# Home Assignment 2023-24

Name: _____

Grade : X   Roll. No. _____
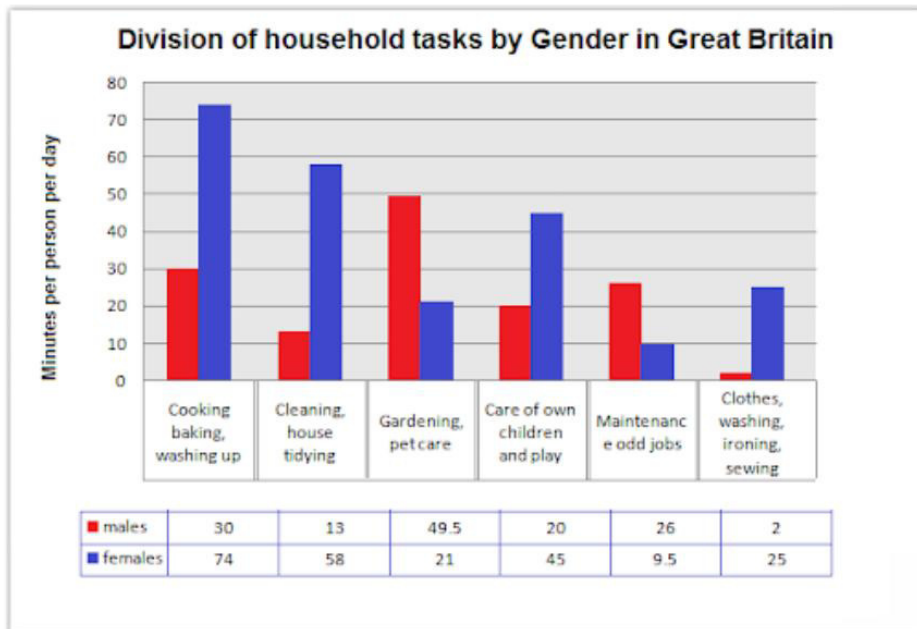
Note:

1. Assignment Marks will be added in the Terminal Assessment.

2. Parents are required to let their child do his/her assignments on his/her own.

3. Use loose sheets if required to perform the task.

4. Best Assignment of the year will be recognised.

Analytical Paragraph Examples, samples

<u>Example Question 1</u>: Below is a graph given showing birth and death rates in a country from 1901 to 2101. Write an analytical paragraph (100-150 words).
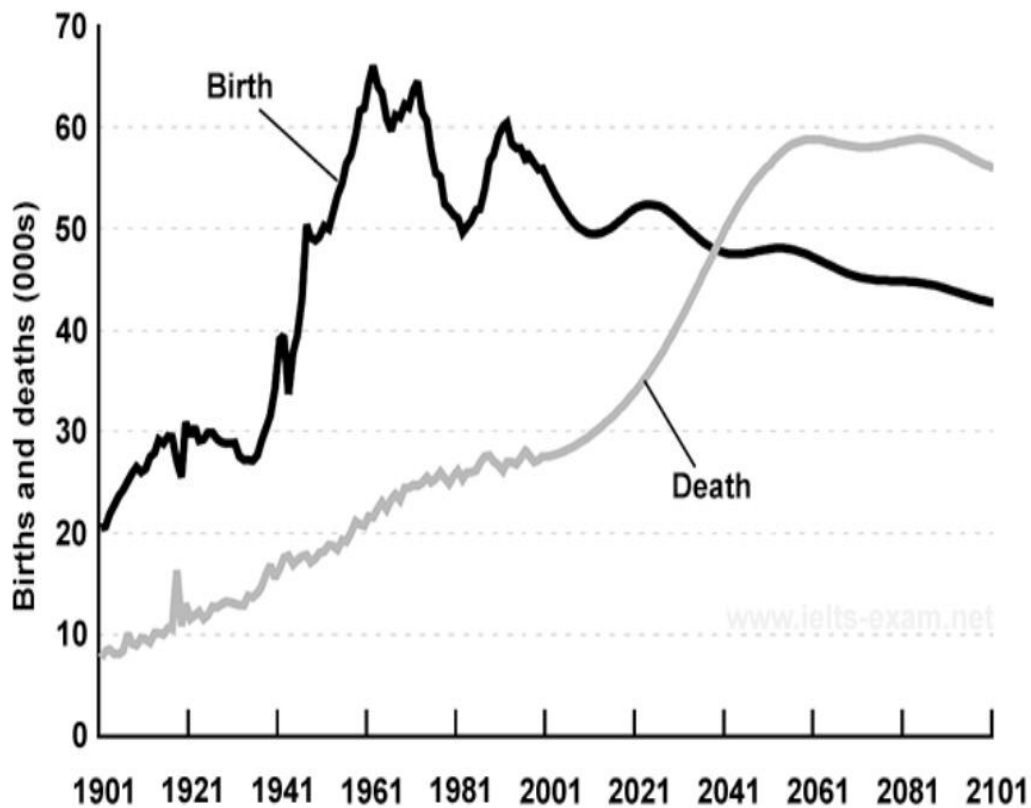
Example Question 2: The chart shows the division of household tasks by gender in Great Britain. Write an analytical paragraph describing the chart given in not more than 200 words.

Division of household tasks by Gender in Great Britain

	Cooking baking, washing up	Cleaning, house tidying	Gardening, pet care	Care of own children and play	Maintenance odd jobs	Clothes, washing, ironing, sewing
males	30	13	49.5	20	26	2
females	74	58	21	45	9.5	25

There is a busy road in front of your school. A large number of students have to cross the road while going back home. They run a great risk. Write a letter to the Editor, Navjiwan Times, Agra drawing attention of the concerned authorities to the problem. Make a request to mark a zebra crossing and to put traffic lights in front of your school. You are Amit/Anita, Class X, New Age Public School, Ram Nagar, Agra.

HINDI

प्रश्न-1- निम्नलिखित विषयों पर सूचना लिखिए -

क. .गांधी जयंती के अवसर पर आपके विद्यालय ने स्वच्छता अभियान चलाने का निर्णय लिया है। इसके लिए सामने वाली बस्ती में साफ़-सफ़ाई करने के अलावा लोगों में स्वच्छता के प्रति जन-जागरूकता फैलाए जाने का निश्चय किया गया है। आप अपने विद्यालय के हेड ब्वाय जयंत की ओर इसकी सूचना देते हुए एक सूचना आलेख तैयार कीजिए।

ख .विद्यालय में आयोजित होने वाली वाद विवाद प्रतियोगिता के लिए, एक सूचना लगभग 30 से 40 शब्दों में तैयार कीजिए।

ग -अपने विद्यालय की संस्था 'पहरेदार' की ओर से जल का दुरुपयोग रोकने का आग्रह करते हुए लगभग 50 शब्दों में एक विज्ञापन तैयार कीजिए ।

घ - पर्यावरण के प्रति जागरूकता बढ़ाने के लिए लगभग 50 शब्दों में एक विज्ञापन तैयार कीजिए ।

प्रश्न-2--नेताजी सुभाष चंद्र बोस का रेखाचित्र (स्केच)बनाते हुए उनका स्वतंत्रता संग्राम में योगदान विषय पर परियोजना कार्य (प्रोजेक्ट) तैयार कीजिए । परियोजना कार्य हेतु A4 साइज शीट तथा फाइल का प्रयोग करें ।

प्रश्न-3--निम्नलिखित संकेत बिंदुओं के आधार पर दिए गए विषयों पर अनुच्छेद लिखिए - -

क-आज की आवश्यकता -संयुक्त परिवार

संकेत बिंदु .....

