BHAI JOGA SINGH PUBLIC SCHOOL
HOLIDAY HOME WORK
CLASS XII
ENGLISH

1. Write a review on any of the following books in about 100 words;

•Things fall apart by Chinua Achebe
• India since 1947 by Atul Kumar Thakur

2. Watch any two of the following movies and make its presentation in the form of a slide show.

•Dead Poets Society
• Freedom Writers
•Forest Gump
•The Pursuit of Happyness

3. Prepare beautiful and attractive posters on the following topics
    • Benefits of Regular Exercise
    • Importance of Reading
    •Ayurveda – A blessing
    • Benefits of e- transactions and payments

4. Write articles in about 150 words on the following topics;
    • Meditation – A medicine for the mind
    •India- A tourist's dream destination
    •Status of women in society
    •The Usefulness of English Language in India
    •Students and Social Service
    •Diversity of Nature

5. Prepare a speech on the topics:

    •- Are we Happier than our Ancestors?
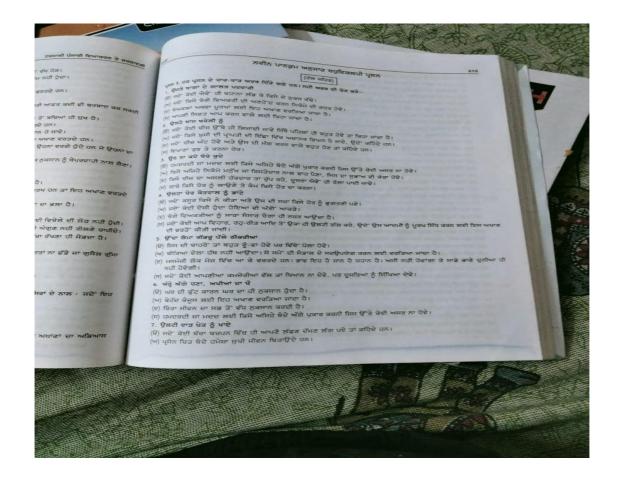   • Elections are very important for the Survival of Democracy in a country.

HINDI

1) भारतीय सिनेमा जगत की संक्षिप्त जानकारी 100 शब्दों में लिखकर चित्र सहित फाइल में तैयार करें |

2) धरती पर जनजीवन - प्राचीन एवं आधुनिक समय में होने वाले नकारात्मक , सकारात्मक परिवर्तनों , प्रभावों , बदलावों में जीवन पर पड़ने वाले उपायों एवं सुधार हेतु कार्यों की जानकारी देते हुए 250 शब्दों में चित्र सहित कार्य फाइल में तैयार करें |

3) जनसंचार,मीडिया का उपयोग एवं वर्तमान जीवन में समाज पर प्रभाव पर प्रोजेक्ट तैयार करें|

PUNJABI

ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ ਜਾਂ
ਬਜ਼ੁਰਗਾਂ ਦਾ ਘਟਦਾ ਸਤਿਕਾਰ ਤੇ ਇੱਕ ਭਾਵ ਪੁਰਵਕ ਪ੍ਰੋਜੈਕਟ ਤਿਆਰ ਦੀ ਕਰੋ

ਵਿਦੇਸ਼ਾਂ ਵਿਚ ਜਾਣ ਦੀ ਹੋੜ ਅਤੇ
ਸੋਸ਼ਲ ਮੀਡੀਆ ਦਾ ਵਧ ਰਿਹਾ ਪ੍ਰਭਾਵ ਤੇ ਪੈਰਾਂ ਰਚਨਾ ਕਰੋ।
ਭਾਰਤ ਦੇ ਪ੍ਰਧਾਨ ਮੰਤਰੀ ਨਰਿੰਦਰ ਮੋਦੀ ਤੇ ਲੇਖ ਲਿਖੋ ਅਤੇ
ਬੇਰੁਜ਼ਗਾਰੀ ਦੀ ਸਮਸਿਆ ਤੇ ਲੇਖ ਲਿਖੋ
Dear Students
Make an effective and informative project in a separate Project file
Do the Essays, Paragraph Composition and Proverbs in your Puñjabi note book.

