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Holidays' Assignments for Summer Vacations (2024-25) for Class X

General Instructions:

1. *Get up early in the morning and go out for a walk daily. Do yoga daily for healthy living.*
2. *Make a Bird feeder and add seeds(rice & wheat) for birds daily and also place water for them.*
3. *Raise a small kitchen garden by planting seeds of vegetables.*
4. *Learn any one folk song.*
5. *Help your mother in cooking and learn vegetable cooking and salad decoration.*
6. *The summer break for classes IX-XII will be from 28.05.2024 to 30.06.2024 (Both days inclusive). School will reopen on 01.07.2024.*
7. *Revise the syllabus of all subjects done before summer vacations for Unit Tests to be started from 02.07.2024.*
8. *Try to make your handwriting better by practicing and do your HW in good handwriting.*
9. *Do assignments in holidays homework notebook and activities/projects on A4 sheets for each subject and make a portfolio & submit it for assessment to your class teacher on July 10, 2024. There will be assessment of these portfolios and marks will be awarded in half yearly/annual exams.*
10. *Learn all the prayers and mantras given in student diary.*
11. ***Register & Participate in 1st stage of 10th Online International Humanity Olympiad by accessing through web portal – http://www.humanityolympiad.org or Android App - Awake Humanity (play store). Every individual passing the exam (i.e. scoring minimum 40%) will get an e-certificate through e-mail immediately on their emails. School code is : FATE100. This certificate and certificates of courses earned by you during holidays should be part of your portfolio.***

English

Instructions:

Prepare the following chapters for 1st UT

First flight ch- 1,2,3

Poem- 1,2,3

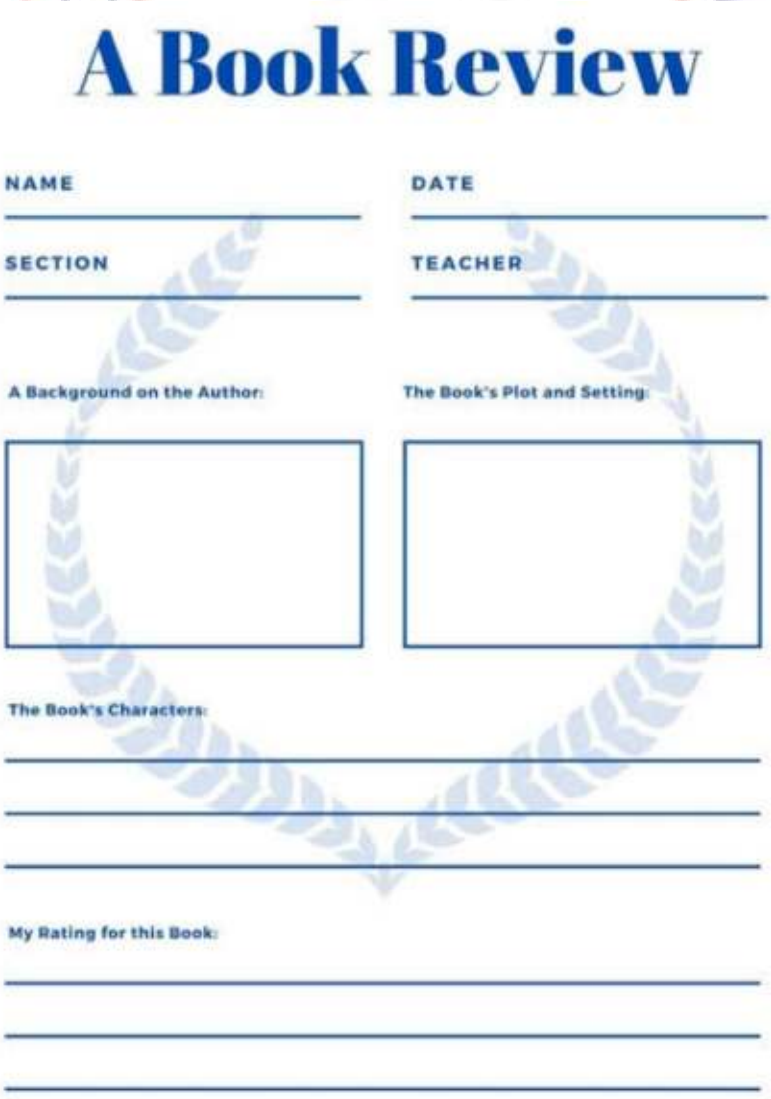
Footprints without feet ch-1,2

Grammar:Tenses, subject -verb-concord, narration.

Homework:

A.Do the following worksheets in practice book- NEP Insight

1.Do unseen passages :1-6 (pages 15 -35)
2.Do Module -6 : ch-1,2,3 .
3.Do Module -6: Poetry -1,2.i
4.Do Module -4:Tenses
5.Do Module -2: Formal letter pages 108,109,110
B.Make a T- Chart in your project file showing emotions and experience of young seagull before and after he made first flight.
C.Art Integrated activity: Prepare a script on 'Indian tradition and culture' for a puppet show.
D.Read any one of the following books and write synopsis in your project file.
1.Through the looking-Glass -by Mark Twain
2.A tale of two cities - by Charles Dickens
E.Download the app :English Conversation Practise through the below given link to improve spoken English.
https://play.google.com/store/apps/details?id=com.talkenglish.conversation



Social Science

Note : Do the given assignments on the separate sheets of paper :

1. Watch any historical movie or biopic and write its reviews- Like Gandhi, Kesari. Prithvi Raj Chauhan, The Legend of Bhagat Singh, Manikarnika-The Queen of Jhansi, Jodha Akbar, Mohenjodaro, Panipat, Padmaavat, Subhas Chandra Bose.

