

Holiday Homework Physics

Class-XI

1. Find the dimensions of $a \times b$ in the relation $P = \frac{a-t^2}{b\sqrt{s}}$, where s is distance, t is time and P is power.
2. A small spherical ball of radius r falls with velocity v through a liquid having coefficient of viscosity η . Find viscous drag F on the wall if it depends on r , v , η . Take $K = 6\pi$.
3. Add 2.384×10^{-4} to 1.7×10^{-5} and express the result to correct number of significant figures.
4. Solve with due regard to significant figures: $\frac{2.91 \times 0.3842}{0.080}$.
5. What do the slopes of distance-time and velocity-time graphs represent? What do positive and negative values of these slopes imply?
6. If the velocity of the object is given by $v = \sqrt{180 - 16x}$ m/s, what will be its acceleration?
7. Points P, Q and R are in vertical line such that $PQ = QR$. A ball at P is allowed to fall freely. What is the ratio of the times of descent through PQ and QR?
8. An object is thrown vertically upward with some speed. It crosses two points C, B which are separated by h metre. If t_c is the time between C and highest point and coming back and t_b is the time between B and highest point and coming back, relate acceleration due to gravity, t_c , t_b and h .
9. Two buses started simultaneously towards each other from towns A and B which are 480 km apart. It took the first bus travelling from A to B eight hours to cover the distance and the second bus travelling from B to A, ten hours. Determine, when the buses will meet after starting and at what distance from A.
10. Two towns A and B are connected by regular bus service with a bus leaving in either direction every T minutes. A man cycling with a speed of 20 km/h in the direction, A to B notices that a bus goes past him every 18 min in the direction of his motion, and every 6 min in the opposite direction. What is the period T of the bus service and with what speed (assumed constant) do the buses ply on the road?

MCQs

1. A body cannot have
 - (a) Constant speed and varying velocity
 - (b) An acceleration and a constant speed
 - (c) A constant velocity and varying speed
 - (d) Non zero speed and zero acceleration
2. A body of mass 2 kg has an initial velocity of 3m/s along OE and it is subjected to a force of 4 N in OF direction perpendicular to OE. The distance of the body from O after 4 second will be
 - (a) 12 m
 - (b) 28 m
 - (c) 20 m

- (d) 48 m
3. A body released from a great height, falls freely towards the earth. Another body is released from the same height exactly 1 second later. The separation between two bodies, 2 seconds after the release the second body is
- (a) 4.9 m
 - (b) 9.8 m
 - (c) 19.6 m
 - (d) 24.5 m
4. A stone is thrown with an initial speed of 4.9 m/s from a bridge in vertical upward direction it falls down in water after 2 seconds. The height of the bridge is
- (a) 4.9 m
 - (b) 9.8 m
 - (c) 19.8 m
 - (d) 24.7 m
5. A body is released from a certain height. After falling for some time, if acceleration due to gravity vanishes, then
- (a) The body continues to move with uniform velocity
 - (b) The body continues to move with uniform acceleration
 - (c) The body continues to move with uniform retardation
 - (d) The body continues to move with variable acceleration
6. The nature of graph drawn between displacement in t^{th} second and time t of a uniformly accelerated motion is
- (a) A straight line passing through the origin
 - (b) A straight line with negative y-axis intercept
 - (c) Parabola
 - (d) Ellipse
7. The displacement of a particle is represented by a equation $s = 3t^3 + 7t^2 + 5t + 8$ where s is in meter and t in seconds. The acceleration of the particle at $t = 1$ second is
- (a) 18 m/s^2
 - (b) 32 m/s^2
 - (c) 0 m/s^2
 - (d) 14 m/s^2
8. Which of the following is not a dimensional constant ?
- (a) Gravitational constant
 - (b) Planck's constant
 - (c) Π
 - (d) Gas constant
9. Which of the following is dimensional variable ?
- (a) Force
 - (b) Angle
 - (c) Exponential
 - (d) Velocity of light in vacuum
10. Which of the following is not a dimensionless variable ?
- (a) Density
 - (b) Specific gravity
 - (c) Angle
 - (d) Strain

Fill in the blanks in questions (1 to 24):

1. Any collection of objects is called a set.
2. The set $\{x : x \in \mathbf{R}, -1 \leq x < 2\}$ can be written as
3. The set $\{x : x \in \mathbf{N}, x \text{ is a prime divisor of } 24\}$ can be written as
4. The set builder form of the set $\{2, 3, 5, 7, 11, \dots\}$ is
5. The cardinal number of the set of all integers x for which $\frac{60}{x}$ is a natural number is
6. Two finite sets A and B are called equivalent if
7. Two finite equal sets are always
8. If $A \subset B, A \neq B$, then A is called of B .
9. If $A \subset B, A \neq B$, then B is called of A .
10. The empty set is a of every set.
11. Every set is a of itself.
12. Number of improper subsets of a set is
13. If A is a finite set containing n elements, then number of subsets of A is
14. The power set of the set $A = \{1, 2\}$ is
15. When $A = \phi$, then number of elements in $P(A)$ is
16. If A and B are finite sets such that $A \subset B$, then $n(A \cup B) = \dots\dots\dots$
17. If A and B are finite sets such that $A \subset B$, then $n(A \cap B) = \dots\dots\dots$
18. If A and B are any two sets, then $A - B = \dots\dots\dots$
19. If A and B are finite sets such that $A \subset B$, then $n(A - B) = \dots\dots\dots$
20. If A and B are finite sets, then $n(A) + n(B)$ is equal to
21. Given the sets $A = \{1, 3, 5\}, B = \{2, 4, 6\}$ and $C = \{0, 2, 4, 6, 8\}$. Then the universal set of all the three sets A, B and C can be
22. If $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}, A = \{1, 2, 3, 5\}, B = \{2, 4, 6, 7\}$ and $C = \{2, 3, 4, 8\}$. Then
 (i) $(B \cup C)' = \dots\dots\dots$ (ii) $(C - A)' = \dots\dots\dots$
23. If A and B are two sets, then $A \cup (A \cap B) = \dots\dots\dots$
24. For all sets A and $B, A - (A - B)$ is equal to

Choose the correct answer from the given four options (1 to 26):

1. Which of the following collection of objects is not a set?
 (a) The collection of all even integers.
 (b) The collection of all months of a year beginning with letter J.
 (c) The collection of most talented writers of India.
 (d) The collection of all prime numbers less than 20.
2. If $A = \{1, 2, 3, 4, 5\}$, then which of the following is not true?
 (a) $0 \notin A$ (b) $3 \in A$ (c) $\{3\} \in A$ (d) $\{3\} \subset A$
3. Which of the following is a null set?
 (a) $\{x : x \in \mathbf{N}, 2x - 1 = 3\}$ (b) $\{x : x \in \mathbf{N}, x^2 < 20\}$
 (c) $\{x : x \text{ is an even prime greater than } 2\}$ (d) $\{x : x \in \mathbf{I}, 3x + 7 = 1\}$
4. Which of the following is a finite set?
 (a) $\{x : x = 2n, n \in \mathbf{N}\}$ (b) $\{x : x \text{ is a prime number}\}$
 (c) $\{x : x \in \mathbf{N}, x \text{ is a factor of } 128\}$ (d) $\{x : x \in \mathbf{I}, x \leq 7\}$
5. Given sets $A = \{1, 3, 5, 7, 9\}, B = \{0, 2, 4, 6\}$ and $C = \{7, 8, 9\}$. Which of the following may be taken as universal set for all the three sets A, B and C ?
 (a) $\{0, 1, 2, 3, 4, 5, 6, 7, 8\}$ (b) $\{1, 2, 3, 4, 5, 6, 7, 8, 9\}$
 (c) $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ (d) $\{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$
6. Number of proper subsets of a set containing 4 elements is
 (a) 4^2 (b) $4^2 - 1$ (c) 2^4 (d) $2^4 - 1$
7. Which of the following is not correct?
 (a) $\mathbf{N} \subset \mathbf{R}$ (b) $\mathbf{N} \subset \mathbf{Q}$ (c) $\mathbf{Q} \subset \mathbf{R}$ (d) $\mathbf{N} \subset \mathbf{T}$
8. On real axis if $A = [1, 5]$ and $B = [3, 9]$, then $A - B$ is
 (a) $(5, 9)$ (b) $(1, 3)$ (c) $[5, 9)$ (d) $[1, 3)$
9. If $n(A - B) = 10, n(B - A) = 23, n(A \cup B) = 50$, then $n(A \cap B)$ is
 (a) 7 (b) 17 (c) 27 (d) 33

Subject-English
Class XI
Biology and Commerce
Holiday Home Work

1) Write an article in 800---1000 words stressing on the benefits of 'Meditation'.

