

JB ACADEMY, AYODHYA
HOLIDAY HOME WORK
CLASS XII- SCI

HINDI:

1. 'शैक्षणिक भ्रमण 2026: एक अनोखा अनुभव' विषय के आधार पर यात्रा-वृत्तांत। (अभ्यास-पुस्तिका में, अधिकतम 2 पृष्ठ)
2. 'देश के प्रति हमारा उत्तरदायित्व' अथवा 'शांति-सद्भावना' विषय पर गीत रचना। (अभ्यास-पुस्तिका में, न्यूनतम 12 पंक्तियाँ)

ENGLISH

- XII – Synopsis presentation (1000 Words)
- Attributes
- Title
- Introduction – 100 words
- Objective – 100 words
- Problem Statement
- Methodology – 100 words
- Target Group
- Tools Used
- Data Collection (Types)
- Analysis (Topic) – 100 words
- Findings / Observation – 100 words
- Conclusion – 100 words
- Suggestion / Recommendation – 100 words
- Learning Experience – 100 words
- Bibliography
- Appendix – 100 words
- a) Questionnaire
- b) Interview Transcripts
- c) Survey Forms

MATHS:

- Q-1 find principal value of $\sin^{-1}(-1/2)$
- Q-2 Evaluate $\tan^{-1}(3)^{1/2} - \sec^{-1}(-2)$
- Q-3 simplify the expression $\cos'(\cos 7\pi/6)$
- Q-4 prove

$$\sin^{-1}(2x/\sqrt{1+x^2}) = 2\tan^{-1}(x)$$

Q-5 Solve for x

$$\tan^{-1}2x + \tan^{-1}3x = \pi/4$$

Q6 draw graphs of ITF

3. Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = x^2$. Then, f is

- (a) one-one onto
- (b) many-one onto
- (c) one-one but not onto
- (d) many one into

4. Which of the following function from \mathbb{R} to \mathbb{R} is one-one function?

- (a) $f(x) = e^x$
- (b) $g(x) = e^{x^2}$
- (c) $h(x) = \sin x$
- (d) $\phi(x) = \cos x$

5. The range of the function $f: \mathbb{R} \rightarrow \mathbb{R}$ given by $f(x) = x - [x]$ is

- (a) $[0,1]$
- (b) \mathbb{R}
- (c) $\mathbb{R} - \mathbb{Z}$
- (d) $(0,1)$

6. Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be a function defined by $f(x) = x^3 + 1$, then f is

- (a) injective but not surjective
- (b) surjective but not injective
- (c) bijective
- (d) neither injective nor surjective

7. If $f: [3, \infty) \rightarrow B$ given by $f(x) = x^2 - 6x + 14$ is a bijection, then B is equal to

- (a) $[3, \infty)$
- (b) $[5, \infty)$
- (c) $(5, \infty)$
- (d) \mathbb{R}

8. Let $A = \{1,2,3,4\}$ and $B = \{x,y,z,t,u,v\}$. Then, the number of one-one functions from A to B is

- (a) 15
- (b) 24

(c) 360

(d) 6■

9. Let $A = \{1,2,3,4,5\}$ and $B = \{2,4\}$. Then, the number of onto functions from A to B is

(a) 30

(b) 32

(c) 25

(d) 10

10. Let $f: \mathbb{Z} \rightarrow \mathbb{Z}$ be given by: $f(x) = x/2$ if x is even, and 0 if x is odd. Then f is

(a) one-one but not onto

(b) onto but not one-one

(c) one-one and onto

(d) neither one-one nor onto

23. The number of possible reflexive relations on a set consisting of 3 elements is

(a) 512

(b) 64

(c) 256

(d) 128

24. The relation $R = \{(1,1), (2,2), (3,3)\}$ on the set $\{1,2,3\}$ is

(a) symmetric only

(b) reflexive only

(c) an equivalence relation

(d) transitive only

25. S is a relation over the set \mathbb{R} of all real numbers and it is given by $(a,b) \in S$ iff $ab \geq 0$. Then, S is

(a) symmetric and transitive only

(b) reflexive and symmetric only

(c) antisymmetric relation

(d) an equivalence relation

26. In the set \mathbb{Z} of all integers, which of the following relation R is not an equivalence relation?

(a) $xRy : \text{if } x \leq y$

(b) $xRy : \text{if } x = y$

(c) $xRy : \text{if } x - y \text{ is an even integer}$

(d) $xRy : \text{if } x \equiv y \pmod{3}$

27. The number of possible symmetric relations on a set consisting of 4 elements is

(a) 512

(b) 1024

(c) 256

(d) 32

28. The smallest equivalence relation defined on the set $\{4,5\}$ is

(a) $\{\}$

(b) $\{(4,5)\}$

(c) $\{(4,4),(5,5)\}$

(d) $\{(4,5),(5,4)\}$

29. Let $A=\{x,y,z\}$. The relation on A which is not an equivalence relation is

(a) $\{(x,x),(y,y),(z,z)\}$

(b) $\{(x,x),(y,y),(z,z),(x,y),(y,x)\}$

(c) $\{(x,x),(y,y),(z,z),(y,z),(z,y)\}$

(d) $\{(x,x),(y,y)\}$

30. Let T be the set of all triangles in the Euclidean plane, and let a relation R on T be defined as aRb if a is congruent to b. Then, R is

