

॥ ओ३म् ॥

आचार्यकुलम्

वैदिक समन्वित बी.एस.बी. आवासीय शिक्षण संस्थानम्

शिक्षा
संस्कारः



अभ्युदयः
निःश्रेयसः

Acharyakulam

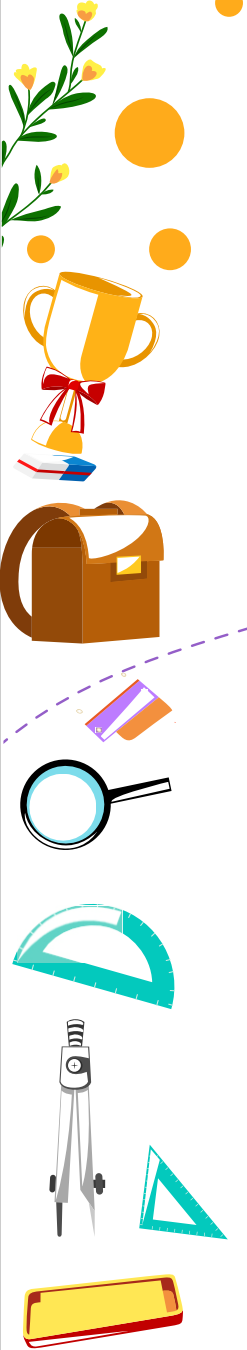
A Vaidic Integrated BSB affiliated Residential(Co-ed) Educational Institute



॥ पुरुषार्थ एव हि सफलतायाः कुञ्चिका ॥



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





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 - GEOGRAPHY

Q1. Read the newspaper on a daily basis....

Collect information of any three geographical events occurring on the Globe. Paste the information and write a gist of each in about 250-500 words.

Memorize the questions and answers thoroughly and revise them for the UT-II Examination

How does the unequal distribution of heat over the planet earth in space and time cause variations in weather and climate?

Q3. What are the factors that control temperature distribution on the surface of the earth?

Q4. In India, why is the day temperature maximum in May and why not after the summer solstice?

Q5. How do the latitude and the tilt in the axis of rotation of the earth affect the amount of radiation received at the earth's surface?

Q6. Discuss the processes through which the earth-atmosphere system maintains heat balance received at the earth's surface?

Q7. What is inversion of temperature? When | and in what regions does it take place?

Q8. Explain the factors affecting insolation at the surface of earth.

Q9. Discuss the factors affecting the speed and direction of wind.

Q10. Draw a simplified diagram to show the general circulation of the atmosphere over the globe. What are the possible reasons for the formation of subtropical high pressure over 30° N and S latitudes?

Q11. What is a front? How many types of front are there? Explain all of them.

Q12. Map Items for locating and labelling on outline Political India & World Map

India- Location: Latitudinal extent of India Longitudinal extent of India Standard Meridian of India Important latitude passing through India (Tropic of Cancer) Southern Most Point of mainland of India (Kanya Kumari)

Structure and Physiography:

Mountains : Karakoram Range, Garo- Khasi- Jaintia hills, Aravalli Range, Vindhyan Range, Satpura Range, Western ghats & Eastern ghats

Peaks : K2, Kanchenjunga, Nandadevi, Nanga Paryat, Namcha Barwa and Anaimudi

Passes : Shipkila, Nathula, Palghat, Bhor ghat and Thal ghat

Plateaus : Malwa, Chhotnagpur, Meghalaya and Deccan Plateau.

Coastal Plains : Saurashtra, Konkan, North and South Kanara, Malabar, Coromandel and Northern Circars.

Islands: Andaman & Nicobar Islands and Lakshadweep Island



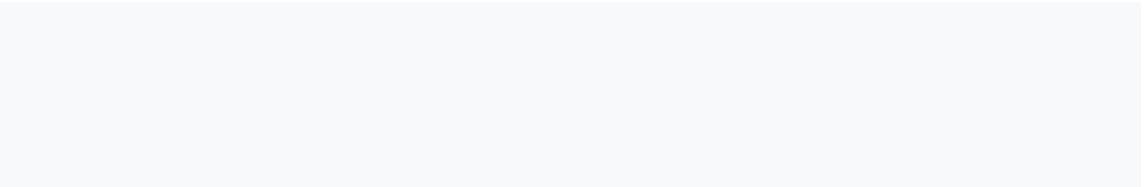
SUBJECT: MATHEMATICS

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 $f(x) = |x-2| + |x+2|$, $-3 \leq x \leq 3$.



Natural Vegetation:

National Parks : Corbett, Kaziranga, Ranthambore. Shivpuri, Simlipal
Bird Sanctuaries : Keoladev Ghana and Ranganathitto
Wild life Sanctuaries : Periyar, Rajaji, Mudumalai, Dachigam,

SUBJECT: HISTORY

General Instructions: Learn all the questions thoroughly for the test after the Diwali Break.

Q1. Discuss about vassalage. How the kings of France were linked to the people by vassalage?

Q2. Enlist any four rules that were followed by Monks as mentioned in the manuscript of Benedictine monasteries.

Q3. What was the 'guild'? Describe it's features.

Q4. Discuss about the crisis created by the change in climatic conditions and shortage of metals in the Europe during 14th century.

Q5. Discuss about the plague epidemic in Europe during 14th century? How did this crisis affected the economy and social conditions in Europe?

Q6. What were the advantages of printing technology in Europe?

Q7. What was the position of women during renaissance period in Europe?

Q8. Enumerate the evil practices of the Catholic Church in Mediaeval Period that led to the movement against them.

Q9. What reforms did Catholic Church initiate due to the impact of protestantism?

Q10. Discuss briefly about Copernicus.

SUBJECT: POLITICAL SCIENCE

1. Why do we need an independent judiciary?
2. What features of the Indian Constitution ensures the independence of Judiciary?
3. What do you understand by the term Judicial Activism? What effects did this made on the judicial system?
4. Comment upon the power of Judicial review of the supreme court.
5. How in recent times the relations between Judiciary and executive has become delicate?
6. Explain the areas of jurisdiction of the Supreme Court.

Show the structure of the Indian judiciary with the help of a mind map.



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

