 7 s from the start?
32. Using following data, draw time-displacement graph for a moving object:



Holiday Home Work
Sub:- Chemistry Class IXA & IXB
Matter in our Surroundings

Q.1 What are the characteristics of particles of matter?
Q.2 Which out of honey and water has more stronger attractive forces?
Q.3 Why is density of solid more than that of liquid?
Q.4 convert the following temperature into the celsius scale:
(a) 300K (b) 573K
Q.5 Ice at 273K causes more cooling than water at the same temperature. Explain
Q.6 Why does a desert cooler cool better on a hot dry day?
Q.7 How does the water kept in an earthen pot (matka) become cool during summer?
Q.8 Why does our palm feel cold when we put some acetone or petrol or perfume on it?
Q.9 We Prefer to wear cotton ~~cot~~ clothes during summer. Why?
Q.10 Give reasons for the following observations.
(a) Naphthalene balls disappear with time without leaving any solid
(b) We can get the smell of perfume sitting several metres away.
Q.11 Give two reasons to Justify-
(a) Water at room temperature is a liquid
(b) an iron almirah is a solid at room temperature.
Q.12 What is dry ice? Name the gas which is supplied to homes in liquefied form.

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(Dr. Md Shamim)

1. Distinguish between parenchyma, collenchymas and sclerenchyma with the help of suitable diagrams.
2. Distinguish between striated, unstriated and cardiac muscle fibres with the help of suitable diagrams.
3. Why xylem and phloem are called complex tissues? How are they different from each other?

4. Write down the location and functions of following epithelial tissues:
   i) Squamous epithelium ii) Cuboidal epithelium iii) Columnar epitheliaum
   iv) Glandular epithelium
5. Distinguish between:
   a) Bones and cartilage
   b) Ligament and tendon
6. Write down the important functions of human blood.
7. Draw a labelled diagram of nerve cell.
8. What are stomata? Write down the functions of stomata.
9. Name the largest and smallest cell of human body.
10. Distinguish between plant and animal cells.