



Einstein

PUBLIC SCHOOL

Nurturing a better tomorrow

SUMMER VACATION HOLIDAY HOMEWORK- 2025-26

Class- XI

ग्रीष्मावकाश कार्य

कक्षा 11 विषय- हिंदी

ग्रीष्मावकाश कार्य

- 1- जनसंचार के स्रोत का एक सुंदर चार्ट तैयार करें।
- 2- जनसंचार के माध्यमों को स्कैपबुक में संकलित करके उनकी कमियां और खूबियों को लिखिए।
- 3- नमक का दारोगा कहानी को ध्यान में रखते हुए एक स्वरचित कहानी का निर्माण करें।
- 4- अवकाश के दौरान 15 दिन की डायरी लिखें।
- 5- जनसंचार माध्यम से संबंधित एक आकर्षक पोस्टर तैयार करें।
- 6-5 कवियों और 5 लेखकों के चित्र संकलित करके उनका जीवन परिचय और प्रमुख रचनाओं के नाम लिखिए।

**EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26)**

CLASS-11 English

Q1: Assertion: The writer's grandmother was not very pretty.

Reason: The writer compared her calm face with the winter landscape.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

Q2: Assertion: The writer's grandmother felt upset about the subjects he studied in the city.

Reason: She wanted the writer to focus on music lessons.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

Q3: Assertion: The writer's grandmother could foresee her impending death.

Reason: She prayed and recited beads on her deathbed.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

2. Write an Article based on The Summer of the beautiful Horse.

3. Write a story about yourself based on The Photograph.

4. Read the paragraphs carefully and write note-making with heading, sub-headings and 3 Abbreviations.

Set 1:

"Yoga is a physical, mental, and spiritual practice that originated in ancient India. It includes breath control, meditation, and the adoption of specific bodily postures. Regular practice of yoga improves flexibility, builds strength, and calms the mind. In today's fast paced world, yoga is gaining popularity as a means to reduce stress and enhance overall well-being."

Set 2:

"Plastic pollution is a major environmental issue. Single-use plastics such as bottles, bags, and straws often end up in oceans and harm marine life. Recycling and reducing plastic usage are effective steps to manage this problem. Governments and individuals must work together to create a cleaner, greener planet."

Set 3:

"The Internet has revolutionized communication. It allows instant messaging, video calls, and access to information. However, excessive use of the Internet can lead to addiction, poor health, and reduced real-life interaction. Responsible and balanced use of digital devices is essential for a healthy lifestyle."

5. Write definitions with examples of following figure of speech:

- a. simile
- b. metaphor
- c. alliteration
- d. hyperbole
- e. personification
- f. idioms

6. Answer of the following question in 90-120 words each.

- a. Human life is short-lived in contrast to nature. Comment on the statement in the light of the poem A Photograph.
- b. Can the act of stealing be ever justified? Give your views in the context of reading of The Summer of the Beautiful White Horse.

**EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26
CLASS-11 (MATHS)**

Relations & Functions

1. Let $A = \{-1, 2, 3\}$ and $B = \{1, 3\}$. Determine
 - (i) $A \times B$
 - (ii) $B \times A$
 - (iii) $B \times B$
 - (iv) $A \times A$
2. If $P = \{x : x < 3, x \in \mathbb{N}\}$, $Q = \{x : x \leq 2, x \in \mathbb{W}\}$. Find $(P \cup Q) \times (P \cap Q)$, where $\mathbb{W}$ is the set of whole numbers.
3. If $A = \{x : x \in \mathbb{W}, x < 2\}$, $B = \{x : x \in \mathbb{N}, 1 < x < 5\}$, $C = \{1, 5\}$ find
 - (i) $A \times (B \cap C)$
 - (ii) $A \times (B \cup C)$
4. In each of the following cases, find a and b .
 - (i) $(2a + b, a - b) = (8, 3)$
 - (ii) $\left(\frac{a}{4}, a - 2b\right) = (0, 6 + b)$
5. Given $A = \{1, 2, 3, 4, 5\}$, $S = \{(x, y) : x \in A, y \in A\}$. Find the ordered pairs which satisfy the conditions given below:
 - (i) $x + y = 5$
 - (ii) $x + y < 5$
 - (iii) $x + y > 8$
6. Given $R = \{(x, y) : x, y \in \mathbb{W}, x^2 + y^2 = 25\}$. Find the domain and Range of R .
7. If $R_1 = \{(x, y) | y = 2x + 7, \text{ where } x \in \mathbb{R} \text{ and } -8 \leq x \leq 5\}$ is a relation. Then find the domain and Range of R_1 .
8. If $R_2 = \{(x, y) | x \text{ and } y \text{ are integers and } x^2 + y^2 = 64\}$ is a relation. Then find R_2 .
9. If $R_3 = \{(x, |x|) | x \text{ is a real number}\}$ is a relation. Then find domain and range of R_3 .
10. Is the given relation a function? Give reasons for your answer
 - (i) $h = \{(4, 6), (3, 9), (-11, 6), (3, 11)\}$
 - (ii) $f = \{(x, x) | x \text{ is a real number}\}$
 - (iii) $g = \left\{\left(x, \frac{1}{x}\right) | x \text{ is a positive integer}\right\}$
 - (iv) $s = \{(n, n^2) | n \text{ is a positive integer}\}$
 - (v) $t = \{(x, 3) | x \text{ is a real number}\}$
11. If f and g are real functions defined by $f(x) = x^2 + 7$ and $g(x) = 3x + 5$, find each of the following
 - (a) $f(3) + g(-5)$
 - (b) $f\left(\frac{1}{2}\right) \times g(14)$

$$(c) f(-2) + g(-1)$$

$$(d) f(t) - f(-2)$$

$$(e) \frac{f(t) - f(5)}{t - 5}, \text{ if } t \neq 5$$

12. Let f and g be real functions defined by $f(x) = 2x + 1$ and $g(x) = 4x - 7$.

(a) For what real numbers x , $f(x) = g(x)$?

(b) For what real numbers x , $f(x) < g(x)$?

13. If f and g are two real valued functions defined as $f(x) = 2x + 1$, $g(x) = x^2 + 1$, then find:

$$(i) f + g$$

$$(ii) f - g$$

$$(iii) fg$$

$$(iv) \frac{f}{g}$$

14. Express the following functions as set of ordered pairs and determine their range.

$$f: X \rightarrow \mathbb{R}, f(x) = x^2 + 1, \text{ where } X = \{-1, 0, 1, 9, 7\}$$

15. Find the values of x for which the functions

Sets

1. Write the following sets in the roster form

$$(i) A = \{x : x \in \mathbb{R}, 2x + 11 = 15\} \quad (ii) B = \{x | x^2 = x, x \in \mathbb{R}\}$$

$$(iii) C = \{x | x \text{ is a positive factor of a prime number } p\}$$

2. Write the following sets in the roster form :

$$(i) D = \{r | r^2 = 4, r \in \mathbb{R}\} \quad (ii) E = \{w | \frac{w-2}{w+3} = 3, w \in \mathbb{R}\}$$

$$(iii) F = \{x | x^4 - 5x^2 + 6 = 0, x \in \mathbb{R}\}$$

3. If $Y = \{x | x \text{ is a positive factor of the number } 2^p - 1 \text{ (} 2^p - 1 \text{), where } 2^p - 1 \text{ is a prime number}\}$. Write Y in the roster form.

4. State which of the following statements are true and which are false. Justify your answer.

$$(i) 35 \in \{x | x \text{ has exactly four positive factors}\}.$$

$$(ii) 128 \in \{y | \text{the sum of all the positive factors of } y \text{ is } 2y\}$$

$$(iii) 3 \notin \{x | x^4 - 5x^2 + 2x^2 - 112x + 6 = 0\}$$

$$(iv) 496 \notin \{y | \text{the sum of all the positive factors of } y \text{ is } 2y\}.$$

5. Given $L = \{1, 2, 3, 4\}$, $M = \{3, 4, 5, 6\}$ and $N = \{1, 3, 5\}$

$$\text{Verify that } L - (M \cup N) = (L - M) \cap (L - N)$$

6. If A and B are subsets of the universal set U , then show that

$$(i) A \subset A \cup B$$

$$(ii) A \subset B \Leftrightarrow A \cup B = B$$

$$(iii) (A \cap B) \subset A$$

7. Given that $N = \{1, 2, 3, \dots, 100\}$. Then write

(i) the subset of N whose elements are even numbers.

(ii) the subset of N whose element are perfect square numbers.

