# **ENGLISH**

Project works

1. Novel / Story Review

Choose from prescribed reading (e.g., "The Story of My Life" by Helen Keller, "The Diary of a Young Girl" by Anne Frank) or any other English novel.

Write summary, character sketch, theme, critical analysis, and your own reflection.

2. Social Issue Project (Article / Report Writing)

Topics: Climate Change, Child Labour, Digital Addiction, Road Safety, Gender Equality, Swachh Bharat, Cyber Safety.

File may include a report, poster, and student's suggestions.

3. Art Integrated Project (Interdisciplinary)

Example: Link with Social Science / History → "Role of Literature in Indian Freedom Struggle."

Students can include patriotic poems, speeches, newspaper extracts.

4. Media & Communication Project

Prepare a class magazine or a mini "newspaper."

Sections: Editorial, Current News, Cartoon, Poem, Book Review, Short Story, Advertisement.

5. Travelogue / Brochure Writing

Choose a state/UT (as per art-integrated mandate, pair with another state).

Prepare a travel brochure with tourist attractions, food, culture, local stories. Make a tourism guide video with video clips and photos

Structure of the Project File

- 1. Cover Page Title, Name, Roll No., Class, Section, School Name, Year.
- 2. Acknowledgement thanking teacher/school for guidance.
- 3. Certificate signed by teacher.
- 4. Index
- 5. Introduction about the project.
- 6. Main Content topic-based (review/article/portfolio).
- 7. Pictures/Illustrations/Charts creative part.
- 8. Learning Outcomes what student learned from this project.
- 9. Bibliography references used.
- \*Students will make one file for all these projects and write in A4 Sheet\*

#### HINDI

प्रश्न 1. लडककयों की घटती संख्या के बारे मेंजन जािरूकता लानेके उद्देश्य से25 से50 शब्दों में एक पवज्ञापन ललखखए । आप एक नया मोबाइल शोरूम खोलनेजा रहेहैंककसी स्र्थानीय समािार पत्र मेंदेनेके ललए 25 से50 शब्दों मेंएक पवज्ञापन ललखखए।

प्रश्न २. ननम्नललखखत पवषयों पर 120 शब्दों का अनुच्छेद ललखखए।

1.एक भारत श्रेष्ठ भारत

2.नई लशक्षा नीनत 2020

प्रश्न 3. ननदेशानुसार वाक्य पररवतणन कीजजए

लोि खाना खा रहेहोंिे। ( कमणवाच्य )

अनेक आतंकवाहदयों को मारा िया । (कृत्य वाच्य)

वह नहींदौडा | (भाववािक)

यह पत्र श्भी नेभेजा होिा। (कमणवाच्य)

प्रश्न ४. पद पररचय सेसंबधंित संज्ञा, सर्वनाम, हवशेषण , धिया धर्शेषण , काल , अव्यय, धनपात की पुनरािवृि करें। प्रश्न ५. पीटी २ प्रश्न पत्र हल करें।

## **SCIENCE**

Flash cards making. PPT

ROLL NO. 1,3,5,7,9. ELECTRICITY food chain

ROLL NO. 2,4,6,8,10. Chapter 1. Ozone layer

Roll no 11,13,15,17. Metals and non-metal's. Biotic ,abiotic factor

Roll no. 14,16,18. Acid bases. Pollution

Roll no. 21,23,25 control and coordination managing garbage

Roll no. 22,24,26 elements. Biodegradable, non biodegradable

Roll no. 12,19,20,27. Light. Methods to reduc problem of waste disposal

. Model paper 6,7,8 practice

**RSBVP INNOVATIVE PROJECT** 

#### **SST**

- 1) Complete you project file on the given topic:
  - a) CONSUMER RIGHTS
- 2) Make a map file based on chapter completed on class:

#### 1) Nationalism in India:

Champaran, Ahmedabad, kheda, Dandi, Amritsar Chauri-Chaura, Calcutta session, Nagpur session, madres session.

- 3) Major soil:
- 1) Forest and Mountainous, alluvial soil, red and yellow black, laterite and arid soil.
- 2) Major Dams:

Salal dam, Bhakra Nangal dam, Tehri dam, Rana Pratap Sagar dam, Hirakud dam, Nagarjuna Sagar dam, Tungabhadra dam.

3) Major crops:

Rice, Wheat, coffee, Tea, cotton, sugar cane, rubber, jute and bajara.