ਪ੍ਰਸ਼ਨ 1. ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ ਚਾਰ-ਚਾਰ ਅਰਥ ਦਿੱਤੇ ਗਏ ਹਨ। ਸਹੀ ਅਰਥ ਦੀ ਚੋਣ ਕਰੋ—

(ਰੋਜ਼ ਸਹਿਤ)

1. ਉਸਤੇ ਬਾਣਾ ਦੇ ਗਾਲੜਤ ਪਟਵਾਰੀ
(ੳ) ਜਦੋਂ ਕੋਈ ਲੋਕਾਂ ਦੀ ਬਹਾਨਾ ਬਣ ਕੇ ਕਿਸੇ ਦੇ ਨੁਕਸ ਕੱਢੇ।
(ਅ) ਜਦੋਂ ਕਿਸੇ ਦੋਸੀ ਵਿਅਕਤੀ ਦੀ ਅਣਹੋਂਦ ਕਰਨ ਨਿਕਲਣ ਦੀ ਬਾਤ ਹੋਵੇ।
(ੲ) ਦੇਖਣਾ ਅਜਾ ਮੁਰਖਾ ਲਈ ਇਹ ਅਖਾਣ ਕਰਨ ਵਾਲੇ ਵਰਤਿਆ ਜਾਂਦਾ ਹੈ।
(ਸ) ਆਪਣੀ ਜ਼ਿਦਤ ਆਪ ਕਰਨ ਵਾਲੇ ਲਈ ਕਿਹਾ ਜਾਂਦਾ ਹੈ।

2. ਉਸਮੇ ਬਾਗਾ ਚਲੇਸੀ ਨੂੰ
(ੳ) ਜਦੋਂ ਕੋਈ ਚੀਜ਼ ਉੱਥੇ ਦੀ ਜ਼ਿਮਦਾਰੀ ਸਾਰੇ ਜ਼ਿੰਮੇ ਪਵਿਆ ਦੀ ਬਹੁਤ ਹੋਵੇ ਤਾਂ ਕਿਹਾ ਜਾਂਦਾ ਹੈ।
(ਅ) ਜਦੋਂ ਕਿਸੇ ਭੂਮੀ ਦੀ ਪ੍ਰਾਪਤੀ ਦੀ ਦਿੱਖਾ ਦਿੱਚ ਅਚਾਨਕ ਵਿਘਨ ਪੈ ਜਾਵੇ, ਉਦੋਂ ਕਹਿੰਦੇ ਹਨ।
(ੲ) ਜਦੋਂ ਚੀਜ਼ ਖੱਟ ਹੋਵੇ ਅਤੇ ਉਸ ਦੀ ਮੰਗ ਕਰਨ ਵਾਲੇ ਬਹੁਤ ਹੋਣ ਤਾਂ ਕਹਿੰਦੇ ਹਨ।
(ਸ) ਵਿਹਾਣਾ ਕੁਝ ਤੇ ਕਰਨਾ ਹੋਰ।

3. ਉਹ ਨਾ ਕਦੇ ਚੋਰੇ ਕੁਦੇ
(ੳ) ਹਮਦਰਦੀ ਜਾਂ ਮਦਦ ਲਈ ਕਿਸੇ ਅਜਿਹੇ ਬੰਦੇ ਅੱਗੇ ਪੁਕਾਰ ਕਰਨੀ ਜਿਸ ਉੱਤੇ ਕੋਈ ਅਸਰ ਨਾ ਹੋਵੇ।
(ਅ) ਕਿਸੇ ਅਜਿਹੇ ਨਿਕੰਮੇ ਮਨੁੱਖ ਜਾਂ ਜ਼ਿਮੇਦਾਰ ਨਾਲ ਵਾਹ ਪੈਣਾ।
(ੲ) ਕਿਸੇ ਚੀਜ਼ ਦਾ ਅਸਲੀ ਰੱਖਦਾਰ ਤਾ ਚੁੱਪ ਕਰੇ, ਦੂਸਰਾ ਔਖੇ ਦੀ ਰੱਜਾ ਪਾਈ ਜਾਵੇ।
(ਸ) ਸਾਰੇ ਕਿਸੇ ਹੋਰ ਨੂੰ ਚਾਉਦੇ ਤੇ ਕੰਮ ਕਿਸੇ ਹੋਰ ਦਾ ਕਰਨਾ।