8. If $X = \{1, 2, 3\}$, if n represents any member of X , write the following sets containing all numbers represented by

$$(i) 4n$$

$$(ii) n + 6$$

$$(iii) \frac{n}{2}$$

$$(iv) n - 1$$

9. If $Y = \{1, 2, 3, \dots, 10\}$, and a represents any element of Y , write the following sets, containing all the elements satisfying the given conditions.
- (i) $a \in Y$ but $a^2 \notin Y$ (ii) $a + 1 = 6, a \in Y$
(iii) a is less than 6 and $a \in Y$
10. A, B and C are subsets of Universal Set U . If $A = \{2, 4, 6, 8, 12, 20\}$
 $B = \{3, 6, 9, 12, 15\}$, $C = \{5, 10, 15, 20\}$ and U is the set of all whole numbers, draw a Venn diagram showing the relation of U , A, B and C.
11. Let U be the set of all boys and girls in a school, G be the set of all girls in the school, B be the set of all boys in the school, and S be the set of all students in the school who take swimming. Some, but not all, students in the school take swimming. Draw a Venn diagram showing one of the possible interrelationship among sets U , G , B and S .
12. For all sets A, B and C, show that $(A - B) \cap (C - B) = A - (B \cup C)$
Determine whether each of the statement in Exercises 13 – 17 is true or false.

Holiday homework
Subject–Physical Education
Class-XI. Session: 2025-26

Einstein public school Ialганj pratapgarh

Class- Xi

Physical Education (048)

Session -2025-26

Holiday homework

PART -A

**** MULTIPLE CHOICE QUESTIONS (1 Mark)

Q. 1 Rackets are used in which of the following games?

- (a) Tennis. (b) Table Tennis
(c) Badminton (d) All of these

Q. 2. Which technology is being used in cricket from the following?

- (a) Hawkeye technology. (b) Hifi technology
(c) Hockey technology (d) None of these

Q-3 How many verticals are there in Khelo-India Programme?

(a) Ten (b) Eleven. (c) Twelve. (d) Thirteen

Q. 4. The Ministry of Youth Affairs and Sports, Govt. of India launched the Khelo-India Programme in :

(a) 2013-2014. (b) 2014-2015
(c) 2016-2017. (d) 2017-2018

Q. 5-The maximum duration of 'Long Term Athlete Development Programme is—

(a) 4 Years. (b) 6 Years. (c) 8 Years. (d) 12 Years

Q. 6.. The scheme of 'Sports for Peace & Development' is exclusively for the state.

(a) Jammu & Kashmir (b) Delhi and NCR. (c) Uttar Pradesh (d) Punjab

Q. 7. First Event of Khelo-India games took place in the year

(a) 2012. (b) 2014. (c) 2016. (d) 2018

Q. 8.Which state of India in First Khelo-India Games stood at highest rank in 2018?

(a) Delhi (b) Maharashtra. (c) Punjab (d) Haryana

Q. 9. How many discipline of sports were there in Ist Khelo-India?

(a) 15 (b) 14. (c) 12 (d) 16

Q. 10. How many sports are available in Khelo-India app?

(a) 19 (b) 16. (c) 20 (d) 21

Q. 10.. The word "Altius" in the Olympic motto means :

(a) Faster (b) Higher. (c) Heavier (d) Stronger

Q.11. The first Olympic torch was lit in :

(a) 1896, Athens, Greece (b) 1920, Antwerp, Belgium
(c) 1924, Paris, France (d) 1928, Amsterdam, Netherlands

Q. 12.. The Olympic flag was used for the first time :

(a) 1896, Athens, Greece (b) 1920, Antwerp, Belgium
(c) 1924, Paris, France (d) 1928, Amsterdam, Netherlands

Q. 13.. How many rings Olympics symbol has?

(a) Three (b) Four. (c) Five (d) Six

Q.14.Citius, Altius, Fortius means respectively:

(a) Faster, higher, stronger (b) Higher, stronger, faster
(c) Higher, faster, stronger (d) Faster, stronger, higher

Q. 15.. Olympic motto was coined by in

(a) Mahatma Gandhi, 2005 (b) Father Didon, 1895
(c) Coubertin, 1896 (d) Barak Obama, 2001

Q. 16. Olympic flag was created in by

(a) 1915, Donald Trump (b) 1913, Baron de Coubertin
(c) 2011, Obama (d) 1913, Mahatma Gandhi

Q. 17. In which language is Citius Altius Fortius written?

(a) Latin (b) German. (c) Spanish (d) Italian

Q. 18. What is the meaning of Fortius?

(a) Faster (b) Sharper. (c) Higher (d) Stronger

Q. 19.Olympics Flag was hosted for the first time at:

(a) Paris (b) Antiverp Olympic Game (c) Olympic Stadium (d) Africa

Q. 20. Which of the following is NOT a colour in Olympic flag?

(a) Blue (b) Green. (c) Black (d) Pink

****SHORT-I QUESTION ANSWERS (3 Marks, 100 Words)

- Q. 1. What are the aims of Khelo-India Programme?
- Q. 2. List all the circles of Khelo-India Programme.
- Q. 3. Who inaugurated this event?
- Q. 4. In how many circles Khelo-India Programme has been divided?
- Q. 5. What is Khelo-India Programme?
- Q. 6. What is the philosophy of Khelo-India Programme?
- Q. 7. What is the vision and mission of Khelo-India Programme?
- Q. 8. Who started the Fit India Movement?
- Q. 9. What is the goal of Fit India Movement?
- Q. 10. What is the basic objective of Fit India?
- Q. 11. Why was the Fit India Movement started?
- Q. 12. Who started the Fit India Programme and in which year?
- Q. 13. Explain the objectives of Olympics.
- Q. 14. Explain the values of Olympic Games.
- Q. 15. Explain the Olympic symbols.
- Q. 16. Write down about the Olympic Ideals.
- Q. 17. Write any three features of International Olympic Committee.
- Q. 18. Write a short note on Governing Committee of IOC.
- Q. 19- Describe the Olympic oath.

*****Long -ii Question Answer (5 Marks, 150-200 words)

- Q.1 What is physical education? Explain the aim and objectives of physical education.?
- Q. 2. When was Khelo-India Programme started, write in detail.
- Q. 3. Explain the selection criteria of Khelo-India Programme.
- Q. 4. What is the importance of five rings in the Olympic flag?
- Q. 5.. Write a short note on the Olympic Flag.
- Q. 6- Briefly explain the development of values through Olympic movement?
- Q. 7. Explain the main functions of International Olympic Committee.
- Q. 8. Write a short note on National Olympic Committee.
- Q. 9. Describe the formation and objectives of Indian Olympic association.?

**** PART -B****

.Prepare the project on any game of your choice. Project has to be written on the basis of following guidelines:-

- 1- History of the game
- 2- Draw the diagram of court/field of related game
- Specifications of Latest general rules of the game

3- Fundamental skills of the game

4- Terminology

5- Important tournaments of related game

i. Write down the current affairs related to sports of the year 2023-2024

EINSTEIN PUBLIC SCHOOL
LALGANG AJHARA PRATAPGARH
SUMMER VACATIONS' HOMEWORK 2025-26
CLASS - XI- ACCOUNTANCY

Q1. Write a short note on types of Assets with one example of each.

Q2. Firm has received large order to supply goods Will it be recorded in the books of account of the firm ? Give reason.

Q3. Capital is a liability for the business. Explain this statement with the principle applied.

Q4. A Company lost vital machinery in an accident on 2nd March, 2022 which will have adverse impact on this production capacity. As a result, it is likely to lose business to its competitor. The company has not disclosed this fact in its annual report for the year ended 31st March 2022. Do you think it is compulsory with the convention of full disclosure?

Q5. "Only financial transactions are recorded in accounting ". Explain the statement.

Q6. Briefly explain the element of statement of comprehensive Income.

Q7. If the capital of a business is 300,000 liabilities are 50,000, loss Rs 70,000, calculate the total assets of the business.

Q8. X Started a business on 1st April with the capital Rs 50,000 and a loan of Rs 25,000 taken from Y. During 2022-23, he had introduced additional capital of Rs 25,000 and had withdrawn Rs 15,000 for personal use. On 31st March 2023 his assets were Rs 1,50,000. Find his capital as on 31st March 2023 and profit made or loss incurred during the year 2022-23.

Q9. Indicate how accounting equation is affected if cash is received against service rendered

Q10. If the capital is 1,00,000 and outside liabilities are 2,50,000. Find the total assets.

Q11. Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers.

Q12. Comprehensive project of any sole Proprietorship Business. State their journal entry, ledger, trial balance, trading account and balance sheet

Prepare PPT OR Chart paper on the following topics.

