Lady Florence
CONVENT SCHOOL
(Affiliated to CBSE)

GRADE XII

ACADEMIC SESSION 2024-25
Summer Enrichment Journey 2024

"Cultivating Holistic Growth with NEP 2020: Explore, Learn, Grow"

Dear Grade XII Students,

As we step into the vibrant and exciting months of summer, we present to you the Summer Enrichment Journey 2024. This holiday homework is not just a set of assignments, but a thoughtfully designed program aimed at fostering holistic growth, in alignment with the visionary principles of the National Education Policy 2020.

The NEP 2020 emphasizes a comprehensive approach to education, focusing on the intellectual, emotional, social, and physical development of students. In line with this philosophy, your holiday homework is crafted to inspire curiosity, encourage creativity, and promote critical thinking. It encompasses a variety of activities

that go beyond traditional learning, integrating arts, physical activities, and real-world applications to make your learning experience enriching and enjoyable.

Through this program, you will explore new subjects, engage in hands-on projects, and reflect on your learning journey. These activities are designed to help you develop essential skills such as problem-solving, effective communication, and teamwork, which are crucial for your overall development and future success.

We believe that education is not confined to the classroom, and the summer break is a perfect time to expand your horizons and discover the joy of learning in diverse and innovative ways. Embrace this opportunity to explore your interests, challenge yourself, and grow into well-rounded individuals.

We are excited to see the amazing projects and insights you will bring back after the holidays. Remember, this is your journey towards becoming not just academically proficient, but also emotionally intelligent, socially responsible, and physically healthy individuals.

Wishing you a productive and joyful summer!

Instructions

Dear Students,

Please take note of the following instructions to ensure that your Summer Enrichment Assignment is completed in an organized and efficient manner:

1. **Assignments in Notebooks:**

   - **All written assignments should be neatly done in your respective subject notebooks.**

   - **Ensure that each assignment is clearly labeled with the subject name, assignment title, and date of completion.**

   - **Follow the guidelines provided by your subject teachers regarding the format and length of your assignments.**

2. **Projects in Project Files:**

   - **All project work should be compiled in designated project files.**

   - **Each project file should have a cover page with your name, class, section, subject, and project title.**

   - **Include a table of contents at the beginning of your project file to organize your work effectively.**

   - **Ensure that all project work is well-researched, creatively presented, and includes visuals where applicable.**

3. **Presentation and Neatness:**

   - **Maintain a high standard of neatness and presentation in both your notebooks and project files.**

- **Use appropriate headings, subheadings, and bullet points to organize your work clearly.**

- **Draw diagrams, charts, and graphs where necessary to illustrate your points effectively.**

4. **Time Management:**

   - **Plan your schedule to allocate sufficient time for each assignment and project.**

   - **Avoid last-minute rushes by setting weekly goals to complete parts of your homework.**

5. **Originality and Creativity:**

   - **Ensure that all work submitted is your original effort. Plagiarism will not be tolerated.**

   - **Be creative in your presentations and think outside the box to make your projects interesting and engaging.**

6. **Parental Guidance:**

   - **Ensure that your parents are aware of your progress and can assist you if needed.**

7. **Submission Deadlines:**

   - **All holiday homework must be submitted on the third day of school after the summer break.**

   - **Ensure that your work is complete and reviewed for any errors before submission.**

8. **Review and Revise:**

   - **Use this time to review the entire syllabus covered so far and prepare for the upcoming assessments.**

   - **Revise important concepts and practice questions to strengthen your understanding.**

ENGLISH

Read the given passages and answer the questions that follow:

But I got mixed up on the first words and stood there, holding on to my desk, my heart beating, and not daring to look up.

Question 1: Why did he stand holding the desk?

(a) He was surprised at the question

(b) He had not prepared his lesson

(c) He was absent the previous day

(d) He did not listen the question clearly

Question 2: What was asked in the class from 'I'?

(a) Rule of grammar

(b) Addition rule

(c) Multiplication table of 18

(d) Essay on 'The Language'

Question 3: Why would 'I' never see him again?

(a) He was leaving the school.

(b) He was shifted to another class.

(c) He was promoted to next school.

(d) All of these.

Question 4: Who is 'I' here?

(a) Franz

(b) Village Head

(c) Mr. Hamel

(d) School Principal

Question 5: Which districts had come under Prussian rule?

(a)   **Alsace**

(b)   **Lorraine**

(c)   **Both a and b (d)**

(d)   **none of these Option**

Question 6: Whom is he addressing to?

(a)   **Franz and his classmates**

(b)   **Village seniors**

(c)   **Chief Guest**

(d)   **Everyone in the class**

Question 7: What change did 'I' find in teacher's appearance?

(a)   **Teaching uninterrupted**

(b)   **Speaking rudely**

(c)   **Dressed for special occasion**

(d)   **Looking old and tired Option**

Question 8: 'I had got over a little over my fright' means :

(a)   **A bit afraid**

(b)   **A bit settled**

(c)   **Being cautious**

(d)   **All of these Option**

Question 9: What usual things happened every day at school?

(a)   **Great bustle and noise**

(b)   **Proper discipline**

(c)   **Attendance**

(d)   **Morning assembly**

Question 10: Who is the teacher referred to here?

(a)   **Mr. Hamel**

(b)   Mr. Chris

(c)   Mr. Franz

(d)   none of these

Question 11: Why was Franz in great dread?

(a)   He had not prepared for his grammar lesson.

(b)   He had bunked the class the previous day.

(c)   He had not brought his notebook.

(d)   none of these Option

Question 12: "I was amazed to see how well I understood it." Select the option that does NOT explain why Franz found the grammar lesson "easy".

(a)   Franz was paying careful attention in class this time.

(b)   M. Hamel was being extremely patient and calm in his teaching.

(c)   Franz was inspired and had found a new meaning and purpose to learning.

(d)   Franz had realized that French was the clearest and most logical language.

Question 13: Choose the option that might raise a question about M. Hamel's "faithful service".

(a)   When Franz came late, M. Hamel told him that he was about to begin class without him.

(b) Franz mentioned how cranky M. Hamel was and his "great ruler rapping on the table".

(c) M. Hamel often sent students to water his flowers, and gave a holiday when he wanted to go fishing.

(d) M. Hamel permitted villagers put their children "to work on a farm or at the mills" for some extra money.

Question 14: Which of the following can be attributed to M. Hamel's declaration about the French language?

(a)   Subject expertise

(b)   nostalgic pride

(c)   Factual accuracy

(d)   Patriotic magnification

Question 15: Read the quotes given below.

(I)   Those who know nothing of foreign languages, know nothing of their own. – Johann Wolfgang von Goethe

(II)   Language is the road map of a culture. It tells you where its people come from and where they are going. – Rita Mae Brown

(III)   A poor man is like a foreigner in his own country. – Ali Ibn Abi Talib

(IV)   The greatest propaganda in the world is our mother tongue, that is what we learn as children, and which we learn unconsciously. That shapes our perceptions for life. – Marshal McLuhan Choose the option that might best describe M. Hamel's viewpoint.

(a)   Option (I)

(b)   Option (II)

(c)   Option (III)

(d) Option (IV)

Writing Skills: 1. You are Josely Mathew, the President of the school book club. The club is organising a drive for promoting reuse of study materials and books. Draft a notice in about 50 words, for the school notice board, addressing students of classes X-XII, informing them about this drive and urging them to contribute to the endeavour. Mention how the donated books would would benefit a charitable cause.

2. You are Minu Sen, an intern in a software company in Hyderabad. You feel that the growing relationship of companies with non-profit organisations have made Corporate Social Responsibility (CSR) the buzzword today. Your own involvement in one such project for your company has convinced you that CSR looks beyond the company profits and focuses on benefiting the greater community. Write a letter to the editor of a national daily in about 120-150 words sharing your opinion about CSR and its advantages and provide suggestions to make it an integral part of every organisation. Use the given cues along with your own ideas to compose this letter.

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PROJECTS

(Do any one from the given chapter)

"Mother at Sixty-Six"

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Introduction

The poem "Mother at Sixty-Six" by Kamala Das explores themes of aging, familial bonds, and the inevitable passage of time. Students will delve into these themes, analyze the poem's structure and language, and reflect on the personal and universal experiences of aging and loss.

Objectives

To develop a deeper understanding of the poem's themes and literary devices.

To encourage personal reflection on the themes of aging and family.

To enhance analytical and creative skills through various project-based activities.

Project Tasks

1. Poem Analysis (Written Assignment)

Theme Exploration: Write an essay (200-300 words) discussing the main themes of the poem. Reflect on how the poet uses imagery and symbolism to convey the emotions associated with aging and separation.

Literary Devices: Identify and analyze at least five literary devices used in the poem. Explain how each device contributes to the overall impact of the poem.

2. Creative Writing (Personal Reflection)

Letter to the Poet: Write a letter (100-200 words) to Kamala Das expressing your thoughts and feelings after reading "Mother at Sixty-Six." Share any personal experiences or memories that the poem brought to mind.

Alternate Ending: Imagine an alternate ending to the poem. Write a new stanza that changes the tone or message of the poem. Explain your choices in a short paragraph (100-200 words).

3. Visual Interpretation (Artistic Expression)

Illustration: Create an illustration or a series of illustrations that depict the scenes and emotions described in the poem. Use any medium (drawing, painting, digital art) and provide a brief description (50-100 words) of your artwork.

Photo Essay: Compile a photo essay that captures the essence of the poem's themes. Include at least five photographs with captions that explain how each image relates to the poem.