2. Art Integrated Project:

Prepare an integrated project selecting Manipur state of India. Follow the given instructions while making project.

- **A4 colourful sheets should be used.**
- **Related picture must be paste.**
- **Writing should be neat and clean with proper heading.**

Following topics should be covered during project work

- Water Conservation Methods, Rivers and Dams in Manipur.
- Festivals and Fairs in Manipur.
- Traditional Dress and Dance/Music in Manipur.
- Agriculture in Manipur.
- Tourism in Manipur.
- Politics in Manipur.
- Industries in Manipur.
- Historical Monuments in Manipur.

3. Prepare a short atlas by preparing maps on A-4 sheets.

GEOGRAPHY (Outline Political Map of India)

Chapter 1: Resources and Development (Identification only)

a. Major soil Types

Chapter 3: Water Resources (Locating and Labelling)

Dams:

a. Salal

b. Bhakra Nangal

c. Tehri

d. Rana Pratap Sagar

e. Sardar Sarovar

f. Hirakud

g. Nagarjuna Sagar

h. Tungabhadra

Chapter 4: Agriculture (Identification only)

a. Major areas of Rice and Wheat

b. Largest / Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute

Chapter 2: Nationalism in India (Locate & Label)

Congress sessions: • 1920 Calcutta • 1920 Nagpur. • 1927 Madras session,

II. 3 Satyagraha movements: • Kheda •Champaran. • Ahmedabad mill workers

III. Jallianwala Bagh

IV. Dandi March

4. Read the clue in column A and identify me. Write my name in Column B.

A (I am)	B (My name)
The king of Piedmont and Sardinia. I helped in the unification of Italy.	
A French Emperor. I introduced a Code in1804.	
The Austrian Chancellor. People consider me a dangerous enemy to society'.	
The founder of a secret society, 'Young Italy'. I inspired the youth to work towards unification.	
The Chief Minister of Prussia and was the architect for the Procedure of unification of Germany.	

5. Identify the attributes of Nationalism.

Study the picture give below (pg. 24) and identify the different symbols depicted in this picture. List the symbols and explain the attributes of each.

6. Prepare a mind mapsof Ch. 1 Resources and Development.
Ch. 2 Forest and Wildlife Resources
Ch. 3 Water Resources
Ch. 4 Agriculture
Ch. 1 The Rise of Nationalism in Europe
Ch. 2 Nationalism in India

7. **Complete the following blanks:**

Crop	Soil	Climate	Distribution
Rice			
	Black Soil		
			Hills of Darjeeling, Tamil Nadu, Kerala
Maize			
		Moist and humid, rainfall> 200 cm Temperature > 25 degrees	

8. Collect and paste the pictures of traditional agricultural tools and modern equipment used in agriculture and compare the difference.
9. Prepare atleast 25 questions related to Heritage Quiz.

10. Prepare an interdisciplinary Project on the topic 'Making of a Global World, Globalisation and Lifelines of Indian Economy'**.** (Note):- Project should be prepare based on interviews, research work, observations, Art Integration, Visual Expression, Concept Maps.

11. Word Search

Solve the puzzle by following your search horizontally and vertically to find the hidden answers.

B	J	U	T	E	Z
H	T	A	N	K	L
U	C	Z	A	I	D
P	O	O	N	A	R
U	F	L	S	T	U
L	F	T	P	O	B
S	E	Z	A	P	B
E	E	Q	K	T	E
S	M	D	L	A	R

(a) A leguminous crop.
(b) Known as golden fiber.
(c) An equatorial crop.
(d) Its cultivation was initially introduced on Baba Budan Hills.
(e) Shorts season during the summer months.

12- Learn and write additional competency based questions from each chapter which you have done in the month of April and May. "Make at least 20 additional questions covering the whole chapter and solve them in Holidays Home Work Notebook (10 very short ,6 short answers and 4 long answers.)

13- Syllabus for I-Unit Test:

Geography:- Chapter 1- Resources and Development
Chapter 2- Forest and Wildlife Resources
Chapter 3- Water Resources

History:- Chapter 1- The Rise of Nationalism in Europe.