1- Basic Accounting Terms

2- Accounting Process

3- Accounting Principles and Concepts

* NOTE- Revise all chapters covered in class-

Chapter1- Meaning and objectives of Accounting

2 Basic Accounting terms

3 Accounting principles

4 Process and bases of Accounting

5 Accounting Equations

9Journ

BUSINESS STUDIES

Q1. Compare Business with Profession and Employment.

Q2. Comparative evaluation of forms of business organisation.

Q3. Compare the status of minor in a joint Hindu family business with that of in a partnership firm.

Q4. All the members of a company sitting in a general meeting were killed by bomb. Was the company wound up?

Q5. According to the partnership act 1932 it is not compulsory for a partnership firm to get itself registered, then why do partner prefer to get the firm registered?

Q6. Who is working as an active partner and what is the nature of his liabilities?

Q7. Draw a flow chart on Business Activities.

Q8. Explain the characteristics of Business.

Q9. Collect some facts about Reliance industry limited and paste in your notebook. Q10. Collect different types of Bank account and paste their forms.

Q11. Make a project file on any one of the following

1. Visit of an industry

2. Multinational company

3. Banking and finance

4. Insurance

5. Transportation

6. Advertisement

* NOTE- Revise all chapters covered in class-



EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK
Session 2025-26



CLASS: - XI A

SUBJECT: - COMPUTER SCIENCE

COMPUTER SYSTEM & ORGANIZATION

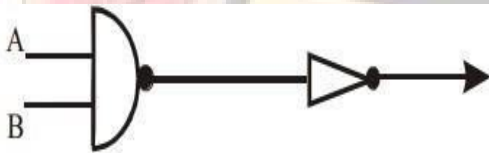
1. What is the basic building block of any computer?
2. Explain the basic architecture of a computer?
3. What is the role of CPU in a computer?
4. What is the function of memory in computer?
5. What is the role of input unit in a computer?
6. What is the role of output unit in a computer?
7. Give some examples of input devices of computer?
8. Give some examples of output devices of computer?
9. What are the functions of input and output unit of a computer?
10. What are the functions performed by control unit in computer?
11. What are the functions performed by ALU?
12. Can you distinguish CPU and ALU?
13. Distinguish internal and external memory of a computer?
14. Differentiate RAM and ROM.
15. Write short notes on different types of ROMs.
16. Write any four memory units
17. What are the basic components of any typical mobile system?
18. What are the various categories of software?
19. What is application software?
20. What is system software?
21. What is operating system and how it is important for any computer?
22. What is software library and how it is useful?
23. Write names of some software libraries of Python.
24. Draw the basic building block of any typical mobile system
25. Do you feel mobile phones are replacing computers, if yes then why?
26. Differentiate compiler and interpreter
27. What is Boolean algebra?
28. What is truth table?

INFORMATION REPRESENTATION

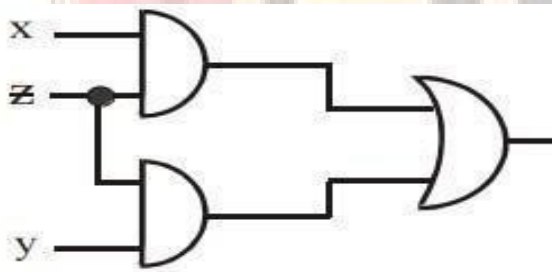
1. Convert 1111 0110 from base 2 to base 10
2. Convert 0111 1111 from binary to decimal
3. Convert 27 from base 10 to base 2
4. Convert 62cd from hexadecimal to base 2
5. Convert 0111 1000 1111 1100 from binary to base 16
6. Convert 0111 1110 1010 0111 from base 2 to hexadecimal
7. Convert 223 from base 10 to binary

8. Convert 10 from octal to binary
9. Convert d214 from base 16 to binary
10. Convert 0111 1110 1000 1111 from binary to hexadecimal
11. Convert 77 from base 8 to base 10
12. Convert 11101010 from base 2 to base 16
13. Convert ad from base 16 to base 10
14. Convert 41 from base 16 to base 2
15. Convert ff from base 16 to base 2
16. Convert 27 from base 8 to base 10
17. convert $(110011)_2$ to decimal.
18. convert $(1011.101)_2$ into decimal.
19. convert $(51)_{10}$ into binary
20. Example: convert $(F4C)_{16}$ into decimal.
21. Convert 011012 to octal
22. Convert 0011001102 to octal
23. Convert 10112 to octal
24. Convert 111100012 to octal
25. What is ASCII CODE and where its used and why?
26. What is unicode ?
27. How many bits are used to represent Unicode, ASCII, UTF-32, and UTF-8 characters?
28. What scripts does Unicode support?
29. Why is there more than one Unicode encoding?

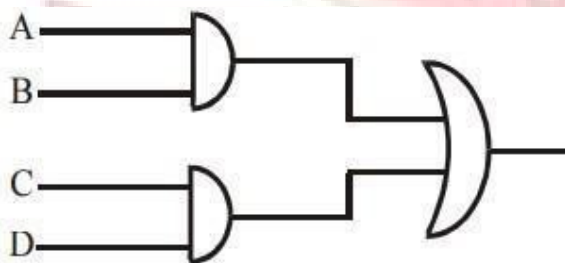
30. Obtain logic expression for logic diagram.



31. Obtain logic expression for logic diagram



32. Obtain logic expression for logic diagram



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HOLIDAY H W -CLASS XI : PHYSICS

(2025-26)

Questions to Solve:-

1. Derive the dimensional formula for

1. Energy
2. Power
4. Momentum
5. Pressure
6. Heat
7. Specific heat
8. Charge
9. Voltage
10. Resistance
11. Electric field
12. Coefficient Of viscosity
13. Torque
14. Capacitance
15. Coefficient of thermal conductivity

2. Check the dimensional correctness of the following equations:

$$F = \frac{Gm_1m_2}{r^2}$$

$$F = \frac{Kq_1q_2}{r^2}$$

$$E = \frac{-dV}{dr}$$

$$E = mc^2$$

$$P = \rho gh$$

3. Derive the following formulas by dimensional method.

$$1. K = \frac{1}{2}mv^2$$

$$2. P.E. = mgh$$

$$3. \text{Pressure } p = \rho gh$$

$$4. F = 6\pi \eta r v$$

$$5. T = 2\pi \sqrt{\frac{l}{g}}$$

4. Find the Significant figure I the following numbers.

84, 0.084, 5.8480, 2005, 8400, 3.405, 0.00289, 1030, 7.0040×10^{-3} , 102.00, 0.000980, 9.80

5. Name the fundamental units and define them.

**6. Long
Answer type
questions.**

1. If $\left(P + \frac{a}{v^2}\right)(V - b) = RT$ where the symbols have their usual meanings, then (a/b) has a dimension of.....

2. By using the method of dimension, check the accuracy of the following formula:

$$T = \frac{r\rho g}{2 \cos \theta}$$

Where T is the surface tension, h is the height of the liquid in a capillary tube, ρ is the density of the liquid, g is the acceleration due to gravity, θ is the angle of contact, and r is the radius of the capillary tube.

3. It is known that the period T of a magnet of magnetic moment M vibrating in a uniform magnetic field of intensity H depends upon M , H and I , where I is the moment of inertia of the magnet about its axis of oscillations

Show that $T = 2\pi \sqrt{\frac{I}{MH}}$

4. The force experienced by mass moving with a uniform speed in a circular path of radius r experiences a force which depends on its mass, speed and radius.

Prove that the relation is $f = \frac{mv^2}{r}$

5. An artificial satellite is revolving a planet of mass m and radius R in a circular orbit of radius r . From Kepler's third law square of period of revolution T is proportional to the cube of radius of orbit r . So using dimensional analysis.

$$T = \frac{k}{R} \sqrt{\frac{r^3}{g}}$$

ASSIGNMENT:-2 Motion in a Straight line.

Practice Problems

1. *Distance and displacement*: Practice problems involving calculation of distance and displacement.
2. *Speed and velocity*: Solve problems involving average speed, instantaneous speed, average velocity, and instantaneous velocity.
3. *Acceleration*: Practice problems involving calculation of acceleration, including uniform and non-uniform acceleration.
4. *Derive Equations of motion by graphical method as well as using the Calculus Method.
5. Solve 10 -10 problems using equations of motion:-

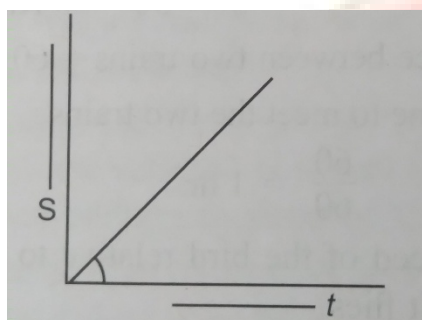
$$v = u + at$$

$$s = ut + \frac{1}{2}at^2$$

$$v^2 = u^2 + 2as$$

6. Questions to Solve

1. A particle moves with an initial velocity of 5 m/s and accelerates uniformly at 2 m/s^2 for 3 seconds. Calculate its final velocity and displacement.
2. A body is thrown vertically upwards with an initial velocity of 20 m/s. Calculate the time taken for it to reach the maximum height and the maximum height attained.

