

॥ ओ३म् ॥

आचार्यकुलम्

वैदिक समन्वित बी.एस.बी. आवासीय शिक्षण संस्थानम्

शिक्षा
संस्कारः



अभ्युदयः
निःश्रेयसः

Acharyakulam

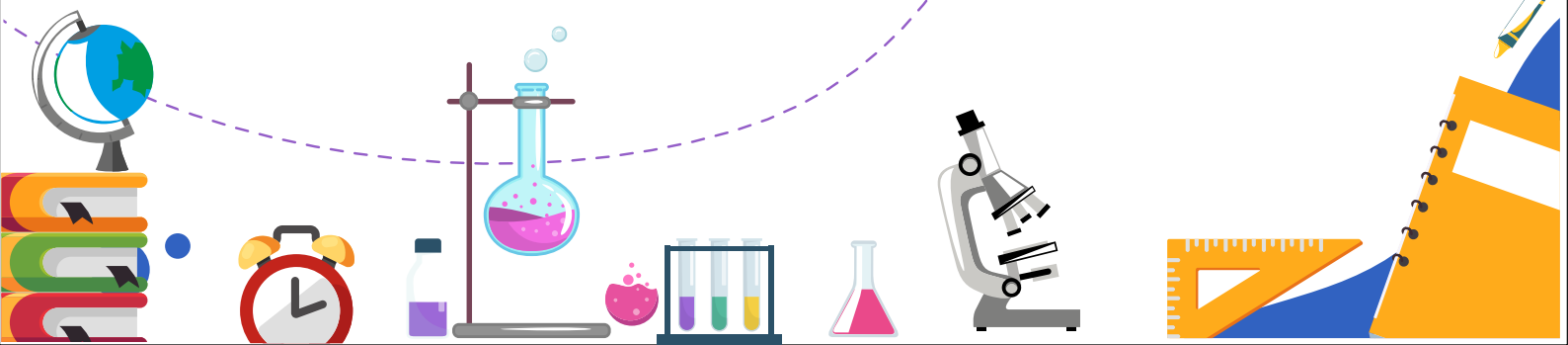
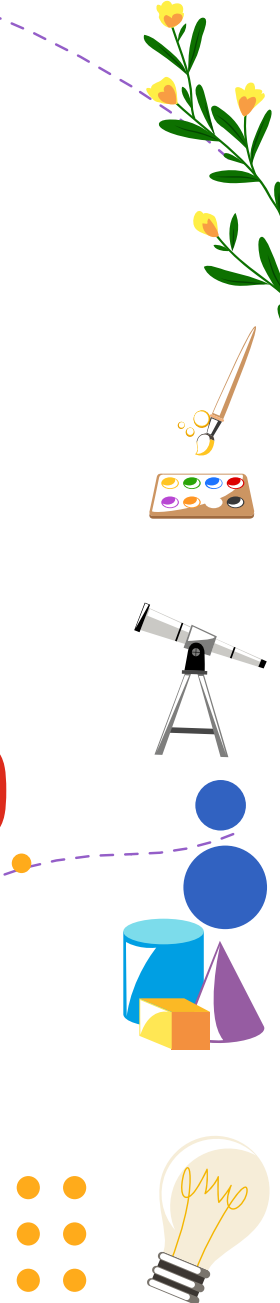
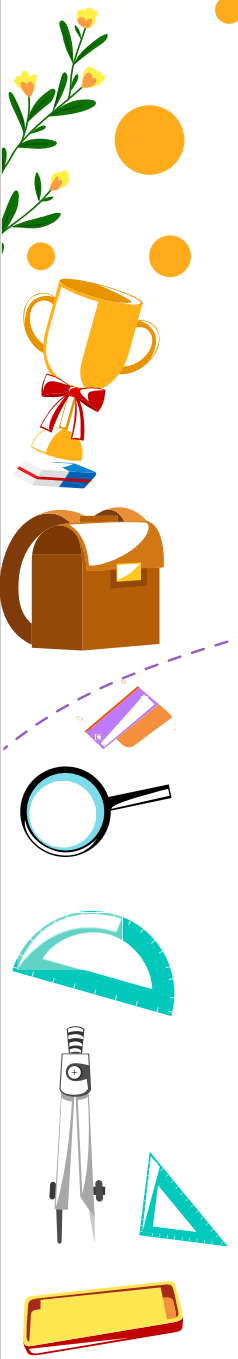
A Vaidic Integrated BSB affiliated Residential(Co-ed) Educational Institute