HINDI

*कोई3अपठित गद्यांश एवं 3 अपठित काव्यांश के प्रश्न उत्तर अपनी कार्य पुस्तिका पर लिखिए।

* अपने पाठ्यक्रम से संबंधित अलंकारों (श्लेष, उत्प्रेक्षा, अतिशयोक्ति एवं मानवीकरण) की परिभाषा देते हुए अपनी ओर से प्रत्येक अलंकार के दो-दो स्वरचित उदाहरण लिखें एवं उनका स्पष्टीकरण भी करें।

* ग्लोबल वार्मिंग भूमंडलीय तापक्रम लगातार बढ़ रहा है इसके पीछे क्या-क्या कारण हैं तथा इसके इससे पृथ्वी को बचाने के लिए हम अपनी ओर से कौन-कौन से प्रयोग कर सकते हैं उनका चित्र सहित वर्णन कीजिए।

* आधुनिकता के इस दौर में (नवाचार) अर्थात आधुनिक साधनों का उपयोग दिन प्रतिदिन बढ़ता जा रहा है इनके उपयोग के यदि एक ओर सकारात्मक प्रभाव हैं तो दूसरी और नकारात्मक प्रभाव भी हैं आप अपनी ओर से किन्ही पांच आधुनिकतम साधनों का वर्णन कीजिए और एक तरफ उनके सकारात्मक पहलुओं पर चर्चा करें तो दूसरी तरफ उनके नकारात्मक पहलुओं का वर्णन चित्र सहित करें।

* निम्नलिखित विषयों पर लगभग 50 शब्दों में विज्ञापन तैयार करें –

* प्रदूषण से बचने के लिए जनहित में जारी एक विज्ञापन पर्यावरण विभाग की ओर से लिखिए। (चित्र सहित)

* गर्मी के मौसम से राहत दिलाने के लिए हर्बल जूस कंपनी द्वारा कई तरह के स्वास्थ्यवर्धक जूस बनाए गए हैं।इनकी विशेषताएँ बताते हुए उनके प्रचार हेतु एक आकर्षक विज्ञापन तैयार करें।

* आप अपने छोटे भाई को जन्मदिन की शुभकामना देते हुए एक संदेश लगभग 40 से 50 शब्दों में लिखिए। व्यक्ति के जीवन में योग के महत्व को दर्शाते हुए अंतर्राष्ट्रीय योग दिवस के उपलक्ष्य में राज्य के मुख्यमंत्री की ओर से जनहित में जारी एक संदेश लगभग 40 से 50 शब्दों में लिखें।

* भारत जैसे सांस्कृतिक रूप से विशिष्ट देश में विभिन्न राज्यों के लोगों के बीच पारस्परिकता को विकसित करने के लिए चलाए गए कार्यक्रम 'एक भारत श्रेष्ठ भारत' के अंतर्गत मणिपुर राज्य की भौगोलिक स्थिति,भाषा, साहित्य, व्यंजन, त्योहार वहां रहने वाली जातियाँ एवं जनजातियाँ, कृषि कार्य एवंव्यापार आदि क्षेत्रों की चित्र सहित जानकारी पर एक परियोजना कार्य असाइनमेंट फाइल में A-4 साइज शीट पर तैयार करें। परियोजना का पहला पृष्ठ- विद्यार्थी का नाम, कक्षा, वर्ग, अनुक्रमांक, विद्यालय का नाम एवं विद्यालय का प्रतीक चिह्न (लोगो)

दूसरा पृष्ठ-आभार ज्ञापन

तीसरा पृष्ठ- अनुक्रमणिका (Index)

चौथा पृष्ठ- - भूमिका/प्रस्तावना

पाँचवा पृष्ठ - संपूर्ण चित्राकर्षक

* प्रथम इकाई परीक्षा संबंधी पाठ्यक्रम कादोहराई कार्यपूरा करें।

* क्षितिज गद्य खंड पाठ- नेताजी का चश्मा , बालगोबिन भगत

* काव्य खंड पाठ- सूरदास के पद, राम लक्ष्मण परशुराम संवाद

* व्याकरण- रचना के आधार पर वाक्य भेद।

Summer Break Assignment

1. 1. If x= $\frac{3}{4}$, the value of y if 24x – 5y = 3.

[a] 4 [b] 3 [c] 5 [d] -3

2. Determine the value of (q+ps) so that prime factorization of 1680 is expressible as $2^p \times 3^q \times s \times 7$

[a] 12 [b] 10 [c] 21 [d] 20

3. The LCM of two numbers is 30 times their HCF. The sum of LCM and HCF is 279.If one of the number

54 then other number is

[a] 45 [b] 54 [c] 27 [d] 90

4. Determine the value of $(q+ps)^2$ so that prime factorization of 1680 is expressible as $2^p \times 3^q \times s \times 7$

[a] 144 [b] 100 [c] 441 [d] 400

5. The largest number which divides 62 and 83, leaving remainders 2 and 8, respectively, is

[a] 13 [b] 65 [c] 15 [d] 1750

6. For which value(s) of k for will the lines represented by the following pair of equations

has unique solution : 2kx +4y =7 and 5x +15y =14

[a] k≠3/2 [b] k≠2/3 [c] k =2/3 [d] k =3/2

7. If p and q are the zeroes of the polynomial $5x^2+40x+7$ then the value of (p +q+15pq)

[a] -42 [b] -29 [c] 29 [d]13

8. If sum of zeroes of the polynomial $3k\,x^2 - (9k-4)x + 9$ is 1/3 then the value of k.

[a] 1/4 [b] 1/2 [c]-1/3 [d] -2

9. If product of zeroes of the polynomial $15kx^2 - 16x + (6k + 13)$ is 3 then the value of k.

[a] -1/2 [b] 1/3 [c] 1/2 [d] -5

10. The sum of the zeroes of the polynomial $(3k-4)x^2-8x+(k+6)$ is equal to their product then

the value of k is:

[a] 3 [b] -3 [c] -5/2 [d] 2

11. If x= -3/7 and 28x + 9y = 15, then the value of 6y is equal to :

[a] -24 [b] 18 [c] -20 [d] 15

12. The pair of equations 21x+18y= 2 and 28x+24y= -9 has :

[a] one solution [b] two solutions [c] many solutions [d] no solution

13. The pair of linear equations 2kx+ 15y=9, 8x +20y =12 has a unique solution, then

[a] k≠-3 [b] k≠3 [c] k= -2 [d] k≠1/4

14. The given number is 8 more than 8 times the sum of the digits, when digit at one's Place is x and digit atten's place is y, then which one is true

[a] 7x+9y= - 8 [b] 8 = 7x-9y [c] 0= 7x-2y+8 [d] 7x+2y=8

15. If the length of rectangle is reduced by 6 cm and breadth is increased by 10cm then it becomes a square , then which is true :

[a] L+B+16 = 0 [b] L-2B-16 = 0 [c] L-B-16 = 0 [d] L-B-6 = 0

16. If 6 is added in the numerator and 7 in the denominator the fraction becomes 3/5. Find the equation in two variables by taking numerator as x and denominator as y which satisfy the given condition :

[a] 5x-3y=-9 [b] 5y-3x=13 [c] 5x-3y= 9 [d] 5y-3x =9

17. Find the value of k if the given equation $2x^2$ - 4x +(3k-4)=0 has equal roots.

[a] -2 [b] 5 [c] -5 [d] 2

18. The discriminant of $\sqrt{5}x^2 + 2\sqrt{7}mx + 2\sqrt{5}m=0$

[a]$28m^2+40m$ [b] $28m^2$ -40m [c] $28m^2$ -45m [d] 40m -$25m^2$

19. If x(x +13)=30, then positive value(s) of x is

[a] 2,15 [b] 15,1 [c] 2 [d] 15

20. The integral value of x which satisfy the equation : 3x(x-3)=5+5x

[a] -3 [b] -2 [c] 5 [d] 2

21. Show that : (i) $\sqrt{3}$ is an irrational number (ii)$\frac{1}{\sqrt{2}}$ is an irrational number .

22. Find the zeroes of the polynomial $3x^2 - 7x+4$. Verify the relationship between zeroes
and co-efficient.

23. If sum of zeroes of x^2 + (3m+7)x + (5m+6) is one-fourth of its product of zeroes. Find m.

[-2]

24. Solve for x and y : cx +dy =d^2+cd, dx+cy=cd+d^2 [d,d]

25. Pronitatravels 550 km to his home, partly by train and partly by bus. She takes 12 hours if she travels 200 km by train and rest by bus. She takes 24 minutes more if she travels 280 km by train and the rest by bus. Find the speed of the train and car. [40,50]

26. If the given equations : 3x+4y=10, (p+q+2)x + (p+2q+4)y =40 have many solutions, find p and q. [8,2]

27. Two brands of chocolates are available in packs of 24 and 15 respectively. If I need to buy an equal number of chocolates of both kinds , what least number of boxes of each kind I would need to buy ? [5 and 8]

28. Statement A (Assertion): H.C.F. and L.C.M. of two numbers are 25 and 815 respectively.

Statement R(Reason) : L.C.M. of two natural numbers is always divisible by their H.C.F.

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

(b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A)

(c) Assertion (A) is true but reason (R) is false.

(d) Assertion (A) is false but reason (R) is true.

29. Statement A (Assertion) : $\sqrt{5}$ is an irrational number

Statement R(Reason) : Square root of a positive integer which is not a perfect square is an irrational number.

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

(b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A)

(c) Assertion (A) is true but reason (R) is false.

(d) Assertion (A) is false but reason (R) is true.

30. Statement A (Assertion) : The linear equations 2x + 3y = 6 and 4x + 6y = 5 are parallel.

Statement R(Reason) : If $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ then lines are parallel.

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

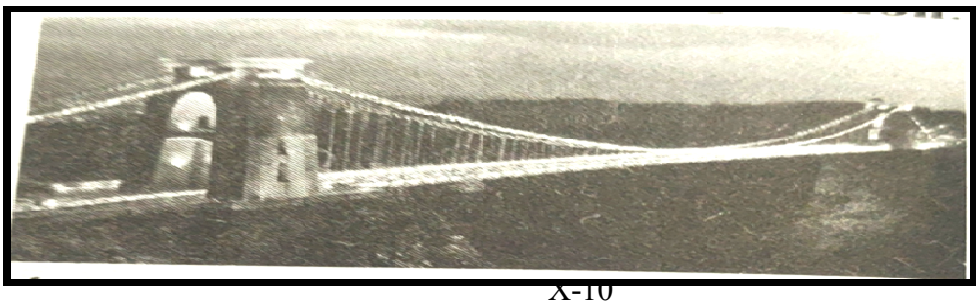
(b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A)

(c) Assertion (A) is true but reason (R) is false.