4. ਉਸਟਾ ਹੋਰ ਕੋਤਵਾਲ ਨੂੰ ਡਾਟੇ
(ੳ) ਜਦੋਂ ਕਸੂਰ ਕਿਸੇ ਨੇ ਕੀਤਾ ਅਤੇ ਉਸ ਦੀ ਸਜ਼ਾ ਕਿਸੇ ਹੋਰ ਨੂੰ ਭੁਗਤਣੀ ਪਵੇ।
(ਅ) ਜਦੋਂ ਕੋਈ ਦੋਸੀ ਉੱਚਾ ਹੋਇਆ ਦੀ ਔਰੇ ਆਕੜੇ।
(ੲ) ਚੋਰੇ ਵਿਅਕਤੀਆ ਨੂੰ ਸਾਰਾ ਸੰਸਾਰ ਚੰਗਾ ਹੀ ਨਜ਼ਰ ਆਉਂਦਾ ਹੈ।
(ਸ) ਜਦੋਂ ਕੋਈ ਆਪ ਵਿਹਾਰ, ਰਹੁ-ਰੀਤ ਆਦਿ ਤੋਂ ਉੱਕਾ ਹੀ ਉੱਕਦੀ ਰੱਜ ਕਰੇ, ਉਦੋਂ ਉਸ ਆਾਦਮੀ ਨੂੰ ਮੁਰਖ ਸਿੱਧ ਕਰਨ ਲਈ ਇਸ ਅਖਾਣ ਦੀ ਵਰਤੋਂ ਕੀਤੀ ਜਾਂਦੀ ਹੈ।

5. ਉੱਚਾ ਲੰਮਾ ਰੱਸਣੂ ਪੱਲੇ ਠੀਕਰੀਆਂ
(ੳ) ਜਿਸ ਦੀ ਬਾਹਰੋਂ ਤਾ ਬਹੁਤ ਟੂੰ-ਫਾ ਹੋਵੇ ਪਰ ਵਿੱਚੋ ਪੋਲਾ ਹੋਵੇ।
(ਅ) ਬੀਤਿਆ ਵੇਲਾ ਹੱਥ ਨਹੀਂ ਆਉਂਦਾ। ਸੋ ਸਮੇਂ ਦੀ ਸੰਭਾਲ ਦੇ ਸਦਉਪਯੋਗ ਕਰਨ ਲਈ ਵਰਤਿਆ ਜਾਂਦਾ ਹੈ।
(ੲ) ਮਨਮੌਜੀ ਲੋਕ ਮੌਜ ਵਿੱਚ ਆ ਕੇ ਵਰਤਦੇ ਹਨ। ਭਾਵ ਇਹ ਹੈ ਜਾਨ ਹੈ ਜਹਾਨ ਹੈ। ਅਸੀ ਨਹੀਂ ਰੇਵਾਂਗਾ ਤੇ ਸਾਡੇ ਭਾਵੇ ਦੁਨੀਆਂ ਹੀ ਨਹੀਂ ਹੋਵੇਗੀ।
(ਸ) ਜਦੋਂ ਕੋਈ ਆਪਣੀਆਂ ਕਮਜ਼ੋਰੀਆਂ ਵੱਲ ਤਾਂ ਧਿਆਨ ਨਾ ਦੇਵੇ, ਪਰ ਦੂਸਰਿਆਂ ਨੂੰ ਸਿੱਖਿਆ ਦੇਵੇ।

6. ਅੱਲੇ ਅੱਗੇ ਚਣਾ, ਅਮੀਆਂ ਦਾ ਖੌ
(ੳ) ਘਰ ਦੀ ਫੁੱਟ ਕਾਰਨ ਘਰ ਦਾ ਹੀ ਨੁਕਸਾਨ ਹੁੰਦਾ ਹੈ।
(ਅ) ਬੇਹੱਦ ਕੰਜੂਸ ਲਈ ਇਹ ਅਖਾਣ ਵਰਤਿਆ ਜਾਂਦਾ ਹੈ।
(ੲ) ਰਿਤਾ ਜੀਵਨ ਦਾ ਸਭ ਤੋਂ ਵੱਧ ਨੁਕਸਾਨ ਕਰਦੀ ਹੈ।
(ਸ) ਹਮਦਰਦੀ ਜਾ ਮਦਦ ਲਈ ਕਿਸੇ ਅਜਿਹੇ ਬੰਦੇ ਅੱਗੇ ਪੁਕਾਰ ਕਰਨੀ ਜਿਸ ਉੱਤੇ ਕੋਈ ਅਸਰ ਨਾ ਹੋਵੇ।