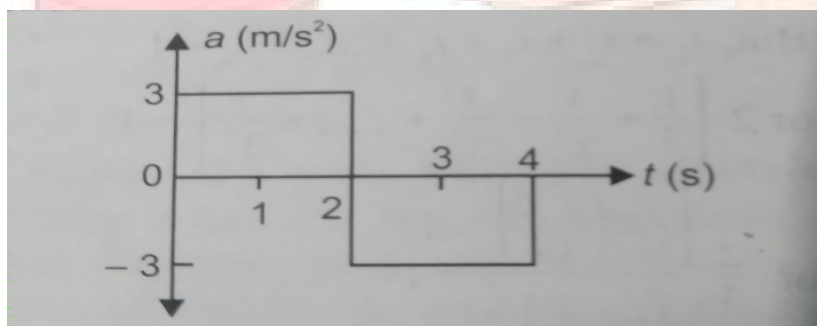


3. (a) Displacement-time graph of any object is shown in the figure:

Draw the velocity-time graph for this motion.

- (b) What does the area under acceleration-time graph represent?

4. Acceleration is called the rate of change of velocity. Suppose we call rate of change of acceleration SLAP, what is the unit of SLAP?
5. The distance covered by a body is found to be directly proportional to the square of time. Is the body moving with uniform velocity or uniform acceleration? If the distance travelled be directly proportional to time.
5. Four persons K, L, M and N start from the vertices of a square of side "a", simultaneously and move towards the neighbour in order always with the same speed of v . When and where do they meet?
6. A particle starts from rest at $t=0$ and has an acceleration as given in the figure below. Draw the v - t



graph for 4 seconds.

7. (a) Explain clearly with examples the distinction between magnitude of displacement over an interval of time and the total length of the path covered by a particle over the same interval.

(b) A body starting from rest accelerates uniformly along a straight line at the rate of 10ms^{-2} for 5 s. It moves for 2 s with uniform velocity of 50m s^{-1} . Then it retards uniformly and comes to rest in 3 s. Draw velocity-time graph of the body and find the total distance travelled by it.

7. The speed of a train increases at a constant rate α from zero to v and then remains constant for an interval, and finally decreases to zero at a constant rate β . If L be the total distance described prove that the total time taken $\frac{L}{v} + \frac{v}{2} \left(\frac{1}{\alpha} + \frac{1}{\beta} \right)$

8. Water drops fall freely from a tap at a height of 4.9 m. If time interval between successive drops is equal and the 4th drop is released when the first lands on the ground, find the separation between the second and third drops.

9. The driver of a truck travelling with a velocity v suddenly notices a brick wall in front of him at a distance d . Is it better for him to apply brakes or to make a circular turn without applying brakes in order to just avoid crashing into the wall? Why?

10. Two trains A and B of length 400 m each are moving on two parallel tracks with a uniform speed of 72 km h^{-1} in the same direction, with A ahead of B. The driver of B desires to overtake A and accelerates by 1m s^{-2} . If, after 50 s, the guard of B just brushes past driver of A, calculate the original distance between the two trains.

11. A car starting from rest, accelerates uniformly with $5\text{m / (s}^2)$ for sometime and then decelerates to come to rest with $3\text{m / (s}^2)$. Find the maximum velocity attained during the motion and the distance covered in a total time of 6 seconds of the journey.

6. Graphical Analysis

1. *Position-time graphs*: Practice interpreting and drawing position-time graphs for different types of motion.

2. *Velocity-time graphs*: Solve problems involving velocity-time graphs, including calculation of displacement and acceleration.

3. *Acceleration-time graphs*: Practice interpreting and drawing acceleration-time graphs. Motion in a Straight Line:

7. Project work

Objective:

Study the motion of a falling object under gravity and verify the relationship between distance, time, and acceleration due to gravity.

Procedure:

Drop an object from a certain height and measure the time it takes to reach the ground.

Repeat the experiment multiple times and calculate the average time.

Calculate the distance covered during free fall and verify if it obeys the equation: $s = \frac{1}{2}gt^2$

Einstein Public School, Pratapgarh

Summer Vacation Homework

Subject: Economics

Class: XI Commerce

Subject: Economics

Answer the following Questions:

1. Economics is a study of Scarcity. Explain
2. Explain the following definitions.
 - a. Wealth by Adam Smith
 - b. Welfare by Marshall
 - c. Scarcity by Robbins
3. Define Statistics. Explain the function of Statistics.
4. Explain any two methods of collection of data.
5. Explain Methods of Collection of Data with suitable examples.
6. Explain a. Census Of India and b. NSSO Project:

Prepare Chart on Adam Smith and Alfred Marshall

Do survey based on Telephonic Interview that which food students of Einstein like most.

Prepare a 10 page file on P C Mahalanobis.

Holiday homework2025 Chemistry

Class XI. BASIC CONCEPTS OF CHEMISTRY

1. How many moles of NaOH are contained in 27 ml of 0.15 M?
2. Calculate the number of atoms in each of the following: a - 52 moles of He b - 52 u of He
3. Calculate the molarity of 1 L of solution of ethanol in water in which the mole fraction of ethanol is 0.040.
4. If ten volumes of dihydrogen gas reacts with five volumes of dioxygen gas, how many volumes of water vapour could be produced?
5. Calculate the molarity of NaOH in the solution prepared by dissolving its 4gms in enough water to form 250mL of the solution.
6. The density of 2 molal solution of NaOH is 1.10 g per ml. Calculate the molarity of the solution.
7. How many atoms and molecules of phosphorous are present in 124gms of phosphorous (P₄)?
8. A 6.9M solution of KOH in water contains 20% by weight of KOH. Calculate the density of solution.
9. Calculate the molality and molarity of 1 L solution of 93% H₂SO₄(Wt. /Vol). The density of solution is 1.84g/ml.
10. Chlorophyll the green coloring matter of plants responsible for photosynthesis contains 2.68% of magnesium by weight. Calculate the number of magnesium atoms in 2.0 g of chlorophyll.
11. Calculate molality, Molarity and mole fraction of KI if the density of 20% aqueous KI solution is 1.202 g/ml.
12. What volume of O₂ at N.T.P is needed to cause the complete combustion of 200 ml of acetylene? Also calculate the volume of CO₂ formed.
13. Butyric acid contains only C, H and O. A 4.24 mg sample of butyric acid is completely burned. It gives 8.45mg of CO₂ and 3.46 mg of H₂O. The molecular mass of butyric acid was determined by experiment to be 88 amu. What is its molecular formula?
14. The density of water at room temperature is 1.0 g/ml. How many molecules are there in a drop of water if its volume is 0.05 ml?
15. Potassium Bromide contains 32.9% by mass of potassium. If 6.40 gm of bromine reacts with 3.60 gm of Potassium. Calculate the no. of moles of potassium which combines with bromine to form KBr.



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PUBLIC SCHOOL

Nurturing a better tomorrow

SUMMER VACATION HOLIDAY HOMEWORK- 2025-26

Class- XI

ग्रीष्मावकाश कार्य

कक्षा 11 विषय- हिंदी

ग्रीष्मावकाश कार्य

- 1- जनसंचार के स्रोत का एक सुंदर चार्ट तैयार करें।
- 2- जनसंचार के माध्यमों को स्कैपबुक में संकलित करके उनकी कमियां और खूबियों को लिखिए।
- 3- नमक का दारोगा कहानी को ध्यान में रखते हुए एक स्वरचित कहानी का निर्माण करें।
- 4- अवकाश के दौरान 15 दिन की डायरी लिखें।
- 5- जनसंचार माध्यम से संबंधित एक आकर्षक पोस्टर तैयार करें।
- 6-5 कवियों और 5 लेखकों के चित्र संकलित करके उनका जीवन परिचय और प्रमुख रचनाओं के नाम लिखिए।

**EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26)**

CLASS-11 English

Q1: Assertion: The writer's grandmother was not very pretty.