(d) Assertion (A) is false but reason (R) is true.

Competency Based Questions

Applications of Parabola : Suspension Bridge if the roadway of a suspension bridge is loaded uniformly per horizontal metre, the suspension cable hangs in the form of arcs which closely approximate to parabolic arcs. Therefore, parabolic arcs are used n suspension cable bridge construction.



1. Parabola : A parabola is the graph that results from $p(x) = ax^2+bx+c$, $a \neq 0$,. Parabolas are symmetric about a vertical line known as the Axis of Symmetry.

[i] Find the quadratic polynomial whose zeroes are -5 and 4.

[a] x^2+x-20 [b] x^2-x-20 [c] x^2+x+20 [d] x^2-x+20.

[ii] Find the sum and product of zeroes of quadratic polynomial : $4x^2+12x-5$ are:

[a] 3, -5/4 [b] -3, 5/4 [c] -3, -5/4 [d] 3, 5/4

[iii] The number of zeroes of $4x^2-8x$.

[a] 0 [b] 1 [c] 2 [d] 3

[iv] If the suspension cable of a bridge hangs in the form of an arc is represented by $3x^2-10x+3$,then its zeroes are

[a] -3, 1/3 [b] 3, 1/3 [c] -3, -1/3 [d] 3, -1/3

[v] Graph of a quadratic polynomial is a :

[a] straight line [b] hyperbola [c] ellipse [d] parabola

2. *A seminar is being conducted by an Educational Organisation , where the participants will be educators of different subjects . The number of partiocipants in Hindi ,English and Mathematics are 60 , 84 and 108 respectively . Now answer the following questions.*

(I) In each room the same number of participants are to be seated and all of them being in the same subjects . , hence maximum number of participants that can be accommodated in each room are : [a] 14 [b] 12 [c] 16 [d] 18 .

(II) What is the minimum number of rooms required during the event ?

[a] 11 [b] 31 [c] 41 [d] 21 .

(III) L.C.M. of 60 , 84 and 108 is : [a] 3780 [b] 3680 [c] 4780 [d] 4680.

(IV) 108 can be expressed as products of its primes as :

[a] $2^3 \times 3^2$ [b] $2^3 \times 3^3$ [c] $2^2 \times 3^2$ [d] $2^2 \times 3^3$.

3. Auditorium, the part of a public building where an audience sits, as distinct from the stage, the area on which the performance or other object of the audience's attention is presented. In a large theatre an auditorium includes a number of floor levels frequently designed as stalls, private boxes, dress circle, balcony or upper circle, and gallery. A sloping floor allows the seats to be arranged to give a clear view of the stage. The walls and ceiling usually contain concealed light and sound equipment and air extracts or inlets and may be highly decorated. In an auditorium, seats are arranged according to the requirement of the audience, on one day if 5 membersareless in a row there are 4 more rows required and if there are 9 persons more in each row there would be 3 rows less.

(i) Describes the algebraic equations of above situations ?
(ii) Find the total number of seats in the Auditorium.

Activity :**1.** Make four statements from your surroundings related to linear equation in two variables and also solve them.
2. Prepare a Mind map/concept map/summary of first four units including illustrative examples and graphical representation**.**

Science

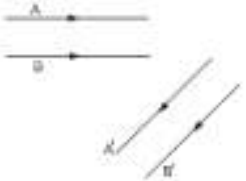
<table>
<tr><th>Task No.</th><th>Task Details</th></tr>
<tr><td>1</td><td>List all Nobel laureates of Physics, Chemistry and Medical science from last 10 years and their topic of research in tabular form.
List all Indian Nobel laureates of Physics, Chemistry and Medical science and their topic of research in tabular form.
Tabular form can be something like this:

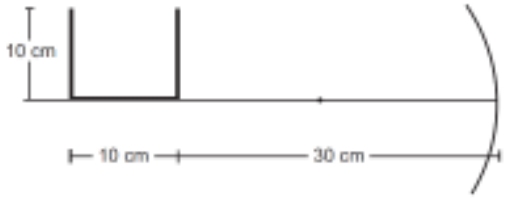
<table>
<tr><td colspan="3">YEAR : 2023</td></tr>
<tr><td>Physics</td><td>Names of laureate</td><td>Topic of Research</td></tr>
<tr><td>Chemistry</td><td>Namesof laureate</td><td>Topic of Research</td></tr>
<tr><td>Medical Science</td><td>Names of laureate</td><td>Topic of Research</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Climate change refers to long-term shifts in temperatures and weather patterns. These climate changes are causing adverse effects humanity.