7. ਉਲਟੀ ਵਾੜ ਖੇਤ ਨੂੰ ਖਾਏ
(ੳ) ਜਦੋਂ ਕੋਈ ਬੱਚਾ ਬਚਪਨ ਵਿੱਚ ਹੀ ਆਪਣੇ ਸੰਬੰਧ ਦੱਸਤ ਦੀਸਤ ਲੱਗਾ ਪਾਏ ਤਾਂ ਕਹਿੰਦੇ ਹਨ।
(ਅ) ਪ੍ਰਸੰਨ ਚਿੱਤ ਬੰਦੇ ਹਮੇਸ਼ਾ ਸੁਖੀ ਜੀਵਨ ਬਿਤਾਉਂਦੇ ਹਨ।

MATHS

1 . Do The sums of EX 2.1,2.2and Misc Exercise of Chapter 2and Ex 2.1,2.2,2.3and Ex 3.1,3.2,3.3and Misc Exercise of Chapter 3 in the Register.

2 Explain the importantance of Inverse Trignometric functions in Maths and science , Do in the practical file

3 Make a ppt of 10-15 slides on Matrices/ Determinants.

4 write a short note on the achievements of any renowned mathematician in Maths Practical file .

5 Make atleast 5 pie chart/ Histogram on COVID situation in any five metropolitan cities.

6. Write 7 lab activity in maths practical file. (Share the lab activity in your class group)

22. If $x \neq y \neq z$ and $\begin{vmatrix} x & x^2 & 1+x^3 \\ y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = 0$, show that $\mathbf{xyz = -1}$

23. If $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$, prove that $A^2 - 4A - 5I = 0$. Hence find A^{-1}

24. Using matrix method, solve the system:
$x + y + z = 3$; $2x - y + z = 2$, $x - 2y + 3z = 2$

25. Using matrix method, solve the system:
$x + y - z = 1$; $3x + y - 2z = 3$; $x - y - z = -1$

26. Solve the system using matrices:

$\frac{2}{x} - \frac{3}{y} + \frac{3}{z} = 10$; $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 10$; $\frac{3}{x} - \frac{1}{y} + \frac{2}{z} = 13$

27. Given $A = \begin{bmatrix} 5 & 0 & 4 \\ 2 & 3 & 2 \\ 1 & 2 & 1 \end{bmatrix}$ and $B^{-1} = \begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix}$, compute $(AB)^{-1}$

28. If $A = \begin{bmatrix} 2 & 0 & -1 \\ 5 & 1 & 0 \\ 0 & 1 & 3 \end{bmatrix}$, prove that $A^{-1} = A^2 - 6A + 11I$

29. Show that $x = 2$ is a root of the equation $\begin{vmatrix} x & -6 & -1 \\ 2 & -3x & x-3 \\ -3 & 2x & x+2 \end{vmatrix} = 0$ and solve it completely.

30. Find the sum of two non integral roots of $\begin{vmatrix} x & 2 & 5 \\ 3 & x & 3 \\ 5 & 4 & x \end{vmatrix} = 0$.

1. If $A = \begin{pmatrix} i & 0 \\ 0 & -1 \end{pmatrix}$ and $B = \begin{pmatrix} 0 & i \\ i & 0 \end{pmatrix}$, show that $AB \neq BA$, where i represents $\sqrt{-1}$

2. Find a matrix X, for which $\begin{bmatrix} 5 & 4 \\ 1 & 1 \end{bmatrix} X = \begin{bmatrix} 1 & -2 \\ 1 & 3 \end{bmatrix}$

3. If $A = \begin{pmatrix} 2 & 3 \\ 4 & 5 \end{pmatrix}$, verify that $A - A^T$ is a skew-symmetric matrix.

4. If $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$, find 'k' for $A^2 = kA - 2I$

5. If A and B are symmetric matrices, show that AB is symmetric, if $AB = BA$.

6. Find the equation of the line joining (1, 2) and (3, 6) using determinants.

7. For what value of 'k' the matrix $\begin{bmatrix} k & 2 \\ 3 & 4 \end{bmatrix}$ has no inverse.

8. For $\begin{bmatrix} a & b \\ c & d \end{bmatrix}$, find determinant of $\{A(\text{adj } A)\}$.

9. Evaluate 'x' if $\begin{vmatrix} 2 & 4 \\ 5 & 1 \end{vmatrix} = \begin{vmatrix} 2x & 4 \\ 6 & x \end{vmatrix}$

10. Vertices of a triangle ABC are A (1,3), B (0,0) and C (k,0). Find the value of 'k' such that the area of the triangle ABC is 2 square units.