Reason: The writer compared her calm face with the winter landscape.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

Q2: Assertion: The writer's grandmother felt upset about the subjects he studied in the city.

Reason: She wanted the writer to focus on music lessons.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

Q3: Assertion: The writer's grandmother could foresee her impending death.

Reason: She prayed and recited beads on her deathbed.

- (a) Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- (b) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- (c) Assertion is true, but the reason is false.
- (d) Both assertion and reason are false.

2. Write an Article based on The Summer of the beautiful Horse.

3. Write a story about yourself based on The Photograph.

4. Read the paragraphs carefully and write note-making with heading, sub-headings and 3 Abbreviations.

Set 1:

"Yoga is a physical, mental, and spiritual practice that originated in ancient India. It includes breath control, meditation, and the adoption of specific bodily postures. Regular practice of yoga improves flexibility, builds strength, and calms the mind. In today's fast paced world, yoga is gaining popularity as a means to reduce stress and enhance overall well-being."

Set 2:

"Plastic pollution is a major environmental issue. Single-use plastics such as bottles, bags, and straws often end up in oceans and harm marine life. Recycling and reducing plastic usage are effective steps to manage this problem. Governments and individuals must work together to create a cleaner, greener planet."

Set 3:

"The Internet has revolutionized communication. It allows instant messaging, video calls, and access to information. However, excessive use of the Internet can lead to addiction, poor health, and reduced real-life interaction. Responsible and balanced use of digital devices is essential for a healthy lifestyle."

5. Write definitions with examples of following figure of speech:

- simile
- metaphor
- alliteration
- hyperbole
- personification
- idioms

6. Answer of the following question in 90-120 words each.

- Human life is short-lived in contrast to nature. Comment on the statement in the light of the poem A Photograph.
- Can the act of stealing be ever justified? Give your views in the context of reading of The Summer of the Beautiful White Horse.

**EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26
CLASS-11 (MATHS)**

Relations & Functions

- Let $A = \{-1, 2, 3\}$ and $B = \{1, 3\}$. Determine
 - $A \times B$
 - $B \times A$
 - $B \times B$
 - $A \times A$
- If $P = \{x : x < 3, x \in \mathbb{N}\}$, $Q = \{x : x \leq 2, x \in \mathbb{W}\}$. Find $(P \cup Q) \times (P \cap Q)$, where $\mathbb{W}$ is the set of whole numbers.
- If $A = \{x : x \in \mathbb{W}, x < 2\}$, $B = \{x : x \in \mathbb{N}, 1 < x < 5\}$, $C = \{1, 5\}$ find
 - $A \times (B \cap C)$
 - $A \times (B \cup C)$
- In each of the following cases, find a and b .
 - $(2a + b, a - b) = (8, 3)$
 - $\left(\frac{a}{4}, a - 2b\right) = (0, 6 + b)$
- Given $A = \{1, 2, 3, 4, 5\}$, $S = \{(x, y) : x \in A, y \in A\}$. Find the ordered pairs which satisfy the conditions given below:
 - $x + y = 5$
 - $x + y < 5$
 - $x + y > 8$
- Given $R = \{(x, y) : x, y \in \mathbb{W}, x^2 + y^2 = 25\}$. Find the domain and Range of R .
- If $R_1 = \{(x, y) | y = 2x + 7, \text{ where } x \in \mathbb{R} \text{ and } -8 \leq x \leq 5\}$ is a relation. Then find the domain and Range of R_1 .
- If $R_2 = \{(x, y) | x \text{ and } y \text{ are integers and } x^2 + y^2 = 64\}$ is a relation. Then find R_2 .
- If $R_3 = \{(x, |x|) | x \text{ is a real number}\}$ is a relation. Then find domain and range of R_3 .
- Is the given relation a function? Give reasons for your answer
 - $h = \{(4, 6), (3, 9), (-11, 6), (3, 11)\}$
 - $f = \{(x, x) | x \text{ is a real number}\}$
 - $g = \left\{\left(x, \frac{1}{x}\right) | x \text{ is a positive integer}\right\}$
 - $s = \{(n, n^2) | n \text{ is a positive integer}\}$
 - $t = \{(x, 3) | x \text{ is a real number}\}$
- If f and g are real functions defined by $f(x) = x^2 + 7$ and $g(x) = 3x + 5$, find each of the following
 - $f(3) + g(-5)$
 - $f\left(\frac{1}{2}\right) \times g(14)$

$$(c) f(-2) + g(-1)$$

$$(d) f(t) - f(-2)$$

$$(e) \frac{f(t) - f(5)}{t - 5}, \text{ if } t \neq 5$$

12. Let f and g be real functions defined by $f(x) = 2x + 1$ and $g(x) = 4x - 7$.

(a) For what real numbers x , $f(x) = g(x)$?

(b) For what real numbers x , $f(x) < g(x)$?

13. If f and g are two real valued functions defined as $f(x) = 2x + 1$, $g(x) = x^2 + 1$, then find:

$$(i) f + g$$

$$(ii) f - g$$

$$(iii) fg$$

$$(iv) \frac{f}{g}$$

14. Express the following functions as set of ordered pairs and determine their range.

$$f: X \rightarrow \mathbb{R}, f(x) = x^2 + 1, \text{ where } X = \{-1, 0, 1, 9, 7\}$$

15. Find the values of x for which the functions

Sets

1. Write the following sets in the roster form

$$(i) A = \{x : x \in \mathbb{R}, 2x + 11 = 15\} \quad (ii) B = \{x | x^2 = x, x \in \mathbb{R}\}$$

$$(iii) C = \{x | x \text{ is a positive factor of a prime number } p\}$$

2. Write the following sets in the roster form :

$$(i) D = \{r | r^2 = 4, r \in \mathbb{R}\}$$

$$(ii) E = \{w | \frac{w-2}{w+3} = 3, w \in \mathbb{R}\}$$

$$(iii) F = \{x | x^4 - 5x^2 + 6 = 0, x \in \mathbb{R}\}$$

3. If $Y = \{x | x \text{ is a positive factor of the number } 2^p - 1 \text{ (} 2^p - 1 \text{), where } 2^p - 1 \text{ is a prime number}\}$. Write Y in the roster form.

4. State which of the following statements are true and which are false. Justify your answer.

$$(i) 35 \in \{x | x \text{ has exactly four positive factors}\}.$$

$$(ii) 128 \in \{y | \text{the sum of all the positive factors of } y \text{ is } 2y\}$$

$$(iii) 3 \notin \{x | x^4 - 5x^2 + 2x^2 - 112x + 6 = 0\}$$

$$(iv) 496 \notin \{y | \text{the sum of all the positive factors of } y \text{ is } 2y\}.$$

5. Given $L = \{1, 2, 3, 4\}$, $M = \{3, 4, 5, 6\}$ and $N = \{1, 3, 5\}$

$$\text{Verify that } L - (M \cup N) = (L - M) \cap (L - N)$$

6. If A and B are subsets of the universal set U , then show that

$$(i) A \subset A \cup B$$

$$(ii) A \subset B \Leftrightarrow A \cup B = B$$

$$(iii) (A \cap B) \subset A$$

7. Given that $N = \{1, 2, 3, \dots, 100\}$. Then write

(i) the subset of N whose elements are even numbers.

(ii) the subset of N whose element are perfect square numbers.

8. If $X = \{1, 2, 3\}$, if n represents any member of X , write the following sets containing all numbers represented by

$$(i) 4n$$

$$(ii) n + 6$$

$$(iii) \frac{n}{2}$$

$$(iv) n - 1$$

9. If $Y = \{1, 2, 3, \dots, 10\}$, and a represents any element of Y , write the following sets, containing all the elements satisfying the given conditions.
- (i) $a \in Y$ but $a^2 \notin Y$ (ii) $a + 1 = 6, a \in Y$
 (iii) a is less than 6 and $a \in Y$
10. A, B and C are subsets of Universal Set U. If $A = \{2, 4, 6, 8, 12, 20\}$
 $B = \{3, 6, 9, 12, 15\}$, $C = \{5, 10, 15, 20\}$ and U is the set of all whole numbers, draw a Venn diagram showing the relation of U, A, B and C.
11. Let U be the set of all boys and girls in a school, G be the set of all girls in the school, B be the set of all boys in the school, and S be the set of all students in the school who take swimming. Some, but not all, students in the school take swimming. Draw a Venn diagram showing one of the possible interrelationship among sets U, G, B and S.
12. For all sets A, B and C, show that $(A - B) \cap (C - B) = A - (B \cup C)$
 Determine whether each of the statement in Exercises 13 – 17 is true or false.