Make a presentation on the topic :Climate Change , Its adverse effects to Humanity and ways to improve upon the situation.</td></tr>
<tr><td>3</td><td>Revise Following Chapters for unit test:

(1) Reflection of light
(2) Chemical Reactions And Equations
(3) Life Processes (Digestion and Absorption)</td></tr>
<tr><td>4</td><td>Solve question of all the chapters covered so far from following sources:
(1) NCERT
(2) NCERT Exemplar</td></tr>
<tr><td>5</td><td>Solve worksheet provided with homework.</td></tr>
</table>

Worksheet

1	An object is placed on the principal axis of a concavemirror of focal length 10 cm at a distance of 8.0 cm fromthe pole. Find the position and the nature of the image.
2	A rod of length 10 cm lies along the principal axis of aconcave mirror of focal length 10 cm in such a way thatthe end closer to the pole is 20 cm away from it. Findthe length of the image.
3	At what distance from a convex mirror of focal length2.5 m should a boy stand so that his image has a heightequal to half the original height ? The principal axis isperpendicular to the height.
4	A 2.0 cm high object is placed on the principal axis of aconcave mirror at a distance of 12 cm from the pole. Ifthe image is inverted, real and 5.0 cm high, find thelocation of the image and the focal length of the mirror.
5	Can a plane mirror ever form a real image ?
6	Can a virtual image be photographed by a camera ?
7	If an object far away from a convex mirror movestowards the mirror, the image also moves. Does it movefaster, slower or at the same speed as compared to theobject?
8	A point source of light is placed in front of a planemirror. (a) All the reflected rays meet at a point when producedbackward. (b) Only the reflected rays close to the normal meet ata point when produced backward. (c) Only the reflected rays making a small angle withthe mirror meet at a point when producedbackward. (d) Light of different colours make different images.
9	In image formation from spherical mirrors, only paraxialrays are considered because they (a) are easy to handle geometrically (b) contain most of the intensity of the incident light (c) form nearly a point image of a point source (d) show minimum dispersion effect.
10	A point object is placed at a distance of 30 cm from aconvex mirror of focal length 30 cm. The image will format (a) infinity (b) pole (c) focus (d) 15 cm behind the mirror.
11	Figure below shows two rays A and B being reflectedby a mirror and going as A′ and B′. The mirror  (a) is plane (b) is convex (c) is concave (d) may be any spherical mirror.
12	The image formed by a concave mirror: (a) is always real (b) is always virtual (c) is certainly real if the object is virtual (d) is certainly virtual if the object is real.
13	A concave mirror having a radius of curvature 40 cm isplaced in front of an illuminated

	point source at adistance of 30 cm from it. Find the location of the image.
14	A concave mirror forms an image of 20 cm high objecton a screen placed 5.0 m away from the mirror. Theheight of the image is 50 cm. Find the focal length ofthe mirror and the distance between the mirror and theobject.
15	A concave mirror has a focal length of 20 cm. Find theposition or positions of an object for which the imagesizeis double of the object-size.
16	A 1 cm object is placed perpendicular to the principalaxis of a convex mirror of focal length 7.5 cm. Find itsdistance from the mirror if the image formed is 0.6 cmin size.
17	A candle flame 1.6 cm high is imaged in a ball bearingof diameter 0.4 cm. If the ball bearing is 20 cm awayfrom the flame, find the location and the height of the image.
18	A 3 cm tall object is placed at a distance of 7.5 cm froma convex mirror of focal length 6 cm. Find the location,size and nature of the image.
19	A man uses a concave mirror for shaving. He keeps hisface at a distance of 25 cm from the mirror and gets animage which is 1.4 times enlarged. Find the focal lengthof the mirror.
20	A U-shaped wire is placed before a concave mirrorhaving radius of curvature 20 cm as shown in figurebelow. Find the total length of the image. 
21	Which property of convex mirrors makes them ideal to be used as rear-view mirrors ? (1) They form real images and cover a wide area (2) They form real, erect & diminished images (3) They form diminished & erect images and cover a wide area (4) They form magnified & erect images and cover a small area
22	A convex mirror of focal length f produces an image (1/n)th of the size of the object. The distance of the object from the mirror is (1) nf(2) f/n (3) (n + 1)f(4) (n . 1)f
23	An observer moves towards a stationary plane mirror at a speed of 4 ms^{-1}. The speed of his image with respect to mirror is ____. (1) 4 ms^{-1} towards the mirror (2) 8 ms^{-1} towards the mirror (3) 4 ms^{-1} away from the mirror (4) 8 ms^{-1} away from the mirror
24	Geeta stands in front of a plane mirror. She sees her image in the mirror, behind it, at a distance of 4 m from the mirror. She moves a distance of 2 m towards the mirror. What is the change in the distance between Geeta and her image? (1) It decreases by 2 m (2) It decreases by 4 m (3) It increases by 2 m (4) It increases by 4 m
25	A boy stands straight in front of a mirror at a distance of 30 cm away from it. He sees his erect image whose height is 1/5th of his real height. The mirror he is using is

