



Einstein

PUBLIC SCHOOL
Nurturing a better tomorrow

SUMMER VACATION HOLIDAY HOMEWORK- 2025-26

Class- XII

ग्रीष्मावकाश कार्य

- 1- स्वयं को पत्रकार समझते हुए भारत पाकिस्तान संबंधों पर विशेष रिपोर्ट तैयार कीजिये ।
- 2- एक पत्रकार होने के नाते पत्रकारिता करते समय आपके क्या कर्तव्य होने चाहिए।
- 3- पीत पत्रकारिता और पेज श्री पत्रकारिता के नमूने समाचार पत्रों से एकत्रित कीजिये और उनको स्क्रेप बुक में संकलित करें।
- 4- सिल्वर वेडिंग कहानी को ध्यान में रखते हुए उन्ही जीवन मूल्यों पर आधारित एक स्वरचित कहानी तैयार कीजिये।(800 से 1000 शब्द)
- 5- आज की शिक्षा
 - *तर्क हीन शिक्षा
 - *मानवीय मूल्यों का निर्माण दोनो विषयों पर लिखते हुए एक फीचर तैयार कीजिए।

The logo of Einstein Public School is a circular emblem. It features a central figure of a person with arms raised, set against a background of a sun and a tree. The text 'EINSTEIN PUBLIC SCHOOL' is written around the top inner edge of the circle. Below the circle is a banner with the motto 'सा विद्या या विमुक्तये' in Devanagari script.

EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26

CLASS-12 English

1. Assertion: The poet gracefully accepts the reality of her mother growing old.

Reason: She left for her destination without much difficulty.

- a) Both, A and R, are true and R is the correct explanation of A
- b) Both, A and R, are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true
- e) Both A and R are false.

2. Which of the following correctly represents meaning of the idiom 'feeling its way'?

- a) Quick
- b) Tentative
- c) Triangular
- d) Being constructed

3. Narrator did not tell his idea to his friend. If he told his idea to his friend, how his friend would have responded?

- a) Oh! I did not know about it. I too shall explore it.
- b) Oh! I am worried. You seem to be in a depression.

c) Oh! You made it to third level. Congratulations!

d) Oh! I need to inform the police.

4. "Can a god-given lineage ever be broken?" These words were spoken by

A) Mukesh

B) Mukesh's father

C) Mukesh's grandmother

D) The author

5. Which of the following options have been mentioned as a certainty in the extract?

A. The station has a long tunnel

B. Many people use Grand Central as exit

C. Narrator has a friend

D. Grand Central is growing like a tree

E. Narrator did not narrate his experience to his friend

(i) A and B

(ii) B and D

(iii) D and E

(iv) C and E

5. Assertion: Franz was hesitant to enter the classroom.

Reason: The solemn ambience made him so.

1. Both A and R are true and R is the correct explanation of A.

2. Both A and R are true but R is not the correct explanation of A.

3. A is true but R is false.

4. A is false but R is true.

5. Both A and R are false.

07. To encourage students to participate in outdoor activities, your school has planned a 7-day trek to Rohtang Pass for students of classes VIII-X during the summer vacation. Write a notice for the school notice board giving all the necessary information. You are Raghav/Ragini, Secretary Trekking Club, Amar Bahadur School.

08. You are Rahul/Ruhi, the Head Boy/Head Girl of Lotus Valley Public School. Write a notice in about 40-50 words to inform students about the upcoming Parent-Teacher Meeting. Invent relevant details such as the date and time.

09. Write a description of the place where you recently visited.

10. Describe the procedure of making a cup of coffee.

11. Give detailed information of the poem "my mother at sixty six" on chart paper with life sketch, photo, poetic devices and note making of the poet

EINSTEIN PUBLIC SCHOOL
HOLIDAY HOMEWORK(2025-26
CLASS-12 (MATHS)

1. In $\mathbb{Z}$, the set of integers, inverse of -7 , w.r.t. ' $*$ ' defined by $a * b = a + b + 7$ for all $a, b \in \mathbb{Z}$, is
 - a. -7
 - b. -14
 - c. 14
 - d. 7
2. If $A = \{1, 2, 3\}$, then the relation $R = \{(1, 2), (2, 3), (1, 3)\}$ in A is _____.
 - a. transitive only
 - b. reflexive only
 - c. symmetric only
 - d. symmetric and transitive only
3. A relation R on a set A is called an empty relation if
 - a. no element of A is related to any element of A
 - b. every element of A is related to one element of A
 - c. one element of A is related to all the elements of A
 - d. every element of A is related to any element of A
4. Let f and g be two functions from $\mathbb{R}$ to $\mathbb{R}$ defined as $f(x) = \begin{cases} 0, & x \text{ is rational} \\ 1, & x \text{ is irrational} \end{cases}$,
 $g(x) = \begin{cases} -1, & x \text{ is rational} \\ 0, & x \text{ is irrational} \end{cases}$ then, $(g \circ f)(e) + (f \circ g)(\pi) =$.
 - a. 1
 - b. 2
 - c. -1
 - d. 0
5. Let R be the relation on $\mathbb{N}$ defined as xRy if $x + 2y = 8$. The domain of R is
 - a. $\{2, 4, 6, 8\}$
 - b. $\{2, 4, 8\}$