॥ पुरुषार्थ एव हि सफलतायाः कुञ्चिका ॥



Diwali-Break Holiday Home Work and Assignment (Session 2025 – 2026) Class – XI Commerce





वैदिक-विभागः

शैत्यावकाशस्य गृहकार्यम् {2025-26}

- सामूहिकं यज्ञं कृत्वा सामूहिकं योगप्रशिक्षणं च दत्वा तस्य सामूहिकछायाचित्रम् एकस्मिन् A4 sheet कर्गदि संश्लेष्य तस्य विवरणं संस्कृतेन लिखत ।
- स्वकीय पाठ्यपुस्तकस्य प्रथमपाठस्य श्लोकान् स्मरणं कृत्वा टिप्पणी-पुस्तिकायां लिखत ।
- एकतःपञ्चमपाठपर्यन्तं पठितपाठेभ्यः सन्धि-प्रत्ययपदानि चित्वा उत्तमेषु कर्गदिषु विलिख्य FILE निर्माणं कुरुत ।
- सर्वे संलग्न-दैनिक-क्रियाकलापस्य पत्रकं नीत्वा अवश्यम् आनयन्तु ।

दैनिक- क्रियाकलापाः

कक्षा-V-XII {सर्वेषां कृते}

क्रम.सं.	दिनाङ्कः	अभिवादनम्	योगः	यज्ञः	भोजनमन्त्रः	संस्कृतवाक्यम्	शयनमन्त्रः	अभिभावक-हस्ताक्षरम्
1.	18.10.25							
2.	19.10.25							
3.	20.10.25							
4.	21.10.25							
5.	22.10.25							
6.	23.10.25							
7.	24.10.25							
8.	25.10.25							
9.	26.10.25							
10.	27.10.25							
11.	28.10.25							
12.	29.10.25							
13.	30.10.25							
14.	31.10.25							
15.	01.11.25							
16.	02.11.25							
17.	03.11.25							

धातव्य-

- भो छात्र ! प्रतिदिन आपको उपरोक्त क्रिया कलाप अवश्य करने हैं और प्रतिनित्य अपने अभिभावकों के हस्ताक्षर इस आशय से कराने हैं कि आपने उनके समक्ष किया है ।
- प्रतिदिन किये गये क्रिया कलाप को चित्र के माध्यम से प्रमाण सहित उपस्थित करना अनिवार्य है ।
- संस्कृत वाक्य में प्रतिदिन अपने अभिभावकों को एक-एक संस्कृत का वाक्य सिखाना है ।



SUBJECT: ENGLISH

Section A: Reading Skills

Read the passage given below carefully and answer the questions that follow:

Plastic pollution has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them. Plastic pollution is most visible in developing Asian and African nations, where garbage collection systems are often inefficient or nonexistent but the developed world, especially countries with low recycling rates, also has trouble properly collecting discarded plastics. Plastic trash has become so ubiquitous it has prompted efforts to write a global treaty negotiated by the United Nations.

QUE. 1. Prepare notes on the passage using proper format.

QUE. 2. Write a summary of the passage in about 80 words.

Section B: Writing Skills

QUE. 3. You are Sakshi / Sameer, a student of Class XI. Write a speech on the topic: "The Importance of Mental Health Awareness Among Teenagers."

(Word limit: 150-200 words)

Section C: Grammar

QUE. 4. Re-order the following sentences to form a meaningful paragraph:

- a) was / the old house / haunted / believed to be.
- b) noises / people / strange / heard / often.
- c) into / nobody / wanted / go / it.
- d) brave / finally / boy / decided / enter / the / a / house.

QUE. 5. Fill in the blanks with the correct form of the verbs in brackets:

- a) She _____ (go) to the market before I reached.
- b) By the time the teacher arrived, the students _____ (complete) the assignment.
- c) I _____ (read) this book for two hours.
- d) If he had studied well, he _____ (pass) the exam.

QUE. 6. Combine the following pairs of sentences using suitable connectors:

- a) He was tired. He continued to work.
- b) It was raining. We decided to go for a walk.
- c) I respect him. He is an honest man.
- d) She didn't attend the meeting. She was unwell.

Section D: Literature (Hornbill & Snapshots)

The Adventure – Hornbill

QUE. 7. What is the significance of the parallel world in the story "The Adventure" by Jayant Narlikar? How does it reflect the theme of alternate histories?

QUE. 8. Describe Professor Gaitonde's experience in the parallel world. How did it affect his understanding of history?