Holiday homework
Subject–Physical Education
Class-XI. Session: 2025-26

Einstein public school Ialганj pratapgarh

Class- Xi

Physical Education (048)

Session -2025-26

Holiday homework

PART -A

**** MULTIPLE CHOICE QUESTIONS (1 Mark)

Q. 1 Rackets are used in which of the following games?

- (a) Tennis. (b) Table Tennis
 (c) Badminton (d) All of these

Q. 2. Which technology is being used in cricket from the following?

- (a) Hawkeye technology. (b) Hifi technology
 (c) Hockey technology (d) None of these

Q-3 How many verticals are there in Khelo-India Programme?

(a) Ten (b) Eleven. (c) Twelve. (d) Thirteen

Q. 4. The Ministry of Youth Affairs and Sports, Govt. of India launched the Khelo-India Programme in :

(a) 2013-2014. (b) 2014-2015
(c) 2016-2017. (d) 2017-2018

Q. 5-The maximum duration of 'Long Term Athlete Development Programme is—

(a) 4 Years. (b) 6 Years. (c) 8 Years. (d) 12 Years

Q. 6.. The scheme of 'Sports for Peace & Development' is exclusively for the state.

(a) Jammu & Kashmir (b) Delhi and NCR. (c) Uttar Pradesh (d) Punjab

Q. 7. First Event of Khelo-India games took place in the year

(a) 2012. (b) 2014. (c) 2016. (d) 2018

Q. 8.Which state of India in First Khelo-India Games stood at highest rank in 2018?

(a) Delhi (b) Maharashtra. (c) Punjab (d) Haryana

Q. 9. How many discipline of sports were there in Ist Khelo-India?

(a) 15 (b) 14. (c) 12 (d) 16

Q. 10. How many sports are available in Khelo-India app?

(a) 19 (b) 16. (c) 20 (d) 21

Q. 10.. The word "Altius" in the Olympic motto means :

(a) Faster (b) Higher. (c) Heavier (d) Stronger

Q.11. The first Olympic torch was lit in :

(a) 1896, Athens, Greece (b) 1920, Antwerp, Belgium
(c) 1924, Paris, France (d) 1928, Amsterdam, Netherlands

Q. 12.. The Olympic flag was used for the first time :

(a) 1896, Athens, Greece (b) 1920, Antwerp, Belgium
(c) 1924, Paris, France (d) 1928, Amsterdam, Netherlands

Q. 13.. How many rings Olympics symbol has?

(a) Three (b) Four. (c) Five (d) Six

Q.14.Citius, Altius, Fortius means respectively:

(a) Faster, higher, stronger (b) Higher, stronger, faster
(c) Higher, faster, stronger (d) Faster, stronger, higher

Q. 15.. Olympic motto was coined by in

(a) Mahatma Gandhi, 2005 (b) Father Didon, 1895
(c) Coubertin, 1896 (d) Barak Obama, 2001

Q. 16. Olympic flag was created in by

(a) 1915, Donald Trump (b) 1913, Baron de Coubertin
(c) 2011, Obama (d) 1913, Mahatma Gandhi

Q. 17. In which language is Citius Altius Fortius written?

(a) Latin (b) German. (c) Spanish (d) Italian

Q. 18. What is the meaning of Fortius?

(a) Faster (b) Sharper. (c) Higher (d) Stronger

Q. 19.Olympics Flag was hosted for the first time at:

(a) Paris (b) Antiverp Olympic Game (c) Olympic Stadium (d) Africa

Q. 20. Which of the following is NOT a colour in Olympic flag?

(a) Blue (b) Green. (c) Black (d) Pink

****SHORT-I QUESTION ANSWERS (3 Marks, 100 Words)

- Q. 1. What are the aims of Khelo-India Programme?
- Q. 2. List all the circles of Khelo-India Programme.
- Q. 3. Who inaugurated this event?
- Q. 4. In how many circles Khelo-India Programme has been divided?
- Q. 5. What is Khelo-India Programme?
- Q. 6. What is the philosophy of Khelo-India Programme?
- Q. 7. What is the vision and mission of Khelo-India Programme?
- Q. 8. Who started the Fit India Movement?
- Q. 9. What is the goal of Fit India Movement?
- Q. 10. What is the basic objective of Fit India?
- Q. 11. Why was the Fit India Movement started?
- Q. 12. Who started the Fit India Programme and in which year?
- Q. 13. Explain the objectives of Olympics.
- Q. 14. Explain the values of Olympic Games.
- Q. 15. Explain the Olympic symbols.
- Q. 16. Write down about the Olympic Ideals.
- Q. 17. Write any three features of International Olympic Committee.
- Q. 18. Write a short note on Governing Committee of IOC.
- Q. 19- Describe the Olympic oath.

*****Long -ii Question Answer (5 Marks, 150-200 words)

- Q.1 What is physical education? Explain the aim and objectives of physical education.?
- Q. 2. When was Khelo-India Programme started, write in detail.
- Q. 3. Explain the selection criteria of Khelo-India Programme.
- Q. 4. What is the importance of five rings in the Olympic flag?
- Q. 5.. Write a short note on the Olympic Flag.
- Q. 6- Briefly explain the development of values through Olympic movement?
- Q. 7. Explain the main functions of International Olympic Committee.
- Q. 8. Write a short note on National Olympic Committee.
- Q. 9. Describe the formation and objectives of Indian Olympic association.?

**** PART -B****

.Prepare the project on any game of your choice. Project has to be written on the basis of following guidelines:-

- 1- History of the game
- 2- Draw the diagram of court/field of related game
- Specifications of Latest general rules of the game

3- Fundamental skills of the game

4- Terminology

5- Important tournaments of related game

i. Write down the current affairs related to sports of the year 2023-2024

EINSTEIN PUBLIC SCHOOL
LALGANG AJHARA PRATAPGARH
SUMMER VACATIONS' HOMEWORK 2025-26
CLASS - XI- ACCOUNTANCY

Q1. Write a short note on types of Assets with one example of each.

Q2. Firm has received large order to supply goods Will it be recorded in the books of account of the firm ? Give reason.

Q3. Capital is a liability for the business. Explain this statement with the principle applied.

Q4. A Company lost vital machinery in an accident on 2nd March, 2022 which will have adverse impact on this production capacity. As a result, it is likely to lose business to its competitor. The company has not disclosed this fact in its annual report for the year ended 31st March 2022. Do you think it is compulsory with the convention of full disclosure?

Q5. "Only financial transactions are recorded in accounting ". Explain the statement.

Q6. Briefly explain the element of statement of comprehensive Income.

Q7. If the capital of a business is 300,000 liabilities are 50,000, loss Rs 70,000, calculate the total assets of the business.

Q8. X Started a business on 1st April with the capital Rs 50,000 and a loan of Rs 25,000 taken from Y. During 2022-23, he had introduced additional capital of Rs 25,000 and had withdrawn Rs 15,000 for personal use. On 31st March 2023 his assets were Rs 1,50,000. Find his capital as on 31st March 2023 and profit made or loss incurred during the year 2022-23.

Q9. Indicate how accounting equation is affected if cash is received against service rendered

Q10. If the capital is 1,00,000 and outside liabilities are 2,50,000. Find the total assets.

Q11. Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers.

Q12. Comprehensive project of any sole Proprietorship Business. State their journal entry, ledger, trial balance, trading account and balance sheet

Prepare PPT OR Chart paper on the following topics.

1- Basic Accounting Terms

2- Accounting Process

3- Accounting Principles and Concepts

* NOTE- Revise all chapters covered in class-

Chapter1- Meaning and objectives of Accounting

2 Basic Accounting terms

3 Accounting principles

4 Process and bases of Accounting

5 Accounting Equations

9Journ

BUSINESS STUDIES

Q1. Compare Business with Profession and Employment.

Q2. Comparative evaluation of forms of business organisation.

Q3. Compare the status of minor in a joint Hindu family business with that of in a partnership firm.

Q4. All the members of a company sitting in a general meeting were killed by bomb. Was the company wound up?

Q5. According to the partnership act 1932 it is not compulsory for a partnership firm to get itself registered, then why do partner prefer to get the firm registered?

Q6. Who is working as an active partner and what is the nature of his liabilities?

Q7. Draw a flow chart on Business Activities.

Q8. Explain the characteristics of Business.

Q9. Collect some facts about Reliance industry limited and paste in your notebook. Q10. Collect different types of Bank account and paste their forms.