4. Research Project (Contextual Understanding)

Author Study: Research the life and works of Kamala Das. Prepare a presentation (5-7 slides) or a detailed report on her contributions to literature and how her personal experiences influenced her writing.

Cultural Context: Investigate the cultural and social context of the poem. Write an article (100-200 words) discussing how the poem reflects the societal attitudes towards aging and family in India.

Submission Guidelines

Format: All written assignments should be typed and compiled into a single document. Visual projects should be neatly presented and labeled.

Portfolio: Assemble all your work into a portfolio, including a table of contents, title page, and any necessary labels or descriptions.

Deadline: The portfolio is due on the third day of school after the holidays.

HINDI

कार्य पत्रिका -१

प्रश्न १ ' कला एकीकरण ' के अंतर्गत केरल और गुजरात में अंतर बताते हुए किन्हीं तीन विषयों पर एक प्रोजेक्ट तैयार करें।

संकेत बिंदु भाषा :-*संस्कृति , *भोजन , *त्यौहार , *नृत्य और इतिहास

प्रश्न २ ' शिक्षा सबका अधिकार है 'विषय पर **120-150** शब्दों में रचनात्मक लेख लिखें ।

प्रश्न ३ जल है तो कल है :- विषय पर लगभग **200** शब्दों में एक लेख लिखें।

प्रश्न ४ आधुनिक जीवन शैली बना रही बीमार :- विषय पर एक **150-200** शब्दों में फीचर लिखें।

प्रश्न५ निम्नलिखित में से किसी एक के व्यक्तित्व पर प्रकाश डालते हुए प्रोजेक्ट तैयार करें।

 1. हरिवंश राय बच्चन

2.डॉ भीमराव अंबेडकर

3. महादेवी वर्मा

4.सूर्यकांत त्रिपाठी निराला ।

प्रश्न ६ नीचे दिए गए विषयों पर **120 - 150** शब्दों में आलेख लिखिए -

1. खेलों का गिरता स्तर

2. फ़ैशन की अंधी होड़

3. प्रकृति से बढ़ती दूरी

4. युवाओं में बहती नकारात्मक प्रवृत्ति

5. महिलाओं की दोहरी भूमिका

प्रश्न ७ - अपने विद्यालय और मुहल्ले के आसपास की समस्याओं पर नजर डालें; जैसे पानी की कमी, बिजली की कटौती, खराब सड़कें, सफाई की दुर्व्यवस्था। इनमें से किन्हीं दो विषयों पर रिपोर्ट तैयार करें और अपने शहर के अखबार में भेजें।

कार्य पत्रिका -२

प्रश्न-१ संसार में कष्टो को सहते हुए खुशी और मस्ती का माहौल कैसे पैदा किया जा सकता है लिखो।

प्रश्न २ भाषा को सहूलियत से बरतने का क्या अभिप्राय है

प्रश्न ३ अपाहिज कैमरे के सामने क्यों रो पड़ता है?

प्रश्न ४ बाजार किनको आमंत्रित करता है और कैसे?

प्रश्न ५ आसमान में रंग बिरंगी पतंगों को देखकर आपके मन में कैसे ख्याल आते हैं, लिखिए।

प्रश्न ६ लेखिका ने भक्तिन के सेवा धर्म की तुलना किससे की है और क्यों?

प्रश्न ७ बात और भाषा परस्पर जूडे होते हैं किंतु कभी -कभी भाषा के चक्कर में सीधी बात भी टेढ़ी हो जाती है कैसे।

प्रश्न ८ कहानी के किस किस मोड़ पर लुट्टन के जीवन में क्या - क्या परिवर्तन आए ?

प्रश्न ९ ' कैमरा दिखाओ इसे बड़ा - बड़ा दिखाने का क्या कारण है ?

प्रश्न १० पहलवान की ढोलक के आधार पर ग्रामीणों की गरीबी और असहायता पर टिप्पणी कीजिए।

कार्यपत्रिका ३

अभिव्यक्ति और माध्यम

निम्नलिखित प्रश्नों के उत्तर एक-दो पंक्तियों में दीजिए-

प्रश्न 1. नई वेब भाषा को क्या कहते हैं?

प्रश्न 2. भारत की प्रमुख वेबसाइटें कौन-सी हैं?

प्रश्न 3. हिंदी की सर्वश्रेष्ठ इंटरनेट पत्रकारिता की साइट कौन-सी है?

प्रश्न 4. इंटरनेट पर उपलब्ध हिंदी का वह कौन-सा समाचार-पत्र है जो प्रिंट रूप में नहीं है?

प्रश्न 5. पत्रकार कितने प्रकार के होते हैं?

प्रश्न 6. अखबार/पत्रिका के पत्रकार को लिखते समय क्या याद रखना चाहिए?

प्रश्न 7. समाचार-पत्रों में छपने वाले फ़ीचरों की शब्द संख्या कितनी होती है?

प्रश्न 8. एक अच्छे और रोचक फ़ीचर के साथ क्या होना आवश्यक है?

प्रश्न 9. समाचार-पत्र कैसा माध्यम है?

प्रश्न 10. जनसंचार के आधुनिक माध्यमों में सबसे पुराना माध्यम कौन-सा है?

प्रश्न 11. समाचार लेखन के छह ककार कौन से हैं?

प्रश्न 12. मुद्रित माध्यमों की सबसे बड़ी विशेषता क्या है?

प्रश्न 13. मुद्रित माध्यम के अंतर्गत समाचार-पत्र में क्या कमियाँ हैं?

प्रश्न 13. बीट किसे कहते हैं?

प्रश्न 14. कारोबारी जगत की खबरें किस शैली में लिखी जाती हैं ?

प्रश्न 15. सीधा प्रसारण (लाइव) कैसा होता है?

प्रश्न 16. समाचार-पत्रों की क्या विशेषताएँ हैं?

प्रश्न 17. संपादक के नाम पत्र कौन लिखता है?

प्रश्न 18. समाचार-पत्र में साक्षात्कार का क्या महत्व है?

प्रश्न 19. मुद्रित माध्यमों की सबसे बड़ी विशेषता क्या है?

प्रश्न 20. समाचार लेखन के छह कंकार कौन से हैं?

MATHS

ASSIGNMENT-1

Q-1 Find the principal value of the following:

(i) $\sin^{-1}(-\sqrt{3}/2)$ (ii) $\sin^{-1}(\tan 5\pi/4)$

Q-2 Find the principal value of each of the following:

(i) $\sec^{-1}(-\sqrt{2})$ (ii) $\sec^{-1}(2\sin(3\pi/4))$ (iii) $\sec^{-1}(2\tan(3\pi/4))$

Q-3 Evaluate each of the following:

(i) $\sin^{-1}(\sin 7\pi/6)$ (ii) $\sin^{-1}(\sin 13\pi/7)$

Q-4 Evaluate:

(i) $\text{Cos}\{\sin^{-1}(-7/25)\}$
(ii) $\text{Cot}\{\sec^{-1}(-13/5)\}$

Q-5 Construct a 2 ×3 matrix A = [a$_{jj}$] whose elements a$_{jj}$ are given by:

(i) $a_{ij} = 2i - j$ (ii) $a_{ij} = (i + j)^2/2$

Q-6 Find x, y, a and b if

$$\begin{bmatrix} 3x + 4y & 2 & x - 2y \\ a + b & 2a - b & -1 \end{bmatrix} = \begin{bmatrix} 2 & 2 & 4 \\ 5 & -5 & -1 \end{bmatrix}$$

Q-7 Find the values of a, b, c and d from the following equations

$$\begin{bmatrix} 2a + b & a - 2b \\ 5c - d & 4c + d \end{bmatrix} = \begin{bmatrix} 4 & -3 \\ 11 & 24 \end{bmatrix}$$

Q-8 Find each of the following

Let $A = \begin{bmatrix} 2 & 4 \\ 3 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 3 \\ -2 & 5 \end{bmatrix}$ and $C = \begin{bmatrix} -2 & 5 \\ 3 & 4 \end{bmatrix}$

(i) 2A – 3B
(ii) 3A – 2B + 3C

Q-9 If A = diag (2 -5 9), B = diag (1 1 -4) and C = diag (-6 3 4), find

(i) A – 2B
(ii) B + C – 2A
(iii) 2A + 3B – 5C

Q-10 if A= $\begin{bmatrix} cos2a & sin2a \\ -sin2a & cos2a \end{bmatrix}$, Find A²

Q-11 For the following matrices verify the distributivity of matrix multiplication over matrix addition i.e. A (B + C) = AB + AC

A= $\begin{bmatrix} 1 & -1 \\ 0 & 2 \end{bmatrix}$, B= $\begin{bmatrix} -1 & 0 \\ 2 & -1 \end{bmatrix}$ and C= $\begin{bmatrix} 0 & 1 \\ 1 & -1 \end{bmatrix}$

Q-12 if $[x \quad 4 \quad 1] \begin{bmatrix} 2 & 1 & 2 \\ 1 & 0 & 2 \\ 0 & 2 & -4 \end{bmatrix} \begin{bmatrix} x \\ 4 \\ -1 \end{bmatrix} = 0$ find x

Q-13 if A = $\begin{bmatrix} 3 & 1 \\ -1 & 2 \end{bmatrix}$ show that A²- 5A + 7I₂=0

Q-14 if A = $\begin{bmatrix} 1 & 0 \\ -1 & 7 \end{bmatrix}$ find k such that A² -8A +kI =0

Q-15 A= $\begin{bmatrix} 3 & 2 & 7 \\ 1 & 4 & 3 \\ -2 & 5 & 8 \end{bmatrix}$, Find matrices X and Y such that X + Y = A, where X is a symmetric and y is a skew-symmetric matrix.