The Birth – Snapshots

QUE. 9. Discuss the transformation in Andrew Manson's character in "The Birth." What does the story convey about professional dedication?

QUE. 10. How does the story "The Birth" highlight the challenges faced by doctors during critical situations? Give examples from the text.



SUBJECT: MATHEMATICS

General Instructions:

- Homework is divided in two sections A and B.
- Complete the homework in separate note book/file.
- Try to keep the work neat and clean and answer the questions exactly as asked.

Section-A (Short answer type questions)

- Describe each of the following sets in Roster form:
(i) $\{x: x \in \mathbb{Z} \text{ and } |x| \leq 2\}$ (ii) $\{x: x = \frac{n}{1+n^2}, 1 \leq n \leq 3 \text{ and } n \in \mathbb{N}\}$
- Write down the subsets of following sets:
(i) $\{1, \{1\}\}$ (ii) $\{\emptyset, \{\emptyset\}, \{0, \emptyset\}\}$
- Show that $3^{2n+2} - 8n - 9$ is divisible by 8, by using binomial theorem.
- Find the domain and range of following functions:
(i) $f(x) = \sqrt{4-x} + \frac{1}{\sqrt{x^2-1}}$ (ii) $f(x) = \frac{1}{\log(8-x^2)}$
- How many diagonals and triangles make in regular octagon?
- $\frac{100}{10!} = \frac{1}{8!} + \frac{x}{9!}$, Find x.
- Find the number of lines and triangles that are formed by choosing the points from a set of 12 points, seven of which are collinear.
- Solve the equation: $(1+i)y^2 + (6+i) = (2+i)x$
- Simplify: $i^9 + i^{19} + i^{-999}$
- Solve the equation: $\sqrt{3}x^2 - \sqrt{2}x + 3\sqrt{3} = 0$.
- Find the modulus and multiplicative inverse: $\sqrt{-3} + 4i^2$
- Which term is greater $(1.2)^{4000}$ or 800 (Use binomial theorem)?
- If $n_{C_{n-3}} = 720$, find n.
- If the coefficient of x in $(x^2 + \frac{k^2}{x})^5$ is 270, then k = _____.
- Which term is free from x in the expansion of $(3x^3 + \frac{1}{2x^3})^{10}$



Section-B

16. In a town of 10,000 families it was found that 40% families buy newspaper A, 20% families buy newspaper B and 10% families buy newspaper C. 5% families buy A and B, 3% buy B and C and 4% buy A and C. If 2% families buy all the three newspapers, find the number of families which buy (i) A only (ii) B only (iii) none of A, B and C.
17. In a survey of 25 students, it was found that 15 had taken mathematics, 12 had taken physics and 11 had taken chemistry, 5 had taken mathematics and chemistry, 9 had taken mathematics and physics, 4 had taken physics and chemistry and 3 had taken all the 3 subjects. Find the number of students that had (i) only chemistry, (ii) physics and chemistry, but not mathematics, (iii) only one of the subjects, (iv) at least one of the three subjects, (v) none of the subjects.
18. A group consists of 4 girls and 7 boys. In how many ways can a team of 5 members be selected if a team has (i) no girl (ii) at least 3 girls (iii) at least one girl and one boy?
19. From a class of 15 students, 10 are to be chosen for a picnic. There are two students who decide that either both will join or none of them will join. In how many ways can the picnic be organized?
20. Find the number of arrangements of the letters of the word EQUATION. In how many of these arrangements, (i) do the words start with E (ii) do all the vowels always occur together (iii) do the vowels never occur together (iv) do the word start with E and end in N?
21. Simplify: $(x + \sqrt{x-1})^6 + (x - \sqrt{x-1})^6$.
22. If the coefficients of $(r-5)$ th and $(2r-1)$ th terms in the expansion of $(1+x)^{34}$ are equal, find r .
23. Find the complex number $z = x + iy$ satisfying the equation $|z+1| = z + 2(1+i)$.
24. If $\frac{3-4ix}{3+4ix} = \alpha + i\beta$, then find the value of $\alpha^2 + \beta^2$.
25. Draw the graph of function and find range of $f(x) = |x-2| + |x+2|$, $-3 \leq x \leq 3$.