c. $\{1, 2, 3, 4\}$

d. $\{2, 4, 6\}$

6. A function is called an onto function, if its range is equal to _____.
7. A binary operation $*$ on a set X is said to be _____, if $a * b = b * a$, where $a, b \in X$.
8. Find $\text{gof } f(x) = |x|$, $g(x) = |5x + 1|$.
9. Show that function $f: \mathbb{N} \rightarrow \mathbb{N}$, given by $f(x) = 2x$, is one – one.
10. Let $S = \{1, 2, 3\}$ Determine whether the function $f: S \rightarrow S$ defined as below have inverse.
 $f = \{(1, 1), (2, 2), (3, 3)\}$
11. Let $f: \{1, 3, 4\} \rightarrow \{1, 2, 5\}$ and $g: \{1, 2, 5\} \rightarrow \{1, 3\}$ be given by $f = \{(1, 2), (3, 5), (4, 1)\}$ and $g = \{(1, 3), (2, 3), (5, 1)\}$. Write down gof .
12. Consider $f: \{1, 2, 3\} \rightarrow \{a, b, c\}$ given by $f(1) = a$, $f(2) = b$ and $f(3) = c$ find f^{-1} and show that $(f^{-1})^{-1} = f$.
13. Is $g = \{(1, 1), (2, 3), (3, 5), (4, 7)\}$ a function? If g is described by $g(x) = ax + b$, then what value should be assigned to a and b .
14. Show that the relation R defined by $(a, b) R (c, d) \Rightarrow a + d = b + c$ on the set $\mathbb{N} \times \mathbb{N}$ is an equivalence relation.
15. Let the function $f: \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = \cos x$, $\forall x \in \mathbb{R}$. Show that f is neither one-one nor onto.
16. Let L be the set of all lines in plane and R be the relation in L define if $R = \{(l_1, l_2): l_1 \text{ is } \perp \text{ to } l_2\}$. Show that R is symmetric but neither reflexive nor transitive.
17. If the function $f: \mathbb{R} \rightarrow \mathbb{R}$ is given by $f(x) = x^2 + 2$ and $g: \mathbb{R} \rightarrow \mathbb{R}$ is given by

$g(x) = \frac{x}{x-1}; x \neq 1$ then find fog and gof and hence find fog(2) and gof(-3).

DETERMINANT

1. The roots of the equation $\det \begin{vmatrix} 0 & 2-x & 0 \\ 0 & 2 & 3-x \end{vmatrix} = 0$ are

- a. None of these
- b. 2 and 3
- c. 1, 2 and 3
- d. 1 and 3

2. If A' is the transpose of a square matrix A , then

- a. $|A| + |A'| = 0$
- b. $|A| = |A'|$
- c. $|A| \neq |A'|$
- d. None of these

3. If $f(x) = \begin{vmatrix} 2\cos x & 1 & 0 \\ 1 & 2\cos x & 1 \\ 0 & 1 & 2\cos x \end{vmatrix}$ then, $f\left(\frac{\pi}{3}\right) =$.

- a. 0
- b. 1
- c. -1
- d. 2

4. The roots of the equation $\begin{vmatrix} 1 & 4 & 20 \\ 1 & -2 & 5 \\ 1 & 2x & 5x^2 \end{vmatrix} = 0$ are

- a. -1, -2
- b. -1, 2
- c. 1, -2

d. 1, 2

5. If A and B are any 2×2 matrices, then $\det. (A+B) = 0$ implies

a. $\det A = 0$ and $\det B = 0$

6. If $\begin{vmatrix} 2x & 5 \\ 8 & x \end{vmatrix} = \begin{vmatrix} 6 & 5 \\ 8 & 3 \end{vmatrix}$, then x is _____.

7. Multiplying a determinant by k means multiplying the elements of only one row (or one column) by _____.

8. If elements of a row (or a column) in a determinant can be expressed as the sum of two or more elements, then the given determinant can be expressed as the _____ of two or more determinants.

9. Find adj A for $A = \begin{bmatrix} 2 & 3 \\ 1 & 4 \end{bmatrix}$.

10. $A = \begin{bmatrix} 1 & 2 \\ 4 & 8 \end{bmatrix}$ is singular or not.

11. Evaluate $2 \begin{vmatrix} 7 & -2 \\ -10 & 5 \end{vmatrix}$.

12. Evaluate: $\begin{vmatrix} \cos \alpha \cos \beta & \cos \alpha \sin \beta & -\sin \alpha \\ -\sin \beta & \cos \beta & 0 \\ \sin \alpha \cos \beta & \sin \alpha \sin \beta & \cos \alpha \end{vmatrix}$.

13. Find the area of Δ whose vertices are (3, 8) (-4, 2) and (5, 1).

14. Find the equation of the line joining A (1, 3) and B (0, 0) using det. Find K if D (K, 0) is a point such that area of ΔABD is 3 square unit.

15. If $A = \begin{bmatrix} 1 & -2 & 3 \\ 0 & -1 & 4 \\ -2 & 2 & 1 \end{bmatrix}$, then find $(A')^{-1}$.

16. If $A = \begin{bmatrix} 3 & -4 \\ -1 & 2 \end{bmatrix}$, find matrix B such that $AB = I$.

17. Using properties of determinants, prove that

$$\begin{vmatrix} b+c & c+a & a+b \\ q+r & r+p & p+q \\ y+z & z+x & x+y \end{vmatrix} = 2 \begin{vmatrix} a & b & c \\ p & q & r \\ x & y & z \end{vmatrix}.$$

18. Given $A = \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix}$. find AB and use this

result in solving the following system of equation. $x - y + z = 4$, $x - 2y - 2z = 9$, $2x + y +$

Chapter 3 Matrices

1. If $A = \begin{pmatrix} 5 & 2 & 6 \\ -1 & & \end{pmatrix}$. Then $|A|$ is
 - a. none of these
 - b. Idempotent
 - c. Nilpotent
 - d. Symmetric
2. $\begin{vmatrix} 1 & 1 & 1 \\ e & 0 & \sqrt{2} \\ 2 & 2 & 2 \end{vmatrix}$ is equal to
 - a. 0
 - b. $3e$
 - c. none of these
 - d. 2
3. A square matrix A is called idempotent if
 - a. $A^2 = I$
 - b. $A^2 = O$
 - c. $2A = I$
 - d. $A^2 = A$
4. Let for any matrix M, M^{-1} exist. Which of the following is not true.
 - a. none of these
 - b. $(M^{-1})^{-1} = M$
 - c. $(M^{-1})^2 = (M^2)^{-1}$
 - d. $(M^{-1})^{-1} = (M^{-1})^1$
5. The system of equations $x + 2y = 11$, $-2x - 4y = 22$ has
 - a. only one solution
 - b. infinitely many solutions
 - c. finitely many solutions
 - d. no solution

6. Sum of two skew-symmetric matrices is always _____ matrix.

7. _____ matrix is both symmetric and skew-symmetric matrix.

8. If A and B are square matrices of the same order, then $(kA)' =$ _____ where k is any scalar.

9. If $A = \begin{bmatrix} 2 & 5 & 3 \\ 4 & 4 & 2 \end{bmatrix}$, Prove that $A - A^t$ is a skew – symmetric matrix.

10. $A = \begin{bmatrix} 4 & 2 \\ 2 & 4 \end{bmatrix}$, Prove that $A + A'$ is a symmetric matrix.

11. The no. of all possible matrices of order 3×3 with each entry as 0 or 1 is-

12. Find the matrix X so that $X \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix} = \begin{bmatrix} -7 & -8 & -9 \\ 2 & 4 & 6 \end{bmatrix}$.

13. If A is a square matrix, such that $A^2 = A$, then $(I + A)^3 - 7A$ is equal to

14. If $A = \begin{bmatrix} 2 & 4 \\ 5 & 6 \end{bmatrix}$, then Prove that $A + A'$ is a symmetric matrix.

15. If $f(x) = x^2 - 5x + 7$ and $A = \begin{bmatrix} 3 & 1 \\ -1 & 2 \\ 2 & -1 \end{bmatrix}$ then find $f(A)$.

16. Find the matrix A such that $\begin{bmatrix} 2 & -1 \\ 1 & 0 \\ -3 & 4 \end{bmatrix} A = \begin{bmatrix} -1 & -8 & -10 \\ 1 & -2 & -5 \\ 9 & 22 & 15 \end{bmatrix}$.

17. Show that:

i. $\begin{bmatrix} 5 & -1 \\ 6 & 7 \end{bmatrix} \begin{bmatrix} 2 & 1 \\ 3 & 4 \end{bmatrix} \neq \begin{bmatrix} 2 & 1 \\ 3 & 4 \end{bmatrix} \begin{bmatrix} 5 & -1 \\ 6 & 7 \end{bmatrix}$

ii. $\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix} \begin{bmatrix} -1 & 1 & 0 \\ 0 & -1 & 1 \\ 2 & 3 & 4 \end{bmatrix} \neq \begin{bmatrix} -1 & 1 & 0 \\ 0 & -1 & 1 \\ 2 & 3 & 4 \end{bmatrix} \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix}$

18. $\begin{bmatrix} 1 & 0 \\ 0 & \frac{\alpha}{2} \end{bmatrix}$, $\tan \frac{\alpha}{2}$

Prove $\begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$.

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

PART -A

***Objective Type Question/ MCQ (1Mark each)

Q.1 What is planning?

- A. To Decide in well in Advance B. To Organize
C. Make Decision. D. To Judge

Q.2 Find out the Specific Sports Programmed?

- A. Run for Fun B. Basketball
C. Kabaddi D. Kho-Kho

Q.3 What is Intramural?

- A. Outside of the School Campus B. Inside of the School Campus
C. Within the City D. Outside of the City

Q.4 What is Extramural?

- A. Outside of the School Campus B. Inside of the School Campus
C. Within the City D. Outside of the City

Q.5 What is 'Bye'?

- A. Seeding. B. Disadvantage
C. Round Match D. Advantage

Q.6 What is league tournament?

- A. All teams play with each other B. Selective teams play with each other
C. Eliminated after one loose. D. None the above

Q.7 Formula for total no's of matches in league tournament?

- A. $N-1$. B. $N(N-1)$
C. $N(N-1)/2$. D. $(N-1)/2$

Q.8 How to Decide No of Byes?

- A. Next Power of 3. B. Next power of four
C. Power of 3. D. Next power of 2

Q.9 What is Seeding?

- A. Directly Inter in First Round B. Played from first Match
C. Get byes. D. Directly Play From Quarter/Semi

Q.10 What is Knock out Tournament?

- A. Round Robin Tournament. B. Stair case Tournament
C. Elimination Tournament D. Ladder Tournament

Q.11 Hunch back' is also known as?

- A. Back pain B. Scoliosis
C. Lordosis D. Kyphosis

Q.12 Side ward curvature of the spine is called?

- A. knock knee B. Kyphosis
C. Scoliosis D. Lordosis

*****Give one word answers.**

1. What is the name of the committee that announces the dates and venue of tournament?
2. Which committee is responsible for preparing the grounds or laying out the track and field?
3. What is the formula to calculate the number of matches in a single league tournament?
4. Write down the formula for calculating the number of matches for double league tournament.
5. How many byes are given if 15 teams are participating in a knock-out tournament?