(a) reflexive but not symmetric

(b) transitive but not symmetric

(c) equivalence

(d) none of these

PHYSICS:

- 1) Scientist Biography for first Quarter
- 2) Complete the written work for Experiment-1
- 3) prepare the syllabus for Monday test (Unit -1,Electrostatics)
- 4) Solve 10 Numericals from Chapter 1&2.
- 5) Synopsis for Physics project.

CHEMISTRY:

1. Complete the worksheet for HALOALKANE and HALOARENES.
2. Solve all the ncert questions of HALOALKANE and HALOARENES.
3. Complete the written work.

BIOLOGY:

1. Prepare project file
2. Scientific Biography Q-1
3. Complete Practical file
4. Read chapter 3 and prepare notes
5. Do the given work of chapter 1 & 2.

BANKING (811)

1. Prepare the Banking Project File neatly and systematically for Board Examination.
2. Revise Chapter–1 “Ancillary Services of Banks” thoroughly for the Quarter–1 Test.
3. Make a creative Mind Map of Chapter–2 “Organisation of Banking”.
4. Prepare a Board Practical File on the following topics with the help of sample formats provided in class:
 - Letter of Credit (LC)
 - Demand Draft (DD)
 - Cheques
 - NEFT & RTGS
 - Credit Card and Debit Card
 - ATM Machine

Students have to neatly fill the entries/details in the given sample formats and attach them properly in the practical file.

5. Write an original article in about 200 words on ANY ONE of the following interesting topics:
 - “Financial Inclusion: Bringing Banking to Every Doorstep”
 - “SIP Today, Financial Security Tomorrow”
 - “Money in Hand or Money in Bank: What is Safer?”
 - “When Banks Suffer: Impact of NPA on Banking Health and Mergers”
 - “From Piggy Bank to Digital Banking: Changing Saving Habits”
 - “Cashless India: Convenience or Dependency?”
 - “Cyber Safety in Banking: A Need of the Digital Age”
6. Write all the banking abbreviations from Chapter–1 and Chapter–2 in your notebook neatly with their full forms.
Example: DD – Demand Draft
7. Maintain proper handwriting, presentation and creativity in all holiday homework work.

Hindustani Music vocal code (034)

1. Hand beat practice of Rupak Tal with Dugun, Tigun And Chauguni Layakari .
2. Hand beat practice of Jhaptal with Dugun, Tigun And Chauguni Layakari.
3. Hand beat practice of Dhamar Tall With Dugun , Tigun And Chauguni Layakari.

Yoga Skill Subject (841)

Prepare notes for the topics given below -

1. Write the meaning, purpose and significance of yoga sadhana.
2. Write the principle and health benefits of Yogasana.
3. Introduction of Pranayama and Dhyana and their health benefits.

Hin Per Ins (Tabla)

1. Practice Kayda, Palta, and Tihai in Teentaal, Jhaptal & Rupak Taal.
2. Learn all the Talas given in the syllabus and write them in Layakari notation.

PSYCHOLOGY

1. Conduct case study on any psychological attribute.

Physical Education (048)

Prepare a well notes

1. Management of Sporting Events

Prepare a file on organizing a school sports event

Include:

Committees and their responsibilities

Fixtures (Knock-out & League)

Importance of intramural competitions

Unit 2: Children and Women in Sports

Exercise guidelines for children

Postural deformities & corrective measures

Women participation in sports

Female athlete triad.

Mass Media Studies

Create a video after visiting any heritage site. The video should be of good quality and after using some editing software, compile your shots and make it into one video with your voice over. The time limit of the video is 1minute 30 seconds. Also click several photos of it and make a collage of good and neat photos with your experiences added to that collage.

Political Science

Make a project report on Israel,Iran and United States war and its international impact

Food production

1. Define Indian Regional Cookeries.
2. Name the major regions of Indian Cuisines
 1. North Indian cuisine
 2. South Indian cuisine
 3. North-east Indian cuisine
3. Write any 5 factors affecting Indian regional cuisines.
4. Explain the geographical influence in north-east cuisine.
5. Discuss the influence of foreign culture in Indian snacks.
6. Compare Avadhi cuisine and Hyderabadi cuisine.
7. Describe the characteristics of Kashmiri cuisine.
8. Explain the roles of religion in Indian cuisine.
9. What are staple food? Explain the staple food of different regions of India.

COMPUTER SCIENCE:

Make a menu driven program to store records of a medicine in a CSV file, the menu should have following options-

1. Insert new medicine record
2. Display all records
3. Search a particular record
4. Update price of a medicine
5. Delete a medicine