Q11. Make a project file on any one of the following

1. Visit of an industry

2. Multinational company

3. Banking and finance

4. Insurance

5. Transportation

6. Advertisement

* NOTE- Revise all chapters covered in class-



EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK
Session 2025-26



CLASS: - XI A

SUBJECT: - COMPUTER SCIENCE

COMPUTER SYSTEM & ORGANIZATION

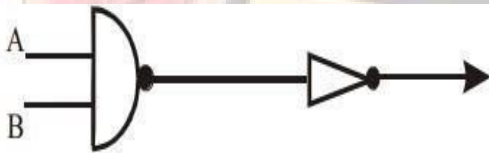
1. What is the basic building block of any computer?
2. Explain the basic architecture of a computer?
3. What is the role of CPU in a computer?
4. What is the function of memory in computer?
5. What is the role of input unit in a computer?
6. What is the role of output unit in a computer?
7. Give some examples of input devices of computer?
8. Give some examples of output devices of computer?
9. What are the functions of input and output unit of a computer?
10. What are the functions performed by control unit in computer?
11. What are the functions performed by ALU?
12. Can you distinguish CPU and ALU?
13. Distinguish internal and external memory of a computer?
14. Differentiate RAM and ROM.
15. Write short notes on different types of ROMs.
16. Write any four memory units
17. What are the basic components of any typical mobile system?
18. What are the various categories of software?
19. What is application software?
20. What is system software?
21. What is operating system and how it is important for any computer?
22. What is software library and how it is useful?
23. Write names of some software libraries of Python.
24. Draw the basic building block of any typical mobile system
25. Do you feel mobile phones are replacing computers, if yes then why?
26. Differentiate compiler and interpreter
27. What is Boolean algebra?
28. What is truth table?

INFORMATION REPRESENTATION

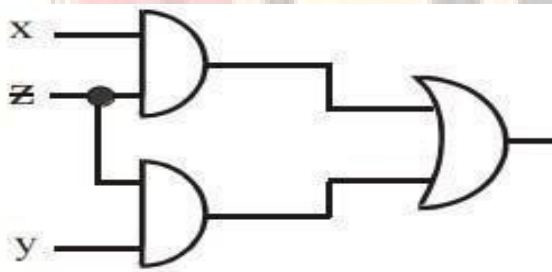
1. Convert 1111 0110 from base 2 to base 10
2. Convert 0111 1111 from binary to decimal
3. Convert 27 from base 10 to base 2
4. Convert 62cd from hexadecimal to base 2
5. Convert 0111 1000 1111 1100 from binary to base 16
6. Convert 0111 1110 1010 0111 from base 2 to hexadecimal
7. Convert 223 from base 10 to binary

8. Convert 10 from octal to binary
9. Convert d214 from base 16 to binary
10. Convert 0111 1110 1000 1111 from binary to hexadecimal
11. Convert 77 from base 8 to base 10
12. Convert 11101010 from base 2 to base 16
13. Convert ad from base 16 to base 10
14. Convert 41 from base 16 to base 2
15. Convert ff from base 16 to base 2
16. Convert 27 from base 8 to base 10
17. convert $(110011)_2$ to decimal.
18. convert $(1011.101)_2$ into decimal.
19. convert $(51)_{10}$ into binary
20. Example: convert $(F4C)_{16}$ into decimal.
21. Convert 011012 to octal
22. Convert 0011001102 to octal
23. Convert 10112 to octal
24. Convert 111100012 to octal
25. What is ASCII CODE and where its used and why?
26. What is unicode ?
27. How many bits are used to represent Unicode, ASCII, UTF-32, and UTF-8 characters?
28. What scripts does Unicode support?
29. Why is there more than one Unicode encoding?

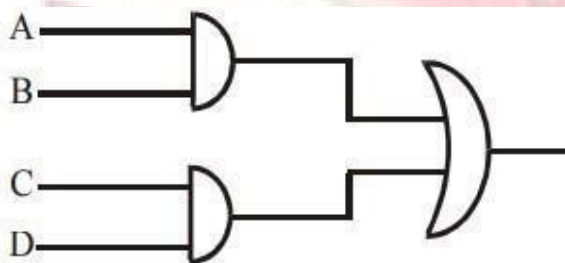
30. Obtain logic expression for logic diagram.



31. Obtain logic expression for logic diagram



32. Obtain logic expression for logic diagram



Einstein public school

HOLIDAY H W -CLASS XI : PHYSICS

(2025-26)

Questions to Solve:-

1. Derive the dimensional formula for

1. Energy
2. Power
4. Momentum
5. Pressure
6. Heat
7. Specific heat
8. Charge
9. Voltage
10. Resistance
11. Electric field
12. Coefficient Of viscosity
13. Torque
14. Capacitance
15. Coefficient of thermal conductivity

2. Check the dimensional correctness of the following equations:

$$F = \frac{Gm_1m_2}{r^2}$$

$$F = \frac{Kq_1q_2}{r^2}$$

$$E = \frac{-dV}{dr}$$

$$E = mc^2$$

$$P = \rho gh$$

3. Derive the following formulas by dimensional method.

$$1. K = \frac{1}{2}mv^2$$

$$2. P.E. = mgh$$

$$3. \text{Pressure } p = \rho gh$$

$$4. F = 6\pi \eta r v$$

$$5. T = 2\pi \sqrt{\frac{l}{g}}$$

4. Find the Significant figure I the following numbers.

84, 0.084, 5.8480, 2005, 8400, 3.405, 0.00289, 1030, 7.0040×10^{-3} , 102.00, 0.000980, 9.80

5. Name the fundamental units and define them.

**6. Long
Answer type
questions.**

1. If $\left(P + \frac{a}{v^2}\right)(V - b) = RT$ where the symbols have their usual meanings, then (a/b) has a dimension of.....

2. By using the method of dimension, check the accuracy of the following formula:

$$T = \frac{r h \rho g}{2 \cos \theta}$$

Where T is the surface tension, h is the height of the liquid in a capillary tube, ρ is the density of the liquid, g is the acceleration due to gravity, θ is the angle of contact, and r is the radius of the capillary tube.

3. It is known that the period T of a magnet of magnetic moment M vibrating in a uniform magnetic field of intensity H depends upon M , H and I , where I is the moment of inertia of the magnet about its axis of oscillations

Show that $T = 2\pi \sqrt{\frac{I}{MH}}$

4. The force experienced by mass moving with a uniform speed in a circular path of radius r experiences a force which depends on its mass, speed and radius.

Prove that the relation is $f = \frac{mv^2}{r}$

5. An artificial satellite is revolving a planet of mass m and radius R in a circular orbit of radius r . From Kepler's third law square of period of revolution T is proportional to the cube of radius of orbit r . So using dimensional analysis.

$$T = \frac{k}{R} \sqrt{\frac{r^3}{g}}$$

ASSIGNMENT:-2 Motion in a Straight line.

Practice Problems

1. *Distance and displacement*: Practice problems involving calculation of distance and displacement.
2. *Speed and velocity*: Solve problems involving average speed, instantaneous speed, average velocity, and instantaneous velocity.
3. *Acceleration*: Practice problems involving calculation of acceleration, including uniform and non-uniform acceleration.
4. *Derive Equations of motion by graphical method as well as using the Calculus Method.
5. Solve 10 -10 problems using equations of motion:-

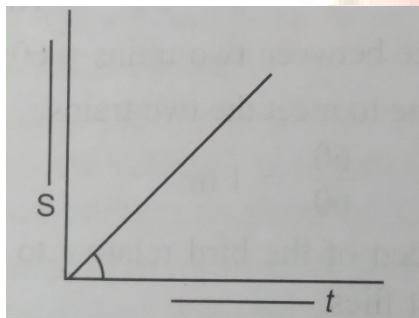
$$v = u + at$$

$$s = ut + \frac{1}{2}at^2$$

$$v^2 = u^2 + 2as$$

6. Questions to Solve

1. A particle moves with an initial velocity of 5 m/s and accelerates uniformly at 2 m/s^2 for 3 seconds. Calculate its final velocity and displacement.
2. A body is thrown vertically upwards with an initial velocity of 20 m/s. Calculate the time taken for it to reach the maximum height and the maximum height attained.



3. (a) Displacement-time graph of any object is shown in the figure:

Draw the velocity-time graph for this motion.

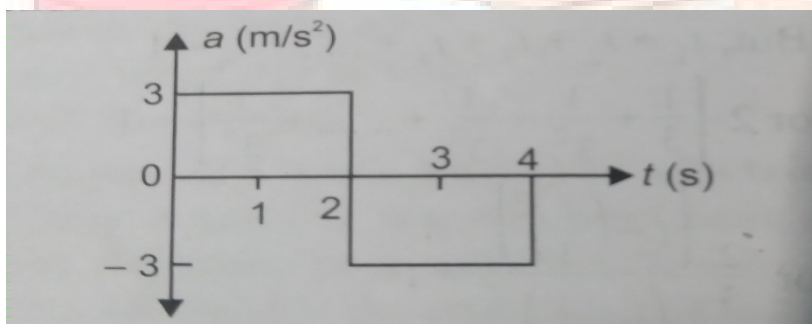
- (b) What does the area under acceleration-time graph represent?