	(1) plane mirror v (2) convex mirror (3) concave mirror (4) never possible
	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.
26	Assertion (A) : In anaerobic respiration, one of the end product is alcohol. Reason (R) : There is an incomplete breakdown of glucose.
27	Assertion (A) : In plants there is no need of specialised respiratory organs. Reason (R) : Plants do not have great demands of gaseous exchange.
28	Assertion (A) : Bile is essential for digestion of lipids. Reason (R) : Bile juice contains enzymes.
29	Assertion (A) : Carbohydrate digestion mainly takes place in small intestine. Reason (R) : Pancreatic juice contains the enzyme lactase.
30	Assertion (A) : Aerobic respiration requires less energy as compared to anaerobic respiration. Reason (R) : Mitochondria is the powerhouse of the cell.
31	Assertion (A): Energy is required to carry out different life processes. Reason (R) : Energy is obtained in the form of ATP in the mitochondria.
32	Assertion (A): Rings of cartilage are present in the throat, Reason (R) : These ensure that the air-passage does not collapse
33	Assertion (A): Pyruvate is a six-carbon molecule Reason (R) : It is prepared in the cytoplasm as the first step to cellular respiration
34	Assertion (A): Diffusion does not meet high energy requirements of multi-cellular organisms Reason (R) : Diffusion is a fast process but occurs at the surface of the body.
35	Assertion (A): The opening and closing of the pore is a function of the guard cells. Reason (R) : Stomatal pores are the site for exchange of gases by diffusion.
36	Assertion (A): The inner lining of the small intestine has numerous finger-like projections called villi. Reason (R) : The villi increase the surface area for absorption.
37	ssertion (A): In human beings, the respiratory pigment is haemoglobin Reason (R) : It is a type of protein which has high-affinity carbon dioxide.
38	Assertion : Photosynthesis takes place in green parts of the plants. Reason: Photosynthesis always takes place in leaves.
39	Assertion (A) : Decomposition of vegetable matter into compost is an example of exothermic reactions. Reason (R) : Exothermic reaction are those reactions in which heat is evolved.
40	Assertion (A) : When HCl is added to zinc granules, a chemical reaction occurs. Reason (R) : Evolution of a gas and change in colour indicate that the chemical reaction is taking place.
41	Assertion (A) : Calcium carbonate when heated gives calcium oxide and water. Reason (R) : On heating calcium carbonate, decomposition reaction takes place.
42	Assertion (A) : Brown fumes are produced when lead nitrate is heated.

	Reason (R) : Nitrogen dioxide gas is produced as a by product due to the decomposition of lead nitrate.
43	Assertion (A) : White silver chloride turns grey in sunlight. Reason (R) : Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.
44	Assertion (A): Pungent smelling gas is produced when sulphur burns in air. Reason (R) : Sulphur trioxide is formed on reaction of sulphur with oxygen.
45	Assertion (A) : In electrolysis of water, the volume of hydrogen liberated is twice the volume of oxygen formed. Reason (R) : Water (H,0) has hydrogen and oxygen in the ratio of 1:2 by volume.
46	Assertion (A): Corrosion of iron is commonly known as rusting. Reason (R) : Corrosion of iron occurs in presence of water and air.
47	Assertion (A) : The balancing of chemical equations is based on law of conservation of mass. Reason (R) : Total mass of reactants is equal to total mass of products.
48	Assertion (A): In a balanced chemical equation, total mass of the reactants is equal to the total mass of the products. Reason (R): Mass can neither be created nor destroyed during a chemical change.
49	Assertion (A): Iron articles are painted so as to prevent them from rusting. Reason (R): When the surface of iron is coated with paint, its surface does not come in contact with oxygen and moisture therefore rusting does not take place.
50	Assertion (A) : Chemical reaction changes the physical and chemical state of a substance. Reason (R) : When electric current is passed through water (liquid), it decomposes to produce hydrogen and oxygen gases.

Punjabi

ਲਿਖ਼ਤੀ ਕੰਮ

ਨੋਟ -ਲਿਖਣ ਵਾਲਾ ਸਾਰਾ ਕੰਮ ' ਪੰਜਾਬੀ ਬੀ ' ਦੀ ਕਾਪੀ ਵਿੱਚ ਸਾਫ-ਸਾਫ ਲਿਖਾਈ ਵਿੱਚ ਲਿਖਣਾ ਹੈ। ਲਿਖ਼ਤੀ ਕੰਮ ਜ਼ਰੂਰ ਕਰਨਾ ਹੈ।

ਲੇਖ -1. ਸਮੇਂ ਦੀ ਕਦਰ

ਨੁਕਤੇ: ਭੂਮਿਕਾ .... ਕੁਦਰਤ ਦੇ ਸਮੇਂ ਦਾ ਸੰਬੰਧ..... ਮਨੁੱਖ ਤੇ ਸਮੇਂ ਦਾ ਸੰਬੰਧ..... ਮਹਾਨ ਵਿਅਕਤੀਆਂ ਦੇ ਜੀਵਨ ਦਾ ਮੁੱਖ ਰਾਜ ਸਮੇਂ

ਦੀ ਕਦਰ ..... ਵਿਦੇਸ਼ਾਂ ਵਿੱਚ ਸਮੇਂ ਦੀ ਕਦਰ ..... ਸਮਾਂ ਬਰਬਾਦ ਕਰਨ ਦੇ ਪ੍ਰਮੁੱਖ ਨੁਕਸਾਨ.... ਸੁਝਾਅ ..... ਸਿੱਟਾ l