11. Express the matrix $A = \begin{bmatrix} 6 & 1 & -5 \\ -2 & -5 & 4 \\ -3 & 3 & -1 \end{bmatrix}$ as a sum of symmetric and skew-symmetric matrices.

12. If $A = \begin{pmatrix} \cos\theta & i\sin\theta \\ i\sin\theta & \cos\theta \end{pmatrix}$, then prove by principle of Mathematical induction that $A^n = \begin{pmatrix} \cos n\theta & i\sin n\theta \\ i\sin n\theta & \cos n\theta \end{pmatrix}$.

13. If $A = \begin{pmatrix} 2 & 3 \\ 1 & 2 \end{pmatrix}$, evaluate $A^3 - 4A^2 + A$

14. If $f(x) = \begin{bmatrix} \cos x & -\sin x & 0 \\ \sin x & \cos x & 0 \\ 0 & 0 & 1 \end{bmatrix}$, show that $f(x).f(y) = f(x+y)$

15. By using elementary transformations, find the inverse of $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{bmatrix}$

16. Show that the matrix $A = \begin{pmatrix} 3 & 1 \\ -1 & 2 \end{pmatrix}$ satisfies the equation $A^2 - 5A + 7I = 0$. Hence find A^{-1}.

17. Using properties of determinants, show that $\begin{vmatrix} b+c & a & b \\ c+a & c & a \\ a+b & b & c \end{vmatrix} = (a+b+c)(a-c)^2$

18. Show that $\begin{vmatrix} x+1 & x+2 & x+a \\ x+2 & x+3 & x+b \\ x+3 & x+4 & x+c \end{vmatrix} = 0$, where a, b, c are in A.P.

19. Prove that $\begin{vmatrix} 1 & 1 & 1 \\ \alpha & \beta & \gamma \\ \beta\gamma & \gamma\alpha & \alpha\beta \end{vmatrix} = (\alpha - \beta)(\beta - \gamma)(\gamma - \alpha)$

20. Without expanding prove that $\begin{vmatrix} x+y & x & x \\ 5x+4y & 4x & 2x \\ 10x+8y & 8x & 3x \end{vmatrix} = x^3$

21. If $A = \begin{pmatrix} 3 & 2 \\ 7 & 5 \end{pmatrix}$ and $B = \begin{pmatrix} 6 & 7 \\ 8 & 9 \end{pmatrix}$ verify that $(AB)^{-1} = B^{-1} A^{-1}$

CLASS 12

1. Find the principal value of the following:
   a) $\sin^{-1}\left(\frac{1}{\sqrt{2}}\right)$ b) $\cos^{-1}\left(\frac{-1}{\sqrt{2}}\right)$ c) $\tan^{-1}\left(\frac{-1}{\sqrt{3}}\right)$ d) $\cosec^{-1}(-2)$ e) $\sec^{-1}\left(-\frac{2}{\sqrt{3}}\right)$

2. Find the value of the following:
   a) $\sin^{-1}\left(\sin\frac{3\pi}{5}\right)$ b) $\cos^{-1}\left(\cos\frac{13\pi}{6}\right)$ c) $\tan^{-1}\left(\tan\frac{7\pi}{6}\right)$ d) $\cosec^{-1}\left(\cosec\frac{\pi}{8}\right)$

3. Evaluate the following:
   a) $\sin\left\{\frac{\pi}{3} - \sin^{-1}\left(\frac{-1}{2}\right)\right\}$ b) $\sin\left(\frac{1}{2}\cos^{-1}\frac{4}{5}\right)$ c) $\tan\frac{1}{2}\left(\cos^{-1}\frac{\sqrt{5}}{3}\right)$.