Q-16 Evaluate the following determinants

(i) $\begin{vmatrix} x & -7 \\ x & 5x + 1 \end{vmatrix}$

(ii) $\begin{vmatrix} cos\,\theta & -\,sin\,\theta \\ sin\,\theta & cos\,\theta \end{vmatrix}$

Q-17 Find the area of the triangle with vertices at the points

(i)   (3, 8), (-4, 2) and (5, -1)

(ii)   (-1, -8), (-2, -3) and (3, 2)

Q-18 If the points (a, 0), (0, b) and (1, 1) are collinear, prove that a + b = ab

Q-19 Find the value of λ so that the points (1, -5), (-4, 5) and (λ, 7) are collinear

Q-20 Find the value of x if the area of Δ is 35 square cms with vertices (x, 4), (2, -6) and (5, 4)

Q-21 . Find the inverse of each of the following matrices

$\begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 1 \\ 3 & 1 & 2 \end{bmatrix}$

Q-22 Find the inverse of each of the following matrices and verify that A⁻¹A = I₃.

$\begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix}$

Q-23 Solve the following system of equations by matrix method:

(i)　　$5x + 7y + 2 = 0$

　　　　$4x + 6y + 3 = 0$

(ii)　　$3x + y = 7$

　　　　$5x + 3y = 12$

Q-24 Solve the following system of equations by matrix method:

(iii)　　$x + y + z = 3$

　　　　$2x - y + z = -1$

　　　　$2x + y - 3z = -9$

(iii)　　$8x + 4y + 3z = 18$

　　　　$2x + y + z = 5$

　　　　$x + 2y + z = 5$

Q-25 The sum of three numbers is 2. If twice the second number is added to the sum of first and third, the sum is 1. By adding second and third number to five times the first number, we get 6. Find the three numbers by using matrices.

Q-26 . An amount ofRs 10,000 is put into three investments at the rate of 10, 12 and 15% per annum. The combined incomes are Rs 1310 and the combined income of first and second investment is Show that f (x) = |x − 3| is continuous but not differentiable at x = 3. Rs 190 short of the income from the third. Find the investment in each using matrix method.

Q-27 Solve the following systems of homogeneous linear equations by matrix method:

1.　$2x - y + z = 0$

　　$3x + 2y - z = 0$

　　$x + 4y + 3z = 0$

Q-28　find the angle between the vectors　$a = \hat{i} - \hat{j} + \hat{k}$　and　$b = \hat{i} + \hat{j} - \hat{k}$

Q-29 The vector a　$3\hat{i}$　$\hat{k}$,　b　$\hat{i}$　$2\hat{j}$ are adjacent sides of a parallelogram. Find the area .

Q-30 if a,b, and c are three vectors of magnitudes 3 ,4 and 5 respectively, such that each one is perpendicular to the sum of the other two vectors. Prove that:　$| a+b+c | = 5\sqrt{2}$.

Q-31 Minimise and Maximise Z=3x+9y, subject to constraints,　$x+3y \leq 60$,　$x+y \geq 10$,　$x \leq y$,　$x,y \geq 0$.

Q-32 Find the shortest distance between the lines

$r = (i+2j +k) +\lambda (i - j +k)$

$r = (2i -j -k) +\beta (2i+ j+2k)$

PROJECT BASED ACTIVITIES

Chapter: Vector Algebra

Project Title: Exploring Vector Algebra in Real-World Applications

Objective:

To understand the concepts of vector algebra through real-world applications and to enhance problem-solving and analytical skills.

Instructions:

Introduction to Vector Algebra:

➢ Define vectors and explain their significance in mathematics and real-world applications.

➢ Differentiate between scalar and vector quantities with examples.

➢ Describe vector operations such as addition, subtraction, and multiplication (dot product and cross product).

➢ Applications of Vector Algebra:

➢ Research and explain at least three real-world applications of vector algebra. Examples can include physics (force, velocity, and acceleration), computer graphics, engineering (mechanics and statics), and navigation.

Illustrate these applications with diagrams and real-life scenarios.

Practical Activity:

Design a simple experiment or activity that involves vectors. For example, you can create a simulation of forces acting on an object, or a vector-based animation in computer graphics.

Record the steps, observations, and outcomes of the experiment/activity.

Include diagrams, charts, or screenshots to support your explanation.

Project Structure:

➢ Title Page:

➢ Title of the project

➢ Student's name

PHYSICS

WORKSHEET-1 (CURRENT ELECTRICITY)

1)A wire carries a current of 2.0 A, when a potential difference of 3.0 V is applied across it. What is its conductance ? If the wire is of length 3 m and area of cross-section 5.4 x 10-6 m², calculate its conductivity.

2)The resistance of a conductor is 6 ohm at 500 °C and 7 ohm at 100°C. Calculate the mean temperature Coefficient of resistance of the material. Find the resistance of the conductor at O°C.

3)In a meter bridge, the null point is found at a distance of 40 cm from A. If a resistance of 12 ohm is Connected in parallel with S, the null point occurs at 50.0 cm from A,. Determine the values of R and S.

4)Two bulbs rated 25 W – 220 V and 100 W – 220V are connected in series to a 440 V supply. Show with Necessary calculations which bulb if any will fuse?(b) What should happen if the two bulbs were Connected in parallel to the same supply?

5) Conductor of length L is connected to a dc source of emf &. If this conductor is replaced by another conductor of same material and same area of cross-section but of length 3 L, how will the drift velocity change ?

6)A uniform copper wire of length 1 m and cross sectional area 5 x 10-7 m² carries a current of 1 A. Assuming that there are 8×10^{28} free electrons per m²³ in copper, how long will an electron take to drift from one end of the wire to the other. Charge on an electron = $1 \cdot 6 \times 10^{-19}$ C.

7)How much electrical energy in kilowatt hours is consumed in operating ten 5 watt bulbs for 10 hours per day in a month (30 days)

8)What is the e.m.f. of a cell ? State the factors on which its value depends. Derive a relation between e.m.f. E, contact potential V, internal resistance r of a cell and external resistance R. Prove that e.m.f. is more than potential difference
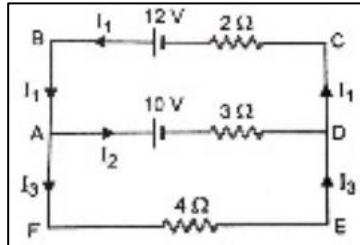
WORKSHEET-2 (CURRENT ELECTRICITY)

1. Two electric bulbs A and B are marked 220V, 40 W and 220V, 60 W respectively. Which one has a higher resistance?

2. Define the term 'Mobility' of charge carriers in a conductor. Write its S.I. unit.

3. A 5 V battery of negligible internal resistance is connected across a 200 V battery and a resistance of 39 Ω as shown in the figure. Find the value of the current

4 what are ohmic and non ohmic conductors

5 how resistance and resistivity of conductors depends on temperature and graphical representation

6 Do the numericals of combination of resistors in series and parallel

7 what are the Kirchhoff's first and second law ,write which conservation law they holds

8 Potential difference V is applied across the ends of copper wire of length (l) and diameter D. What is the effect on drift velocity of electrons if

(1) V tripled

(2) L is halved

(3) D is doubled

9 What is Microscopic Ohm's law

10 Write the derivation between drift velocity and electric field

11 In a meter bridge, two unknown resistances R and S when connected in the two gaps, give a null point at 40 cm from one end. What is the ratio of R and S?

12 Find the value of I1,I2,I3 in the given figure

PROJECT WORK

INVESTIGATORY PROJECT:Students are required to work on a CBSE investigatory project based on any relevant topic of Physics. The project report/ project file/case study should be an original idea and not copied from any website. The final draft of the project write up must be hand written and presented in spiral binding. Spiral binding of the handwritten content to be done only after approval by the mentor.

The following sequence needs to be followed for writing the project:

Total number of pages: 10-15

1.Cover Page (School Name, Topic, Name of the Learner, Class, Section) :1Page

2.Certificate : 1 Page

3.Acknowledgement: 1 Page

4.Index: 1 Page

5.Aim : 1 Page

6.Introduction: 1 Page

7.Theory: 1-2 Page

8.Apparatus required : 1Page

9.Procedure: 3-4 Pages

10.Observations : 2-3 Pages

11.Result & discussion: 2-3 Pages

12.Conclusion: 1 Page

13.Bibliography : 1 Page

CHEMISTRY

Assignment-1

1 How will the rate of the reaction be affected when

(a) Surface area of the reactant is reduced,

(b) Catalyst is added in a reversible reaction, and

(c) Temperature of the reaction is increased?

(d) None of these

2.For a reaction $P + Q \rightarrow 2R + S$, the incorrect statement is

(a) Rate of disappearance of P = Rate of appearance of S

(b) Rate of disappearance of Q = 2 x Rate of appearance of R

(c) Rate of disappearance of Q = Rate of disappearance of P

(d) Rate of disappearance of Q = 1⁄2 x Rate of appearance of R

3.In a reaction, $2X \rightarrow Y$, the concentration of X decreases from 0.50 M to 0.38 M in 10 min. What is the rate of reaction in Ms^{-1} during this interval?