4) Major mineral and energy resources:

Minerals: coal, gold, iron, copper, manganese, mica and bauxite.

**Energy Resources Plants:** 

Namrup, Ramagundam, Singrauli, Narora, Kakrapara, Tarapur, Kalpakkam.

- 5. Complete September split up syllabus notes.
- 6. Write PT-1 & PT-2 question papers.

## ARTIFICIAL INTELLIGENCE

Complete Below Chapters in notes using SSM Material.

- 1 Entreprenur Skills
- 2 Self Management
- 3 Revisiting AI Project Cycle and Ethical Frameworks for AI
- 4 Modelling
- 5 Evaluation
- 6 No Code for AI
- **MATHEMATICS** 1. In Euclid's division lemma, if a = bq + r, what is the restriction on r? 2. Is  $\sqrt{2}$  rational or irrational? 3. What is the remainder when a polynomial is divided by (x - c)? 4. For which value of k will  $x^2 + 2x + k = 0$  have equal roots? 5. What is the 10th term of the AP: 3, 7, 11, ... ? 6. In triangle ABC, if two sides are equal, what type of triangle is it? 7. If  $\sin \theta = 3/5$ , then what is  $\csc \theta$ ? 8. If in right triangle, one acute angle is 30°, what is its complementary angle? 9. What is the power of a point theorem related to circle: product of sects? 10. State the factor theorem. 11. If sum of zeros of quadratic  $x^2 + px + q = 0$  is 5, what is p? 12. What is the common difference of the AP: 15, 12, 9, 6, ...? 13. What is the value of  $\sin^2\theta + \cos^2\theta$ ? 14. What is the centre of a circle with equation  $x^2 + y^2 + 6x - 4y + 3 = 0$ ? 15. If two lines are parallel, their corresponding angles are ... 16. What is the LCM of 12 and 18? 17. What is the HCF of 14 and 49? 18. If one root of  $x^2 - 5x + 6 = 0$  is 2, what is the other root? 19. Write the general form of a linear equation in two variables. 20. If arithmetic mean of two numbers is 10, what is their sum? 21. What is the missing term:  $\_$  + 45 + 50 in an AP whose d = 5? 22. If chord through point divides circle in equal arcs, that chord is called \_\_\_\_\_. 23. What is cot  $\theta$  in terms of tan  $\theta$ ? 24. What is the degree of polynomial 3xn - 7x + 5? 25. In triangle, sum of interior angles is \_\_\_ 26. What is the axis of a circle? 27. The discriminant of  $x^2 + 4x + 1 = 0$  is \_\_\_ 28. If  $a^m \times a^n = a^m + n$ , then a is \_\_\_\_ (nonzero / zero / one). 29. What is the 1st term a of an AP whose sum of first 5 terms is 40 and d = 2? 30. In right triangle, if one acute angle is  $\theta$ , the other acute is \_\_\_\_ (in terms of  $\theta$ ). 1. Use Euclid's division lemma to find HCF of 252 and 105.
- 2. Show that  $\sqrt{8}$  is irrational.
- 3. Divide  $x^3 2x^2 + x + 1$  by (x 1), find quotient and remainder.
- 4. Solve  $x^2 5x + 6 = 0$  by factorization.
- 5. Solve  $x^2 + x 6 = 0$ .
- 6. If the 5th term of an AP is 20 and the 8th term is 26, find the first term and common difference.
- 7. In  $\triangle$ ABC, if AB = AC, show angles ABC and ACB are equal.
- 8. Prove that the sum of angles in a triangle is 180°.
- 9. If  $\sin \theta = 12/13$ , find  $\cos \theta$  (acute angle).
- 10. In right  $\triangle$ ABC (right at B), if AB = 3, BC = 4, find AC.
- 11. Write the equation of circle whose centre is (2, 3) and radius = 5.
- 12. If two chords in a circle are parallel, show the arcs between them are equal.