ਲੇਖ -2. ਹਰਿਆਵਲ ਲਹਿਰ ਸਮੇਂ ਦੀ ਸਭ ਤੋਂ ਵੱਡੀ ਜਰੂਰਤ

ਨੁਕਤੇ : ਭੂਮਿਕਾ ..... ਕੁਦਰਤੀ ਕਰੋਪੀਆਂ ਦੇ ਕਾਰਨ ..... ਰੁੱਖਾਂ ਦੀ ਮਹੱਤਤਾ ਤੇ ਲਾਭ..... ਵੱਖ-ਵੱਖ ਸੰਸਥਾਵਾਂ ਤੇ ਸ਼ਖਸ਼ੀਅਤਾਂ ਦਾ

ਯੋਗਦਾਨ ..... ਹਰਿਆਵਲ ਲਹਿਰ ਪ੍ਰਤੀ ਜਾਗਰੂਕਤਾ..... ਰੁੱਖ ਲਗਾਉਣ ਤੇ ਬਚਾਉਣਾ : ਅਜੋਕੇ ਸਮੇਂ ਦੀ ਪ੍ਰਮੁੱਖ ਲੋੜ..... ਸਾਰੰਸ਼ ।

* ਪੱਤਰ ਰਚਨਾ ਦਾ ਅਭਿਆਸ ਕਰੋ ।

ਕਿਰਿਆਤਮਕ ਕੰਮ (Activity) -

* ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦੇ ਜੀਵਨ ਬਾਰੇ ਜਾਣਕਾਰੀ ਇੱਕਠੀ ਕਰੋ ਤੇ ਉਹਨਾਂ ਦੇ ਜੀਵਨ ਨਾਲ ਸੰਬੰਧਿਤ ਕੋਈ ਪ੍ਰੇਰਨਾਦਾਇਕ ਸਾਖੀ

(ਕਹਾਣੀ/ਘਟਨਾ) ਲਿਖੋ ।

ਨੋਟ - ਕਿਰਿਆਤਮਕ ਕੰਮ ਕਰਦੇ ਹੋਏ ਹੇਠ ਲਿਖੀਆਂ ਗੱਲਾਂ ਧਿਆਨ ਰੱਖਣੀਆਂ ਹਨ -

* ਐਕਟੀਵਿਟੀ ਰੰਗਦਾਰ (A 4 size) ਸੀਟ ਤੇ ਕਰਨੀ ਹੈ ।

* ਪਹਿਲੇ ਪੇਜ ਤੇ ਕਿਰਿਆਤਮਕ ਕੰਮ ਦੀ ਜਾਣਕਾਰੀ ਦੇਣੀ ਹੈ ਜਿਵੇਂ-

ਪੰਜਾਬੀ ਦਾ ਕਿਰਿਆਤਮਕ ਕੰਮ (Project of Punjabi)

ਫਿਰ ਵਿਸ਼ਾ (Topic) ਉਸ ਤੋਂ ਬਾਅਦ ਵਿਦਿਆਰਥੀ ਆਪਣਾ ਨਾਂ , ਰੋਲ ਨੰਬਰ , admission no ਲਿਖਣਗੇ

ਤੇਫਿਰਸੌਂਪਿਆਗਿਆਤੇਅਧਿਆਪਕਦਾਨਾਂ(Submitted to) ਤੇਦੁਆਰਾਪੇਸ਼ਕੀਤਾਗਿਆ(Submitted by)ਤੇਵਿਦਿਆਰਥੀ ਨੇਆਪਣਾਨਾਂਲਿਖਣਾਹੈ।

Ist UT ਲਈ ਹੇਠ ਲਿਖਿਆ Syllabus ਯਾਦ ਕਰੋ -

ਪਾਠਪੁਸਤਕਸਾਹਿਤਮਾਲਾ-ਕਵਿਤਾ-ਸੋਕਿਉਂਮੰਦਾਆਖੀਐ

ਕਵਿਤਾ-ਕਿਰਪਾਕਰਿਕੈਬਖਸ਼ਲੈਹੁ

ਵਾਰਤਕਪਾਠ-ਘਰਦਾਪਿਆਰ

ਪਾਠਪੁਸਤਕਵੰਨਗੀ-ਕਹਾਣੀ-ਕੁਲਛੀ

ਵਿਆਕਰਨ-ਸਮਾਸੀਸ਼ਬਦ

ਮੁਹਾਵਰੇ'ਕ'ਤੇ'ਖ'ਵਾਲੇ

Artificial Intelligence

Syllabus for UT- Artificial Intelligence, AI Project Cycle, Communication Skill

Activity 1: Complete any course mentioned on https://studio.code.org/courses and send your certificate on activities.davftb@gmail.com

Couse link - https://code.org/oceans

Watch videos given on above link about AI and Machine Learning and prepare a beautiful presentation on any one topic.

Activity 2: Write the following python programs in practical notebook.

After coding execute the program and take the screenshot of each bug /error free code with its output and upload them on the above-mentioned form individually.

1. Program to find out factorial of a number.
2. Program to check if a number is even or odd.
3. Program to find the largest amongst the three given numbers.
4. Program to print Fibonacci series.
5. Program to print a list and perform basic list functions e.g. append(), extend(), sort() etc