    (a) 2×10^{-4}
    (b) 4×10^{-2}
    (c) 2×10^{-2}
    (d) 1×10^{-2}

4.Instantaneous rate of a chemical reaction is

    (a) rate of reaction in the beginning
    (b) rate of reaction at the end
    (c) rate of reaction at a given instant
    (d) rate of reaction between two specific time intervals

5.A first order reaction has a rate constant $1.15 \times 10^{-3} s^{-1}$. Time taken for 5 g of this reactant to reduce to 3 g is

(a) 444 s

(b) 400 s

(c) 528 s

(d) 669 s

6.For the reaction $A + 2B \rightarrow C$, rate is given by $R = [A] [B]^2$ then the order of the reaction is

(a) 3

(b) 6

(c) 5

(d) 7

7.Order of reaction is decided by

(a) temperature

(b) mechanism of reaction as well as relative concentration of reactants

(c) molecularity

(d) pressure

8.A plot is shown below between concentration and time t. Which of the given orders is indicated by the gra

(a) Zero Order

(b) Second Order

(c) First Order

(d) Fractional Order

9.A zero order reaction is one whose rate is independent of

(a) the concentration of the reactants

(b) the temperature of reaction

(c) the concentration of the product

(d) the material of the vessel in which reaction is carried out

10.A catalyst increases the reaction rate by:

(a) decreasing enthalpy

(b) increasing internal energy

(c) decreasing activation enthalpy

(d) increasing activation enthalpy

11.Consider the reaction $A \longrightarrow B$. The concentration of both the reactants and the products varies exponentially with time. Which of the following figures correctly describes the change in concentration of reactants and products with time?

12.A first order reaction takes 40 min for 30% decomposition. $t_{1/2}$ will be

(a) 77.7 min

(b) 52.5 min
(c) 46.2 min
(d) 22.7 min

<u>INVESTIGATORY PROJECT:</u>

Students are required to work on a CBSE investigatory project. The project-work should be experimental, result-driven with innovative content about discoveries with sufficient supporting materials including observation tables, graphs, pictures, surveys, case-studies, results etc. Project work should be hand-written with blue and black pen only. Use light coloured, thick A-4 interleaf pages (one side ruled, another side blank).Spiral binding of the handwritten content to be done only after approval by the mentor.

- Choose a topic that interests you and justifies the link with the subject, is original in content and experimentally possible. All project-topics/objectives should be reported and verified by respective subject teachers to avoid repetition.

- It is important to perform the experiments for results and observations. Diversify the conclusions with map-works, survey activities, graphical studies etc. All the procedures and results should be supported by evidences in the form of pictures.

- Learners can perform the experiments under the supervision of the subject-teacher, once the school re-opens. Chemicals unavailable in school's lab needed for the investigatory project need to be arranged by the respective student.

The following sequence needs to be adhered to for writing the project-report:

1) Front page/cover page -Coloured print-out (uniform format will be provided)
2) Certificate (uniform format will be provided).
3) Acknowledgment (uniform format will be provided).
4) Index with page numbers.
5) Aim (Main subject line/topic of the project).
6) Objective (Enlist all learning outcomes by giving bullet points).
7) Requirements (materials, chemicals and glass ware requirements).
8) Theory (three-four pages).
9) Procedure of the experiment.
10) Observation.
11) Interpretation/analysis/ discussion.
12) Conclusion.
13) Bibliography (references).

- All the above-mentioned headings should start from a new page.
- Format for front page, certificate and acknowledgment will be provided through portal.
- Except cover page, all other content should be hand-written with clean and neat hand writing to create a positive impression.

- Minimum no. of pages -20 pages.

- **Thoroughly revise the following chapters and practice the problems discussed in the class i) Solution ii) Chemical kinetics iii) Haloalkanes & Haloarenes .Revise PT.2 syllabus.(CH:3 Chemical kinetics and CH:6 Haloalkanes and halo-arenes)**
- **Complete all the experiments in the Chemistry Lab manual neatly along with the diagrams, as discussed in class.**
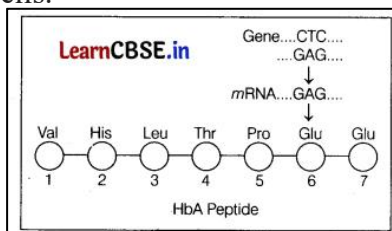
BIOLOGY

WORKSHEET-1
CH-1and 2

Q1. Explain double fertilisation and trace the post-fertilisation events in sequential order leading to seed formation in a typical dicotyledonous plant.

Q2. A flower of brinjal plant following the process of sexual reproduction produces 300 viable seeds.
Answer the following questions giving reasons
(i) How many ovules are minimally involved?
(ii) How many megaspore mother cells are involved?
(iii) What is the minimum number of pollen grains that must land on stigma for pollination?
(iv) How many male gametes are involved in the above case?
(v) How many microspore mother cells must have undergone reduction division prior to dehiscence of anther in the above case?

Q3. Explain the development of the zygote into an embryo and of the primary endospermic nucleus into an endosperm in a fertilised embryo sac of a dicot plant.

Q4.(i) Explain the different ways apomictic seeds can develop. Give an example of each.
(ii) Mention one advantage of apomictic seeds to farmers.
(iii) Draw a labelled mature stage of a dicotyledonous embryo.

Q5.With the help of an example of each explain the following: Apomixis, Parthenocarpy, Polyembryony.

Q6. Differentiate between perisperm and endosperm giving one example of each.

Q7. Write the location and functions of following in human testes: (i) Sertoli cells. (ii) Leydig cells

Q8. Draw a sectional view of human ovary showing the different stages of developing follicles, corpus luteum and ovulation.

Q9. Explain Spermatogenesis in males and oogenesis in females.

Q10. Explain the Menstrual cycle with the help of chart.

WORKSHEET-2
CH-3 and 4

Q1.Explain one application of each one of the following:
(a) Amniocentesis
(b) Lactational amenorrhea
(c) ZIFT

Q2. State any four methods to overcome infertility in human couples.

Q3. Explain the Zygote Intra Fallopian
Transfer Technique (ZIFT). How is Intra Uterine Transfer (IUT) Technique different from it?

Q4.(i) Name any two copper releasing IUDs.
(ii) Explain, how do they act as effective contraceptives in human females.

Q5.Describe the lactational amenorrhea method of birth control.

Q6.Explain the causes, inheritance pattern and symptoms of any two Mendelian genetic disorders.

Q7.(i) How does a chromosomal disorder differ from a Mendelian disorder?
(ii) Name any two chromosomal aberration-associated disorders.
(iii) List the characteristics of the disorders mentioned above that help in their diagnosis.

Q8.(i) Explain the mechanism of sex-determination in humans.
(ii) Differentiate between male heterogamety and female heterogamety with the help of an example of each.

Q9.Given below is the representation of a relevant part of amino acid composition of the ß-chain of haemoglobin,

related to the shape of human red blood cells.

(i) Is this representation of the sequence of amino acids indicating a normal human or a sufferer from a certain blood related genetic disease? Give reason in support of your answer.

(ii) Why is the disease referred to as a Mendelian disorder? Explain.

Q10.(i) Explain monohybrid cross taking seed coat colour as a trait in Pisum sativum. Work out the cross up to F_2-generation.

(ii) State the law of inheritance that can be derived from such a cross.

(iii) How is the phenotypic ratio of F_2-generation different in a dihybrid cross?

PROJECT

INVESTIGATORY PROJECT:Students are required to prepare an Investigatory Project on the allocated topic and record the well researched content in a spirally bound project file. Spiral binding of the handwritten or typed content to be done only after approval by the mentor.

The following sequence needs to be used in the project file.

1.Cover Page- must contain School Name and logo, Topic with an interesting Tag line and coloured picture relevant to the topic.

2.Certificate-As per the format that will be shared on portal.

3.Acknowledgement-As per the format that will be shared on portal.

4.Index-Topic/Subtopic wise

5.Content (Minimum-15 A-4 size, light coloured interleaf sheets)- History, theory, principle and must also include pictorial representations, graphs/some statistics on interleaf side and Case Studies to support your chosen topic. Learners to insert their pictures as evidence of being involved in investigating the project.

6.Bibliography

Minimum pages in the Project file -15-20

IT

Assignment 1: ICT skills

a) Fill in the blanks with appropriate MS Excel terms.

i) The intersection of a row and a column in Excel is called a _____.

ii) A predefined formula in Excel is called a _____.

iii) The function used to find the highest value in a range is _____.

iv) The process of applying formatting to cell contents based on certain conditions is called _____.

b) Multiple Choice Questions (MCQ):

Choose the correct option from the given choices.

i) Which function is used to calculate the average of a range of cells?

a) SUM

b) AVERAGE

c) MAX

d) MIN

ii) What does the CONCATENATE function in Excel do?

a) Adds numbers

b) Combines text from multiple cells

c) Calculates percentages

d) Sorts data

c) Determine whether the statements are true or false.

i) PivotTables are used for data validation in Excel.

ii) Excel charts cannot be customized.

d) Short Questions:

d) Answer briefly the following questions.

i) What is a cell reference in Excel?

ii) Explain the difference between absolute and relative cell references.

iii) How can you create a chart in Excel?

e) Provide detailed answers to the following questions.

i) Explain the steps to create a PivotTable and how it can be used to summarize and analyze data.

ii) How can Excel be used for financial management and budgeting?