*एकल परिवार का बढ़ता चलन

*एकल परिवार और वर्तमान समाज

*संयुक्त परिवार की आवश्यकता

*बुजुर्गों की देखभाल

*एकाकीपन को जगह नहीं

ख--बच्चों की शिक्षा में माता- पिता की भूमिका

संकेत बिंदु.....

*शिक्षा और माता-पिता

*शिक्षा की महत्ता

*उत्तरदायित्व

*शिक्षा विहीन नर पशु समान

ग -- बीता समय फिर नहीं लौटता

  संकेत बिंदु.......

* समय बड़ा बलवान

* समय का सदुपयोग

* योजनाओं का समय से कार्यान्वयन ।

प्रश्न 4 - दिल्ली प्रदेश की ऐतिहासिक एवं सांस्कृतिक धरोहर के विषय में जानकारी एकत्र करके चित्र सहित प्रोजेक्ट फाइल तैयार कीजिए ।

**सारा कार्य आंतरिक मूल्यांकन के अंतर्गत जाँचा जाएगा ।

**कार्य आकर्षक ,सृजनात्मक और प्रस्तुति योग्य होना चाहिए ।

**इनके अंक परीक्षा में जोड़े जाएंगे ।

PUNJABI

ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਉੱਪਰ ਵਿਦਿਆਰਥੀ ਆਪਣੇ ਵਿਚਾਰ ਪੇਸ਼ ਕਰਦੇ ਪੈਰਾ ਰਚਨਾ ਕਰਨਗੇ।

ਵਿਦਿਆਰਥੀ ਅਤੇ ਅਨੁਸ਼ਾਸਨ , ਮਿਲਵਰਤਨ
        (Roll no 1 - 11)
ਵਿਗਿਆਨ ਦੀਆਂ ਕਾਂਢਾ , ਟੈਲੀਵਿਜ਼ਨ ਦੇ ਲਾਭ - ਹਾਨੀਆਂ
        (Roll no 12 - 23)
ਲਾਇਬ੍ਰੇਰੀ ਦੇ ਲਾਭ , ਕੰਪਿਊਟਰ ਦੀ ਸਾਡੇ ਜੀਵਨ ਵਿੱਚ ਥਾਂ
        (Roll no 24 - 35)

(2) ਪ੍ਰੋਜੈਕਟ ਫਾਈਲ :
1. ਸੋਸ਼ਲ ਮੀਡੀਆ ਦਾ ਵੱਧ ਰਿਹਾ ਪ੍ਰਭਾਵ
2. ਪੰਜਾਬ ਦੇ ਲੋਕ ਗੀਤ
3. ਪੰਜਾਬੀ ਸੱਭਿਆਚਾਰ

(3)ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ:

(1) 'ਸੋ ਕਿਉ ਮੰਦਾ ਆਖੀਐ ' ਕਿਸ ਦੀ ਰਚਨਾ ਹੈ?

(2) ਰਾਏ ਭੋਇ ਦੀ ਤਲਵੰਡੀ ਨੂੰ ਹੋਰ ਕਿਹੜਾ ਨਾਮ ਦਿੱਤਾ ਗਿਆ ਹੈ?

(3) ' ਕਿਰਪਾ ਕਰਕੇ ਬਖਸ਼ ਲੈਹੁ " ਕਿਸ ਦੀ ਰਚਨਾ ਹੈ?

(4) ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਨੇ ਆਪਣੇ ਘਰਦਿਆਂ ਦੀ ਖਬਰ - ਸਾਰ ਲੈਣ ਲਈ ਕਿਸ ਨੂੰ ਭੇਜਿਆ?

(5) 'ਘਰ ਦਾ ਪਿਆਰ ' ਲੇਖ ਦਾ ਲੇਖਕ ਕੌਣ ਹੈ?

(6) ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ ਦੀਆਂ ਕਿੰਨੀਆਂ ਕਿਸਮਾਂ ਹਨ?

(7) ਕਾਲ ਵਾਚਕ ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ ਕਿਸ ਦਾ ਬੋਧ ਕਰਵਾਉਂਦਾ ਹੈ?

(8) ' ਹਾਰ ' ਦਾ ਬਹੁਅਾਰਥੀ ਸ਼ਬਦ ਲਿਖੋ।

(9) ' ਸੰਗ ' ਦਾ ਬਹੁਆਰਥੀ ਸ਼ਬਦ ਲਿਖੋ।

(10) ' ਅਨੁ ' ਅਤੇ ' ਸਹਿ ' ਅਗੇਤਰ ਲਗਾ ਕੇ ਦੋ - ਦੋ ਸ਼ਬਦ ਬਣਾਓ:

ਹੇਠ ਲਿਖੀ ਕਾਵਿ- ਟੁਕੜੀ ਨੂੰ ਪੜ੍ਹ ਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ।

ਬਾਬਾ ਮੈਂ ਰਾਜਾ ਹਾ, ਨਾਂ ਹੈ 'ਰਣਜੀਤ' ਮੇਰਾ ।
ਨੇਕੀ ਹੈ ਕਾਰ ਮੇਰੀ, ਸਾਂਝਾ ਹੈ ਧਰਮ ਮੇਰਾ ।
ਪਰਜਾ ਲਈ ਜਾਨ ਦਿਆ, ਪੇਸ਼ਾ ਹੈ 'ਪ੍ਰੀਤ' ਮੇਰਾ ।
ਕਾਬਲ ਦੀਆਂ ਕੰਧਾਂ ਤੱਕ, ਮੈਂ ਪਾਉਂਦਾ ਘੁਕਰ ਹਾਂ ।
ਪਰ ਪਿਆਰੇ ਬਾਬਾ ਜੀ, ਪਰਜਾ ਦਾ ਕੂਕਰ ਹਾਂ

(1) ਇਹ ਸ਼ਬਦ ਕੌਣ ਬੋਲਦਾ ਹੈਂ -
ਬਾਬਾ ਮੈਂ ਰਾਜਾ ਹਾ, ਨਾਂ ਹੈ 'ਰਣਜੀਤ' ਮੇਰਾ ।

(2) ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਦਾ ਰਾਜ ਕਿੱਥੋਂ ਤੱਕ ਫੈਲਿਆ   ਹੋਇਆ ਸੀ?

(3) ' ਪ੍ਰੀਤ ' ਸ਼ਬਦ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?

ਹੇਠ ਲਿਖੇ ਕਾਵਿ - ਟੁਕੜੀ ਨੂੰ ਪੜ੍ਹ ਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ -

ਔਹ !ਕਾਲੀ ਬੋਲੀ ਰਾਤ ਪਈ।

ਇੰਦਰ ਦੀ ਢੁੱਕ ਬਰਾਤ ਪਈ।

ਲਾੜੀ ਬਣਦੀ ਬਰਸਾਤ ਪਈ।

ਬਿਜਲੀ ਆ ਕਰਦੀ ਝਾਤ ਪਈ।

ਇਹ ਮੇਲ ਦਿਲਾਂ ਨੂੰ ਖੱਸਦਾ ਹੈ।

ਛਮ ! ਛਮ ! ਛਮ ਸਾਵਣ ਵੱਸਦਾ ਏ।

1.ਕਾਲੀ ਬੋਲੀ ਰਾਤ ਕਿਸ ਨੂੰ ਕਿਹਾ ਗਿਆ ਹੈ?