4. Evaluate: $\cos\left(\sin^{-1}\frac{3}{5} + \cos^{-1}\frac{12}{13}\right)$.

5. Show that: $\tan^{-1}(\sqrt{x}) = \frac{1}{2}\cos^{-1}\left(\frac{1-x}{1+x}\right)$.

6. Prove that $\tan^{-1}\left\{\frac{\sqrt{1+x^2} + \sqrt{1-x^2}}{\sqrt{1+x^2} - \sqrt{1-x^2}}\right\} = \frac{\pi}{4} + \frac{1}{2}\cos^{-1}x^2$.

7. Prove that $\tan^{-1}\frac{1}{4} + \tan^{-1}\frac{2}{9} = \frac{1}{2}\cos^{-1}\frac{3}{5}$.

8. Prove that $\cot^{-1}\left(\frac{ab+1}{a-b}\right) + \cot^{-1}\left(\frac{bc+1}{b-c}\right) + \cot^{-1}\left(\frac{ca+1}{c-a}\right) = 0$.

9. Prove that $\tan^{-1}\frac{3}{4} + \tan^{-1}\frac{3}{5} - \tan^{-1}\frac{8}{19} = \frac{\pi}{4}$.

10. Prove that $\cos^{-1}\frac{4}{5} + \cos^{-1}\frac{12}{13} = \cos^{-1}\frac{33}{65}$.

11. Solve for x: $\sin^{-1}(1-x) - 2\sin^{-1}x = \frac{\pi}{2}$.

12. If $\cos^{-1}\frac{x}{a} + \cos^{-1}\frac{y}{b} = \theta$, then prove that $\frac{x^2}{a^2} - \frac{2xy}{ab}\cos\theta + \frac{y^2}{b^2} = \sin^2\theta$.

13. Prove that $\tan\left(\frac{\pi}{4} + \frac{1}{2}\cos^{-1}\frac{a}{b}\right) + \tan\left(\frac{\pi}{4} - \frac{1}{2}\cos^{-1}\frac{a}{b}\right) = \frac{2b}{a}$.

14. Solve for x: $\cos^{-1}\left(\frac{x^2-1}{x^2+1}\right) + \tan^{-1}\left(\frac{2x}{x^2-1}\right) = \frac{2\pi}{3}$.

15. Solve for x: $\tan^{-1}\left(\frac{x-1}{x-2}\right) + \tan^{-1}\left(\frac{x+1}{x+2}\right) = \frac{\pi}{4}$.

16. Prove that $\sec^{-1}\left(\frac{4x^2+9}{4x^2-9}\right) + \sin^{-1}\left(\frac{4x^2-9}{4x^2+9}\right) = \frac{\pi}{2}$

17. Prove that $\cos[\sin^{-1}x + 2\cos^{-1}x] = -\sqrt{1-x^2}$

18. Prove that $\tan^{-1}\left(\frac{1}{3}\right) + \tan^{-1}\left(\frac{1}{7}\right) + \tan^{-1}\left(\frac{1}{13}\right) + \cdots + \tan^{-1}\left(\frac{1}{x^2+x+1}\right) + \cdots \infty = \frac{\pi}{4}$

19. Solve : $4\cos^{-1}x + \sin^{-1}x = \pi$

20. Solve: $(\tan^{-1}x)^2 + (\cot^{-1}x)^2 = \frac{5\pi^2}{8}$

21. Evaluate : $\tan^{-1}\frac{1}{1+1\times2} + \tan^{-1}\frac{1}{1+2\times3} + \tan^{-1}\frac{1}{1+3\times4} + \cdots \tan^{-1}\frac{1}{1+n(n+1)}$

22. Prove that $2\tan^{-1}\left(\sqrt{\frac{a-b}{a+b}}\tan\frac{x}{2}\right) - \cos^{-1}\left(\frac{a\cos x+b}{a+b\cos x}\right)$

Do these worksheets in seprate register.

COMPUTER SCIENCE

- Make a Presentation(PPT) on Online Learning and Offline Learning.