4. Acceleration is called the rate of change of velocity. Suppose we call rate of change of acceleration SLAP, what is the unit of SLAP?

5. The distance covered by a body is found to be directly proportional to the square of time. Is the body moving with uniform velocity or uniform acceleration? If the distance travelled be directly proportional to time.

5. Four persons K, L, M and N start from the vertices of a square of side "a", simultaneously and move towards the neighbour in order always with the same speed of v . When and where do they meet?

6. A particle starts from rest at $t=0$ and has an acceleration as given in the figure below. Draw the v - t



graph for 4 seconds.

7. (a) Explain clearly with examples the distinction between magnitude of displacement over an interval of time and the total length of the path covered by a particle over the same interval.

(b) A body starting from rest accelerates uniformly along a straight line at the rate of 10ms^{-2} for 5 s. It moves for 2 s with uniform velocity of 50m s^{-1} . Then it retards uniformly and comes to rest in 3 s. Draw velocity-time graph of the body and find the total distance travelled by it.

7. The speed of a train increases at a constant rate α from zero to v and then remains constant for an interval, and finally decreases to zero at a constant rate β . If L be the total distance described prove that the total time taken $\frac{L}{v} + \frac{v}{2} \left(\frac{1}{\alpha} + \frac{1}{\beta} \right)$

8. Water drops fall freely from a tap at a height of 4.9 m. If time interval between successive drops is equal and the 4th drop is released when the first lands on the ground, find the separation between the second and third drops.

9. The driver of a truck travelling with a velocity v suddenly notices a brick wall in front of him at a distance d . Is it better for him to apply brakes or to make a circular turn without applying brakes in order to just avoid crashing into the wall? Why?

10. Two trains A and B of length 400 m each are moving on two parallel tracks with a uniform speed of 72 km h^{-1} in the same direction, with A ahead of B. The driver of B desires to overtake A and accelerates by 1m s^{-2} . If, after 50 s, the guard of B just brushes past driver of A, calculate the original distance between the two trains.

11. A car starting from rest, accelerates uniformly with $5\text{m / (s}^2)$ for sometime and then decelerates to come to rest with $3\text{m / (s}^2)$. Find the maximum velocity attained during the motion and the distance covered in a total time of 6 seconds of the journey.

6. Graphical Analysis

1. *Position-time graphs*: Practice interpreting and drawing position-time graphs for different types of motion.

2. *Velocity-time graphs*: Solve problems involving velocity-time graphs, including calculation of displacement and acceleration.

3. *Acceleration-time graphs*: Practice interpreting and drawing acceleration-time graphs. Motion in a Straight Line:

7. Project work

Objective:

Study the motion of a falling object under gravity and verify the relationship between distance, time, and acceleration due to gravity.

Procedure:

Drop an object from a certain height and measure the time it takes to reach the ground.

Repeat the experiment multiple times and calculate the average time.

Calculate the distance covered during free fall and verify if it obeys the equation: $s = \frac{1}{2}gt^2$

Einstein Public School, Pratapgarh

Summer Vacation Homework

Subject: Economics

Class: XI Commerce

Subject: Economics

Answer the following Questions:

1. Economics is a study of Scarcity. Explain
2. Explain the following definitions.
 - a. Wealth by Adam Smith
 - b. Welfare by Marshall
 - c. Scarcity by Robbins
3. Define Statistics. Explain the function of Statistics.
4. Explain any two methods of collection of data.
5. Explain Methods of Collection of Data with suitable examples.
6. Explain a. Census Of India and b. NSSO Project:

Prepare Chart on Adam Smith and Alfred Marshall

Do survey based on Telephonic Interview that which food students of Einstein like most.

Prepare a 10 page file on P C Mahalanobis.

Holiday homework2025 Chemistry

Class XI. BASIC CONCEPTS OF CHEMISTRY

1. How many moles of NaOH are contained in 27 ml of 0.15 M?
2. Calculate the number of atoms in each of the following: a - 52 moles of He b - 52 u of He
3. Calculate the molarity of 1 L of solution of ethanol in water in which the mole fraction of ethanol is 0.040.
4. If ten volumes of dihydrogen gas reacts with five volumes of dioxygen gas, how many volumes of water vapour could be produced?
5. Calculate the molarity of NaOH in the solution prepared by dissolving its 4gms in enough water to form 250mL of the solution.
6. The density of 2 molal solution of NaOH is 1.10 g per ml. Calculate the molarity of the solution.
7. How many atoms and molecules of phosphorous are present in 124gms of phosphorous (P₄)?
8. A 6.9M solution of KOH in water contains 20% by weight of KOH. Calculate the density of solution.
9. Calculate the molality and molarity of 1 L solution of 93% H₂SO₄(Wt. /Vol). The density of solution is 1.84g/ml.
10. Chlorophyll the green coloring matter of plants responsible for photosynthesis contains 2.68% of magnesium by weight. Calculate the number of magnesium atoms in 2.0 g of chlorophyll.
11. Calculate molality, Molarity and mole fraction of KI if the density of 20% aqueous KI solution is 1.202 g/ml.
12. What volume of O₂ at N.T.P is needed to cause the complete combustion of 200 ml of acetylene? Also calculate the volume of CO₂ formed.
13. Butyric acid contains only C, H and O. A 4.24 mg sample of butyric acid is completely burned. It gives 8.45mg of CO₂ and 3.46 mg of H₂O. The molecular mass of butyric acid was determined by experiment to be 88 amu. What is its molecular formula?
14. The density of water at room temperature is 1.0 g/ml. How many molecules are there in a drop of water if its volume is 0.05 ml? 15. Potassium Bromide contains 32.9% by mass of potassium. If 6.40 gm of bromine reacts with 3.60 gm of Potassium. Calculate the no. of moles of potassium which combines with bromine to form KBr.

Biology

Short type questions

- Q1.Name the three fields of systematics.
- Q2.Write the correct order of sequence of taxonomic categories?
- Q3.What is meant by the identification of a species?
- Q4.What do you mean by “chemotaxonomy”?
- Q5.What is Biological classification? What is the need for classification?
- Q6-Name the fungus which causes disease in wheat (i)rust (ii) Smut.
- Q7.How are alt bacteria classified on the basis of their shapes?
- Q8 Viruses and viroids differ in structure and the diseases they cause. How?
- Q9-What is mesoglea? Where is it found?
- Q10.Distinguish between poikilotherms and homeotherms organisms.
- Q11.What are the features of Class Aves that help them for flying?
- Q12:-Differentiate between flightless and flying birds.
- Q13-The gametes and spores of Phaeophyceae have a distinct morphology. Give its name.
- Q14:-What is a cone?

Long Question:-

- Q15Roots of some gymnosperms have a fungal or algal association. Give examples, their names and their role in the plants.
- Q16:-“Algae and Bryophytes are different from each other.” Point out the main differences between them?
- Q17:-Describe the similarities in the sexual reproduction of moss and fern.
- Q18:-Why are Bryophytes regarded as “the amphibians of the plant kingdom”?
- Q19:-Give the reason why a snail & an octopus are classified under the same phylum?
- Q20-. “Mammals are the most successful & dominant animals today” Give evidence.
- Q21:-Keys are analytical in nature and are helpful in the identification and classification of organisms. How?

Q22:- Give a comparative account of classes of kingdom fungi on the basis of mode of nutrition & mode of reproduction.

Q23:-Discuss the salient features of viruses with the help of a diagram?

CHORDATES

PHYLUM: **CHORDATA**

Animals characterized by notochord, a dorsal nerve cord, an endostyle, pharyngeal slits, and a post-anal tail. There are around 80,000 species divided into three subphyla.

• VERTEBRATES •

~ 70,000 SPECIES



Lamprey and hagfish



Cartilaginous and Bony Fish

Animals with a **BONY** or **CARTILAGINOUS** VERTEBRAL COLUMN



Mammals



Amphibians



Reptiles and Birds



• TUNICATES •

~ 3,000 SPECIES



Sea Squirts



Salps



Larvaceans

Animals with **HARD** EXOSKELETON called **TUNIC**

• CEPHALOCHORDATES •

~ 30 SPECIES



Lancelets

FISH-LIKE animals lacking **DISTINCT HEAD**