SUBJECT - ACCOUNTANCY

Pass the required Journal entries from the given Topic – RECTIFICATION OF ERRORS

1. Sale of goods ₹3,000 to Ravi not posted to his account.
2. Rent paid ₹2,000 posted twice to Rent Account.
3. Goods returned by Mohit ₹1,500 not recorded anywhere.
4. Discount allowed ₹200 entered in Discount Received Account.
5. Repairs paid ₹800 recorded in Wages Account.
6. Purchase of goods from Raj ₹4,000 not posted to his account.
7. Commission received ₹1,000 entered on the debit side of Commission Account.
8. Salary paid ₹3,500 omitted from books.
9. Interest received ₹400 posted to Interest Paid Account.
10. Rent received ₹2,500 credited to Cash Account only.
11. Goods sold to Rohit ₹6,000 recorded in Sales Book but not posted.
12. Cash received ₹5,000 from Reena omitted to be recorded.
13. Drawings ₹2,000 posted twice.
14. Rent outstanding ₹800 not recorded.
15. Wages paid ₹1,200 debited to Cash Account only.
16. Sale of old furniture ₹2,000 credited to Sales Account.
17. Discount allowed ₹150 not posted to Discount Account.
18. Stationery purchased ₹1,200 entered in Cash Book only.
19. Cash received from Sunil ₹1,000 not posted.
20. Purchase of machinery ₹5,000 recorded in Purchases Book.
21. Repairs paid ₹1,800 entered in Repairs Account only.
22. Rent paid ₹3,000 omitted from the books.
23. Commission received ₹700 debited to Commission Account.
24. Goods returned by customer ₹2,400 entered in Purchases Return Book.
25. Wages paid ₹1,000 recorded only in the Cash Book.
26. Purchases of furniture ₹10,000 recorded in Purchases Book.
27. Cash received from Rahul ₹2,000 posted to the debit of his account.
28. Credit sale to Sohan ₹4,500 posted to Mohan's account.
29. Wages paid ₹3,000 debited to Salaries Account.
30. Commission received ₹1,200 credited to Interest Account.
31. Credit purchase from Ramesh ₹5,000 recorded in Sales Book.
32. Goods returned by customer ₹1,500 entered in Purchases Return Book.
33. Rent paid ₹2,000 debited to Landlord's Account.
34. Sale of goods ₹6,000 posted to Sales Account as ₹600.
35. Cash paid to Anil ₹3,000 posted to his account as ₹300.



36. Purchase of machinery ₹8,000 entered in Purchases Book.
37. Repairs of building ₹2,500 debited to Building Account.
38. Sale of goods ₹4,000 omitted to be recorded in Sales Book.
39. Discount received ₹400 credited to Discount Allowed Account.
40. Salary paid ₹2,000 posted to Wages Account.
41. Credit sale to Ravi ₹9,000 posted to Raju's account.
42. Furniture purchased ₹15,000 entered in Purchases Book.
43. Goods returned to supplier ₹1,200 entered in Sales Return Book.
44. Rent paid ₹2,500 credited to Rent Account.
45. Commission received ₹1,000 posted to the debit side of Commission Account.
46. Sale to Mohit ₹5,000 posted to his account as ₹500.
47. Cash received from Amif ₹4,000 credited to his account.
48. Purchase of stationery ₹1,200 debited to Purchases Account.
49. Salary paid to clerk ₹3,000 posted to Rent Account.
50. Furniture purchased ₹6,000 recorded as Purchases.

SUBJECT -- BUSINESS STUDIES

Learn the following questions from the topic social responsibility and business ethics.

1. What do you understand by the term **social responsibility of business**? Explain with an example.
2. State **any four arguments in favour of social responsibility** of business.
3. State **any four arguments against social responsibility** of business.
4. What are the **different kinds of social responsibilities** that a business should fulfill?
5. Explain the **social responsibility of business towards**:
 - (a) Owners
 - (b) Employees
 - (c) Consumers
 - (d) Government
6. What is **business ethics**? Why is it important for modern businesses?
7. Distinguish between **social responsibility and legal responsibility**.
8. Describe **any five examples of unethical business practices** commonly found in India.
9. Explain the **need for business ethics** in today's business world.
10. "Social responsibility and business ethics are complementary to each other." — Justify this statement.

SUBJECT - ECONOMICS

Part A: Introductory Microeconomics

Learn the following questions from the topic Supply

1. Distinguish between a change in supply and a change in quantity supplied. Explain each with a suitable cause and diagrammatic representation.