Or

Write an article in 800--1000 words on 'The importance of time management for students'.

2) Write a review in 800—1000 words on any one novel.

- A) A Tale of Two Cities (Charles Dickens)
- B) Oliver Twist (Charles Dickens)
- C) Far from the Madding Crowd (Thomas Hardy)
- D) The Mayor of Casterbridge (Thomas Hardy)

Class 11 Hum. and Maths

1. Read the following essays/articles and write a review on any two.

- i. On Doing Nothing - J.B. Priestley
- ii. Selected Snobberies - Aldous Huxley
- iii. The Ailing Planet - Nani Palkhivala
- iv. On Finding Things - E. V. Lucas

2. Make a video of at least 10-15 minutes describing the place you visit in summer vacation.

3. Write your own original travelogues/stories/poems/articles/essays etc. for your school magazine.

Holiday home work

Class11 BST

1. To know the popularity of various forms of business prepare a Questionnaire as Primary source of Data.

Holiday Home work

Class-XI

Subject-ACCOUNT

This is your holiday homework for Accountancy, it is compulsory to do it on a **DAILY** basis-

- Do 10 Sums of General Entry including trade discount and Cash discount
- Do 5 Sums of Accounting Equation

Sub: Music(Vocal)

Class 11

Holiday homework

- 1- Make five Alankaar in raag Bhairvi.
- 2- Write five taan of raag Bhairvi in Mandra saptak.
3. Write Tigun of Teentaal.
- 4- Write Five aalap of raag Bhairvi in Taar saptak.
- 5- How does music have value to our health and happiness.

Subject-Geography

Class: XI (Humanities)

Summer vacation Holiday work

- Q.1. What important cultural features do you observe while going to school? Are they similar or dissimilar? Should they be included in the study of geography or not? If yes, why?
- Q.2. You have seen a tennis ball, a cricket ball, an orange and a pumpkin. Which one amongst these resembles the shape of the earth? Why have you chosen this particular item to describe the shape of the earth?
- Q.3. You have seen elephants, deer, earthworms, trees and grasses. Where do they live or grow? What is the name given to this sphere? Can you describe some of the important features of this sphere?
- Q.4. You observe every day in your surroundings that there is a variation in natural as well as cultural phenomena. All these trees are not of the same variety, all the birds and animals you see are different. Argue that Geography is the study of “areal differentiation”?
- Q.5. You have already studied Geography, History, Civics and Economics as parts of social studies. Attempt an integration of these disciplines highlighting their interface.

Class XI (Informatics Practices)

Holiday Homework

1. Write a program to input the temperature in Celsius and convert it into Fahrenheit.
Hint: $fahrenheit = (celsius * 9 / 5) + 32$.
2. Write a program to input days then convert days into years, weeks and days.
3. Write a program to enter length and breadth of a rectangle and find its perimeter.
4. Write a program to enter length and breadth of a rectangle and find its area.
5. Write a program to enter radius of a circle and find its diameter, circumference and area.
6. Write a program to enter length in centimeter and convert it into meter and kilometer.
7. Write a program to input two numbers then find power of any number x^y .
8. Write a program to input any number and calculate its square root.
9. Write a program to input two angles of a triangle and find the third angle.
10. Write a program to input base and height of a triangle and find its area.
11. Write a program to calculate area of an equilateral triangle.
12. Write a program to input marks of five subjects and calculate total, average and percentage.
13. Write a program to input P, T, R and calculate Simple Interest and compound interest.

Avadh International School Ayodhya

History Homework XI 2023-2024

Project Topics -are as mentioned below choose any one of them and prepare the project file

(1) Anthropological Research based on Darwin's theory;

(2) Collect at least five different denominations currency notes in circulation today. For each one of these ,describe what you see on both side of the currency .Prepare a report on the common features.

(3) Interview any one of your older relations who has travelled outside your town or village .Find out-

-where they went.

-how they travelled.

-did they face any difficulties

-why they went.

(4) Making and unmaking of Mesopotamia;

(5) Read a biography of any one of the leaders of the revolt of 1857.Prepare a report on your finding.

GUIDELINES FOR THE PROJECTS:

It must be emphasized that the process of doing the project is as important as the final project.