- Make a Presentation(PPT) on various types of Topologies.
- Everyone will create a google form of MCQ based 20 questions from the chapter NETWORK & NETWORK TYPES,NETWORK PROTOCOLS and share the link in the group so that others will solve them and collect number of responses and at last share the responses link through whatsapp to me through CSV file with marks.
- Link How to create google form -- https://youtu.be/hBUU1mhPTO0

INFORMATIC PRACTICES

- Make a Presentation(PPT) on Websites and Webpages.
- Make a Presentation(PPT) on various types of Network Devices.
- Everyone will create a google form of MCQ based 20 questions from the chapter COMPUTER NETWORK,WWW,WEBSITE CONCEPTS and share the link in the group so that others will solve them and collect number of responses and at last share the responses link through whatsapp to me through CSV file with marks.
- Link How to create google form -- https://youtu.be/hBUU1mhPTO0

CHEMISTRY

You have to make a practical file of Chemistry and write all the experiments in neat and legible hand writing but firstly, watch the video using the given link and then write down that experiment in your practical file. Likewise you have to do all these following given experiments in your practical file:

Experiment 1: Preparation of the standard solution of Oxalic acid of a given volume
 LINK: https://youtu.be/loxMW2honqw
Experiment 2: Preparation of the standard solution of Mohr's salt.
Link : https://youtu.be/xeT20qYsSFI

Experiment 3 : Determination of molarity of KMnO4 solution by titrating it against a standard solution of Oxalic acid.
Link : https://youtu.be/HDUd4KqBKa8
Experiment 4 : Determination of Concentration of $KMnO_4$ Solution using Ferrous Ammonium Sulphate.
Link : **https://youtu.be/LzQpbfU7DLo**
Experiment 5 : To find one acidic and one basic radical in the given salt.
Link : **https://youtu.be/5eBS6apmNL8**

Experiment 6 : Chromatography

Separation of Components from a Mixture of Red and Blue Inks by Paper Chromatography.

Link : **https://youtu.be/NSJIAcfvEJI**

- **Read Ch- 1 Solid State thoroughly, do watch all the videos sent to you and also do its in-text and back exercise Q/A in your chemistry notebook.**

- **Make an investigatory chemistry project of any topic of your choice.** (for more information refer your CBSE 2021-2022 syllabus).

BIOLOGY

Read Chapter 1 and do the given assignment in your notebooks.

Q1. What is the method of reproduction in Penicillium ?

Q2. What type of reproduction occurs in banana ?

Q3. Give two examples of organisms that reproduce by binary fission .

Q4. Name two organisms in which cell division is itself a mode of reproduction .

Q5. What is parthenogenesis ?

Q6. Mention the site where syngamy occurs in amphibians and reptiles .

Q7. Give the significance of asexual reproduction .

Q8. Coconut palm is monoecious while date palm is dioecious . Why are they called so ?

Q9. A moss plant is unable to complete its life cycle in a dry environment . State two reasons .

Q10. What are continuous breeders ?

Q11. Differentiate between binary and multiple fission .

Q12. Write a short note on sporulation and budding .

Q13. Name the phenomenon and one bird where the female gamete directly develops into a new organism .

Q14. Mention which of the following are monoecious or dioecious :

   a) Earthworm
   b) Chara
   c) Marchantia
   d) Cockroach

Q15. Name the phase all organisms have to pass through before they can reproduce sexually .
Q16. Mention a characteristic feature and a function of zoospore in some algae .
Q17. How do roots take part in vegetative propagation ?
Q18. Write a short note on micropropagation .
Q19. Dscribe the importance of reproduction in higher organisms.
Q20. It is generally observed that number of male gametes produced is several thousand times the number of female gametes . What is the reason behind it ?

2. Prepare a presentation on any one of the topic :
a) types of pollination
b) various agents of pollination
c) PCR and its application
d) DNA fingerprinting and its application
e) Sickle Cell Anemia

3. Do the practical work given to you in your files .(The work will be sent in the group).

PHYSICS

1. Make an investigatory project on any topic related to class 12 physics. Get the topic finalised within a week, and start working on it.
2. Record the following practicals from your lab manual book in your practical record file. (Don't write procedure)
   - To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
   - To verify the laws of combination (series) of resistances using a metre bridge.
   - To compare the EMF of two given primary cells using a potentiometer.
   - To find the frequency of AC mains with a sonometer.
   - To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.
   - To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
   - To determine refractive index of a glass slab using a travelling microscope.
   - To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias

3. Record the following activities from your lab manual book in your activity record file.
   - To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using a multimeter.
   - To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
   - To assemble the components of a given electrical circuit.
   - To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.
   - To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.

- To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
- To study the nature and size of the image formed by a (i) convex lens, (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).

ECONOMICS

Guidelines for Project Work in Economics (Class XII)
The objectives of the project work are to enable learners to:
probe deeper into theoretical concepts learnt in class XII
analyse and evaluate real world economic scenarios using theoretical constructs and demonstrate the learning of economic theory
follow up aspects of economics in which learners have interest
develop the communication skills to argue logically
The expectations of the project work are that:
learners will complete only ONE project in each academic session
- project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably

hand-written
it will be an independent, self-directed piece of study
Scope of the project:
Learners may work upon the following lines as a suggested flow chart:
Choose a title/topic
Collection of the research material/data
Organization of material/data
Present material/data
Analysing the material/data for conclusion
Draw the relevant conclusion
Presentation of the Project Work
Expected Checklist:
Introduction of topic/title
Identifying the causes, consequences and/or remedies
Various stakeholders and effect on each of them
Advantages and disadvantages of situations or issues identified
Short-term and long-term implications of economic strategies suggested in the course of research
Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
Presentation and writing that is succinct and coherent in project file
Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

Mode of presentation/submission of the Project:

At the end of the stipulated term, each learner will present the research work in the Project File

to the External and Internal examiner. The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verify

Marks are suggested to be given as :

Marking Scheme :

S.No.	Heading.	Marks Allotted
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique.	3
4.	Viva-Voce	8
Total		20

Suggestive List of Projects:

Class XII

• Micro and Small Scale Industries
• Food Supply Channel in India
• Contemporary Employment situation in India
• Disinvestment policy of the government
• Goods and Services Tax Act and its Impact on GDP
• Health Expenditure (of any state)
• Human Development Index
• Inclusive Growth Strategy
• Self-help group
• Trends in Credit availability in India
• Monetary policy committee and its functions
• Role of RBI in Control of Credit
• Government Budget & its Components
• Trends in budgetary condition of India
• Exchange Rate determination – Methods and Techniques
• Currency War – reasons and repercussions
• Livestock – Backbone of Rural India
• Alternate fuel – types and importance
• Sarwa Siksha Abhiyan – Cost Ratio Benefits
• Golden Quadrilateral- Cost ratio benefit
• Minimum Support Prices
• Relation between Stock Price Index and Economic Health of Nation
• Waste Management in India – Need of the hour
• Minimum Wage Rate – approach and Application
• Digital India- Step towards the future
• Rain Water Harvesting – a solution to water crises
• Vertical Farming – an alternate way
• Silk Route- Revival of the past
• Make in India – The way ahead
• Bumper Production- Boon or Bane for the farmer

• Rise of Concrete Jungle- Trend Analysis
• Organic Farming – Back to the Nature
• Any other newspaper article and its evaluation on basis of economic principles
• Any other topic

PSYCHOLOGY

- Chapter 1 – Revise the notes given thoroughly.
  Write all the given Questions and Answers in your Psychology Notebook.
- In the Notebook, write important and highlighted words as well as their definitions of Chapter 1.
- Practical 1 – On Single line A4 size sheets (one side plain) neatly write the First Practical (PDF shared) in the same order, till 'Scoring'.
  The Interpretation and Analysis, Conclusion, as well as the conduction of the Practical will be taught when classes resume.

HISTORY

FEW SUGGESTIVE TOPICS FOR PROJECTS
1. The mysteries behind the mound of dead –Mohenjo-Daro
2. An In-depth study to understand Spiritual Archaeology in the Sub-Continent
3. Buddha's Path to Enlightenment
4. Insight and Reflection of Bernier's notions of The Mughal Empire
5. An exploratory study to know the women who created history

6. "Mahatma Gandhi" – A legendary soul
7. To reconstruct the History of Vijayanagar through the Archaeology of Hampi
8. The emerald city of Colonial Era –BOMBAY
9. Vision of unity behind the first war of Independence
10.Divine Apostle of Guru Nanak Dev
11.Help, Humanity and Sacrifices during Partition
12.Glimpses inside Mughals Imperials Household
13.The process behind the framing of the Indian Constitution
14.The 'BrahmNirupam' of Kabir – A journey to Ultimate Reality

*Note The students are yet to decide about their topics depending upon the availability of the information they gain from various sources.