2. State the Law of Supply. What is the basic reason behind its upward-sloping curve? Explain using the concepts of profit and cost.
3. Draw a supply curve for a commodity. On the same diagram, show the effect on its supply due to:
 - a) An increase in the price of a substitute-in-production.
 - b) An excise duty (tax) imposed by the government on the commodity.
4. Use diagrams to show the difference between:
 - a) A perfectly inelastic supply curve.
 - b) A unitary elastic supply curve.
5. Illustrate graphically the impact of an improvement in production technology on the supply of a good.
6. The price of a commodity rises from ₹ 10 to ₹ 15 per unit. Consequently, its quantity supplied increases from 80 units to 120 units. Calculate its Price Elasticity of Supply (PES).
7. At a price of ₹ 5 per unit of a commodity, the quantity supplied is 500 units. Its price elasticity of supply is 1.5. Calculate the new quantity supplied if the price falls to ₹ 4 per unit.
8. A seller supplies 200 units of a good at a price of ₹ 25 per unit. When the price rises to ₹ 30 per unit, he is willing to supply 275 units. Calculate the Price Elasticity of Supply using the percentage method.

Part B: Statistics

Learn the following questions from the topic Presentation of data

9. Distinguish between a simple table and a complex table. Provide an example of a situation where each would be used.
10. A researcher collects data on the monthly income, mode of transport, and family size of 50 employees in a company. What would be a suitable title and stub for a table presenting this data? Design the rough skeleton (headnote, caption, stub, and body) of such a table.
11. What are the special purpose or derived tables? Give one example of a derived table that a school principal might use to analyze student performance.
12. A real estate agent wants to present data to a client about the price range of houses in a locality. The data is highly variable, with a few very expensive houses. Which measure of central tendency (mean, median, or mode) should be used in the presentation and why? Which graphical tool (histogram or frequency curve) would best represent the skewness in this data?
13. A politician claims, "This pie chart clearly shows that our government spends the most on education." Why might this statement be potentially misleading, even if the chart is technically correct? What additional information should be provided with the pie chart?
14. You are given the task of presenting the annual rainfall data (in cm) of a city for the last 50 years. The data is continuous and you have over 100 observations. Would you prefer a histogram or a frequency curve? Justify your choice.
15. If in a pie diagram, a component representing 25% of the total is to be highlighted, what would be the central angle (in degrees) of its corresponding sector?



SUBJECT: ARTIFICIAL INTELLIGENCE

Part A: Theory and concepts

Question 1: Introduction to AI

Define Artificial Intelligence (AI) in your own words, citing one historical milestone in its development.

Differentiate between the three types of AI: Narrow AI, General AI, and Superintelligence, providing a real-world example for each.

Explain the significance of the Turing Test in the context of AI.

Question 2: AI domains and applications

Describe the three primary domains of AI covered in the CBSE curriculum (Data Science, Computer Vision, and Natural Language Processing). For each domain, list two applications.

Explain how AI is used in the following fields:

Healthcare

Agriculture

Education

Give an example of an AI-powered product or service you use daily and explain how AI enhances its functionality.

Question 3: AI ethics and values

What is AI ethics? Explain why ethical practices are crucial in the development and deployment of AI solutions.

Name two sources of bias that can creep into AI systems and briefly explain each.

Explain the concepts of 'data privacy' and 'transparency' in the context of AI. Why are these important for building public trust?

Part B: Practical application (Python programming)

This section requires basic knowledge of Python, the programming language included in your curriculum.

Question 1: Data analysis basics

Use Python to perform the following tasks:

Create a list of five names and another list of five corresponding marks scored by students.

Calculate and print the average (mean) marks of the students.

Add a new student to your list with their mark and recalculate the new average.

Question 2: Exploring data with libraries

Using the matplotlib library, write a Python program to create a bar graph.

The bar graph should represent the data from the previous question (student names and their marks).



Part C: Project-based learning

Activity: The AI project cycle

Choose a real-world problem from a topic you are passionate about (e.g., environment, healthcare, or safety). Apply the "Design Thinking" methodology and follow the AI Project Cycle to propose an AI-based solution.

Steps to follow for your report:

Problem Scoping (The 4Ws): Clearly identify the "Who, What, Where, and Why" of the problem.

Ideation: Brainstorm potential AI and non-AI solutions.

Data Acquisition: Describe what kind of data you would need to collect to train your AI model.



आचार्यकुलम्

वैदिक समन्वित बी.एस.बी. आवासीय शिक्षण संस्थानम्

शिक्षा
संस्कारः



अभ्युदयः
निःश्रेयसः

Acharyakulam

A Vaidic Integrated BSB affiliated Residential (Co-ed) Educational Institute



Happy Holidays