- 13. Use quadratic formula to solve  $x^2 4x 5 = 0$ .
- 14. If sum of the first 10 terms of an AP is 100 and first term = 3, find common difference.
- 15. In  $\triangle ABC$ , D is midpoint of BC; show AD is median.
- 16. If  $\tan \theta = 3/4$ , find  $\sec \theta$ .
- 17. The tangents drawn from an external point P to circle touch at A, B. Prove PA = PB.
- 18. Show that  $x^2 + 4x + 4$  has repeated roots.
- 19. Solve the system: 2x + 3y = 8 and x y = 1.
- 20. Show that the zeroes of  $x^2 (m + 1)x + m = 0$  are 1 and m.
- 21. If the sum of n terms of an AP is Sn = n/2 (2a + (n-1)d), find S(n-1).
- 22. In right  $\triangle ABC$ , if BC is hypotenuse and altitude from B drops to AC at D, show AD  $\times$  DC = BD<sup>2</sup>.
- 23. Show that the line joining the midpoints of two sides of triangle is parallel to the third side.
- 24. Prove that the angle in a semicircle is a right angle.
- 25. Divide  $2x^3 + 3x^2 x + 5$  by (x + 2).
- 26. If the roots of quadratic are  $\alpha$ ,  $\beta$ , express quadratic in terms of  $\alpha$ ,  $\beta$ .
- 27. In an AP, show that Tn + T(n+2) = 2T(n+1).
- 28. Solve system by substitution: 3x + 2y = 7, 2x y = 1.
- 29. If  $\sin \theta + \cos \theta = 1$ , find  $\sin 2\theta$ .
- 30. In circle with centre O, radius r, chord AB = 8, distance of chord from centre = 3. Find r.
- 1. Prove that  $\sqrt{2} + \sqrt{3}$  is irrational.
- 2. If  $x^3 8$  is divided by (x 2), verify the remainder theorem.
- 3. For which values of k will  $x^2 + kx + 16 = 0$  have real roots?
- 4. Solve  $2x^2 + 5x + 2 = 0$ .
- 5. The 3rd term of AP is 7 and 10th term is 28. Find a and d.
- 6. In  $\triangle ABC$ , if AB/AC = BD/DC, prove that AD is angle bisector of  $\angle A$ .
- 7. If  $\cos \theta = 5/13$ , find  $\tan \theta$ .
- 8. From a point P outside a circle, two tangents PA and PB are drawn. Prove  $PA^2 = PT \times PB$ .
- 9. A circle touches coordinate axes at (a,0) and (0,a). Find its equation.
- 10. Solve system: x + y + z = 6, 2x y + 3z = 14 (reduce to 2-variable system).
- 11. If sum of first n terms of AP is  $5n^2 + 3n$ , find nth term.
- 12. In right  $\triangle ABC$  (right at B), altitude from B to AC at D. Prove AD  $\times$  DC = BD<sup>2</sup>.
- 13. Show that the perpendicular from the centre to a chord bisects the chord.
- 14. The line joining points (2, 3) and (4, 8) is a chord of a circle  $x^2 + y^2 = 25$ . Find midpoint and perpendicular bisector.
- 15. If roots of  $x^2 4x + k = 0$  differ by 2, find k.
- 16. Prove that the sum of squares of n terms of an AP is n/6 [(2n 1)(a + 1) + (a 1)].
- 17. In ∆ABC, prove that internal and external angle bisectors of A are perpendicular.
- 18. A ladder leans against wall: foot 6 m from wall, top reaches 8 m high. Find ladder length.
- 19. Find equation of tangent to circle  $x^2 + y^2 = 25$  at point (3, 4).
- 20. Using quadratic formula, solve  $3x^2 + 10x + 7 = 0$ .
- 1. Prove that  $\sqrt{p} + \sqrt{q}$  is irrational if p, q are distinct primes.
- 2. A polynomial P(x) leaves remainder 5 when divided by (x 1), and 7 when divided by (x 2). Find remainder when divided by (x 1)(x 2).
- 3. Solve the pair of linear equations by cross-multiplication: 5x 3y = 7 and 2x + 4y = 10.
- 4. The product of two numbers is 48 and their HCF is 4. Find the numbers.
- 5. In an AP, if T5 = 20 and T12 = 48, find sum of first 20 terms.
- 6. In  $\triangle$ ABC, prove line joining midpoints of two sides is parallel to third side and equals half of it.
- 7. From a point P, two secants PAB and PCD intersect circle; show PA  $\times$  PB = PC  $\times$  PD.
- 8. Solve quadratic  $x^2 6x + 8 = 0$  by completing the square and verify roots.
- 9. The tangent from point (6, 8) to circle  $x^2 + y^2 = 25$  is drawn. Find tangent equation(s).
- 10. If sum of first n terms of AP is Sn = n(2n + 1), find general term Tn and sum of first 10 terms.