MS PowerPoint Section:

a. Fill in the blanks with appropriate Open Office Impress terms.

i) The area where you type text in a slide is called a _____.

ii) A collection of pre-designed slides in PowerPoint is called a _____.

iii) The view that allows you to edit individual slides is called _____.

iv) A feature that allows you to record timings and narrations for a presentation is called _____.

b. Choose the correct option from the given choices.

i) Which tab contains options for customizing the design and layout of slides in PowerPoint?

a) Home

b) Insert

c) Design

d) Transitions

ii) What is the purpose of slide transitions in PowerPoint?

a) To add animations to slides

b) To change the font size

c) To move from one slide to another smoothly

d) To insert hyperlinks

c. Determine whether the statements are true or false.

i) PowerPoint slides should be overloaded with text.

ii) Animation effects cannot be applied to objects in PowerPoint slides

ART INTEGRATED ACTIVITY: Re- Create this document using Open Office Writter and paste it in your notebook.

DENVER DAHL

Account Manager

📞 +1 555 555 5555   @ denver.dahl@example.com   🔗 linkedin.com/denver-dahl
📍 San Francisco, CA

EXPERIENCE

Key Account Manager

Lauzon

📅 2016 - Ongoing   📍 San Francisco, CA

Lauzon is a leading worldwide manufacturer, designer, and supplier of bearings, linear motion products, precision bearings, spindles, seals, and services. Responsible for business development with Key Accounts with main focus in ENERGY, POWER UTILITIES and HEAVY industries.
- Achieved 12% growth in the account's revenue and 7% profitability improvement.
- Generated $2,000,000+ new revenue by signing 10 new accounts.
- Presented to over 600 delegates in Europe for facilitating new insurance tracking process.
- Established a Cloud Team and increased Cloud Business profit 8X.

Senior Account Manager

Koepp Inc

📅 2014 - 2016   📍 San Francisco, CA

Koepp Inc is Google Street View certified agency.
- Managed Search, Shopping & Display ads for major brands with total monthly ad spend of around $150,000/month.
- Managed the largest key account generating $17,500,000 annually.
- Worked with the BSO team for 6 months as being the sole responsible for their online marketing campaigns.

Account Manager Infrastructure & Application Development

Drouin S.A.R.L.

📅 2012 - 2014   📍 San Francisco, CA
- Pioneered sales of Fixed+mobile services in Spain in 2012.
- Achieved 126% Revenue Attainment in H2 (Jan-Jun 2015).
- Increased a French fashion brand PPC revenue by 90% YoY, mainly with the help of our shopping campaigns.
- Achieved to reach a level of satisfaction of 9+ over 10 with the usage of Oracle Support for one top account.

EDUCATION

Master of Marketing Management [MMM]

La Trobe University

📅 2007 - 2008   📍 San Francisco, CA

KEY ACHIEVEMENTS

🚀 **Building the future**
Established a Cloud Team and increased Cloud Business profit 8X.

💎 **Managing the largest accounts**
Managed the largest key account generating $17,500,000 annually.

⚡ **Market share - Key accounts & projects**
Generated $2,000,000+ new revenue by signing 10 new accounts

☀ **Work-life balance**
I recharge spending my weekends in nature with my family of 5.

SKILLS

| MS Office Programs | Windows & Mac OSX | Asana | Salesforce | Agile | CRM Systems | Hubspot |

| LinkedIn Sales Navigator | Dun & Bradstreet |

LANGUAGES

| **English** | Native | **German** | Proficient | **Greek** | Advanced |

ACCOUNTANCY

ASSIGNMENTS

Dear Students, Solve these three given assignment in your fair notebook

Assignment -1

Q1.In the absence of a partnership deed, the allowable rate of interest on partner's loan account will be:

(A) 6% Simple Interest.   (B) 6% p.a. Simple Interest (C) 12% Compounded Annually (D) 12% Simple Interest

Q.2. A and B are partners in partnership firm without any agreement. A has given a loan of ₹50,000 to the firm. At the end of year loss was incurred in the business. Following interest may be paid to A by the firm:

(A) @5% Per Annum. (B) @ 6% Per Annum. (C) @ 6% Per Month

(D) As there is a loss in the business, interest can't be paid

Q3.Abhay and Baldwin are partners sharing profit in the ratio 3:1. On 31st March 2021, firm's net profit is 1,25,000. The partnership deed provided interest on capital to Abhay and Baldwin 15,000 & 10,000 respectively and Interest on drawings for the year amounted to 6,000 from Abhay and 4,000 from Baldwin. Abhay is also entitled to commission @10% divisible profits after charging such commission. Calculate profit to be transferred to Partners Capital A/c's.

(A) 1,00,000. (B) 1,10,000. (C) 1,07,000. (D) 90,000

Q4.A and B contribute 1,00,000 and 60,000 respectively in a partnership firm by way of capital on which they agree to allow interest @ 8% p.a. Their profit or loss shar sharing ratio is 3: 2. The profit at the end of the year was ₹2,800 before allowing interest on capital. If there is a clear agreement that interest on capital will be paid even in case of loss, then B's share will be:

(A) Profit 6,000(B) Profit 4,000(C) Loss 6,000(D) Loss 4,000

Q5.A. B and C sharing profits in the ratio of 2:2:1 have fixed capitals of ₹3,00,000, ₹2,00,000 and 1,00,000 respectively. After closing the accounts for the year ending 31st March, 2024 it was discovered that interest on capitals was provided @ 12% instead of 10% p.a. In the adjusting entry:

(A) Cr. A 1,200; Dr. B 800 and Dr. C ₹400

(B) Dr. A ₹1,200; Cr. B ₹800 and Cr. C ₹400

(C) Cr. A ₹800; Cr. B ₹400 and Dr. C ₹1,200

(D) Dr. A ₹800; Dr. B ₹400 and Cr. C 1,200

Q6..Calculate the amount of Suruchi's quarterly drawings for the year ended 31st March, 2023 in the following cases when interest is charged @ 8% p.a.

(i) When she withdrew a fixed amount in the beginning of each quarter and interest on drawings is ₹6,000.

(ii) When she withdrew a fixed amount at the end of each quarter and interest on drawings is 4,800.

(iii) When she withdrew a fixed amount during the middle of each quarter and interest on drawings is ₹8,000

Q7. A and B contribute ₹5,00,000 and ₹3,00,000 respectively by way of capital on which they agree to allow interest at 6% p.a. Their respective share of profit is 3:2 and the profit for the year is ₹40,000 before allowing interest on capitals. Prepare the necessary account to allocate interest on capitals in the following cases:

(i) When the partnership deed is silent about the treatment of interest on capital, and

(ii) When interest is a charge as per the Partnership Deed.

Q8.Ajay, Manish and Sachin were partners sharing profits in the ratio 5:3:2. Their Capitals were ₹6,00,000; ₹8,00,000 and ₹11,00,000 as on April 01, 2021. As per Partnership deed, Interest on Capitals were to be provided @ 10% p.a. For the year ended March 31, 2022, Profits of ₹2,00,000 were distributed without providing for Interest on Capitals.

Pass an adjustment entry and show the workings clearly

Q9.Mohan, Sohan and Suresh were partners cc sharing profits in the ratio of 2:2:1. Suresh was guaranteed a profit of ₹70,000. Any deficiency on account of guarantee to Suresh was to be borne by Mohan and Sohan in 3: 2 ratio. The profit of the firm for the year ended 31.3.2022 amounted to ₹2,00,000.

Prepare Profit and Loss Appropriation Account of the firm for the year ended 31.3.2022

Q10. A and B are partners in a business. Their capitals at the end of the year were 76,40,000 and ₹4,60,000 respectively. During the year ending 31st March, 2024, 4's drawings and B's drawings were ₹1,20,000 and 1,40,000 respectively. Profits (before charging interest on capital) during the year were ₹4,00,000. Calculate interest on capital @ 12% p.a. for the year ending 31st March, 2024.

Assignment -2

Q1. Josh and Jeevan were partners in a firm. During the year ended 31.03.2022 Jeevan withdrew ₹5,000 per month starting from 30.06.2021. The partnership deed provided that interest on drawings will be charged 12% per annum. The average number of months for which interest on Jeevan's total drawings will be charged is:

(A) 6 months.   (B) 6.5 months.   (C) 4.5months.   (D) 5 months

Q2. X and Y are partners. X draws a fixed amount at the beginning of every month. Interest on drawings is charged @8% p.a. At the end of the year interest on X's drawings amounts to ₹2,600. Drawings of X were:

(A) 8,000 p.m.   (B) 7,000 p.m.   (C) 6,000 p.m.   (D) 5,000 p.m.

Q3.A business earned average profits of ₹60,000 during the last three years. The normal rate of return on similar business is 12%. The value of net assets of the business is ₹4,00,000. Its goodwill by capitalisation of Average Profits Method will be:

(A) 1,00,000. (B) 4,00,000. (C) 2,00,000. (D) 50,000

Q4.X, Y and Z were partners sharing profits in the ratio 2: 3: 4 with effect from 1st January, 2023 they agreed to share profits in the ratio 3: 4: 5. Each partner's gain or sacrifice due to change in the ratio will be:

(A) X Gain /36; Y Nil; Z Sacrifice ;1/36

(B) X Sacrifice 1/36; Y Nil; Z Gain 1/36

(C) X Gain 1/36; Y Sacrifice 1/36; Z Nil

(D) X Sacrifice 1/36;Y Gain 1/36; Z Nil

Q5.A and B are partners sharing profits in the ratio of 11: 4. C was admitted. A surrendered 1/11th of his share and B 1/4th of his share in favour of C. The sacrificing ratio will be:

(A) 11: 4.   (B) 1:1.   (C) 4:11.   (D) 7:4

Q6.A new partner may be admitted into a partnership:

(A) With the consent of any one partner

(B) With the consent of majority of partners

(C) With the consent of all old partners

(D) With the consent of 2/3rd of old partners

Q7.In the absence of an agreement, partners are entitled to:

(i) Profit share in capital ratio.