Once the project/projects are chosen, there should be a process of brainstorming to make out a draft/structure for the project before embarking on research.

Internet sites could be referred, but care must be taken in selecting, using and citing these sites.

Avoid plagiarism

Marks to be awarded for content and originality and not for decorative elements and embellishments.

Projects must be the original work of the student.

Project may be supported by- Data, fact sheets, maps, articles, newspaper clips

Maximum of 25-30 page projects.

Objective: - To enable the students to know about the inventions of new concepts in world politics and constitution of India.

- To develop 21st century managerial skills of co-ordination, self-direction and time management.

- To understand contemporary political issues in context to our past. To develop a global perspective and an international outlook.

Assignment: - Project Work

Project Ideas/Topics

1- Local Government- Importance and need for local government.

Functions and responsibilities of local government bodies

Significance of the 73rd and 74th Amendments

Merits and demerits of decentralization

Challenges faced by local government bodies

2.Federalism -a) What is Federalism?

b) Federalism in the Indian Constitution and Division of Powers

c) Federalism with a strong central government

d) Conflicts in India's federal system

Centre-State Relations Demands for Autonomy

Role of Governors and President's Rule, Demands for New States, Interstate Conflicts

e) Special provisions - Jammu and Kashmir

3.Judiciary-a) Need of an independent Judiciary.

b)Different jurisdictions of the Supreme Court

c)Distinction between Judicial Activism, Judicial Review and Judicial Over-reach

d)Conflicts between Judiciary and Parliament.

4.Legislature-a)Importance of Legislature.

b)Types of Legislatures- Unicameral and Bicameral.

c)Powers and functions of the Indian Parliament.

d) Law-making process and the different types of bills in India

e)Instruments of parliamentary control over the executive.

f)Composition, powers and functions of the Lok Sabha and Rajya Sabha.

5.Executive. A)• Meaning of Executive

b)Distinction between Parliamentary and Presidential forms of Executive

c) Power and position of the President of India.

d) Composition, powers and functioning of the Council of Ministers and the importance of the Prime Minister

e)Importance and functioning of the administrative machinery.

Guidelines for Project Work

The expectations of the project work are that

1. Students have to complete only one project in each academic session from the above five topics.

2. Project should be hand written

3. It will be an independent, self-directed piece of study

Scope of the project

Learners may work upon the following lines as suggested following

1. Choose a title/topic
2. Certificate
3. Acknowledgement
4. Index
5. Introduction
6. Main event, Origin, history, identify the causes, consequences, and remedies
7. Validity, reliability of case study used for the project
8. Report Writing
9. Draw the relevant Conclusion
10. Bibliography

General Instructions for assignment questions.

- 1) The work should be done neatly and in a systematic way.
- 2) The given questions are to be done in your respective subject notebooks.

Subject: Political Science

Assignment Work

- Q.1 What is the philosophy of Indian Constitution? Discuss.
- Q.2 Explain the role of the Election Commission of India.
- Q.3 How does the Election Commission of India ensure its independence?
- Q.4 Describe the powers and functions of the President of India.
- Q.5 How does the Indian Parliament control the Executive?
- Q.6 Write any two features of Indian secular state.
- Q.7 Why Fundamental Rights are important?
- Q.8 Mention the amendment made in constitution of India in 1989.
- Q.9 Correct the following statement and rewrite:
The legislature is the branch of government responsible for the implementation of laws and policies adopted by the executive.
- Q.10 Mention two motions which the Parliament in India can adopt to control the government..

ग्रीष्मावकाश कार्य

कक्षा-एकादश

विषय-हिन्दी

परियोजना कार्य-

- 1- सूरदास के दो पद उनके अर्थ लिखो।
 - 2- एक प्रेरक प्रसंग लिखो।
 - 3- मजदूर दिवस पर स्वरचित कविता लिखो।
 - 4- कोल्ड-ड्रिंक का विग्यापन तैयार करो ।
 - 5- पर्यावरण प्रदूषण को कैसे सुरक्षित रखा जा सकता है सचित्र वर्णन करो।
- नोट- फाइल ,पंच पेपर, कवर रंग चाकलेटी ।

Holiday Home work
class 11th

Write electronic configuration 1 to 50
Elements

write atomic no and mass no. of
1 to 50 elements.

prepare ch-1 mole (concept)

" ch-2 atomic structure

project work

Assignment Ques Based on JEE/NEET
prepare.