****Fill in the blanks.**

1. The second bye is given to the.....team of the upper half.
2. Tabular method is used for fixtures in a.....tournament.
3.means the activities which are performed within the campus of an institution.

****State True or False.**

1. League tournament is also called the Berger system.(True/False)
2. Knock-out tournaments are less expensive in comparison to other forms of tournaments. (True/False)
3. Seema Antilis related to athletics.(True/False)
4. Krishna Poonia is related to athletics.(True/False)
5. If a women athlete takes less number of calories persistently for a long time, she may not suffer from amenorrhoea.(True/False)

*****Short Answer Type Question (30 to 50 Words) (3 Marks each)**

1. Write the advantages & disadvantages of knock-out tournaments.
2. Define league. Explain its types. Write its advantage & disadvantage of league tournament?
3. Write the procedure of fixtures in league tournaments?
4. What are the objectives of Extramural?
5. Define Tournament? Write the types of tournaments?
6. Explain any two specific sports program.
7. Define 'Fixtures' and classify several types of tournaments.
8. Enlist various committees for organizing an event and explain function of any three.
9. Write the meaning and types of motor development.
10. Describe the preventive measure of kyphosis.
11. Describe the various stages of motor development.
12. How many postural deformities are there? Name them.
13. What do you mean by Menarche?
14. Discuss about women participation in sports.
15. Explain Menstrual Dysfunction.
16. What are the symptoms of Female Athlete Triad?
17. Explain Amenorrhea.
18. What do you understand about Osteoporosis?

******Long Answer Type Question (75 to 100 Words) (5 Marks each)**

1. Describe the various committees for the organizing of sports events.
2. Draw a knock out fixture of 21 teams mentioning all the steps involved.
3. Define Intramurals. Write its objectives of and principles.
4. Define Extramural. Write its objectives and principles.
5. Explain the meaning of specific sports programme? Write its contribution for society.
6. Prepare the fixture of 18 teams where last year position holder team will directly play in semi-final.
7. Prepare the fixture of 23 teams according to Knock-out cum League basis/League cum Knock-out basis tournament.
8. Prepare the fixture of 7 and 8 teams on league basis tournament.
9. Write an essay on sports participation of women in India.
10. Describe any two physiological changes in women after Menarche.
- 11.. Explain Female Athletes Triad.
12. Discuss the method by which women participation in sports can be increased.
- 13-. According to exercise guidelines at different stages of growth. What kind of exercise one should do? Explain with the help example at every stage.
- 14-. Describe the factors affecting motor development of children.?

PART-B

Practical FILE :GAME OF SPECIALIZATION

Select any one game from followings (Student Choice):-

Athletics, Football, Kho-Kho, Kabbadi Handball, Volleyball & , Yoga.

The Content of the File as follows:-

1. Discuss in detail the History of the game.
 - a. International History(5 pages)
 - b. National History(5 pages)
2. Explain the Fundamental Skills of the game.
3. Describe the Rules and Regulations of the game.
4. Write down the Sports Personalities of the game(One player per page)
 - a. International Player(5 players)
 - b. National Player(5 players)
5. Sports Awards.
 - a. Arjun Award
 - b. Dronacharya Award
 - c. Rajiv Gandhi Khel Ratan Award
6. Sports Injuries.
 - a. 5 major injuries of the game.
7. Bibliography

EINSTEIN PUBLIC SCHOOL

LALGANG AJHARA PRATAPGARH

SUMMER VACATIONS' HOMEWORK 2025-26

CLASS - XII- ACCOUNTANCY

FUNDAMENTALS of PARTNERSHIP FIRM

Q.1) Barun, Tarun and Shivam are partners in a firm and do not have a partnership deed. Barun introduced further capital of 5,00,000 on 1st October, 2022. Whereas Shivam took a loan of 50,000 from the firm on 1st October, 2022. Disputes have arisen among them on the following:

- a) Barun demands interest @10%p.a. on 5,00,000 being extra capital
- b) Tarun desires that his son Deep should be admitted as partner and he will give him half of his share. Barun and Shivam do not agree.
- c) Barun and Tarun are of the view that Shivam should be Charged interest on loan from the firm at the lending rate of banks which is 12% p.a.
- d) Tarun has withdrawn 50,000 from the firm for his personal use. Barun and Shivam are of the view that Tarun should be charged interest @ 10% p.a.

Give solution to each issue of dispute.

Q.2) Calculate interest on Drawing in the following cases:

- a) One of the partners in a partnership firm has withdrawn 9,000 at the end of each quarter, throughout the year. Calculate interest on drawings at the rate of 6% per annum
- b) A and B are partners sharing profit equally. A drew regularly 4,000 at the end of every month for six months ended 30th September, 2022. Calculate interest on drawings @5% p.a. for a period of six months.

Q.3) Calculate the amount of Shiv quarterly drawings for the year ended 31st March, 2022. When Partnership Deed allows interest on drawings @ 12% p.a.

If interest on drawing is 900 and he withdrew a fixed amount at the end of each quarter.

Q.4) A and B are partner sharing profit and losses in the ratio of 3:1. On 1st April, 2021 their capitals were: A 50,000 and B 30,000. During the year ended 31st March, 2022 the firm earned a net profit of 50,000 the terms of partnership are:

- a) interest on capitals is to be allowed @ 6% p.a.
- b) A will get a commission @ 2% on turnover.
- c) B will get a salary of 500 per month.
- d) B will get commission of 5% on profits after deduction of all expenses including such commission.

Partner's drawings for the year were: A 8,000 and B 6,000. Turnover for the year was 3,00,000.

After considering the above facts, you are required to prepare profit and loss appropriation account and partner's capital account

Q.5) Ram, Shyam and Mohan were partners in a firm sharing profits and losses in the ratio of 2:1:2. Their capitals were fixed at 3,00,000; 1,00,000 and 2,00,000. For the year ended 31st March, 2023 interest on capital was credited to them @9% instead of 10% p.a. the profit for the year before charging interest was 2,50,000 show your working notes and pass the necessary adjustment entry.

Q.6) P and Q were partners in a firm sharing profits and losses equally. Their fixed capitals were 2,00,000 and 3,00,000 respectively. The partnership deed provided for interest on capital @ 12% per annum. For the year ended 31st March, 2016, profit of the firm was distributed without providing interest on capital.

Pass necessary adjustment entry to rectify the error.

Q.7) Amay, Anmol and Rohan entered into partnership on 1st July, 2021 to share profits and losses in the ratio of 3:2:1. Amay guaranteed that Rohan's share of profit after charging interest on capital @ 6% p.a would not be less than ₹ 36,000 p.a. Their fixed capital balances are: ₹ 2,00,000, ₹ 1,00,000 and ₹ 1,00,000 respectively. Profit for the year ended 31st March, 2022 was ₹1,38,000. Prepare Profit and Loss Appropriation A/c.

GOODWILL

Q.1) Doremon, Shinchon and Nobita are partners sharing profits and losses in the ratio of 3:2:1. With effect from 1st April, 2022 they agree to share profits equally. For this purpose, goodwill is to be valued at two year's purchase of the average profit of last four years which were as follows:

Year ending on 31st March, 2019 ₹ 50,000 (Profit)

Year ending on 31st March, 2020 ₹ 1,20,000 (Profit)

Year ending on 31st March, 2021 ₹ 1,80,000 (Profit)

Year ending on 31st March, 2022 ₹ 70,000 (Loss)

On 1st April, 2021 a Motor Bike costing ₹ 50,000 was purchased and debited to travelling expenses account, on which depreciation is to be charged @ 20% p.a by Straight Line Method. The firm also paid an annual insurance premium of ₹ 20,000 which had already been charged to Profit and Loss Account for all the years. Journalise the transaction along with the working notes.

Q.2) Simran purchased Anita's business on 1st April, 2022. It was agreed to value of goodwill at three year's purchase of average normal profit of the last four years. The profits of Anita's business for the last four year were:

Year ended	₹
31 st March, 2019	90,000
31 st March, 2020	1,60,000
31 st March, 2021	1,80,000
31 st March, 2022	2,20,000

Following further facts are identified from the books of account:

1. During the year ended 31st March, 2019, an asset was sold at a gain (profit) of 10,000
2. During the year ended 31st March, 2020, a machine was destroyed in accident and 30,000 was written off as loss in Profit and Loss Account.

3. During the year ended 31st March, 2021, firm's assets were not insured due to oversight. Insurance

4. premium being 10,000. It is a regular expense, incurred every year.

Calculate the value of goodwill.

Q.3) Raman and Daman are partners sharing profits in the ratio of 60:40 and for the last four years they have been getting annual salaries of 50,000 and 40,000 respectively. The annual accounts have shown the following net profit before charging partners salaries:

Year ended 31st March, 2020-1,40,000; 2021-1,01,000; 2022-1,30,000

On 1st April, 2022 Zeenu is admitted to the partnership for 1/4th share in profit (without any salary). Goodwill is to be valued at four years purchase of weighted average profit of last three years (after partners salaries). Profits to be weighted as 1, 2 and 3, the greatest weight being given to the last year. Calculate the value of goodwill.

Q.4) Average net profit expected in future by XYZ firm is 36,000 per year. Average capital employed in the business by the firm is 2,00,000. The normal rate of return from capital invested in this class of business is 10%. Remuneration of the partners is estimated to be 6,000 p.a. Calculate the value of goodwill on the basis of two year's purchase of super profit.

CHANGE IN PROFIT SHARING RATIO

Q.1) Girish, Manish and Harish were partners in a firm sharing profit and losses equally. Because of increased business and Manish devoting more time, he demanded that his share in the profit be increased. To which Girish and Harish agreed. New profit-sharing ratio was agreed to be 1:2:1. For this purpose goodwill of the firm was valued at two years purchase of the average profit of last five years. The profits of the last five years were as follows:

Year	I	II	III	IV	V
Profit	4,00,000	4,80,000	7,33,000	(33,000) Loss	2,20,000

You are required to:

- Calculate the goodwill of the firm.
- Pass necessary journal entry for the treatment of goodwill on change in profit-sharing ratio of Girish, Manish and Harish.

Q.2) Samiksha, Ash and Divya were partners in a firm sharing profit and losses in the ratio of 5:3:2. With effect from 1st April, 2019, they agreed to share future profits and losses in the ratio of 2:5:3. Their balance sheet showed a debit balance of 50,000 in the profit and loss account and a balance of 40,000 in the investment fluctuation fund. For this purpose, it was agreed that:

- Goodwill of the firm be valued at 3,00,000
- Investment of book value of 5,00,000 be valued at 4,80,000.

Pass the necessary journal entries to record the above transactions in the books of the firm.

* NOTE- Revise all chapters covered in class & COMPLETE COP

Einstein public school

HOLIDAY H W -CLASS XII : PHYSICS

ASSIGNMENT -1 ELECTRIC CHARGES AND FIELDS

Q1 Define electric dipole moment . Is it a scalar or a vector ? Derive the expression for the electric field of a dipole at a point on the equatorial line of the dipole .

Q2. State Gauss theorem . Using Gauss's law deduce the expression for the electric field due to a uniformly charged spherical conducting shell of radius R at a point (i) outside & (ii) inside the shell . Plot a graph showing variation of electric field as a function of $r > R$ and $r < R$ (r being the distance from the centre of the shell) .

Q3 .(a) Define electric flux . Write its S.I . unit .

(b) Using Gauss's law , prove that the electric field at a point due to a uniformly charged infinite plane sheet is independent of the distance from it .
(c) How is the field directed if (i) the sheet is positively charged (ii) negatively charged?

Q4. (a) Derive an expression for the torque experienced by an electric dipole kept in a uniform electric field . When is this torque maximum.

Q5 .Sketch the electric lines of force of

(a) a point charge q

> 0 , (b) a point charge
 $q < 0$,

(c) an electric dipole or two equal & opposite charges separated by a small distance ,

(d) two equal positive charges placed small distance apart in

air , Q6. What is meant by quantisation of electric charge?

Q7 .Define dielectric constant of a medium in terms of force between electric charges .

Q8. An infinite line charge produces a field of $9 \times 10^4 \text{ N/C}$ at a distance of 4cm. Calculate the linear charge density.

Q9. Two infinite parallel plane thin sheets have uniform charge densities of σ_1 and σ_2 . Determine the electric field at points

(i) to the left of the
sheets (ii) between

them

(iii) to the right of the sheets.

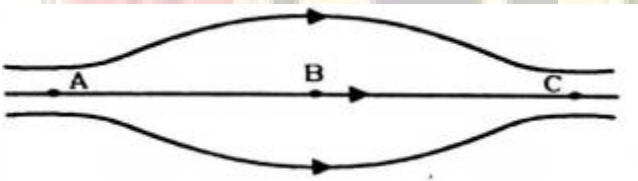
Q10 .Is the force acting between two point electric charges q_1 and q_2 kept at some distance in air, attractive or repulsive when : (i) $q_1 q_2 > 0$ (ii) $q_1 q_2 < 0$

Q11.An electric dipole of dipole moment $20\mu\text{C}$ is enclosed by closed surface. What is the net electric flux coming out of this surface ?

Q12 . 1 C of charge is equal to charge of 'n' number of electrons in magnitude. What is the value of 'n'?

Q13.The distance of the field point , on the equatorial plane of a small electric dipole is halved . By what factor does the electric field due to the dipole change ?

Q14. . Fig . shows some of the electric field lines corresponding to an electric field .The electric field at which point is minimum.



Q15. An electrostatic field line is a continuous curve. That is a field line cannot have sudden breaks. Why not?

Q16. Explain why two Electric field lines never cross each other at any point.

Q17.Three equal charges, each having a magnitude of 2.0×10^{-6} C, are placed at the three corners of a right -angled triangle of sides 3cm, 4cm and 5cm. Find the force on the charge at the right- angle corner.

Q18.Three charges ,each equal to q , are placed at the three corners of a square of side 'a' . Find the electric field at the fourth corner.

Q19. A glass rod when rubbed with silk cloth, acquires a charge of 1.6×10^{-13} C. What is the charge on silk cloth ?

Q20. Two charges q and $-3q$ are placed fixed on x-axis separated by distance 'd' .Where should a third charge $2q$ be placed such that it will not experience any force?

Q21. A point charge causes an electric flux -3×10^{14} Nm^2/C to pass through a spherical Gaussian surface .

(a) Calculate the value of the point charge .

(b) If the radius of the Gaussian surface is double , how much flux would

pass through the surface ?

Q22. Fill in the blanks:

(i) Two spheres of equal radii have charges q and $3q$. The ratio of their surface charge densities is _____.

(ii) Net electric field inside the charged spherical shell is _____.

(iii) Electric flux is a _____ quantity and its SI unit is _____.

(iv) The force of repulsion between two positive charges of 1C each, kept 1m apart in vacuum, is _____.

(v) In a uniform electric field, an electric dipole experiences no net _____ but a non-zero

ASSIGNMENT 2 (ELECTROSTATIC POTENTIAL & CAPACITANCE)

Q1 .Draw graphs showing the variations of

(i) Electrostatic potential V with distance ' r ' for a charge q

(ii) Electrostatic field E with distance ' r ' for a charge q

Q2 .Show that the electric field at any point is equal to the negative of the potential gradient at that point .

Q3 .What is an equipotential surface ? Give an example .

Q4 .Sketch equipotential surfaces

for (i) A positive point charge

(ii) A uniform electric field .

Q5 .Show that the amount of work done in moving a test charge over an equipotential surface is zero .

Q6 .Show that the direction of the electric field is normal to the equipotential surface at every point .

Q7.Fill in the blanks:

(i) The electric potential of a point charge is _____ symmetric.

(ii) Electric potential is _____ quantity while potential gradient is a _____ quantity.

(iii) _____ at a point is equal to the negative of the potential gradient at that point.

(iv) The potential energy of two like charges is _____.

(v) For a constant electric field in the z -direction , equipotential surfaces will be planes parallel to _____.

Q8.How much is the electric potential of a charge at a point at infinity.

Q9.The work done in moving a charge of 3 Coulomb between two points is 6 J . What is

the potential difference between the two points ?

Q10. The electric potential at 0.9 m from a point charge is +50 V. What is the magnitude and sign of the charge.

Q11. Derive an expression for the potential at a point along the axial line of a short dipole.

Q12. Derive an expression for the electric potential at a distance 'r' from a point charge 'q'.

Q13. Derive an expression for the potential energy of a dipole rotated in a uniform electric field.

Q14. Deduce expressions for the potential energy of a system of two point charges and three point charges and hence generalise the result for a system of 'N' point charges.

Q15. Two point charges $+10\mu\text{C}$ and $-10\mu\text{C}$ are separated by a distance of 2.0 cm in air. Calculate the potential energy of the system.

Q16. Deduce the expression for the capacitance of a parallel plate capacitor when a dielectric slab is inserted between the plates. Assume the slab thickness less than the plate separation.

Q17. Two capacitors of equal capacitance when connected in series have net capacitance C_1 and when connected in parallel have net capacitance C_2 . What is the value of C_1/C_2 ?

Q18. Sketch a graph to show how the charge Q acquired by a capacitor of capacitance C varies with increase in potential difference between its plates.

Q19. Why does the electric field inside a dielectric decrease when it is placed in an external electric field ?

Q20. A parallel plate capacitor of capacitance C is charged to a potential V by a battery.

Without disconnecting the battery, the distance between the plates is tripled and a dielectric medium of $k = 10$ is introduced between the plates of the capacitor. Explain giving reasons, how will the following be affected :

(i) capacitance of the capacitor (ii) charge on the capacitor (iii) energy density of the capacitor

Einstein Public School, Pratapgarh

Summer Vacation Homework

Class: XII Commerce

Subject: Economics

Do the following Questions: 1. Long (100-120) words

Write two fold motives of deindustrialisation of Indian industries during British rule.

2. "Land Ceiling promotes Equity"

Support the given statement with valid reasons. Explain also why Land Reforms was not implemented successfully? Define Balance of Payment. Also differentiate between Balance of Payment and Balance of Trade.

3. Distinguish between Socialist Economy and Capitalist Economy. Why is India adopted Mixed Economy model of development?

4. How is RBI controlling the commercial banks?

5. What do you understand by devaluation of rupee? Differentiate between Devaluation and Depreciation of Rupee.

6. What do you know about Credit Creation process of Commercial Banks. Explain with numerical examples.

7. Explain the following function of Central Bank

a. Clearing House Function

b. Lender of the Last Resort

c. Currency issuing Authority

8. Define Money Supply. State the components of Money Supply.

9. Differentiate between Autonomous Transaction and Accommodating Transactions.

Project: a. Prepare Chart Money Supply, Components of Money Supply and Measurement of Money Supply.

b. Prepare 10 page file on New Economic Policy 1991.

Class: XII Commerce

Subject: Business Studies

Answer the following questions in 100 words.

1. Explain Efficiency and Effectiveness with examples.

2. Explain why Coordination is important and why it is called essence of management?

3. Explain the various levels of management.

4. Explain the technique of Functional Foremanship.

5. Explain 14 Principles of Management given by Henry Fayol.

6. Explain Scientific Principles of F W Taylor.

7. Do any 10 Case based Question (Long Answer Type)

8. Do any 10 Assertion based questions.

Project:

a. Prepare flow chart on chart paper on "Principles of Management"

b. Prepare a 10 page project on Henry Fayol and F W Taylor.

SUMMER VACATION HOLIDAY HOMEWORK

Sub- Biology

(1) Write the experiments in practical record as instructed by Subject teacher told

2) to prepare project of 35-40 pages on the topic already discussed it should include: cover page index acknowledgement certificate introduction details about the project annexure bibliography

(3) prepare 1 mark 20 question from each chapter 1-4 submit in the form of typed hard copy. the subject teacher.

CH-2 REPRODUCTION IN FLOWERING PLANTS Q 1 The function of tapetum in microsporangium is. a) It nourishes the developing pollen grains. b) It performs the function of protection. c) It helps in dehiscence of anther to release pollen grains. d) It undergoes meiotic divisions to form microspore tetrads.

Q 2 Identify 'A' and 'B' in the given diagram of a transverse section of a young anther. a) A- Tapetum, B- Sporogenous tissue b) A- Sporogenous tissue, B-Tapetum c) A-Connective, B- Epidermis d) A-Endothecium, B-Tapetum

Q 3 The egg apparatus in the embryo sac consists of a) Two synergids and one egg cell b) One synergid and two egg cells c) Central cell d) Only two egg cells

Q 4. Which of the following statements is true for a filiform apparatus? a) It is located at the chalazal end. b) It is located at the micropylar end. c) They play an important role in guiding the pollen tubes into the synergid. d) Both (b) and (c)

Q 5. Identify 'A' and 'B' in the following diagram of a mature pollen grain. a) A- Generative cell B- Vegetative cell b) A- Vegetative cell B-Generative cell c) A- Nucleus B- Nucellus d) A-Nucleus B- Vacuole

Q 6. The region outside seminiferous tubule is called interstitial space which contains all except a. immunologically active cells b. blood vessels c. sertoli cells d. leydig cells

Q 7. Decline of which hormone during menstrual cycle results in the degeneration of corpus luteum a. Progesterone b. estrogen c. both 1 and 2 d. LH

Q 8. For normal fertility in males a. atleast 60% sperms should have normal shape and size and atleast 40% should show vigorous motility* b. 40% sperms should be normal shape and size and vigorous motility c. 60% sperms with normal and shape and size and remaining 40% with high motility d. 40% with normal shape and size and 60%with high motility

Q 9. Which pituitary hormone regulates sertoli cells a. estrogen b. progesterone c. FSH* d. LH

Q 10. Which one of the following hormones is responsible for uterine contractions during parturition? a. relaxin b. vasopressin c. oxytocin d. prolactin

Q 11. In human foetus the limbs and digits develop after: a. 8 weeks b. first trimester c. 5th month d. 12 weeks

Q 12. Given below diagram refers to the T. S. of testis showing somniferous tubules. A,B,C,and D in the above figure represent a. A-Sertoli cells, B-Secondary spermatocytes C-interstitial cells D-sperms b. A- interstitial cells B-Spermatogonia C- Sertoli cells D-Sperms c. A-Sertoli cells B-spermatozoa C-- interstitial cells D-Sperms d. A-Sertoli cells B- Spermatogonia C- interstitial cells D-Sperms

Q 13. Identify the wrongly labeled part

Q 14. In the given diagram find out A, B, C and D ABCD a. umbilical cord placental villi yolk sac embryo b. yolk sac umbilical cord embryo placental villi c. placental villi yolk sac embryo umbilical cord d. placental villi embryo yolk sac umbilical cord (15) Draw the following diagram of biology in the practical file T.S of Mammalian ovary and testis T.S of Blastula Disease causing pathogen (Ascaris, Entamoeba, Plasmodium vivax, Ring worm)

Q 16. Assertion: There are a few species of plants in which fruits develop without fertilisation Reason: Parthenocarpic fruits are seedless

Q 17. Assertion: In apomixis plants of new genetic variations are not produced. Reason: In apomixis, reductional division takes place.

Q 18. Assertion: Megaspore mother cell undergoes meiosis to produce four haploid megaspores. Reason: Female gametophyte is produced from a single megaspore.

Q 19. Assertion: The pollen grain represents male gametophyte. Reason: Pollen grains are shed at four celled stage.

Q 20. Assertion: Exine is made up of sporopollenin. Reason: Pollen grains are well preserved as fossils

Q21. Make the diagram T.S. of Testis and Ovary

Class XII

Holiday homework 2025 Chemistry

1. Define the following terms :
Azeotrope, osmotic pressure, colligative properties.
2. Predict the state of the solute in the solution in the following situations:
(i) when i is found to be 0.3.
(ii) when i is found to be 4.0.
3. 3.2 gram of benzoic acid dissolve in 25 gram of benzene shows a depression in freezing point equal to 1.62 kelvin. Molal depression constant for benzene is 4.9 K $\cdot$ kg/mole. What is the percentage association of acid if it forms dimer in solution?
4. State Henry's law. Write its one application. What is the effect of temperature on the solubility of gases in liquid?
5. State Raoult's law for the solution containing volatile components. What is the similarity between Raoult's law and Henry's law?
6. What flows in the internal circuit of a galvanic cell?
7. The conductivity of 0.20 M solution of KCl at 298 K is 0.025 S/cm. Calculate its molar conductivity?
8. State Kohlrausch law of independent migration of ions. Why does the conductivity of a solution decrease with dilution?
9. Define the following terms
i. limiting molar conductivity.

ii. Fuel cell.

iii. mercury cell.

10. Unlike dry cell, the Mercury cell has a constant cell potential throughout its useful life. Why?

Class 12 Computer Science – Summer Vacation Homework

Topics Covered:

- Python Basics (Input/Output, Data Types, Conditions, Loops, Lists, Dictionaries)
- Functions in Python (Types, Parameters, Return, Scope)

Part A – Mini Project (Choose One)

Title: Menu-Driven Application (with Functions)

Objective: Apply your understanding of Python functions by creating a working mini-application.

Choose any one of the following projects:

1. Student Grade Calculator
 - Input marks of 5 subjects
 - Calculate average and grade (A/B/C/D/F)
 - Use functions for input, calculation, and display
2. Contact Book
 - Add, search, and display contacts
 - Store data in a dictionary
 - Use functions for each operation
3. Temperature Analyzer
 - Convert Celsius to Fahrenheit
 - Check for fever ($>99^{\circ}\text{F}$)
 - Use functions with default and return values

Instructions:

- Use user-defined functions
- Keep code modular and readable
- Submit both printed code with output and .py file in pendrive

Answer the following questions (handwritten or typed).

1. Write Python code to take name and age as input and print a greeting message.
2. Write a program to find the largest of 3 numbers using if-elif-else.
3. What are data types in Python? Give 4 examples.
4. Write a loop to print all odd numbers from 1 to 50.
5. Create a list of 5 fruits and print the second and last items.
6. Create a dictionary of 3 books with author names and print it.
7. Differentiate between mutable and immutable data types with examples.

8. Write the output of:

```
x = 10
if x % 2 == 0:
    print("Even")
else:
    print("Odd")
```

9. What is the purpose of indentation in Python?
10. Write a program to check if a number is prime.
11. Define a function. Write syntax with an example.
12. Differentiate between built-in and user-defined functions.
13. Create a function greet(name) that prints "Hello, <name>!"
14. Create a function to calculate the factorial of a number.
15. What are default and positional arguments? Explain with example.
16. Write a function to return the sum of two numbers.
17. Create a function max_of_three(a, b, c) to return the largest number.
18. Explain the difference between local and global scope with code example.
19. Write a function that takes a number and returns its square if it's even, or cube if it's odd.
20. What does a function return if no return statement is given? Explain.

Submission Guidelines

- Submit printed or neatly written work.
- Include project source code, output screenshots, and answers to all 20 questions.
- Submit practical file with 18 programs separately.
- Last date: First week after school reopens.
- Project file to be submitted in a folder and code in pendrive.