(ii) Commission for making additional sale.

(iii) Interest on Loan & Advances by them to the firm.

(iv) Salary for working extra hours.

(v) Interest on Capital.

Choose the correct option:

(A) Only (i), (iv) and (v). .(B) Only (ii) and (iii).   (C) Only (iii).   (D) Only (i) and (iii).

Q8.. P. Q and R are partners sharing profits in the ratio of 2: 1: 1. Their capitals as on 1st April, 2023 were 50,000, 30,000 and 20,000 respectively. At the end of the year ending 31st March, 2024 it was found out that interest ton capitals @ 12% p.a., salaries to P, ₹500 per month and R 1,000 per month were not adjusted from the profits. Show adjusting entry to be made in the next year for above adjustments.

OR

A, B, C and D were partners in a firm sharing profits in the ratio of 4:3:2:1. C was guaranteed a profit of 2,50,000. Any deficiency on account of guarantee to C was to be borne by A and B in 2: 3 ratio. The profit of the firm for the year ended 31.3.2023 amounted to 10,00,000. Prepare Profit & Loss Appropriation A/c of the firm for the year ended 31.3.2023.

Q9.An existing firm had assets of 4,00,000 including cash of 15,000. Its creditors amounted to 2,20,000 on that date. The partner's capital accounts showed a balance of 3,00,000 and reserves amounted to 80,000. If the normal rate of return is 10% and the goodwill of the firm is valued at 75,000 at 3 year's purchase of super profits, find the average profits of the firm.

Q10.K and Y were partners in a firm sharing profits in 3: 2 ratio. They admitted Z as a new partner for 1/3rd share in the profits of the firm. Z acquired his share frum K and Y in 2: 3 ratio. Z brought 80,000 for his capital and ₹30,000 for his 1/3rd share as premium. Calculate the new profit sharing ratio of K. Y and Z and pass necessary journal entries for the above transactions in the books of the firm.

PROJECTS

1. Learners are required to complete Comprehensive Project by including any 10 ratios from the following ratios:

   Liquidity Ratios : Current Ratio, Quick Ratio.

Solvency Ratios : Debt to Equity Ratio; Total Assets to Debt Ratio, Proprietary Ratio, Interest Coverage Ratio

Activity Ratios : Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio, Working Capital Turnover Ratio, **Fixed Assets Turnover, Current Assets Turnover.**

Profitability Ratio : Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio, Return on Investment, **Earning Per Share – Price Earnings Ratio**.

Project File should be neatly handwritten and presentable with page numbers. Formats to be appropriately made. Each step of the solution needs to be highlighted. Conclusions drawn should be placed in boxes at the end.

BUSINESS STUDIES

Dear Students, Solve these three given assignment in your fair notebook.

Assignment -1

Q1. A sanitizer manufacturing company wants to become a market leader. For this purpose the manager follows an activity with certain logical steps. The first step suggested by him will increase profits by at least 30% in the next quarter. What will be the last step of the activity being followed by the manager

(a) Follow-up action (b) identifying alternative course of action (c) Setting objectives (d) evaluating alternative course of action

Q.2. A company is manufacturing garments. The manager wants to increase profits by purchasing new high speed machines or increasing the sale price or using waste materials in manufacturing stuffed toys. He decided that "using waste material" is the best solution for him.Identify the concept of management involved.

(a) Directing. (b) Planning (c) Coordination (d) organizing

Q3.Mr Reeshabh Bhandari is the chief manager of 'Bhandari Pustak Prakashan'. He is fond of continuing to present innovative ideas while planning for his business. His ideas are usual very significant. It has been observed several times that these very ideas take the forma concrete plans. This is the very reason that Mr Bhandari's contribution to the growth and prosperity of the company continues to be quite great. Identify the importance of planning described above.

(a) Planning provides direction.

(b) Planning reduces the risk of uncertainty.

(c) Planning promotes innovative ideas.

(d) Planning reduces overlapping and wasteful activities.

Q4. Anupam joins as a sales manager of a company dealing with garment manufacturing, being professional in his approach, he knew that without good planning he will not be able to organite or perform any other managerial function effectively or efficiently. Only on the basis of sales forecast, he can prepare an annual plan for its production or sales, besides he will have to prepare a sales plan regularly on weekly, monthly, quarterly and half yearly basis. While preparing the sales forecast, he undertakes intellectual thinking, involving foresight visualization rather than guesswork and he has to make sure that all these planning activities coincide with the purpose for which business is being carried out.

He knew that without good planning……..any other managerial function." This line indicates which feature of planning?

Q5.Radha Rani is the C.E.O. of 'Radhika Sales Pvt. Ltd. Besides other managerial activities, shel an expert in planning. While planning for her company, she noticed that at first several options are gathered, then their evaluation is done and finally the most suitable option is selected Once he was confronted with such a problem as had only one option available for its solution. To select this very option was her compulsion. Now, for the first time he realized that the necessity of planning is there only when several options are available.

Identify the feature of planning in the event stated above.

(a) Planning is continuous.(b) Planning is futuristic.(c) Planning involves decision making.

(d) Planning is pervasive.

Q.6. State the main aspects in the concept of planning.

Q7.Josh Ltd. is one of the largest two-wheeler manufacturers in India. It has a market share of about 42% in the two-wheeler category. The company had witnessed almost a 35% drop in the booking as the currency crunch was prompting people to withhold new purchases due to demonetisation. Therefore, the production manager of the company had decided to align production to factor in slower sales in the market.

(a) Identify and explain the function of management being discussed in the above lines

(b) Which limitations of the function of management as identified in part (A) of the question was the production manager trying to overcome due to demonetisation?

Q8. Arush joins as a sales manager of a company dealing in hydrotherapy products. Being proficient in his work, he knew that without good planning he will not be able to organize, direct, control or perform any of the other managerial functions efficiently and effectively. Only on the basis of sales forecasting, he would assist in the preparation of the annual plans for its production and sales. Besides, he will have to prepare sales plans regularly on a weekly, monthly, quarterly and half yearly basis. While preparing the sales forecasts, he undertakes intellectual thinking involving foresight, visualization and issued judgment rather than wishful thinking or guesswork. Most importantly, all these planning activities will be meaningful only if they coincide with the purpose for which the business is being carried out.

In context of the above case, identify the various features of planning highlighted in the above paragraph by quoting lines from it.

Q9. In an attempt to cope with Reliance Jio's onslaught in 2018, market leader Bharti Airtel has refreshed its 149 prepaid plan to offer 2 GB of 3G/4G data per day, twice the amount it offered earlier.

Name the type of plan highlighted in the given example? State its three dimensions also.

Q10. Wazir Ahmed joins 'Ashiyana Ltd.' a company dealing in real estate, as a human resource manager. Through a series of Interactions with his team during lunch breaks, he comes to know that quite a few managers at middle and senior levels have recently left the organization as their promotions were overdue. Therefore, in order to reinstate the confidence of the staff, he lays out a clear cut plan consisting of a set of general guidelines for both time bound and performance related appraisals of the managers at all levels. Moreover, he develops standardized processes containing a series of steps specified in a chronological order for its implementation.

In context of the above case:

(a) Identify the two different types of plans that Wazir Ahmed proposes to implement in order to reinstate the confidence of the staff by quoting lines from the paragraph.

(b) Distinguish between the two types of plans as identified in part (a).

Assignment -2

Q1.For fast communication and to get correct feedback, which of the following organisations are suitable?

(a) Formal organization (b) Informal Organisation.(c)Functional structure(d) Divisional Structure

Q2. Which of the following is not a limitation of divisional structure?

 (a) It is an expensive structure to maintain, since there may be a duplication of aacross products.

(b) All functions related to a particular product are integrated in one department,

(c) Conflict may arise among different divisional heads due to different interests.

(d) Authority provided to the managers to supervise all activities related to a particular division may lead to Undesirable consequences.

Q.3 Which of the following is not a limitation of functional structure?

(a) It places more emphasis on the objectives pursued by a functional head than on overd enterprise objectives.

(b) It may lead to conflict of interests among departments due to varied interests.

(c) It leads to occupational specialization.

(d) It may lead to difficulty in coordination among functionally differentiated department

Q4. Ecstatic Ltd. is a well known company dealing in office furniture. Over the years the business of the company has grown manifolds. It now plans to expand its business and venture into the home furniture segment. At present the company is following functional structure. Does the company need to modify its organizational structure keeping in view its expansion plan? Why or Why not?

Q5.Compro Solutions' offers IT services to clients across the country. During Covid-19, to accommodate changes taking place in the business environment, it suitably modified its organization structure in a way that work from home became the new way of working for all employees bringing cost benefits and flexibility in the organization. The point of importance

(a) Benefits of specialization (b) Adaptation to change(c) Development of personnel (d) Clarity in working relationships

Q6. Kavita Ghai was the Managing Director of a restaurant in Lucknow called 'Healthy Kitchen'. The restaurant was doing well and the volume of work started increasing slowly and steadily. Kavita Ghai was not able to manage all the work on her own. The increasing magnitude of work made it impractical for her to handle it all by herself. Moreover her objective is to open more branches of this restaurant at different places.

