



Delhi Public School Gwalior

(Under the aegis of DPS Society, New Delhi)

Holiday Homework

Session 2020–21

Class-X

Homework



Dear Children,

It's time for strengthening family bond, cherishing old memories and having a good time together during this Lockdown Period. Keeping this in mind, here is your Holiday Assignment through which you can keep your energies well directed and spend quality time with your Family. Don't forget to take good care of your health and hygiene and bring out a totally new concept of C.O.V.I.D. i.e. Create, Observe, Visualise, Initiate and Dream Big while working enthusiastically.

Here are few things which if you practice along with your Holiday Assignment, will help you stay connected to your roots:

- Listen to the Unspeakable: Start observing things around you meticulously and try to connect and relate them.
- Adopt/grow a plant: You can also plant a few seeds, Water them regularly.
- Try out as many new cuisines as you can: All foodies are going to love this point and be in complete agreement, rather than caring about calories and fats, vacations are a great time to throw caution to the wind and try out as many new cuisines as you like.
- Try out a new fitness regime: Exercise daily and keep yourself fit and healthy.
- Unravel the artist in you: Create anything of your interest. Learn a new song, play a new instrument or enact.
- Good manners is the key: Don't forget to Respect your parents, grandparents and all elders. Reduce the usage of Mobile Phone and TV time and increase the time you spend with your family, spend moments together and create memories.
- Save nature: Contribute to save our previous environment by minimizing the wastage of resources like water, fuel and electricity.

Wishing you an innovative Quarantine!

Class Educator

SUBJECT – ENGLISH

General Instructions:

1. **Kindly submit the holiday homework in a handmade file or folder.**
2. **Assessment Criteria: creativity, neatness, content, grammar, spellings, overall presentation, completion of all the given questions and timely submission.**
3. **The written part should be neatly presented in your own handwriting specifically highlighting the following features**
 - **Cover Page – (Do mention your Full Name, Class and section)**
 - **Acknowledgement**
4. **Remember a well presented ‘Holiday Home Work’ fetches you marks and appreciation of your teachers and classmates.**
5. **Do all the given homework yourself, it is OK if it looks raw or unfinished, you are not a professional, and you are in process of learning. We your teachers will always appreciate your endeavours!**

Q1. Create a poem based on any topic of Class X syllabus of English and highlight the presence of listed literary devices. Give a suitable title to your poem, and summarise the idea depicting the poem in not more than 120 words. Given below is a list of literary devices that you can use in your poem.

Simile	Metaphor	Personification	Alliteration	Repetition	Oxymoron	Refrain
Hyperbole	Allusion	Apostrophe	Irony	Paradox	Onomatopoeia	Synechdoche

Q2. Modern lifestyle is sedentary and is giving rise to increasing cases of obesity amongst the youth. What aggravates the situation further is the careless attitude of the youth towards physical fitness. Write an article on “Staying Fit-The Need Of the hour” in 120 – 150 words.

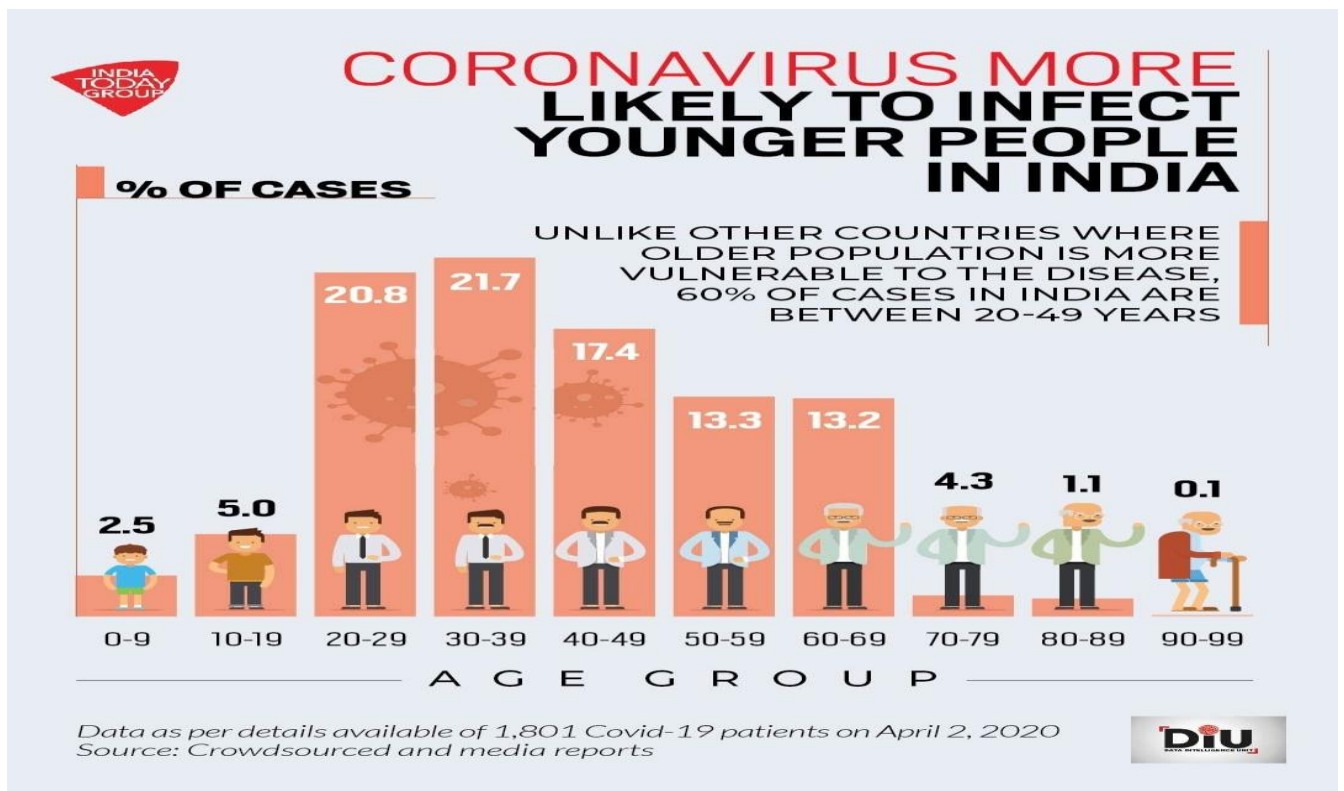
Q3. Read the following passage carefully:

“A turntable? Coming right up!” says the young man behind the counter. He disappears into the storeroom and before I can say long-playing record, he’s back with a small cardboard under his arm. It’s too good to be true. An hour later my new acquisition is in the living room and a respectful atmosphere descends. I’ve sorted my records into piles all over the floor. I find a Beatles album. Behind the wonderful music now flowing through the loud-speaker is the unmistakable sound of vinyl. It doesn’t take long for my twelve year old son’s eagle eye to spot the turntable and he has to try it out. Jonas is technically minded, a child of the computer age, yet I sense a certain reverence as he picks up the tone arm and tries to place it in middle of the record. Brought up in the CD age how could he know what’s wrong? I say in a soothing voice : “The starting groove is on the edge of the record.” “Does it matter which side is up?” queried my daughter. “It does matter”, I replied. Soon we were listening to a Phil Collins number we both like. The generation gap vanishes as the music takes over. I relish the moment to the full and cast a glance at Ida. She’s relaxed and smiling.

Read the following questions and write the option you consider the most appropriate in your answer sheet:

- (a) The writer was surprised because.....
- (i) He did not expect the young shopkeeper to know about a turntable
 - (ii) The shopkeeper found the music of his choice.
 - (iii) The shopkeeper agreed to look for a turntable and get it for him.
 - (iv) None of the above.
- (b) The meaning of the word acquisition is
- (i) The learning or developing of a skill
 - (ii) Buy or obtain
 - (iii) Accept or admit the truth
 - (iv) Free from a criminal charge
- (c) The writer's son is curious because.....
- (i) He has never seen a record
 - (ii) He has never seen a turntable
 - (iii) He has a technical mind
 - (iv) None of these
- (d) Writer's son and daughter showed a lot of.....
- (i) Love for music
 - (ii) Interest
 - (iii) Respect for the technology of the past
 - (iv) All of the above
- (e) The generation gap disappeared as they all.....
- (i) Liked music.
 - (ii) Liked listening to the same kind of music.
 - (iii) Liked the turntable
 - (iv) Loved old time music.

Q4. As an aware citizen of the country, you are concerned about the increasing corona cases in India. Interpret the data given below in about 150 - 200 words. Also use your own ideas.



SUBJECT - HINDI

सभी प्रश्नों के उत्तर निर्देशानुसार दीजिए –

निर्देश :

1. प्रश्न 1 से 12 के उत्तर लगभग 30 शब्दों में दीजिए।
2. स्वच्छता व सुलेख पर विशेष ध्यान दीजिए।
3. ग्रीष्मकालीन गृहकार्य एक अलग कॉपी (घर में जो उपलब्ध हो) में करें।
4. गृहकार्य निर्धारित समय पर अपने विषय शिक्षक/शिक्षिका को जमा करवाएं।

प्रश्न 1 आपके विचार से 'पानवाला' या 'कैप्टन' में से असली लँगड़ा कौन है ? तर्क सहित उत्तर दीजिए।

प्रश्न 2 आपके विचार में देश और देशप्रेम क्या है ?

प्रश्न 3 'नेताजी का चश्मा' पाठ को पढ़कर आप जो अनुभव करते हैं उसे अपने शब्दों में लिखिए तथा बताइए आज जबकि देशभक्ति मज़ाक की चीज़ होती जा रही है, ऐसे वातावरण में भी निराश होने की आवश्यकता क्यों नहीं है ? तर्क सहित उत्तर दीजिए।

प्रश्न 4 यह कैसे कहा जा सकता है कि बालगोबिन भगत की पतोहू एक आदर्श पतोहू थी ? क्या आधुनिक समय में भी इस प्रकार का आदर्श प्रासंगिक माना जा सकता है ?

प्रश्न 5 बालगोबिन भगत पतोहू के पुनर्विवाह के रूप में समाज की किस समस्या का समाधान प्रस्तुत करना चाहते हैं ? स्पष्ट कीजिए।

प्रश्न 6 बालगोबिन भगत के जीवन से हमें क्या प्रेरणा मिलती है ?

प्रश्न 7 सूरदास ने 'मधुकर' शब्द का प्रयोग किसके लिए किया है ?

प्रश्न 8 गोपियों ने योग संदेश सुनकर कृष्ण पर अनेक आरोप लगाए और आशंकाएं व्यक्त कीं। आपके अनुसार श्रीकृष्ण ने योग संदेश क्यों भिजवाया होगा ?

प्रश्न 9 गोपियाँ विरह की आग में क्यों जल रही हैं ?

प्रश्न 10 'राम-लक्ष्मण-परशुराम संवाद' से आपको क्या शिक्षा मिलती है ?

प्रश्न 11 'राम-लक्ष्मण-परशुराम संवाद' पाठ के आधार पर बताइए कि लक्ष्मण में साहस और वीरता के साथ विनय का गुण भी होता तो अच्छा होता।

प्रश्न 12 'राम-लक्ष्मण-परशुराम संवाद' में किसकी उपमा लौहमयी खांड से दी गई है और क्यों ?

प्रश्न 13 किन्हीं दो विषयों पर दिए गए संकेत बिंदुओं के आधार पर लगभग 100 शब्दों में अनुच्छेद लिखिए –

(क) राष्ट्रभाषा हिंदी

संकेत बिंदु : भूमिका , आवश्यकता , वर्तमान स्थिति, हिंदी की उन्नति के लिए उपाय , उपसंहार

(ख) भारतीय नारी

संकेत बिंदु : पौराणिक युग में नारी का स्थान , द्वापर युग में नारी का स्थान , आधुनिक युग में नारी का स्थान , 21वीं सदी में नारी का स्वरूप।

(ग) आज की महत्वपूर्ण आवश्यकता – संयुक्त परिवार

संकेत बिंदु : भूमिका , युवा पीढ़ी का रिश्तों से परिचय , मिलजुलकर रहने की भावना , बुजुर्गों की उपस्थिति व महत्त्व, अकेलेपन से मुक्ति , उपसंहार

प्रश्न 14 किसी समाचार पत्र के संपादक को पत्र लिखिए जिसमें शहर के कुछ लोगों द्वारा लॉकडाउन के नियमों का पालन न करने की ओर अधिकारियों का ध्यान आकृष्ट कराया गया हो।

अथवा

अपने क्षेत्र की नालियों तथा सड़कों की समुचित सफाई न होने पर स्वास्थ्य अधिकारी को एक पत्र लिखिए।

प्रश्न 15 अनुशासन का महत्त्व बताते हुए अपने मित्र को पत्र लिखिए।

अथवा

आपके विद्यालय में वृक्षारोपण कार्यक्रम किया गया, जिसमें आपकी महत्त्वपूर्ण भूमिका रही। कार्यक्रम के प्रति अपने अनुभव को बताते हुए अपने छोटे भाई को पत्र लिखिए।

SUBJECT – SANSKRIT

सामान्यनिर्देशः

1. सर्वान् प्रश्नान् उत्तराणि संस्कृतभाषायाम् एव लेखितव्यानि।
2. संस्कृतस्य कृते पृथक् फाइल भविष्यति।
3. गृहकार्यम् निर्धारितसमये प्रदेयम्।
4. लेखनकार्यं स्पष्टं स्वच्छं सुन्दरं भवेत्।

1. निम्नलिखित सर्वनाम-शब्दरूपाणि अपनी उत्तरपुस्तिका में स्पष्ट तथा सुन्दर हस्तलेखन में लिखें – तत् (तीनों लिंगों में), एतत् (तीनों लिंगों में), इदम् (तीनों लिंगों में)।
अस्मद् तथा युष्मद्।

2. धातुरूपाणि-(परस्मैपदी) : पठ् , गम्-गच्छ् , वद् , भू-भव् , क्रीड् , नी , दृश् , अस् , कृ , पा-पिब् धातुओं को – लट्लकार , लृट्लकार , लोट्लकार , लंगलकार तथा विधिलिङलकार में लिखिए।
(आत्मनेपदी) : लभ् तथा सेव् धातुओं को लट् तथा लृट्लकार में लिखिए।

(कंठस्थ/याद कर के संस्कृत की उत्तरपुस्तिका में सुंदर ढंग से लिखिए।)

3. पठ् , गम्-गच्छ् , वद् , भू-भव् , क्रीड् , नी, दृश् , अस् , कृ, पा-पिब् धातुओं को क्त्वा , तुमुन् तथा ल्यप् इन तीनों प्रत्ययों में लिखिए। जैसे- पठ् + क्त्वा = पठित्वा।
4. पठ् , गम्-गच्छ् , वद् , भू-भव् , क्रीड् , नी, दृश् , अस् , कृ , पा-पिब् धातुओं को क्तवतु प्रत्यय में तीनों लिंगों लिखिए। जैसे –

पुलिङ्गे – पठ् +	क्तवतु	= पठितवान्	पठितवन्तौ	पठितवन्तः	भवत् के समान शब्दरूप चलेंगे।
स्त्रीलिङ्गे – पठ् +	क्तवतु	= पठितवती	पठितवत्यौ	पठितवत्यः	नदी के समान शब्दरूप चलेंगे।
नपुंसकलिङ्गे – पठ् +	क्तवतु	= पठितवत्	पठितवती	पठितवन्ति	जगत् के समान शब्दरूप चलेंगे

5. घटिका के एक से लेकर बारह बजे तक के समय को संस्कृत शब्दों में लिखें और याद करें।
जैसे- 1:00-एकवादनम् , 1:15-सपाद एकवादनम् , 1:30-सार्ध एकवादनम् , 1:45-पादो न द्विवादनम्।

अथवा

“स्वस्थःभारतवर्षः” इस विषय पर संस्कृत में दस वाक्य का एक अनुच्छेद लिखें।

SUBJECT - MATHEMATICS

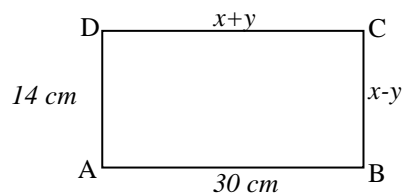
General Instructions:

- 1) Solve the sums in a separate notebook or any diary. (Available at home)
- 2) Use the stuff which is available at home.
- 3) Do the questions in sequence.
- 4) Work should be neat.
- 5) Do the questions systematically.

SECTION - A

Choose the correct answer

- Q.1 If a pair of linear equations in two variables is consistent, then the lines represented by two equations are
(a) intersecting (b) parallel
(c) always coincident (d) intersecting or coincident
- Q.2 If the system of equations $2x + 3y = 5$, $4x + ky = 10$ has infinitely many solutions, then $k =$
(a) 1 (b) $\frac{1}{2}$ (c) 3 (d) 6
- Q.3 The pair of equations $ax + 2y = 7$ and $3x + by = 16$ represent parallel lines if
(a) $a = b$ (b) $3a = 2b$ (c) $2a = 3b$ (d) $ab = 6$
- Q.4 The sum of the digits of a two digit number is 9. If 27 is added to it, the digits of the number get reversed. The number is
(a) 25 (b) 72 (c) 63 (d) 36
- Q.5 In a ΔABC , $\angle C = 3 \angle B = 2(\angle A + \angle B)$ then $\angle A$, $\angle B$ and $\angle C$ are
(a) $20^\circ, 40^\circ, 120^\circ$ (b) $40^\circ, 40^\circ, 100^\circ$ (c) $60^\circ, 90^\circ, 40^\circ$ (d) None of these
- Q.6 In the given figure ABCD is a rectangle. The value of x and y is



- (a) $x = 22 \text{ cm}$ & $y = 14 \text{ cm}$ (b) $x = 14 \text{ cm}$ & $y = 22 \text{ cm}$
(c) $x = 24 \text{ cm}$ & $y = 10 \text{ cm}$ (d) None of these
- Q.7 For what value of k , do the equation $3x - y + 8 = 0$ and $6x - ky = -16$ represent coincident lines?
(a) $\frac{1}{2}$ (b) $-\frac{1}{2}$ (c) 2 (d) None of these
- Q.8 Which of the pair of linear equations have no solution?
(a) $x + y = 6$; $2x + 2y = 12$ (b) $2x + y = 3$; $3x + 4y = 9$
(c) $2x + 3y = 6$; $4x + 6y = 9$ (d) None of these

- Q.9 The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. The present ages in years, of the son and the father are respectively.
 (a) 4 and 24 (b) 5 and 30 (c) 6 and 36 (d) 3 and 24
- Q.10 The pair of equations $x = a$ and $y = b$ graphically represents lines which are
 (a) parallel (b) intersecting at (b, a)
 (c) coincident (d) intersecting at (a, b)
- Q.11 Construction of a commutative frequency table is useful in determining the
 (a) Mean (b) Median (c) Mode (d) All of these
- Q.12 The arithmetic mean and mode of a data are 24 and 12 respectively, then its median is
 (a) 25 (b) 18 (c) 20 (d) None of these
- Q.13 If the arithmetic mean of 7, 8, x , 11, 14 is x , then $x =$
 (a) 9 (b) 9.5 (c) 10 (d) None of these
- Q.14 Which of the following is not a measure of central tendency?
 (a) Mean (b) Median (c) Mode (d) Standard deviation
- Q.15 One of the methods of determining mode is
 (a) $\text{Mode} = 2 \text{ Median} - 3 \text{ Mean}$ (b) $\text{Mode} = 2 \text{ Median} + 3 \text{ Mean}$
 (c) $\text{Mode} = 3 \text{ Median} - 2 \text{ Mean}$ (d) $\text{Mode} = 3 \text{ Median} + 2 \text{ Mean}$
- Q.16 The mean of discrete frequency distribution $x_i / f_i ; i = 1, 2, 3, \dots, n$ is given by
 (a) $\frac{\sum_{i=1}^n f_i x_i}{\sum_{i=1}^n f_i}$ (b) $\frac{1}{n} \sum_{i=1}^n f_i x_i$ (c) $\frac{\sum_{i=1}^n f_i x_i}{\sum_{i=1}^n x_i}$ (d) None of these
- Q.17 If the mean of observations x_1, x_2, \dots, x_n is \bar{x} , then the mean of $x_1 + a, x_2 + a, x_3 + a, \dots, x_n + a$ is
 (a) $a\bar{x}$ (b) $\bar{x} - a$ (c) $\bar{x} + a$ (d) $\frac{\bar{x}}{a}$
- Q.18 In the formula $\bar{X} = a + h \left(\frac{1}{N} \sum f_i u_i \right)$, for finding the mean of grouped frequency distribution $u_i =$
 (a) $\frac{x_i + a}{h}$ (b) $h(x_i - a)$ (c) $\frac{x_i - a}{h}$ (d) $\frac{a - x_i}{h}$
- Q.19 If 37 is removed from the data 30, 34, 35, 36, 37, 38, 39, 40, then the median decreased by
 (a) 2 (b) 1.5 (c) 0.5 (d) None of these
- Q.20 For the numbers 3, 1, 2, 4, 5, 3, 3 which one of the following is correct?
 (a) Mean = Mode = 3 ; Median = 4 (b) Mean = Median = Mode = 3
 (c) Mean = Median = 3 ; Mode = 5 (d) Mean = 3 ; Median = 4 ; Mode = 5

Fill in the blanks

- Q.21 An equation whose degree is one is known as a _____.
- Q.22 If the lines are parallel, then the pair of equations has no solution. In this case, the pair of equations is _____.
- Q.23 If $2x + 3y = 5$ and $3x + 2y = 10$, then $x - y =$ _____.
- Q.24 The number of common solutions for the system of linear equations $5x + 4y + 6 = 0$ and $10x + 8y = 12$ is _____.
- Q.25 Every solution of a linear equation in two variables is a point on the _____ representing it.
- Q.26 Two distinct natural numbers are such that the sum of one number and twice the other number is 6. The two numbers are _____.
- Q.27 In class interval 35-46, the lower limit is _____ and upper limit is _____.
- Q.28 _____ is the mid value of class interval.
- Q.29 _____ is the value of the observation having the maximum frequency.
- Q.30 The class mark of a class is 25 and if the upper limit of that class is 40, then its lower limit is _____.

True or False

- Q.31 A pair of linear equations in two variables may not have infinitely many solutions.
- Q.32 $3x - y = 3$, $9x - 3y = 9$ has infinite solution.
- Q.33 A pair of linear equations in two variables is said to be consistent if it has no solution.
- Q.34 $\sqrt{2}x + \sqrt{3}y = 0$, $\sqrt{3}x - \sqrt{8}y = 0$ has no solution.
- Q.35 A pair of intersecting lines representing a pair of linear equations in two variables has a unique solution.
- Q.36 For all real values of C, the pair of equations $x - 2y = 8$, $5x + 10y = c$ have a unique solution.
- Q.37 If 18 observations are arranged in ascending order then median is
$$\frac{9^{\text{th}} \text{ observation} + 10^{\text{th}} \text{ observation}}{2}$$
- Q.38 The mean of x , y , z is y , then $x + z = 2y$
- Q.39 The modal value is the value of the variate which divides the total frequency into two equal parts.
- Q.40 Median of 15, 28, 72, 56, 44, 32, 31, 43 and 51 is 42.

Match the following:

- Q.41 The pair of linear equations $2x + 3y = 6$ and $4x + 6y = 10$ is (a) 4
- Q.42 The pair of linear equations $5x - 15y = 8$ and $3x - 9y = \frac{24}{5}$ has (b) Inconsistent
- Q.43 If the arithmetic mean of $x, x+3, x+6, x+9$ and $x+12$ is 10 then $x =$ (c) 12
- Q.44 If $2x + 3y = 5$ and $6x + 3y = -3$ then $x + y =$ (d) Infinitely many solution
- Q.45 The median of first 10 Prime numbers is (e) 1
- Q.46 If the mode of the data 64, 60, 48, x , 43, 48, 43, 34 is 43, then $x+3 =$ (f) 0.5
- Q.47 The pair of linear equations $2x + y = 6$ and $4x - 2y - 4 = 0$ has (g) 19
- Q.48 If $kx - y - 2 = 0$ and $6x - 2y - 5 = 0$ are Inconsistent then $k =$ (h) unique solution
- Q.49 If the mean of 6, 7, x , 8, y , 14 is 9 then $x + y =$ (i) 3
- Q.50 If 35 is removed from the data: 30, 34, 35, 36, 37, 38, 39, 40, then the median is increased by (j) 46

SECTION-B

Solve the following

- Q.51 Father's age is three times the sum of ages of his two children. After 5 years his age will be twice the sum of ages of two children. Find the age of father.
- Q.52 Two years ago, a father was five times as old as his son. Two years later, his age will be 8 more than three times the age of the son. Find the present ages of father and son.
- Q.53 Places A and B are 80 km apart from each other on a highway. A car starts from A and other from B at the same time. If they move in the same direction, they meet in 8 hours and if they move in opposite directions, they meet in 1 hour and 20 minutes. Find the speeds of the cars.
- Q.54 Draw the graphs of $2x + y = 6$ and $2x - y + 2 = 0$. Shade the region bounded by these lines and x -axis. Find the area of the shaded region.
- Q.55 A two-digit number is such that the product of its digits is 20. If 9 is added to the number, the digits interchange their places. Find the number.

Q.56 A boat covers 32 km upstream and 36 km downstream in 7 hours. Also, it covers 40 km upstream and 48 km downstream in 9 hours. Find the speed of the boat in still water and that of the stream.

Q.57 The sum of the numerator and denominator of a fraction is 4 more than twice the numerator. If the numerator and denominator are increased by 3, they are in the ratio 2 : 3. Determine the fraction.

Q.58 A man travels 370 km partly by train and partly by car. If he covers 250 km by train and rest by car, it takes him 4 hours. But, if he travels 130 km by train and the rest by car, he takes 18 minutes longer. Find the speed of the train and that of the car.

Q.59 Given the linear equation $2x + 3y - 8 = 0$, write another linear equation in two variables such that the geometrical representation of the pair so formed is:
 (i) intersecting lines (ii) parallel lines (iii) coincident lines.

Q.60 Solve the following system of linear equations graphically:

$$2x - y - 4 = 0$$

$$x + y + 1 = 0$$

Find the points where the lines meet y-axis.

Q.61 Vijay had some bananas, and he divided them into two lots A and B. He sold first lot at the rate of ₹2 for 3 bananas and the second lot at the rate of ₹1 per banana and got a total of ₹400. If he had sold the first lot at the rate of ₹1 per banana and the second lot at the rate of ₹4 per five bananas, his total collection would have been ₹460. Find the total number of bananas he had.

Q.62 Find the mean of the following frequency distribution using Step deviation method.

Marks obtained	0-20	20-40	40-60	60-80	80-100
Students	15	18	21	29	17

Q.63 Find the mean of the following data using direct method.

Class	0-10	10-20	20-30	30-40	40-50
Frequency	3	5	9	5	3

Q.64 The weekly observations on cost of living index in a certain city for the year 2000-2001 are given below. Compute the mean weekly cost of living index (using Assumed mean or shortcut method)

Cost of living index (in ₹)	140-150	150-160	160-170	170-180	180-190	190-200	Total
Number of weeks	5	10	20	9	6	2	52

Q.65 The mean of the following data is 62.8. Find the missing frequency. 'P'

Run Scored	0-20	20-40	40-60	60-80	80-100	100-120
No. of Batsman	5	8	P	12	7	8

Q.66 The table below shows the salaries of 280 persons.

Salary (in thousands ₹)	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Number of person	49	133	63	15	6	7	4	2	1

Calculate the mode of the data.

Q.67 Find the median for the following frequency distribution

x	6	7	5	2	10	9	3
y	9	12	8	13	11	14	7

Q.68 The percentage of marks obtained by 100 students in an examination are given below:

Marks	40-45	45-50	50-55	55-60	60-65	65-70	70-75
No. of students	13	17	18	23	18	8	3

Determine the median of the above data.

Q.69 Find the value of ' x ' if the median of the following frequency distribution is 35.

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	2	3	x	6	5	3	2

Q.70 Find the median height from the following data:

Height in (cm)	Less than 120	Less than 140	Less than 160	Less than 180	Less than 200
Number of students	12	26	34	40	50

Q.71 The marks of 200 students in a test were recorded as follows.:

Marks %	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
No. of students	7	11	20	46	57	37	15	7

Find the median score of the students.

Q.72 Draw more than ogive for the following frequency distribution and hence obtain the median.

Height in (cm)	135-140	140-145	145-150	150-155	155-160	160-165
Number of plants	4	7	18	11	6	4

Q.73 Following distribution shows the marks obtained by the class of 100 students.

Marks	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	10	15	30	32	8	5

Draw less than ogive for the above data and hence obtain the median.

Q.74 Draw less than and more than ogives for the following distribution and hence obtain the median

Marks	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of students	14	6	10	20	30	8	12

Q.75 The marks of 20 students in a test were as follows:

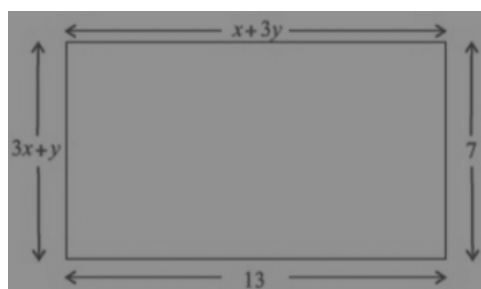
5 , 6 , 8 , 9 , 10 , 11 , 11 , 12 , 13 , 13 , 14 , 14 , 15 , 15 , 15 , 16 , 16 , 18 , 19 , 20

Calculate (i) mean (ii) median (iii) mode

Q.76 Find the median of a distribution, if its mean and mode, both are 8 respectively.

Q.77 A number say z is exactly the four times the sum of its digits and twice the product of the digits. Find the numbers.

Q.78 Find the values of x and y in the following rectangle (see Fig.)



Q.79 A man starts his job with a certain monthly salary and earns a fixed increment every year. If his salary was ₹1500 after 4 years of service and ₹1800 after 10 years of service what was his starting salary and what is the annual increment.

Q.80 The area of a rectangle gets reduced by 9 square units if its length is reduced by 5 units and the breadth is increased by 3 units. If we increase the length by 3 units and breadth by 2 units, the area is increased by 67 square units. Find the length and breadth of the rectangle.

SUBJECT - SCIENCE



NOTE -

1. Assignment should be done in good handwriting.
2. Use separate ruled sheets available with you for each section.
3. It is mandatory to submit the assignment within given time limit.

Section A - (Physics)

Choose the most appropriate answer for each question from the given choices

- Q.1 What is the maximum resistance which can be made using five resistors of each (1/5) ohm.
(a) 1/5 (b) 10 (c) 5 (d) 1
- Q.2 Which of the following represents voltage
(a) workdone/(current * time) (b) workdone* charge
(c) (workdone* time) /current. (d) workdone* charge * time
- Q.3 The resistivity does not change if,
(a) Material is changed. (b) Temperature is changed
(c) Shape of the resistor is changed. (d) Both material and temperature is changed
- Q.4 Electrical resistivity of a given metallic wire depends upon
(a) Length (b) Thickness (c) Shape (d) Nature of material
- Q.5 A current of 1A is drawn by a filament of an electric bulb. Number of electrons passing through a cross section of filament in 16seconds would be
(a) 10^{20} (b) 10^{10} (c) 10^{18} (d) 10^{23}
- Q.6 An electric kettle consumes 1kW of electric power when operated at 220V. A fuse wire of what rating must be used for it.
(a) 1A (b) 2A (c) 4A (d) 5A
- Q.7 Unit of Electric power may also be expressed as
(a) Volt-Ampere (b) Kilowatt Hour (c) Watt Second (d) Joule second
- Q.8 Two resistors of resistance 2 ohm and 4 ohm when connected to a battery will have
(a) Same current flowing through them when connected in parallel.
(b) Same current flowing through them when connected in series.
(c) Same potential difference across them when connected in series.
(d) Different potential differences across them when connected in parallel.
- Q.9 An electric bulb is rated 220V and 100W. When it is operated on 110V the power consumed will be.
(a) 100W (b) 75W (c) 50W (d) 25W

- Q.10 Keeping the potential difference constant, the resistance of the circuit is halved. The current will become.
(a) One fourth (b) Four times (c) Half (d) Double

Answer the following questions:

- Q.1 What does an electric circuit mean?
Q.2 Define electric current and its unit?
Q.3 State Ohm's law.
Q.4 On what factors does the resistance of a conductor depend?
Q.5 Why are the coils of electric toaster and electric iron made of an alloy rather than a pure metal?
Q.6 Why does the cord of an electric heater not glow while the heating element does?
Q.7 How can three resistors of resistances 2 ohm, 3 ohm and 6 ohm be connected to give a total resistance of (a) 4 ohm (b) 1 ohm.
Q.8 Resistance of a metal wire of length 15km is 450 Kilo ohm at 20°C. If the diameter of the wire is 0.25mm, what will be the resistivity of the metal at that temperature?
Q.9 Why is the series arrangement not used for domestic circuits?
Q.10 Draw symbols of the following components- Electric cell, Resistor, Ammeter, Voltmeter, variable resistor, a closed switch.

Section B – Chemistry

Choose the most appropriate answer for each question from the given options

- The chemical formula of lead sulphate is
(a) Pb_2SO_4 . (b) PbSO_3 (c) PbSO_4 (d) $\text{Pb}_2(\text{SO}_4)_3$
- 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
- 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
- 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
- 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.
- When a magnesium ribbon is burnt in air, the ash formed is
(a) black. (b) white. (c) yellow. (d) pink
- The reaction in which two compound exchange their ions to form two new compounds is called
(a) displacement reaction. (b) combination reaction
(c) double displacement reaction. (d) redox reaction

8. On immersing an iron nail in CuSO_4 solution for few minutes, you will observe
 - (a) no reaction takes place.
 - (b) the colour of solution fades away
 - (c) the surface of iron nails acquire a black coating.
 - (d) the colour of solution changes to green
9. Carbon burns in oxygen to form carbon dioxide. The reaction is an example of
 - (a) Combination reaction.
 - (b) Displacement reaction
 - (c) double displacement reaction.
 - (d) Decomposition reaction
10. Decomposition of silver chloride is an example of
 - (a) Thermal decomposition.
 - (b) Electrolytic decomposition
 - (c) Photolytic decomposition.
 - (d) All of the above

Answer the following questions

- Q.1 What are reactants and products?
- Q.2 Why is it necessary to balance a chemical reaction?
- Q.3 What are cations?
- Q.4 What are anions?
- Q.5 Name the cation and anion of potassium nitrate.
- Q.6 Write the formulae of sodium carbonate and calcium sulphate
- Q.7 What are poly atomic ions?
- Q.8 What are combination reactions
- Q.9 Define oxidation by giving an example
- Q.10 Define reduction by giving an example.

Activity

Prepare a report on decomposition reaction by taking example of

1. Thermal decomposition of lead nitrate
2. Electrolytic decomposition of water
3. Photolytic decomposition of silver chloride

Section C - Biology

Multiple Choice Questions -

1. Which of the following types of organism has the longest small intestine?
 [A] Carnivores [B] Omnivores [C] Herbivores [D] Autotrophs
2. The process of obtaining food by amoeba is known as...
 [A] Dialysis. [B] Cytokinesis. [C] Phagocytosis [D] Amoebiasis
3. Which organism possesses parasitic mode of nutrition?
 [A] Penicillium. [B] Plasmodium [C] Paramecium. [D] Euglena
4. Which one of the following organisms has saprophytic mode of nutrition?
 [A] Mushroom. [B] Malarial parasite.
 [C] Leech [D] Lice
5. The length of small intestine in an adult human being is about...
 [A] 4.5 m [B] 1.5 m. [C] 3.5 m. [D] 6.5 m
6. Where does the process of digestion of food start in human being?
 [A] Stomach. [B] Food canal [C] Buccal cavity [D] Small intestine
7. In which organ is the process of digestion in humans completed?
 [A] Oesophagus. [B] Small intestine. [C] Stomach. [D] Large intestine

8. By which of the following is bile secreted in human digestive system?
[A] Pancreas [B] Liver [C] Kidney. [D] Stomach
9. The autotrophic nutrition requires...
[A] carbon dioxide and water. [B] chlorophyll
[C] sunlight. [D] all of the above
10. In human digestive system, which organs secrete enzyme pepsin and trypsin respectively?
[A] Pancreas and liver [B] Stomach and salivary gland
[C] Pancreas and gall bladder. [D] Stomach and pancreas

II. ANSWER THE FOLLOWING QUESTIONS:

1. Explain the process of digestion in stomach.
2. Explain the process of breakdown of glucose in a cell
(i) in the presence of oxygen. (ii) in the absence of oxygen.
3. (a) Name the process by which plants prepare their own food.
(b) List the three events which occur during this process.
(c) State two sources from which plants obtain nitrogen for the synthesis of proteins and other compounds.
4. What is the significance of emulsification of fats?
5. Why is the small intestine in herbivores larger than in carnivores?
6. Define the term nutrition and nutrients.
7. Explain different modes of nutrition in animals. Give one example of each.
8. List two differences between Holozoic and Saprophytic modes of nutrition. Give examples also.
9. Why is nutrition necessary for living organisms?
10. Draw a diagram of human alimentary canal and label: Liver, Pancreas, Gall Bladder, and Duodenum. (Can be other parts also).

III. For the following questions refer activity 6.1 of NCERT book page number 96-

- Q1. Glucose is formed during photosynthesis but then why in the above experiment, test for starch was performed?
- Q2. Why is it important to place the plant in dark before conducting the experiment?

SUBJECT - SOCIAL SCIENCE

Instructions-

1. **The project should be submitted in a handmade file or folder.**
2. **It should be prepared/ made from eco-friendly products without incurring too much expenditure.**
3. **The project report should be handwritten by the students themselves.**
4. **Refer CBSE website (syllabus- Social Science) for the layout of the project report.**
5. **Refer Lesson-5 (Economics) for the relevant details.**

With reference to exploitation of consumers as per the Consumer Protection Act 1986, interview (telephonically) ten persons in your neighbourhood or relation and collect varied experiences in case they have been victims of any exploitation by shopkeepers.

Suggest the ways in which the consumers can be compensated along with relevant photographs if possible.

Conclude the report along with your findings in 100-150 words. You may systematically record your findings in the following areas:

Suggestive questions to be asked during interview are:

- i) Name of the person.
- ii) When you buy some item, do you insist on a bill?
- iii) Do you keep the bill carefully?
- iv) Do you look for ISI mark, Agmark, expiry date, etc.?
- v) A shopkeeper tells you to buy a tooth brush, but you want to buy a tooth paste only from his shop. What do you do?
- vi) If you realize that you have been tricked by the shopkeeper, have you bothered to complain to him?
- vii) Do you bother taking next step if the shopkeeper is not accepting his/her fault?
- viii) Have you heard about Consumer forum?
- ix) Do you know that they are there to help you to get compensation?

OR

‘Consumer Rights in India’

Make a project report on the given topic covering the following points:

1. Who is a ‘Consumer’?
2. Malpractices in the market place.
3. Need for protecting the consumers.
4. Consumer movements in India.
5. Different ways to protect consumers.
6. Problems with the consumer movements.
7. Consumer Rights- All types
8. Learning to become well-informed consumer.

Note: i. Design a poster to aware consumers.
ii. Draw/ paste various safety marks.

Note : Kindly submit all subjects’ holiday homework (within 15 days) of the reopening of school.

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