2.ਇੰਦਰ ਦੀ ਬਾਰਾਤ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?

3.ਇਹ ਕਾਵਿ ਟੁਕੜੀ ਇਸ ਬਾਰੇ ਹੈ?

Real Number

MULTIPLE CHOICE QUESTIONS AND OBJECTIVE

QUESTIONS (1 MARK)

Q1. HCF of 8, 9, 25 is

a) 8

b) 9

c) 25

d) 1

Q.2. The product of a rational and irrational number is

a) Rational

b) Irrational

c) both of above

d) none of above

Q3. L.C.M. of 23 × 32 and 22 × 33 is :

a) 23

b) 33

c) 23 × 33

d) 22 × 32

Q4. State fundamental theorem of arithmetic

Q5. The product of a non-zero number and an irrational number is:

a) always irrational

b) always rational

c) rational or irrational

d) one

Q6. If p and q are two coprime numbers, then find the HCF and LCM of p and q.

Q7. Prime factorization of 120 is ...

Q8. Find the LCM of smallest prime and the smallest odd composite natural number

Q9. If HCF (26, 169) = 13, then LCM (26, 169) is ...

a) 26

b) 52

c) 338

d) 13

Q10. If the LCM of a and 18 is 36 and the HCF of a and 18 is 2, then a =?

a) 2

b) 3

c) 4

d) 1

SHORT ANSWER QUESTIONS (2 MARKS)

Q1. Find the prime factorization of 1152

Q2. Prove that $\sqrt{5}$ is irrational

Q3. The difference of the irrational numbers $5 + \sqrt{2}$ and $5 - \sqrt{2}$?

Q4. Explain why $3 \times 5 \times 7 + 7$ is a composite number.

Q5. Prove that $\sqrt{2}$ is irrational

Q6. Determine the prime factorisation of 2057?

Q7. If a=23×3, b=2×3×5, c=3n×5 and LCM [a,b,c] = 23×32×5 then, n=?

Q8. If p and q are two coprime numbers, then p3 and q3 are?

Q9. The product of two numbers is 228096 and their LCM is 66. Find their HCF.

Q20. The length, breadth and height of a room are 825 cm, 675 cm and 450 cm respectively. Find the longest tape which can measure the three dimensions of the room exactly.

SHORT ANSWER QUESTIONS (3 MARKS)

Q1. Two brands of chocolates are available in packs of 24 and 15 respectively. If I buy an equal number of chocolates of both kinds, what is the least number of boxes of each kind I would need to buy?

Q2. Two bells toll at intervals of 24 minutes and 36 minutes respectively. If they toll together at 9am, after how many minutes do they toll together again, at the earliest?

Q3. There are 44 boys and 32 girls in a class. These students arranged in rows for a prayer in such a way that each row consists of only either boys or girls, and every row contains an equal number of students. Find the minimum number of rows in which all students can be arranged.

Q4.144 Cartons of coke can and 90 cartons of Pepsi can are to be stacked in a canteen. If eachstack is of the same height and is to contain cartons of the same drink. What would be the greater number of cartons each stack would have?

Q5. Find the LCM and HCF of the following pairs of positive integers by applying the prime factorization method.

   1. a) 225, 240

   2. b) 52 ,63 ,162

Q6.Find the largest number which divides 70 and 125 leaving reminder 5 and 8 Respectively.

Q7. Find HCF and LCM of 867 and 255 and verify the that HCF x LCM = Product of the two given numbers

Q8. Explain why 17 x 5 x 11 x 3 x 2 + 2 x11 is a composite number.

Q9.If the sum of LCM and HCF of two numbers is 1260 and their LCM is 900 more than their HCF then, find the product of two numbers.

Q10. Can two numbers have 15 as their HCF and 175 as their LCM? Give reasons.

Long Answer Type Questions (4 marks)

Q1. A hall has a certain number of chairs. Guests want to sit in different groups like in pairs, triplets, quadruplets, fives and sixes etc. When organiser arranges chairs in such pattern like 2's, 3's ,4's.5's and 6's then 1,2,3,4 and 5 chairs are left respectively. But when he arranges in 11's no chair will be left

1. In the hall how many chairs are available?

a) 407

b) 143

c) 539

d) 209

2. If one chair is added to the total number of chairs, how many chairs will be left when arranged in 11's

Q2. Kerosene, paraffin, or lamp oil is a combustible hydrocarbon liquid which is derivative from petroleum. Kerosen's uses vary from fuel for oil lamps to cleaning agents , jet fuel , heating oil or fuel for cooking Two oil tankers contain 825 litres and 675 litres of kerosene oil respectively.

1. Find the maximum capacity of a container which can measure the Kerosene oil of both the tankers when used an exact number of times.

2. How many times we have to use container for both the tanker to fill?

Q3. The sum of LCM and HCF of two numbers is 7380.If the LCM of these numbers is 7340 more than their HCF. Find the product of the two numbers.

Q4. A woman wants to organise her birthday party. She was happy on her birthday but there was a problem that she does not want to serve fast food to her guests because she is very health conscious. She as 15 apples and 40 bananas at home and decided to serve them. She want to distribute fruits among guests. She does not want to discriminate among guests so she decided to distribute equally among all. So

1. How many guests she can invite?

2. How many apples and banana will each guest get?

Q5. A charitable trust donates 28 different books of Maths,16 different books of science and 12 different books of Social Science to the poor students. Each student is given maximum number of books of only one subject of his interest and each student got equal number of books

1. Find the number of books each student got.

Pair of Linear Equations in Two Variables

MULTIPLE CHOICE QUESTIONS

Q1. The pair of linear equations $3x + 5y = 3$ and $6x + ky = 8$ do not have a solution if k

a) = 5

b) = 10

c) ≠10

d) ≠ 5

Q2. The solution of the equation $x + y = 5$ and $x - y = 5$ is

a) (0,5)

b) (5,5)

c) (5,0)

d) (10 ,5)

Q3. The pair of linear equations $x = 0$, $x = -5$ has

a) One solution

b) two solution

c) infinite no: of solution

d) no solution

Q4. For what value of 'k' do the equations $3x - y + 8 = 0$ and $6x - ky + 16 = 0$ represent coincident lines

a) 1/2

b) -1/2

c) 2

d) -2

Q5. The value of 'k' for which the system of equations $4x + ky + 8 = 0$ and $2x + 2y + 2 = 0$ has a unique solution is 35

a) k=3

b) k ≠ 4

c) k ≠ 0

d) k=0

OBJECTIVE TYPE QUESTIONS

Q1. In how many points do the lines represented by the equations $x - y = 0$ and $x + y = 0$

intersect?

Q2. Find the value of $(x + y)$ if, $3x - 2y = 5$ and $3y - 2x = 3$

Q3. Sum of two numbers is 35 and their difference is 13, find the numbers

Q4. Find the value of 'p' for which the pair of linear equations $2px + 3y = 7 : 2x + y = 6$ has exactly one solution

Q5. Do the equations $y = x$ and $y = x + 3$ represent parallel lines?

CASE STUDY BASED QUESTIONS

1. Represent algebraically the situation in hall "Rose".

a) $50x + y = 10000$

b) $50x - y = 10000$

c) $x + 50y = 10000$

d) $x - 50y = 10000$

2. Represent algebraically the situation in hall "Jasmine"

a) $x + 25y = 7500$

b) $x - 25y = 7500$

c) $25x + y = 7500$

d) $25x - y = 7500$

3. What is the fixed rent of the halls?

a) ₹2500

b) ₹3300

c) ₹ 4000

d) ₹5000

4. Find the amount the hotel charged per person.

a) ₹ 150

b) ₹ 190

c) ₹130

d) ₹ 100

SHORT ANSWER TYPE QUESTIONS (2 MARKS)

Q 1. Find the solutions of the pair of linear equations $5x + 10y - 50 = 0$ and $x + 8y = 10$. Hence find the value of m if $y = mx + 5$.

Q 2. Are the following pair of linear equations consistent? Justify your answer.

$2ax + by = a$; $4ax + 2by - 2a = 0$; $a, b \neq 0$

Q 3. There are 20 vehicles – cars and motorcycles in a parking area. If there are 56 wheels together, how many cars and motorcycles are there?

Q 4. Write a pair of linear equations which has a unique solution $x = 2$ and $y = -1$. How many such pairs are possible?

Q 5. If the sum of two positive numbers is 108 and the difference of these numbers is 8, then find the numbers.

SHORT ANSWER TYPE QUESTIONS (3 MARKS)

Q1. Find the two-digit numbers whose sum is 75 and difference is 15

Q2. The monthly incomes of A and B are in the ratio 5:4 and their expenditure are in the ratio 7:5. If each saves 3000/- per month, find the monthly income of each.

Q3. A and B each have a certain number of oranges. A says to B, "if you give me 10 of your oranges, I will have twice the number of oranges left with you." B replies," if you give me 10 of your oranges, I will have the same number of oranges as left with you. Find the number of oranges with A and B separately.

Q4. Yash scored 40 marks in a test, receiving 3 marks for each correct answer and losing 1 mark for each wrong answer. Had 4 marks been awarded for each correct answer and 2 marks been deducted for each wrong answer, then Yash would have scored 50 marks. How many questions were there in the test?

Q5. A man has only 20 paisa coins and 25 paisa coins in his purse. If he has 50 coins in all totalling 11.25/-, how many coins of each kind does he have?

LONG ANSWER TYPE QUESTIONS (4 Marks)

Q1. Two numbers are in the ratio 5:6. If 8 is subtracted from each of the numbers, the ratio becomes 4:5. Find the numbers.

Q2. The age of the father is twice the sum of the ages of his two children. After 20 years, his age will be equal to the sum of the ages of his children. Find the age of the father.

Q3. A number consists of two digits. When the number is divided by the sum of its digits, the quotient is 7. If 27 is subtracted from the number, the digits interchange their places. Find the number.

Q4. Draw the graphs of $2x - 3y + 6 = 0$ and $2x + 3y - 18 = 0$. Find the ratio of areas of triangles formed by the given lines with X-axis and Y-axis.

Q5. Determine graphically the vertices of the triangle, the equations of whose sides are given below

$2y - x = 8; 5y - x = 14; y - 2x = 1$

ANSWER KEY

Q no	MULTIPLE CHOICE QUESTIONS
1	b
2	c
3	d

Polynomials

Q1.   If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is

      a) 10   b) −10   c) 5   d) −5

Q2.   A quadratic polynomial, the sum of whose zeros is 2 and one zero is 3 is

      a) $x2-9$ b) $x2+9$ c) $x2+3$ d) $x2-3$

Q3.   A quadratic polynomial, the sum of whose zeros is -5 and their product is 6 is

      a) $x^2 + 5x + 6$ b) $x^2 + 5x + 6$ c) $x^2 - 5x + 6$ d) $-x^2 + 5x + 6$

Q4.   If one zero of the polynomial $f(x) = (k^2 + 4)x^2 + 13x + 4k$ is the reciprocal of the other, then k =

      a) 2   b) -2   c) 1   d) -1

Q5.   If α, β are the zeros of the polynomial $f(x) = x^2 + x + 1$, then $\frac{1}{\alpha} + \frac{1}{\beta} =$

      a) 1   b) -1   c) 0   d) None of these

Q6.   The number of polynomial having zeros -2 and 5 is
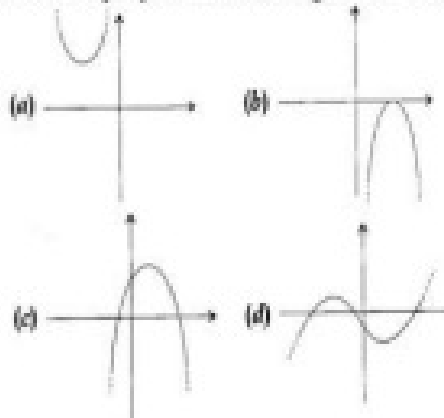
      a) 1   b) 2   c) 3   d) More than 3

OBJECTIVE TYPE QUESTIONS (I MARK QUESTIONS)

Q1. Write the zeros of the polynomial $x^2 - x - 6$

Q2. Write a polynomial whose zeros are $(2+\sqrt{3})$ and $(2 - \sqrt{3})$

Q3. If α, β are the zeros of the polynomial, such that $\alpha+\beta=6$ and $\alpha\beta=4$, then write the polynomial.

Q4. If α and $1/\alpha$ are the zeros of the polynomial $4x^2 - 2x + (k - 4)$, find the value of k

Q5. Check whether -2 is a zero of the polynomial $9x^3 - 18x^2 - x - 2$

SHORT ANSWER TYPE QUESTIONS (2 MARKS QUESTIONS)

Q1. Find the zeroes of the polynomial $2x^2 - 9$ and verify the relationship between zeros and coeffients.

Q2. Find a quadratic polynomial the sum and product of whose zeros are 3 and -2/5 respectively.

Q3. If α and β are zeros of $3x^2 + 5x + 13$,then find the value of $1/\alpha + 1/\beta$

Q4. Check whether $x = -3$ is a zero of $x^3 + 11x^2 + 23x - 35$.

Q5. Find p and q if p and q are the zeros of the quadratic polynomial $x^2 + px + q$.

SHORT ANSWER TYPE QUESTIONS(3 MARKS)

Q1. Find the zeroes of the following polynomial by factorisation method and verify the relations between the zeroes and their coefficients

   i) $7y^2 - \frac{11}{3}y - \frac{2}{3}$

   ii) $\sqrt{3}x^2 + 10x + 7\sqrt{3}$

   iii)$4\sqrt{3}x^2 + 5x - 2\sqrt{3}$

Q2. If the sum of the zeroes of the polynomial $p(x) = (a + 1)x^2 + (2a + 3)x + (3a + 4)$ is -1, then find the product of the zeroes.

Q3. If $(x + a)$ is a factor of two polynomials $x^2 + px + q$ and $x^2 + mx + n$, then prove that

   $a = \frac{n-p}{m-P}$

Q4. Can the quadratic polynomial $x^2 + kx + k$ have equal zeroes for some odd integer k > 1?

Q5. If one zero of a polynomial $3x^2 - 8x + 2k + 1$ is seven times the other, find the value of k.

LONG ANSWER TYPE QUESTIONS(4 MARKS)

Q1. If α and β are the zeroes of the quadratic polynomial $p(s) = 3s^2 - 6s + 4$, find the value of

$$\frac{\alpha}{\beta} + \frac{\beta}{\alpha} + 2\left(\frac{1}{\alpha} + \frac{1}{\beta}\right) + 3\alpha\beta$$

Q2. If the squared difference of the zeroes of the quadratic polynomial $f(x) = x^2 + px + 45$ is equal to 144, find the value of p.

Q3. If α and β are the roots of the equation $ax^2 + bx + c = 0$ and if $px^2 + qx + r = 0$ has roots $\frac{1-\alpha}{\alpha}$ and $\frac{1-\beta}{\beta}$, then r is

Q4. If a and b are the zeroes of the quadratic polynomial $f(x) = x^2 - px + q$, prove that

$$\frac{a^2}{b^2} + \frac{b^2}{a^2} = \frac{p^4}{q^2} - \frac{4p^2}{q} + 2.$$

Q5. If l and m are zeroes of the polynomial $p(x) = 2x^2 - 5x + 7$, find a polynomial whose zeroes are 2l+3 and 2m+3.

ANSWERS

MULTIPLE CHOICE QUESTIONS

1. (b) Since 2 is zero $P(2)=0$ $P(2) = 2^2 + 3 \times 2 + k = 0$ which gives $k = -10$

2.

(a)   Given $\alpha + \beta = 0$ $\alpha = 3$ so $\beta = -3$
$$p(x) = k(x^2 - (\alpha + \beta)x + \alpha\beta)$$
$$p(x) = k(x^2 - 9)$$

3.

Coordinate Geometry

MULTIPLE CHOICE QUESTIONS

Q1. The distance of the point P (-6, 8) from the origin is:

(a) 14

(b) 6

(c) 8

(d) 10

Q2. If (a, b) is the mid-point of the line segment joining the points A (10, -6) and B (k, 4)

and a - 2b = 18, the value of k is:

(a) 40

(b) 22

(c) 4

(d) 36

Q3. The distance between the points (a cos θ + b sin θ, 0) and (0, a sin θ - b cos θ), is:

(a) $\sqrt{a^2 - b^2}$

(b) $a^2 - b^2|$

(C) $a^2 + b^2$

(d) $\sqrt{a^2 + b^2}$

Q4. If the point P (k, 0) divides the line segment joining the points A (2, -2) and B (-7, 4) in the ratio 1:2, then the value of k is :

(a) 1

(b) 2

c) -1

(d) -2

Q5. If the point P (6, 2) divides the line segment joining A (6, 5) and B (4, y) in the ratio 3

: 1, then the value of y is :

(a) 4

(b) 2

(c) 1

(d) 3

Q6. Distance between two points (3, 2) and (6, 6) is:

(a) 5

(b) 3

(c) 2

(d) 8

Q7. The line segment joining the points P (-3, 2) and Q (5, 7) is divided by the y- axis in the ratio:

(a) 3 : 1

(b) 3 : 2

(c) 3 : 4

(d) 3 : 5

Q8. The point P on x- axis is equidistant from the points A (-1, 0) and B (5, 0) is:

(a) (2, 2)

(b) (0, 2)

(c) (2, 0)

(d) (3, 2)

SHORT ANSWER TYPE QUESTION (2 MARKS)

Q1. Find the point on the x-axis which is equidistant from the points (2, -5) and (-2, 9)

Q2. Find the distance of the point P (2, 3) from the x-axis.

Q3. Find the ratio in which the point (-3, k) divides the line-segment joining the points (-5, 4) and (-2, 3). Also find the value of k.

Q4. If A (5,2), B (2, -2) and C (-2, t) are the vertices of a right-angled triangle with $\angle B = 90°$, then find the value of t.

Q5. In what ratio does the point P (2, -5) divide the line segment joining A (-3, 5) and B (4, -9).

SHORT ANSWER TYPE QUESTION (3 MARKS)

Q1. Determine if the points (1, 5), (2, 3) and (-2, -11) are collinear.

Q2. Find the values of y for which the distance between the points P (2, -3) and Q (10, y) is 10 units.

Q3. Find the area of a rhombus if its vertices are (3, 0), (4, 5), (-1, 4) and (-2, -1) taken in order.

Q4. If A (-2,1), B (a, 0), C (4, b) and D (1, 2) are the vertices of a parallelogram ABCD, find the values of a and b. Hence find the lengths of its sides.

Q5. If (1, 2), (4, y), (x, 6) and (3, 5) are the vertices of a parallelogram taken in order find x and y.

ALSO ATTEMPT:

LONG ANSWER TYPE QUESTIONS (4 MARKS)

Q1. The vertices of quadrilateral ABCD are A (5, -1), B (8,3), C (4, 0) and D (1, -4). Prove that ABCD is a rhombus.

Q2. Find the centre and radius of the circumcircle (i.e., circumcentre and circum-radius) of the triangle whose vertices are (-2, 3), (2, -1) and (4, 0).

Q3. Find the coordinates of the points of trisection (i.e., Points dividing in three equal parts) of the line segment joining the points A (2, -2) and B (-7, 4).

Q4. An equilateral triangle has one vertex at (3, 4) and another at (-2, 3). Find the co- ordinates of the third vertex.

Q5. The three vertices of a parallelogram ABCD are A (3, -4), B (-1, -3) and C (-6, 2). Find the coordinates of vertex D and find the area of ABCD.

Q6. The base QR of an equilateral triangle PQR lies on x-axis. The co-ordinates of point Q are (-4, 0) and the origin is the mid-point of the base. Find the co-ordinates of the point P and R.

SCIENCE

BIOLOGY

Syllabus:-

Nutrition

Respiration

MULTIPLE CHOICE QUESTIONS:-

1. Desert plants take up which gas at night and prepare an intermediate which is acted upon by the energy absorbed during day

A.Oxygen

B. Carbon dioxide

C. Carbon monoxide

D. Nitrogen

2. In Woody stem respiration take place through

A. Stomata

B.General surface

C lenticels

D.Guard cells

3. The respiratory pigment haemoglobin has a very high affinity for which gas

A.Oxygen

B. Carbon dioxide

C. Carbon monoxide

D. Nitrogen

4. The enzymes trypsin and acts on which of the following

A proteins

B.fats

C.lipids

D.carbohydrates

5. How many molecules of ATP are gained during anaerobic respiration of 1 molecule of glucose

A. 36

B. 2

C. 38

D. 4

ASSERTION/REASON

Read the Assertion and Reason carefully to mark the correct option out of the options given below:

(A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(B) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(C) Assertion is true but Reason is false.

(D) Assertion is false but Reason is true.

ASSERTION:-Those organism which can make their own food from the inorganic substance present in the environment are called autotrophs.

REASON:- The autotrophs contain the green pigment called chlorophyll which is capable of trapping sunlight energy, This energy is utilised to form the food for the plant by the process of photosynthesis.

ASSERTION:- Villi are present in the inner surface of the small intestine.
REASON:- Villi help in absorbing digested food into the blood of a person
ASSERTION:- The formation of small cavities in the teeth due to the action of acid forming bacteria.
REASON:- Brushing of teeth twice a day prevents dental caries.
ASSERTION:- Respiration is essential for life because it provide energy for carrying out all the activity process necessary to keep the organisms alive
REASON:- Respiration is taking in Oxygen and giving out of carbon dioxide.

SHORT ANSWER QUESTIONS:-
1. name the organ which separate the following enzyme in human digestive system
A.Pepsin
B. Salivary amylase
C. Trypsin

D. Lipase

2. Why is the small intestine in herbivores longer than in carnivores?

3. Why is the rate of breathing in aquatic organisms much faster than terrestrial organisms?

4. What causes movement of food inside the alimentary canal?

5. Draw well labelled diagram of

a.Human digestive system

b. Human respiratory system

c. Respiratory organs in plants

d. Open and closed stomata

HOTS :-

1. After vigorous exercise you may experience cramps in your legs. Why does this happen?
2. Which organs secrets a hormone when the blood sugar rises. Name the hormone and digestive enzymes released by this organ.
3. "All plants give out oxygen during the day and carbon dioxide during the night" Do you agree with the statement? Give reason
4. If salivary amylase is lacking in the Saliva, which of the events in the mouth cavity will be affected and how?
5. Leaves of healthy potted plants were coated with Vaseline. Will this plant remain healthy for a long time? Give reason for your answer.

PRESENTATION:- (ANY ONE)

• Short presentation on

    NUTRITION IN HUMAN

    RESPIRATION IN ORGANISM

• Instructions:

1. Topic must have introduction.

2. Information about all the types.

3. Complete information about any one topic

• 4. Relevant diagram must be attached with your presentation

• 5. Cover page must be attached

• Mode: PPT/Video

Time : 2 to 3 min.

    MODEL:- working model on (Any one)

- **Hydraulics.**
- **Solar energy**
- **Different types of Pollution**

- **Biological models**
- **Waste management**
- **Natural disasters Proofing buildings**

- **Chemistry related**
- **Physics related Model**
- **Hydroponics**

Note :-Complete fair notebook

    Learn full chapters.

PHYSICS

CLASS X

HOMEWORK ASSIGNMENTS

Questions Involving Ray Diagram

In the case of concave mirror draw the ray diagram

1. When the object is at focus

2. When the objective between the pole and the focus

Also discuss in each case the position of image ,the nature of image and the size of image

3.In case of convex mirror draw the ray diagram

When the object is at finite distance from the concave lens

4.For the convex lens draw the rate diagram

in the objective between optical centre and focus

 Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

Q.5. **Assertion(A)** : A ray of light travelling from a rarer medium to a denser medium slows down and bends away from the normal. When it travels from a denser medium to a rarer medium, it speeds up and bends towards the normal.
Reason (R) : The speed of light is higher in a rarer medium than a denser medium.
Q.6. **Assertion(A)**: The mirrors used in search lights are concave spherical.
Reason (R) : In concave spherical mirror the image formed is always virtual.
Q.7. **Assertion(A)** : Light travels faster in glass than in air.
Reason (R) : Glass is denser than air.
Q.8. **Assertion(A)** : For observing traffic at back, the driver mirror is convex mirror.
Reason (R) : A convex mirror has much larger field of view than a plane mirror.
Q.9. **Assertion(A)** : The height of an object is always considered positive.
Reason (R) : An object is always placed above the principal axis in this upward direction.

MULTIPLE CHOICE QUESTIONS

Q10.Image formed by a convex spherical mirror is:

(a) virtual

(b) real

(c) enlarged

(d) inverted

Q11 A student studies that a convex lens always forms a virtual image irrespective of its position. What causes the convex mirror to always form a virtual image?

(a) Because the reflected ray never intersects

(b) Because the reflected ray converges at a single point

(c) Because the incident ray traces its path back along the principal axis

(d) Because the incident ray of a convex mirror gets absorbed in the mirror

Q12) Magnification produced by a rearview mirror fitted in vehicles:

(a) is less than one

(b) is more than one

(c) is equal to one

(d) can be more than or less than one, depending upon the position of the object in front of it

Q13) Which of the following can make a parallel beam of light from a point source incident on it?

(a) Concave mirror as well as convex lens

(b) Convex mirror as well as concave lens

(c) Two plane mirrors placed at 90degree to each other

(d) Concave mirror as well as concave lens

Q14) A student studies that the speed of light in air is 300000 km/sec, whereas that of speed in a glass slab is about 197000 km/sec. What causes the difference in the speed of light in these two media?

(a) Difference in density

(b) Difference in temperature

(c) Difference in the amount of light

(d) Difference in the direction of wind flow

CASE BASED STUDY

Read the following and answer any four questions from (i) to (v).

The spherical mirror forms different types of images when the object is placed at different locations. When the image is formed on screen, the image is real and when the image does not form on screen, the image is virtual. When the two reflected rays meet actually, the image is real and when they appear to meet, the image is virtual.

A concave mirror always forms a real and inverted image for different positions of the object. But if the object is placed between the focus and pole. the image formed is virtual and erect.

A convex mirror always forms a virtual, erect and diminished image. A concave mirror is used as doctor's head mirror to focus light on body parts like eyes, ears, nose etc., to be examined because it can form erect and magnified image of the object. The convex mirror is used as a rear view mirrors in automobiles because it can form an small and erect image of an object.

(i) When an object is placed at the centre of curvature of a concave mirror, the image formed is

(a) larger than the object   (b) smaller than the object

(c) same size as that of the object   (d) highly enlarged.

(ii) No matter how far you stand from a mirror, your image appears erect. The mirror is likely to be

(a) plane   (b) concave   (c) convex   (d) either plane or convex.

(iii) A child is standing in front of a magic mirror. She finds the image of her head bigger, the middle portion of her body of the same size and that of the legs smaller. The following is the order of combinations for the magic mirror from the top.

(a) Plane, convex and concave   (b) Convex, concave and plane
(c) Concave, plane and convex   (d) Convex, plane and concave
(iv) To get an image larger than the object, one can use
(a) convex mirror but not a concave mirror
(b) a concave mirror but not a convex mirror
(c) either a convex mirror or a concave mirror
(d) a plane mirror.
(v) A convex mirror has wider field of view because
(a) the image formed is much smaller than the object and large number of images can be seen.
(b) the image formed is much closer to the mirror
(c) both (a) and (b)
(d) none of these.
  MAKE MODEL ON ANY TOPIC IN YOUR SYLLABUS

COMPLETE YOUR NOTEBOOKS

CHEMISTRY

Class X Assignment

Q1. Revise whole chapter no. 1 i,e Chemical reactions and equations.

Q2. Translate the following statements into chemical equations and then balance the equations:

(a) Hydrogen sulphate gas burns in air to give water and sulphur dioxide.

(b) Phosphorus burns in oxygen to give phosphorus pentoxide.

(c) Carbon disulphide burns in air to give carbon dioxide and sulphur dioxide.

(d) Aluminium metal replaces iron from ferric oxide, Fe_2O_3, giving aluminium oxide and iron.

(e) Barium chloride reacts with zinc sulphate to give zinc chloride and barium sulphate.

Q3. Write the balanced chemical equations for the following reactions.

(a) Calcium hydroxide + carbon dioxide → Calcium carbonate + water

(b) Aluminium + copper chloride → Aluminium chloride + copper

Q4. Complete and balance the following equations

(a) $NaOH$ + ------ → Na_2SO_4 + H_2O

(b) $Ca(OH)_2$ + ------ → $CaCO_3$ + H_2O

Q5. Balance the following equations:

(I) $Na + O_2 \rightarrow Na_2O$

(II) $H_2O_2 \rightarrow H_2O + O_2$

(III) $Mg(OH)_2 + HCl \rightarrow MgCl_2 + H_2O$

(IV) $Fe + O_2 \rightarrow Fe_2O_3$

(V) $Al(OH)_3 \rightarrow Al_2O_3 + H_2O$

(VI) $NH_3 + CuO \rightarrow Cu + N_2 + H_2O$

(VII) $Al_2(SO_4)_3 + NaOH \rightarrow Al(OH)_3 + Na_2SO_4$

(VIII) $HNO_3 + Ca(OH)_2 \rightarrow Ca(NO_3)_2 + H_2O$

(IX) $NaOH + H_2SO_4 \rightarrow Na_2SO_4 + H_2O$

(X) $BaCl_2 + H_2SO_4 \rightarrow BaSO_4 + HCl$

Q6. What type of reactions are represented by the following equations:

(I) $CaCO_3 \rightarrow CaO + CO_2$

(II) $CaO + H_2O \rightarrow Ca(OH)_2$

(III) $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$

(IV) $NH_4Cl \rightarrow NH_3 + HCl$

(V) $2Ca + O_2 \rightarrow 2CaO$

(VI) $CuSO_4 + 2NaOH \rightarrow Cu(OH)_2 + Na_2SO_4$
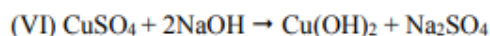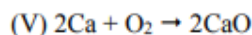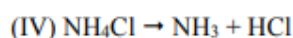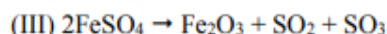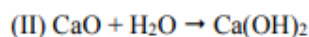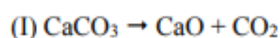
Q7. Explain the term "corrosion" with an example. Write a chemical equation to show the process of corrosion of iron.

Q8. (a) Explain the term rancidity.

(b) What damage is caused by rancidity.

(c) What type of chemical reaction is responsible for causing rancidity.

(d) State and explain the various methods for preventing or retreating rancidity of food.

1. The chemical formula of lead sulphate is
(a) Pb2SO4
(b) Pb(SO4)2
(c) PbSO4
(d) Pb2(SO4)3

2. Which information is not conveyed by a balanced chemical equation?
(a) Physical states of reactants and products
(b) Symbols and formulae of all the substances involved in a particular reaction
(c) Number of atoms/molecules of the reactants and products formed
(d) Whether a particular reaction is actually feasible or not

3. Chemically rust is
(a) hydrated ferrous oxide
(b) only ferric oxide

(c) hydrated ferric oxide

(d) none of these

4. Both CO_2 and H_2 gases are

(a) heavier than air

(b) colourless

(c) acidic in nature

(d) soluble in water

5. Which of the following gases can be used for storage of fresh sampel of an oil for a long time?

(a) Carbon dioxide or oxygen

(b) Nitrogen or helium

(c) Helium or oxygen

(d) Nitrogen or oxygen

6. The electrolytic decomposition of water gives H_2 and O_2 in the ratio of

(a) 1 : 2 by volume

(b) 2 : 1 by volume

(c) 8 : 1 by mass

(d) 1 : 2 by mass

7. In the decomposition of lead (II) nitrate to give lead (II) oxide, nitrogen dioxide and oxygen gas, the coefficient of nitrogen dioxide (in the balanced equation) is

(a) 1

(b) 2

(c) 3

(d) 4

8. Fatty foods become rancid due to the process of

(a) oxidation

(b) corrosion

(c) reduction

(d) hydrogenation

9. We store silver chloride in a dark coloured bottle because it is

(a) a white solid

(b) undergoes redoc reaction

(c) to avoid action by sunlight

(d) none of the above

10. Silver article turns black when kept in the open for a few days due to formation of
(a) H2S
(b) AgS
(c) AgSO4
(d) Ag2S

11. When crystals of lead nitrate are heated strongly in a dry test tube
(a) crystals immediately melt
(b) a brown residue is left
(c) white fumes appear in the tube
(d) a yellow residue is left

12. Dilute hydrochloric acid is added to granulated zinc taken in a test tube. The following observations are recorded. Point out the correct observation.
(a) The surface of metal becomes shining
(b) The reaction mixture turns milky
(c) Odour of a pungent smelling gas is recorded
(d) A colourless and odourless gas is evolved

13. When carbon dioxide is passed through lime water,
(a) calcium hydroxide is formed
(b) white precipitate of CaO is formed
(c) lime water turns milky
(d) colour of lime water disappears.

14. When a magnesium ribbon is burnt in air, the ash formed is
(a) black
(b) white
(c) yellow
(d) pink

15. In which of the following, heat energy will be evolved?
(a) Electrolysis of water
(b) Dissolution of NH4Cl in water
(c) Burning of L.P.G.
(d) Decomposition of AgBr in the presence of sunlight

SOCIAL SCIENCE

1. Complete mapwork on the map skill:-

   Ch -1 Resources and Development (geography)
   Identify: Major Soil Types

2. **Prepare a small model on any one of these topics:-**
   1. How consumers are exploited in the market
   2. Sustainable development goals and their objectives
   3. Various social issues in the society
   4. Various means of transport used in rural and urban areas
   5. Types of roads

3. Write the answer of the following questions in your social science notebooks:-

   Multiple choice questions:-

1.   Identify the correct option that describes the act given below.

   i.   The Act was passed by the Imperial Legislative Council.

   ii.   It gave power to the government to repress political activities. iii. It empowered the government to detain political prisoners without trial.

   Options:

   Rowlatt Act
   Vernacular Press Act
   Government of India Act
   Inland Emigration Act

2.   Which place in India has an artificial lake to conserve water that dates to 11th century?   1

   a. Delhi
   b. Bhopal
   c. Mumbai
   d. Kolhapur

3. Read the data given below and answer the question.   1

#	Infant mortality rate	Total	Male	Females
1	Madhya Pradesh	47	48	45
2	Assam	44	41	46
3	Odisha	41	40	41
4	Uttar Pradesh	41	39	43
5	Chhattisgarh	38	39	37
6	Rajasthan	38	37	40

As per the data given above which state has the highest girl child mortality?

a. Uttar Pradesh
b. Odisha
c. Rajasthan
d. Assam

4. Which of the following options represent potential measures that can be taken to mitigate   1
the threats posed by mining activities on the Buxar tiger reserve's ecosystem and biodiver-
sity?

i. Implementing stricter regulations and monitoring mechanisms.
ii. Enforcing buffer zones around protected areas. **iii.** Promoting alternative livelihoods
and sustainable economic development in the surrounding communities.
iv. Displacement of Tiger reserve from Buxar

Options:

Statement i and ii are correct.
Statement ii, iii & iv are correct
Statement ii is correct.
Statement i, ii, & iii are correct.

5. When many countries of Europe came together to form the European Union, _____ was 1 chosen as its headquarters.

   a. Brussels
   b. Paris
   c. London
   d. Zurich

6. Which of the following statements accurately distinguishes between Majoritarianism and 1 Power sharing?

   a. Majoritarianism emphasizes the dominance of the majority community, while Power sharing emphasizes the sharing of power among different groups.
   b. Majoritarianism emphasizes the need for consensus building, while Power sharing emphasizes the exclusion of minority groups.
   c. Majoritarianism emphasizes the importance of accommodating minority interests, while Power sharing emphasizes the need for majority rule.
   d. Majoritarianism emphasizes the need for peaceful resolution of conflicts, while Power sharing emphasizes the use of force to impose the majority's will.

7. There are two statements marked as Assertion (A) and Reason (R). Mark your answer as 1 per the codes provided below:

   Assertion: Democracy increases not only expectations but also complaints. Reason: Complaining is itself a testimony to the success of democracy.

   Both (A) and (R) are true and (R) is the correct explanation of (A)
   Both (A) and (R) are true but (R) is not the correct explanation of (A)   c. (A) is correct but (R) is wrong
    d. (A) is wrong but (R) is correct

8. If "R" wants cloth, which "S" has, then "R" should have a commodity that "S" wants in 1 exchange for the cloth. In the absence of such coincidence of wants, there will be no exchange.
   Identify the situation and choose the right option that will definitely help "R" and "S" to eliminate this situation.

   a. Double coincidence of want, Exchanging commodity for commodity.
   b. Double Coincidenceof want, Credit on Commodity
   c. Double coincidence of want, Loan on commodity.
   d. Double coincidence of want, Money

9. You are a citizen of a country that has a democratic form of government. You want to en- 1 sure that the system of power-sharing in your country is effective and that no one branch of government has absolute power.

   Which of the following measures would best meet this goal?

a. All power is concentrated in the hands of the central government, which has the final say in all matters.
b. Power is divided between the central government and the states or provinces, with each level having its own sphere of influence.
c. Power is separated among the legislative, executive, and judicial branches, with each branch having its own responsibilities and powers.
d. Power is shared among different levels of government, such as the national, regional, and local governments, with each level having some degree of autonomy.

10. **Identify the painting from the options given below.** 1
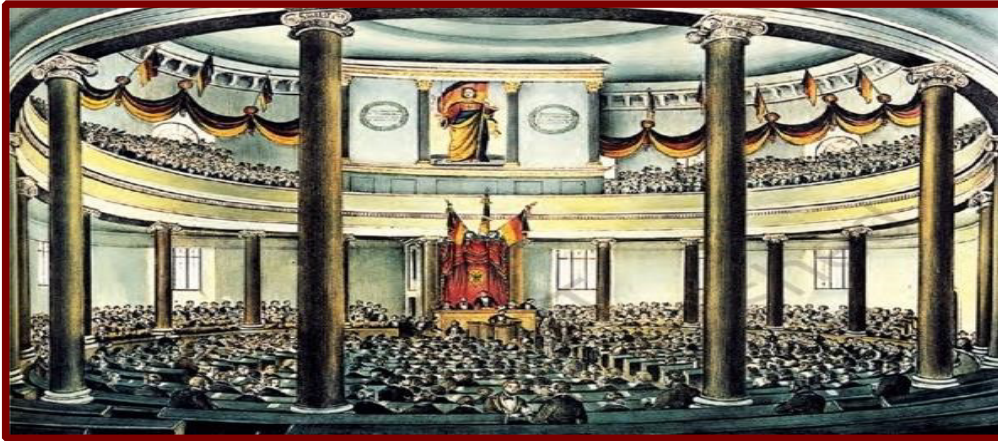
a. Frankfurt Parliament
b. Reichstag
c. Duma
d. The House of Parliament

11. **Evaluate the impacts of opening foreign trade on the global economy by identifying the appropriate statements among the following options:** 1

i. The choice of goods in the markets increase.

ii. Producers from two countries closely compete against each other despite the distance between their locations.

iii. Foreign trade thus results in connecting the markets or integration of markets in different countries.

iv. The quality of the product is always good.

Options:
 a. Statements i and ii are appropriate.
 b. Statements i, ii and iii are appropriate.
 c. All the statements are appropriate.
 d. Only statement iv is appropriate.

12. **If a government provides its citizens a right and means to examine the process of decision, it is _____.**   1

 a. An accountable government
 b. responsible government
 c. transparent government
 d. stable government.

13. **Arrange the following statements in sequential order based on the events that shaped the Non-cooperation movement.**   1

 i. General Dyer opened fire at the large crowd gathered in the enclosed ground of Jallianwal-laBagh.
 ii. "Forced recruitment" carried out by the British government and the economic hardships faced by the people during the first world war.
 iii. The defeat of the Ottoman Emperor of Turkey led to the formation of the Khilafat movement.
 iv. Gandhiji launched a nationwide satyagraha against the Rowlatt act.

 Options:
 a. iv, iii, ii, i
 b. ii, i, iii, iv
 c. i, iv, iii, ii
 d. i, ii, iii, iv

14. **There was a strike announced by the "Transport union" due to which the Lorries refused to transport vegetables, milk, etc. from the rural areas to the Urban areas. Food became scarce in urban areas whereas farmers were unable to sell their products. Which of the following sectors are affected due to the strike carried out by the "Transport Union".**   1

 a. Primary and Secondary
 b. Secondary and Tertiary
 c. Tertiary, Primary and Secondary
 d. Tertiary and Primary.

15. **Consider the statements given below and choose the correct answer**   1

 Statement I: Western printing techniques and mechanical press were imported in the late 19th Century as western powers established their outposts in China. **Statement II:** Beijing became the hub of the new print culture, catering to western-style schools.

 a. Statement (i) is correct and (ii) is incorrect.
 b. Statement (i) is incorrect and (ii) is correct
 c. Both (i) & (ii) are incorrect
 d. Both (i) & (ii) are correct

16. **"M" gave his friend clues about a type of soil that suits for growing cotton. Which of the following clues provided by "M" would be most useful in identifying the ideal type of soil?**   1

Clues:

   i. It is well-known for its capacity to hold moisture.

   ii. It turns yellow when it is hydrated. **iii.** It is rich in kankur and

   bhangar nodules.

   iv. It is a well-drained loamy soil.

   a. Clue i
   b. Clue i and iii
   c. Clue i and ii
   d. Clue iv

17. **The emergence of _____ is directly connected to the rise of political parties.**   1
   a. Monitory democracies
   b. Direct democracies
   c. Representative democracies
   d. Constitutional democracies

18. **The process of rapid integration or interconnection between countries through movement of goods and services, investments and technology between countries is called as _____**   1

   a. Privatization
   b. Globalization
   c. Liberalization
   d. Competition

19. **Which of the following statements will be considered by a political party while forming a government?**   1

   Statement i: Representatives of different castes and tribes**.**

   Statement ii: Representatives of all religions**.**

   Statement iii: Representatives of the elite.

   Statement iv: Representatives of the Non-residents of India NRI

   Options:
   a. Statement i and ii are right.
   b. Statement i, ii and iii are right.
   c. Statement iii is right.
   d. Only statement iv is right**.**

20. Miss "S" approached a bank nearby to avail loan for her own business, as well as a Self-help group which is operating in her village, the bank rejected her loan application whereas the Self-help group accepted to support her by providing the loan.   1

   Which one of the following documents is required by the bank, but not required by the self-help group to approve Miss "S's" loan application for her business?

   a. Application for loans
   b. Arrangement Letter
   c. Document on Collateral
   d. Demand promissory note and take delivery letter.

21. Q: Study the map thoroughly and mention the languages that are dominantly spoken in Belgium.   2