She appointed Nikhil Gupta, as a General Manager of 'Healthy Kitchen', Lucknow and gave him the right to command his subordinates and to take action within the scope of his position. For smooth running of the restaurant she also gave him authority to hire and train the staff as per the requirements. Kavita Chai was satisfied with the WORK of Nikhil Gupta and was able to open other branches of the restaurant in Agra also. (a)Identify the concept followed by Kavita Ghal which helped her to open the new branches of the restaurant.

(b) Also, explain briefly the two points of importance of the concept identified in (a) above.

Q7.Royal Ltd. decided that if a person reaches a particular age, he will be promoted. Influenced by this plan of the company, several employees from other companies also joined the firm. But within a few days they realized that the firm has a predetermined relation structure without free communication.

On the basis of this, answer the following questions.

(a) Identify the type of organisation described here.

(b) Point out any two limitations of this type of organization.

Q8. Some friends joined together and set up a multi-product company. Their company makes four different products. Three products of the company have been successfully launched in the market. But the company has not succeeded to launch the fourth product in the market.

What sort of organizational structure, in your view, might have been adopted by the company? Explain any two advantages of it.

Q9. The marketing manager of Aditi Limited, an organization manufacturing generators has been asked to achieve a target sale of 150 generators per day. He delegates the task to 15 sales managers working under him. Five of the sales managers could not achieve their respective targets.

Is the marketing manager responsible? Explain in brief the relevant principle in support of your answer.

Q10. Voltage fluctuations have been common and quite high in India. They barm our electrical appliances like televisions, refrigerators and air conditioners, often leaving them in a permanently damaged condition. N-Guard Company decided to manufacture stabilizers for North India where the voltage Fluctuation ranges from 220 V to 230 V. Once the demand for North India was taken care of, they decided to launch stabilizers of varying voltages from 90V-260V for meeting the requirements of voltage fluctuations in other regions of India also. The engineers were appointed for South, West and East regions of India, as the voltage was different in all the three regions. Through all the engineers were appointed to manufacture stabilizers but the product differed from region to region.

(a) Identify the organisation structure of N-Guard Company.

(b) State any two advantages and two limitations of the structure identified in the above para

PROJECTS

The projects in BST have been designed to allow students to appreciate that business is an integral component of society. By means of Project Work, the students are exposed to life beyond textbooks giving them opportunities to refer materials, gather information, analyze it further to obtain relevant information and decide what matter to keep.

Students are supposed to select one unit out of four and are required to make only
ONE project from the selected unit. (Consists of one project of 20 marks)

1. Principles of Management
2. Marketing
3. Elements of Business Environment.
4. Stock exchange

The following sequence needs to be followed for writing the project-report:
1) Front page/cover page -Coloured print-out (uniform format will be provided)
2) Certificate (uniform format will be provided).
3) Acknowledgment (uniform format will be provided).
4) Index with page numbers.
5) Aim (Main subject line/topic of the project).
 6) **Required Content (TOPIC WISE) (pages depends on the topic**
7) Printed Surveys
10) Interpretation/analysis/ discussion(through diagrams & checklist)
11) Conclusion.
12) Bibliography (references)

ECONOMICS

ASSIGNMENT-1

Q1. Define consumption goods.   (1)

Q2. Foreign embassies in India are a part of India's: (Choose the correct alternative)   (1)

Economic Territory

Geographical territory

Both (a) and (b)

None of the above

Q3. Supply of money refers to quantity of money   (Choose the correct alternative)   (1)

 As on 31st March

During any specified period of time

As on any point of time

During a fiscal year

Q4. Demand deposits include   (Choose the correct alternative)   (1)

Saving account deposits and fixed deposits

Saving account deposits and current account deposits

Current account deposits and fixed deposits

All types of deposits

Q5. Market Price and factor cost will be equal when there is: (1)

(a) No direct tax   (b) No Indirect tax

(c) No Subsidy   (d) No Indirect tax and No subsidy

Q6. State, giving reasons, whether the following statements are true or false: (3)

Currency created by the Central Bank is called bank money.

Higher the Legal Reserve Ratio (LRR), greater would be the money creation in the economy.

Money supply is a stock variable

Q7. Giving reasons classify the following into stocks and flows: (3)

(a) Wealth   (b) Savings

(c) Gross Domestic Product

Q8. Discuss briefly, the circular flow of income in a two sector economy with the help of a suitable diagram.   (3)

Q9. How will you treat the following in the calculation of Gross Domestic Product of India? Give reasons for your answer.   (3)

   a.   Profits earned by a branch of foreign bank in India
   b.   Salaries of Indian Employees working in embassy of Japan in India
   c.   Salary of resident of Japan working in Indian embassy in Japan.

Q10. Explain the 'varying reserve requirements' method of credit control by the central bank.   (4)

OR

Explain the role of Reverse Repo Rate in increasing money supply.

Q11. 'GDP as an index of welfare may understate or overstate welfare'. Explain the

statement using examples of a positive and a negative externality.   (4)

OR

Differentiate between National Income at Current prices and National Income at Constant Price. Which of the two presents a better view of the economic growth of economy and why?

Q12. Government provides essential items of food grains almost free to the families below the poverty line. Which objective the government is trying to fulfil through the government budget and how? Explain.

Q13. State giving reasons whether the following will be included in national income: (6)

   a.   Growing vegetables in a kitchen garden of the house/services rendered by family members to each other.
   b.   Production of tobacco products, liquor, etc.
   c.   Harmful effects of air pollution caused by factories or vehicles.

Assignments-2
   1.   When was India's first official census operation undertaken.
   2.   Which industry of India got is severely affected under the Colonial rule.
   3.   How did a discriminatory trade policy contribute to the success of industrial revolution in great Britain?
   4.   What was the punishment for zamindars if they were not able to keep the terms of revenue settlement?
   5.   What is export surplus? How did it lead to an economic drain of wealth during Colonial rule.
   6.   True/False, justify your answer:
        Under the British raj, discriminatory tariff Policy was pursued with a view to protecting the Indian industry.

PROJECTS

   (A) Students are required to make a CBSE project taking into account the Collection, Organisation and Presentation of data.

The expectations are: Project should have good content with sufficient material (3,500-4,000 words (excluding diagrams & graphs)), hand-written & an independent, self-directed piece of study.

Learners may work along the following lines as a suggested:

- Choose a title/topic
- Collect the research material/data
- Organize material/data Present material/data
- Analyze the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

Suggested List of Projects:

- Micro and Small Scale Industries
- Food Supply Channel in India
- Contemporary Employment situation in India
- Disinvestment policy of the government
- Goods and Services Tax Act and its Impact on GDP
- Health Expenditure (of any state)
- Human Development Index
- Inclusive Growth Strategy
- Self-help group
- Trends in Credit availability in India
- Monetary policy committee and its functions
- Role of RBI in Control of Credit
- Government Budget & its Components
- Trends in budgetary condition of India
- Exchange Rate determination – Methods and Techniques
- Currency War – reasons and repercussions
- Livestock – Backbone of Rural India
- Alternate fuel – types and importance
- Sarva Siksha Abhiyan – Cost Ratio Benefits
- Golden Quadrilateral- Cost ratio benefit
- Minimum Support Prices

- Relation between Stock Price Index and Economic Health of Nation
- Waste Management in India – Need of the hour
- Minimum Wage Rate – Approach and Application
- Digital India- A Step towards the future
- Rain Water Harvesting – A solution to water crises
- Vertical Farming – An alternate way
- Silk Route- Revival of the past
- Make in India – The way ahead
- Bumper Production- Boon or Bane for the farmer
- Rise of Concrete Jungle- Trend Analysis
- Organic Farming – Back to the Nature
- Any other newspaper article and its evaluation on basis of economic principles

HISTORY

Assignment 1

1.Explain the structural and sculptural features of the Sanchi stupa.

2.How did Sutta Pitaka reconstruct the philosophy of Buddhism? Mention about Buddhist Tipitaka.

3.How did architectural features of Mohenjodaro indicate planning? Support the statement with examples.

4.What are the aspects of Harappan economy that have been reconstructed from archaeological evidence?

5.Explain the main features of the Mauryan administration.

6.Explain the system of land grants and trade from 600 BCE to 600 CE.

7.What are the rules of gotra as given in Brahmanical practice? Give some example to show that these rules were not always followed.

8. What has been said about the right in paternal property in Manusmriti.

Assignment 2

1.How was Buddha's presence shown through symbols? Give two examples.

2.Why are Buddhist stupas said to be "stories in stone"? Explain.

3.Mention the internal functioning of the Buddhist Sanghas.

4.Explain the distinctive features of the residential buildings of Mohenjodaro.

5.Why was Mauryan empire regarded as a major landmark in the early Indian history?

6.Explain the language and content of Mahabharata.

7.Explain how you will prove that the text of Mahabharata was a dynamic one

8.Critically examine the duties as laid down in 'Manusmriti' for the Chandalas.

9.Describe the position of the untouchables in ancient society.

10.Describe the various stages through which Mahabharata was compiled in the 20th century.

PROJECTS

History is a critical discipline, a process of enquiry, a way of knowing about the past, rather than just a collection of facts. As a student of History, you will understand the process through which historians write history, by choosing and assembling different types of evidence, and by reading their sources critically. You will appreciate how

historians follow the trails that lead to the past, and how historical knowledge develops. So let's take up a theme from the given list **and prepare a project as per the guidelines given**.

FEW SUGGESTIVE TOPICS FOR PROJECTS : (Choose any one topic)

1. The mysteries behind the mound of dead –Mohenjo-Daro
2. An In-depth study to understand Spiritual Archaeology in the Sub-Continent
3. Buddha's Path to Enlightenment
4. Insight and Reflection of Bernier's notions of The Mughal Empire
5. An exploratory study to know the women who created history
6. "Mahatma Gandhi" – A legendary soul
7. To reconstruct the History of Vijayanagar through the Archaeology of Hampi
8. The Emerald city of Colonial Era –BOMBAY
9. Vision of unity behind the first war of Independence
10. Divine Apostle of Guru Nanak Dev
11. Help, Humanity and Sacrifices during Partition
12. Glimpses inside Mughals Imperials Household
13. The process behind the framing of the Indian Constitution
14. The 'BrahmNirupam' of Kabir – A journey to Ultimate Reality

Your project file should include:

· Certificate
· Acknowledgement
· Index
· Introduction
· Content
· Conclusion
· Bibliography

GENERAL GUIDELINES FOR STUDENTS
· Use A3 size sheets
The Cover Page can be printed
The Project should be hand-written.

POLITICAL SCIENCE

ASSIGNMENT 1

Q1 What is meant by two Nation theory ?

Q2 "Free India was born in very difficult circumstances". justify the statement with any two suitable argument.

Q3 How did reorganization of state take place in India after its independence? explain.

Q4 State any two differences between the first five year plan and the second 5 year plan.

Q5 Write a note on NITI Aayog.

Q6 What are the two models of development? Which model of development was adopted by India?

Q7 Explain any six consequences of partition of India in 1947.

Q8 Why should India be made up permanent member of the UN Security Council? give any three arguments.

Q9 What is Human Rights Watch ?Describe its main contribution to the field of human right.

Q10 what is Amensty International? State its functions.

ASSIGNMENT 2

Q1 Fill in the blanks.

1.UN has_____ permanent and _____non permanent members.

2. _____ is the present UN Secretary General.

3. The highest functionary of UN is called_____.

4. The prime objective of the UN is_____.

Q2 long questions

1. Explain democratic movement in Nepal

2. Write an essay on military role in democracy in Bangladesh.

3. Evaluate sardar Patel's role in the integration of princely state with Indian union.

4. Describe briefly any four problems faced in the process of partition in India.

5. The idea of Pakistan might have appeared simple but it's creation presented many difficulties . Elucidate any two of them.

PROJECTS

Political Science Project- Prepare a project according to CBSE guidelines.

General Instructions:

1. Project should be an individual one.
2. It should be a handwritten project on an A4 size sheet.
3. Project should be summed up in 30-35 pages.
4. It should be well researched based on facts and figures and pictorial.
5. The project must have a Table of contents, Title/ Cover page, Acknowledgement, Bibliography, Analysis with headings and sub-headings.
6. It must include relevant news clippings, facts and figures, pictures.
7. You can plan a survey or an interview to support your research.

Some suggested topics are:

1. **Partition-** Theory behind it and its legacy
2. **State Reorganisation**– Do we still require it?
3. **Election Commission-** its changing role and importance
4. **One Party Dominance-**Congress to BJP post 2014 (depending upon the election results)
5. **Change in India's Foreign Policy**

6. **India's relation with its neighbours-** any one country can be studied
7. **Emergency- Reasons and Consequences-** a role play or skit with a group of 5 students
8. **Popular movements-** Any one movement can be used from chapter 6 and a relation drawn with the any current protest on that issue
9. **Regional Aspiration –** Separatist Movement- Kashmir
10. **Role of Regional Parties-** A detailed study of any one

11. **Naxalite Movement-** How can government address the problem
12. **Politics of Reservation in India-** Constitution- SC and ST, Mandal- OBC, NDA- EWS
13. **Coalition Politics-** Study of UPA and NDA

14. **Cold war-** Is the world heading towards Cold war 2- USA and China
15. **China –** The next Super Power
16. **Post Soviet Republics-** Life after Disintegration
17. **EU-** Brexit
18. **UN and its agencies –** Need for reform can be included
19. Any other topic based on the syllabus.

PSYCHOLOGY

ASSIGNMENT

Prepare a case profile of an individual who has excelled in areas like sports, academics, music etc. or has special needs like learning disability, autism or interpersonal social problems i.e. poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn or any psychological disorder etc.

The main objective of preparing a case profile is to understand the individual in totality.

POINTS TO NOTE WHILE PREPARING A CASE PROFILE-

- The case profile will include developmental history of the subject.

- Use both qualitative and quantitative methods. Qualitative methods include observation, interview etc.

- Don't use red or pink ink pen.

- Underline headings or use a different coloured pen (not red or pink).

- Spiral bound the project file.

- Submission date with complete file is **July 21, 2020.**

- A suggested format for writing case profile is given.

SUGGESTED FORMAT FOR PREPARING A CASE PROFILE

1. COVER PAGE (Picture)
2. DISORDER'S NAME AND ROLL NO
3. CERTIFICATE (Sample attached, print it on plain sheet, and paste)
4. ACKNOWLEDGEMENT (written in your handwriting, sample provided, but can be edited)
5. CONTENTS
6. ABOUT THE DISORDER- Information collected from various sources (Introduction, types, symptoms, causes, prognosis, epistemology, treatment/ management with therapies, movies, Books, Ted talks, Interaction with Hypnotherapist and Animal Assisted therapist, latest researches(www.eric.com)

7. CASE STUDY-
    a) Brief info of the case- (Why did you choose your subject, How did you approach your subject ,How did you make rapport with your subject)
    b) Techniques used for data collection –could be interview, observation, psychological testing etc

    c) Subject's Profile
I. Demographic information-name, age, DOB, Place of Birth, Marital Status, educational qualification, work history, Father and Mother's education and occupation
II. Socio-economic status-siblings, family adjustment, children, spouse (if married)

III. Physical Characteristics-weight, height

IV. Physiological Characteristics -General health status, past medical history, childhood illness, operation and surgery
    d) Chief complaint
    e) Causative factors
    f) Diagnosis
    g) Symptoms
    h) Observation-with Schedule in detail
    i) Interview-with questionnaire in detail . Could be with subject, family and friends
    j) Conclusion-conclude the case
    k) Suggestions

GEOGRAPHY

ASSIGNMENT:

Answer the following questions in your fair notebook.

1. Give three reasons for the countries with low human development index value.

2. What is human development? Explain the four major approaches of human development.

3. Explain the concept of Possibilism with suitable examples.

4. 'Development is a qualitative change, which is always value positive.' Evaluate it citing suitable examples.

5. Define neo-determinism and support your answer with the concept of traffic signal.

6. Pyramid with bell shape and tapered towards top is associated with constant population. Explain.

7. Equality is one of the most important pillars of human development. Explain any three human values that are required to give access to opportunities to everybody.

8. Describe in brief the different trends of population growth in the world from early period to modern world.

9. Write a brief account of growth of adolescent population and mention the problems of this population. What steps have been taken by the government?

Assignment 2

1. What are human activities?

2. Give one example of tertiary activity.

3. Name one Secondary activity.

4. What is Market Gardening ?

5. What is Nomadic Herding

6. Which tribe practises transhumance ?

7. What is Gathering?

8. Name the factors affecting mining.

9. What is open-cast mining ?

10. Describe the characteristics of Mixed Farming.

PORTFOLIO

A.Prepare a portfolio on the topic *Secondary activities*

B.Make an Art Integrated practical file for Geography, sample file will be shared in the group

PHYSICAL EDUCATION

ASSIGNMENT-1

Answer the following questions:

1. Enlist the data of the sports person of the given states who were awarded by the national award.

2. Being sports captain of the school prepare 5 important committees with their responsibilities to conduct one day Run for Health race.

3. Highlight the important of intramural and extramural competitions?

4. While specifying all calculations prepare a knockout fixture for 21 teams?

5. What is meant by "round shoulder" deformity? Mention a few yoga exercises to correct it?

6. What do you mean by posture? Describe the causes of bad posture?

7. Describe the symptoms, causes and collective measure for knock knees and bow legs?

8. Explain the benefit of women participation in sports.

9. Write briefly about menstrual dysfunctions and their effect on sports participations of female athletes.

ASSIGNMENT-2

Case Study

ABC School is one of the reputed schools in their location for the number of sports facilities it provides to its stakeholders. Keeping that in consideration CBSE Sports cell has given them the responsibility of conducting CBSE Football cluster.35 teams have sent their entry for participation in the tournament.

Answer the following questions: -

A. Due to large number of teams willing to participate, the school is conducting the competition by
_____ fixture.
a) League b) Knock out c) Staircase d) Challenge

B. The number of Matches in the first round will be_____
a) 8 b) 12 c) 24 d) 16

C. Total number of rounds will be_____
a) 4 b) 5 c) 6 d) 7

D. Total number of matches will be_____
a) 34 b) 30 c) 28 d) 24

E. Total number of byes in the fixture will be _____
a) 29 b) 32 c) 27 d) 14

F. Total number of byes in lower half will be _____
a) 15 b) 16 c) 14 d) 12

PROJECTS

Practical-1: Write down detailed notes on Fitness tests administration for all items.

50 M Standing Start, 600 M Run/Walk, Sit & Reach, Partial Curl Up, Push Ups (Boys), Modified Push Ups (Girls), Standing Broad Jump and Agility – 4x10 M Shuttle Run.

Practical-2: Write down the Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

• **Obesity**: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana

• **Diabetes**: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ardh Matsyendrasana

• **Asthma:** Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana

• **Hypertension:** Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana

• **Back Pain:** Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana