Lady Florence

CONVENT SCHOOL

(Affiliated to **CBSE**)

GRADE XI

ACADEMIC SESSION 2024-25

Summer Enrichment Journey 2024

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

Dear Grade XI 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

I. Poster Making

Create an eye-catching and informative poster (A4 size) on ONE of the following topics:

- Celebration of World Day for International Justice

- India as Emerging power

II. Newspaper Activity

Cut out and paste at least two clippings each from the newspaper under these headings:

- Situation Wanted

- Situation Vacant

- Property for Sale

- To-Let

III. Vocabulary Building Activity

Read the newspaper regularly during your vacation to enhance your vocabulary. Select a new word from the newspaper, cut out the portion containing the word, and paste it in your notebook. Highlight the word, look up its meaning and usage, and frame two sentences with it. Repeat this until you have collected at least 15 new words.

IV. Speech Writing

Based on the lesson "The Portrait of a Lady," write a speech in about 150 words for the morning assembly, discussing the growing distance between the younger and older generations.

V. Evaluative Writing

Reflect on why people undertake adventurous expeditions despite the risks, in the context of the lesson "We're Not Afraid to Die… if We Can All Be Together."

Note: Activities II, III, IV, and V should be done in your English notebooks and submitted to the teacher.

#Use colourful chart papers to prepare a magazine with a distinct name and an attractive cover page in 8-10 pages. It should consist of:

a) **Self-Introduction** (100-150 words)

b) **Advertisements** - Cut out 5 clippings of Classified advertisements under the following heads:

- For Sale
- To-let
- Situation Vacant
- Matrimonial
- Lost and Found

c) **Short Story** – Write a short story based on a personal experience that taught you the importance of being determined and resilient in life (150-200 words).

d) **Poster**–A 'Check Vehicular Pollution Week' is being organized in your community centre. Design a poster creating awareness about vehicular pollution and inviting people to come for a free pollution check.

e) **Book Review**

Interest in mythological tales have been immensely nurtured in the recent times through the works of prominent authors like Devdutt Patttanaik, Amish Tripathi, among others. Mythological tales are more than just folklore; they can give us an innate understanding of human nature and the philosophical questions of life and death, and also give an idea of the root of one's culture.

Based on your reading of Devdutt Pattanaik's **Jaya – An Illustrated Retelling of the Mahabharata/any other mythological book written by the above mentioned authors**, write a book review keeping the following points in mind:

A. What is the one different choice a character could have made that would have changed the ending?

B. What changes can you make in your life to avoid one of the conflicts a character(s) had in the story?

C. Write your views about the relevance of the Mahabharata/ mythological book read by you, in the modern times.

D. What was your most favorite and least favorite part? Give reasons for your answer.

E. Would you recommend this book to a friend? Why or why not?

HINDI

ASSIGNMENTS

कार्य पत्रिका - 1

प्रश्न 1:

स्वच्छता पर एक लेख लिखें।

प्रश्न 2:

मीरा अथवा प्रेमचंद पर एक प्रोजेक्ट तैयार करें।

प्रश्न 3:

वर्तमान युग में रिश्ते-नातों की कम होती अहमियत पर रचनात्मक लेख लिखें।

प्रश्न 4:

प्लास्टिक थैली पर प्रतिबंध के बावजूद उनके बढ़ते प्रकोप पर अधिकारियों का ध्यान आकर्षित करते हुए अपने क्षेत्र के प्रमुख समाचार पत्र के संपादक के नाम पत्र लिखिए।

प्रश्न 5:

'इंटरनेशनल फादर'स डे' पर अपने पिता का एक चित्र A4 शीट पर उकेरे और उनका आपके जीवन पर क्या प्रभाव है उसे अपने शब्दों में लिखें।

प्रश्न 6:

आपको अपने देश का कौन-सा पर्यटन स्थल सबसे ज्यादा पसंद है, चित्र सहित उसकी विशेषताओं पर प्रकाश डालें।

कार्य पत्रिका - 2

प्रश्न 1:

कबीर की दृष्टि में किन लोगों को आत्मबोध नहीं होता?

प्रश्न 2:

कृष्ण को अपनाने के लिए मीरा ने क्या-क्या खाया?

प्रश्न 3:

मीरा के पदों में किस अलंकार की छटा है?

प्रश्न 4:

आनंद फल की प्राप्ति के लिए मीरा ने क्या किया?

प्रश्न 5:

भवानी का जीवन विरस क्यों है?

प्रश्न 6:

कवि अपने पुत्र धर्म का निर्वाह किस प्रकार कर रहा है?

प्रश्न 7:

इंटरनेट से होने वाले लाभ व हानियां बताएं।

प्रश्न 8:

किसी भी दैनिक अखबार में राजनीतिक खबरें ज्यादा स्थान क्यों घेरती हैं इस पर एक संक्षिप्त टिप्पणी लिखें।

प्रश्न 9:

बढ़ती आबादी - देश की बर्बादी इस पर एक आलेख लिखें।

<div align="center">**PROJECT**</div>

1. **हरियाणा की जल समस्या और समाधान पर जागरूकता प्रिय विद्यार्थियों,**

हमारा प्रदेश हरियाणा जल संकट की गंभीर समस्या से जूझ रहा है। इस संकट से निपटने के लिए हमें न केवल सरकारी प्रयासों का समर्थन करना है बल्कि खुद भी जल संरक्षण के प्रति जागरूक होना है। इस वर्ष के समर हॉलिडे होमवर्क के तहत, हम हरियाणा की जल समस्या और उसके समाधान के बारे में गहराई से समझेंगे और अपनी सोच को जागरूक बनाने का प्रयास करेंगे।

निर्देश:

जल की स्थिति का विश्लेषण:

- हरियाणा के विभिन्न क्षेत्रों में जल की स्थिति का अध्ययन करें।

- पता लगाएं कि किन क्षेत्रों में जल संकट सबसे अधिक है और उसके कारण क्या हैं।

- इसके लिए आप समाचार पत्र, इंटरनेट, और स्थानीय स्रोतों का उपयोग कर सकते हैं।

जल के आंकड़े एकत्रित करें:

- हरियाणा के जल संसाधनों के बारे में आंकड़े एकत्रित करें।

- प्रति व्यक्ति जल उपलब्धता, भूजल स्तर, और जलाशयों की स्थिति के बारे में जानकारी जुटाएं।

जल संकट के कारण:

हरियाणा में जल संकट के प्रमुख कारणों की सूची बनाएं।

- यह विश्लेषण करें कि कृषि, उद्योग, और शहरीकरण का जल संकट पर क्या प्रभाव पड़ता है।

सरकारी प्रयासों की समीक्षा :

- हरियाणा सरकार द्वारा जल संकट को दूर करने के लिए किए जा रहे प्रयासों की समीक्षा करें।

- मुख्यमंत्री किसान ऐच्छिक फसल विविधीकरण योजना, जलाशयों का निर्माण, और वर्षा जल संचयन जैसी परियोजनाओं के बारे में जानकारी एकत्रित करें।

लोगों की जागरूकता :

- जल संरक्षण के प्रति लोगों की जागरूकता बढ़ाने के लिए चलाए जा रहे कार्यक्रमों के बारे में जानकारी प्राप्त करें।

- स्कूलों, समुदायों, और स्थानीय संगठनों द्वारा किए जा रहे प्रयासों की सूची बनाएं।

व्यक्तिगत योगदान :

- आप और आपका परिवार जल संरक्षण के लिए क्या कर सकते हैं, इस पर विचार करें।

- कम से कम 5 उपाय लिखें जो आप अपने घर में लागू कर सकते हैं।

रिपोर्ट तैयार करें :

- उपरोक्त सभी बिंदुओं पर आधारित एक रिपोर्ट तैयार करें। रिपोर्ट की शब्द सीमा 200 से 300 शब्द होनी चाहिए।

- रिपोर्ट को सुंदर ढंग से प्रस्तुत करें और उसमें संबंधित आंकड़ों और चित्रों का उपयोग करें।

प्रस्तुति:

- अपनी रिपोर्ट की एक छोटी प्रस्तुति तैयार करें जिसे आप स्कूल में साझा कर सकें।

- अपनी प्रस्तुति को दिलचस्प और जानकारीपूर्ण बनाने के लिए चार्ट, ग्राफ़ और तस्वीरों का उपयोग करें।

समापन विचार:

इस होमवर्क का उद्देश्य आपको हरियाणा की जल समस्या के प्रति जागरूक करना और जल संरक्षण के महत्व को समझाना है। हम आशा करते हैं कि इस कार्य के माध्यम से आप न केवल अपनी जानकारी बढ़ाएंगे बल्कि जल संरक्षण के प्रति अपनी सोच को भी विकसित करेंगे।
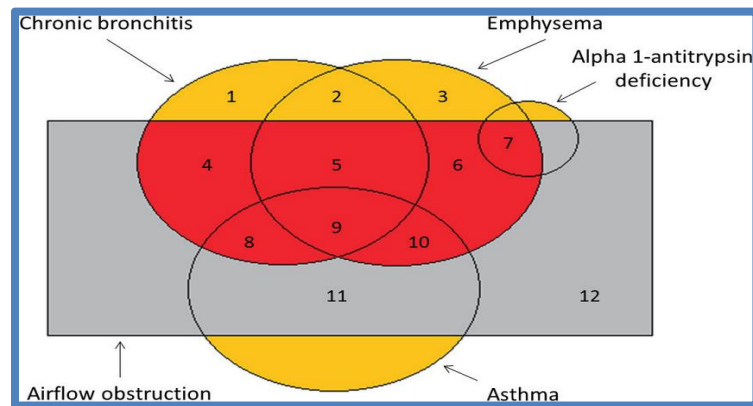
आपके प्रयास और समर्पण के लिए शुभकामनाएं!

MATHS

ASSIGNMENT-1

1. Use of Venn diagrams in solving practical problems.

Q-1 Empty set is a _____
(a) . Infinite set   (b). Finite set   (c).. Unknown set   (d). Universal set

Q-2 Order of the power set P(A) of a set A of order n is equal to:
(a) n   (b). 2n   (c). 2n   (d). n2

Q-3 If A, B and C are any three sets, then A × (B ∪ C) is equal to:
(a) (A × B) ∪ (A ×C)   (b) (A ∪ B) × (A ∪ C)
(c). (A × B) ∩ (A × C)   (d). None of the above
Q-4 What will be the domain for which the functions $f(x) = 2x2 – 1$ and $g(x) = 1 – 3x$ are equal?
(a) {-2, 1}   (b) {1/2, -2}   (c) [2, 12]   (d) (-1, 2)
Q-5 Let A ={ 2,4,6,8} and { 6,8,10,12 }. Find AUB.
(a){2,4,10,12}   (b) {2,4,6,8,10 }   (c) {2,4,6,8,10,12}   (d){2,3,4,6,8,10,12}
Q-6 If n(A-B) =10 , n (B-A)=8 and n(A∩B) =3 . Find n(AUB).
(a)21   (b) 20   (c)22   (d)23
Q-7 If f(x) = ax + b, where a and b are integers, f(–1) = – 5 and f(3) = 3, then a and b are equal to
(a) a = – 3, b = –1   (b) a = 2, b = – 3   (c) a = 0, b = 2   (d) a = 2, b = 3
Q-8 The domain of the function $f(x) = x/(x2 + 3x + 2)$ is
(a) [-2, -1]   (b) R – {1, 2}   (c) R – {-1, -2}   (d) R – {2}

Q-9 If (x+1,y-2) = 3,1, what is the value of x
(a)2   (b) 3   (c) 1   (d) 4
Q-10 The range of $f(x) = \sqrt{(25 – x2)}$ is
(a) (0, 5)   (b) [0, 5]   (c) (-5, 5)   (d) [1, 5]

Q-11 Let U = {1, 2, 3, 4, 5, 6}, A = {2, 3} and B = {3, 4, 5}. Find A′, B′, A′ ∩ B′,

Q-12 Let U = {1, 2, 3, 4, 5, 6, 7}, A = {2, 4, 6}, B = {3, 5} and C = {1, 2, 4, 7}, find (i) A′ ∪ (B ∩ C′)

Q-13 Write the following intervals in set-builder form (-3,0) and [6,12]

Q-14 Let U = {1, 2, 3, 4, 5, 6, 7}, A = {2, 4, 6}, B = {3, 5} and C = {1, 2, 4, 7}, find
(i) A′ ∪ (B ∩ C′)   (ii) (B – A) ∪ (A – C)

Q-15 In a survey of 600 students in a school, 150 students were found to be drinking Tea and 225 drinking Coffee, 100 were drinking both Tea and Coffee. Find how many students were drinking neither Tea nor Coffee.

Q-16 Assume that A = {1, 2, 3,…,14}. Define a relation R from A to A by R = {(x, y) : 3x – y = 0, such that x, y ∈ A}. Determine and write down its range, domain, and codomain.

Q-17 In a class of 60 students, 23 play hockey, 15 play basketball,20 play cricket and 7 play hockey and basketball, 5 play cricket and basketball, 4 play hockey and cricket, 15 do not play any of the three games. Find
(i) How many play hockey, basketball and cricket
(ii) How many play hockey but not cricket
(iii) How many play hockey and cricket but not basketball .
Q-18 Let f(x) = x2 and g(x) = 2x + 1 be two real functions. Find
(f + g) (x), (f –g) (x), (fg) (x), (f/g) (x).

Q-19 case study base
Two non empty sets A and B are given by
A= {x:x is a latter in I LOVE MATHEMATICS}
And B= {x:x is a letter in I LOVE STATISTICS }
Based on the above information, answer the following question :
Find AUB.
Find A∩B.
Find the number of proper subsets of set B
Find the number of proper subsets of set A
Find (A-B)
        WORKSHEET -2
Q-1If tan A = 1/2 and tan B = 1/3, then the value of A + B is
(a) π/6   (b) π   (c) 0   (d) π/4
Q-2 The value of sin 50° – sin 70° + sin 10° is equal to
(a) 1   (b) 0   (c) ½   (d) 2
Q-3 which of the following is not correct ?
(a) sinθ = -1/5   (b) cosθ=1   (c) secθ=½   (d) tanθ=20
Q-4 the value of tan1°.tan2°.tan3°……tan89° is
(a) 0   (b) 1   (c) ½   (d) 2
Q-5 The value of cosec(-750) is
(a) 2/   (b) -2   (c) 2   (d) -2/
Q-6 The value of sin(45°+ θ) – cos (45°- θ) is
(a) 2 cos θ   (b) 2sin θ   (c) 1   (d) 0
Q-7 The multiplicative inverse of 3−4i
(a) 3 - 4 i   (b) 3+ 4i/25   (c)) 3 - 4i /25   (d) -3 + 4 i

Q-8   The value of $1 + i^2 + i^4 + i^6 + \ldots + i^{2n}$ is
(a) positive   (b) negative   (c) 0
(d) cannot be evaluated
Q-9 Number of solutions of the equation $z^2 + |z|^2 = 0$ is
(a) 1   (b) 2   (c) 3   (d) infinitely many
Q-10 Find the modulus of $(1+2i).(i-1)$ is
(a)   (b) 12   (c)11   (d)
Q-11 If $x=1+ I$, then what is the value of $x^6 + x^4 + x^2 + 1$?
   (a) 6i-3   (b) -6i+3   (c) -6i-3   (d)6i+3

Q-12 Evaluate the following
   (i) $i^{30} + i^{40} + i^{60}$ (ii) i^{528}
Q-13 Express the following complex numbers in the standard form a + ib.
   (i) $(1 + i) (1 + 2i)$ (ii) $(1 - i) / (1 + i)$
Q-14 Express each of the
$\sin 12x + \sin 4x$

Q-15 Prove that: (i) $\cos (3\pi/4 + x) - \cos (3\pi/4 - x) = -\sqrt{2} \sin x$
Q-16 Find the real values of x and y, if
   (i) $(x + iy) (2 - 3i) = 4 + i$
   (ii) $(3x - 2i\, y) (2 + i)^2 = 10(1 + i)$
Q-17 Find the degree measure corresponding to the following radian measures (Use $\pi = 22/7$)
   (i) $9\pi/5$ (ii) $-5\pi/6$

Q-18 If $(1+i)^2 / (2-i) = x + iy$, find x + y
Q-19 Find the conjugates of the following complex numbers:
   (i) $(3 - i)^2 / (2 + i)$ (ii) $1 / (3 + 5i)$

Q-20 case study based question
   $\tan x =$ tan x lies in third quadrant
Find the value of sin 2x.
Find the value of cos 2x.

PHYSICS

WORKSHEET -1

Answer the following questions:

1. Particles are thrown upwards. It attains a height (h) after 5 seconds and again after 9s comes back. What is the speed of the particle at a height h?

2.Draw displacement time graph for a uniformly accelerated motion? What Displacement is its shape?

3.The displacement x of a particle moving in one dimension under the action of constant force is related to the time by the equation $t=\sqrt{x}-3$ where x is in meters and t is in seconds. Find the velocity of the particle at t=3s to t = 6s.

4.A balloon is ascending at the rate of 4.9m/s. A pocket is dropped from the balloon when situated at a height of 245m. How long does it take the packet to reach the ground? What is its final velocity?

5.A car moving on a straight highway with speed of 126 km/hr. is brought to a stop within a distance of 200m. What is the retardation of the car (assumed uniform) and how long does it take for the car to stop?

6.A boy standing on a stationary lift (open from above) throws a ball upwards with the maximum initial speed he can, equal to 49 m/s. How much time does the ball take to return to his hands? If the lift starts moving up with a uniform speed of 5m/s and the boy again throws the ball up with the maximum speed he can, how long does the ball take to return to his hands?

7.A jet airplane traveling at the speed of 500 km/hr ejects its products of combustion at the speed of 1500 km/hr relative to the jet plane. What is the speed of the latter with respect to an observer on the ground?

8. A stone is dropped from the top of a cliff and is found to travel 44.1m diving the last second before it reaches the ground. What is the height of the cliff? G = 9.8m/s2 B.

9.A police jeep on a petrol duty on national highway was moving with a speed of 54 km/hr. in the same direction. It finds a thief rushing up in a car at a rate of 126 km/hr in the same direction. Police sub - inspector fired at the car of the thief with his service revolver with a muzzle speed of 100m/s. With what speed will the bullet hit the thief's car?

10 Drive the position time and position velocity relation

WORKSHEET -2

1 .When a planet X is at a distance of 824.7 million kilometers from earth its angular diameter is measured to be 35.72" of arc. Calculate the diameter of planet X.

2 A radar signal is beamed towards a planet from the earth and its echo is received seven minutes later. Calculate the velocity of the signal, if the distance between the planet and the earth is 6.3×10^{10} m.

3 Find the dimensions of latent heat and specific heat.

4 What are the dimensions of 'a' and 'b' in Van Der Waals equation $(P+a/v^2)(V-b)=RT$?

5 If E,m,I and G denote energy, mass, angular momentum and gravitational Constant respectively, determine the dimensions of EL^2/m^5G^2.

6 Calculate the time taken by light to pass through a nucleus of diameter 1.56×10^{-16} m

7 Express the dimension of energy if F, A and T are considered as the quantities. (Where, F stands for force, A for acceleration and T for time.

8 Compute the vector's magnitude: $5i - 4j + 2k$.and its unit vector.

9 A girl walks 4 kilometers west, then 3 kilometers in a direction 30 degrees east of north, before . Determine the girl's distance from her starting position.coming to a halt

9 Explain the types of vectors

10 Explain the quantities on the basis of dimensions

#Investigatory Project: Students are required to submit an 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 draft of the project write up must be handwritten. **The draft should be approved by the mentor before finalizing the project.**

The following sequence needs to be adopted 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 Pages
8. Apparatus required : 1Pages

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

WORKSHEET– 1

Q.1 A compound with molecular weight about 180 amu consists of 40% Carbon, 6.7%Hydrogen and 53.3% Oxygen. What is its molecular formula?

Q.2 A peroxidase enzyme isolated from a human red blood cell was found to contain 0.29% selenium. What is the minimum mol.wt of the enzyme?

Q.3 A purified pepsin isolated from a bovine preparation was subjected to an amino acid analysis. The amino acid present in smallest amount was lysine, $C_6H_{14}N_2O_2$ and the amount of lysine was found to be 0.43 gm per 100 gm protein. What is the minimum mol.wt of protein?

Q.4 A saturated hydrocarbon contains 82.66% carbon. What is its empirical formula? Its molecular formula is?

Q.5 One of the earliest method for determining the molecular weight of protein was based on chemical analysis. A haemoglobin preparation was found to contain 0.335% iron.

(a) If the haemoglobin molecule contains one atom of iron. What is its molecular weight?

(b) If the haemoglobin molecule contains four atoms of iron. What is its molecular weight?

Q.6 One of the earliest method for determining the molecular weight of protein was based on chemical analysis. A haemoglobin preparation was found to contain 0.335% iron.

(a) If the haemoglobin molecule contains one atom of iron. What is its molecular weight?

(b) If the haemoglobin molecule contains four atom of iron. What is its molecular weight?

Q.7 What is the molarity of NaOH in a solution which contains 24.0 gram NaOH dissolved in 300 ml of solution?

WORKSHEET 2

The canal rays led to the discovery of which subatomic particle?

(A) Beta rays (B) Protons

(C) Neutrons (D) Electrons

2. The number of electrons in a neutral atom of an element is equal to its:

(A) atomic weight

(B) atomic number

(C) equivalent weight

(D) electron affinity

3. The e/m for positive rays in comparison to cathode rays is:

(A) very low (B) high

(C) same (D) none

4. Which has the highest e/m ratio?

(A) He2+ (B) H+

(C) He+ (D) H

5. Cathode rays have:

(A) mass only

(B) charge only

(C) neither mass nor charge

(D) mass and charge both

6. Mass of a neutron is…………times the mass of an electron.

(A) 1840 (B) 1480

(C) 2000 (D) None of these

7. Positive rays or canal rays are:

(A) electromagnetic waves

(B) a steam of positively charged gaseous ions

(C) a stream of electrons

(D) neutrons

8. Which of the following statements is not correct about the characteristics of cathode rays?

(A) They start from the cathode and move towards the anode.

(B) They travel in a straight line in the absence of an external electrical or magnetic field.

(C) Characteristics of cathode rays do not depend upon the material of electrodes in the cathode ray tube.

(D) Characteristics of cathode rays depend upon the nature of gas present in the cathode ray tube.

9. Which of the following statements about the electron is incorrect?

(A) It is a negatively charged particle.

(B) The mass of an electron is equal to the mass of a neutron.

(C) It is a basic constituent of all atoms.

(D) It is a constituent of cathode rays.

10. Select the sub-atomic particles that are present in the nucleus of an atom.

(1) Electrons (2) Protons (3) Neutrons
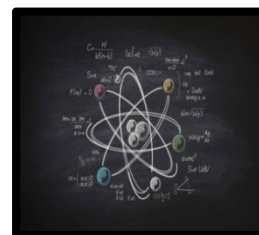
(A) Only 2 (B) Only 3

(C) Both 1 and 2 (D) Both 2 and 3

PROJECTS:

<u>Project Work:</u> Students are required to work on a CBSE survey-based/ investigatory/ project. The project-work should be analytical or experimental and 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). **A draft should be approved by the mentor before finalizing the project.**

- Choose a topic that interests you and justifies the link with the subject, is original in content and practically possible. You can opt for **any chemistry topic from grades XI**. All project-topics/objectives should be reported and verified by respective subject teachers to avoid repetition.

- Learners are suggested to diversify the experimentation or survey conclusions with map-works, graphical studies, pi-charts etc. All the procedures and results should be supported by evidence in the form of pictures.

- Learners can perform the experiments with the use of house-hold kitchen supplies for example vinegar, baking soda etc. in the supervision of their guardians. Let's think something out-of-the-box to design a project with minimal resources but maximum impact.

The following sequence needs to be adopted 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 glassware 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 the portal.
- Except for the cover page, all other contents should be hand-written with clean and neat handwriting to create a positive impression.
- Minimum no. of pages = 20 pages. Project report should be spiral-bound.

BIOLOGY

WORKSHEET-1

CH-2

Q1.How is the five-kingdom classification more advantageous than the two-kingdom classification?

Q2. What are 'pearls of the ocean'? What are their deposits?

Q3. What are the different asexual spores produced by algae?

Q4. How are bacteria classified?What are the economic uses of archaebacteria and heterotrophic bacteria?

Q5.Mention the main difference between a virus and a viroid?

Q6. Why is Neurospora extensively used in genetic experiments?

Q7. Explain the general characteristics of fungi. How are fungi useful in our daily lives?

Q8. What are the different characteristic features of euglenoids?

Q9. Explain the structure of virus with the help of well labelled diagrams. Mention the five major diseases caused due to virus.

Q10. What observable features in Trypanosoma would make you classify it under kingdom protista?

WORKSHEET-2

CH-8

Q1. Briefly describe the cell theory.

Q2. What are plasmids? Describe their role in bacteria?

Q3. Justify the statement, "Mitochondria are power houses of the cell".

Q4.Write the functions of the following:

a. Centromere.   b. Cell wall.   c. Smooth ER

d. Golgi Apparatus.   e. Centrioles

Q5. What is a satellite chromosome?

Q6. Name two cell-organelles that are double membrane bound. What are the characteristics of these two organelles? State their functions and draw labelled diagrams of both?

Q7.What are the characteristics of prokaryotic cells?

Q8.What is a centromere? How does the position of centromere form the basis of classification of chromosomes. Support your answer with a diagram showing the position of centromere on different types of chromosomes.

Q9.Write briefly about the structure and functions of ribosomes.

Q10. Differentiate between:

A) Cytoplasm and nucleoplasm
B) Chromatin and chromosome
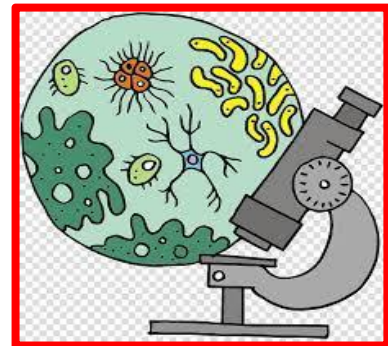C) Euchromatin and heterochromatin

PROJECT

3.Investigatory Project: Students are required to prepare an Investigatory Project on the allocated topic and record the content in the spirally bound project file. Spiral binding of the handwritten or typed content to be done only after approval by the mentor. **A draft should be approved by the mentor before finalising the project.**

The below sequence needs to be followed 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 (Minimun-10 A-4 SIZE 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

4. **Solve the given worksheets:**

IT

Assignment 1: Communication skills

Q1. Fill in the blanks with appropriate communication terms.
a) The process of exchanging information, thoughts, and ideas is called _____.
b) Non-verbal communication includes gestures, facial expressions, and _____.
c) The ability to understand and share the feelings of others is known as _____.
d) The process of receiving and interpreting information from others is called _____.

Q2. Choose the correct option from the given choices.
a) Which of the following is NOT a component of active listening?
i) Interrupting the speaker
ii) Making eye contact
iii) Paraphrasing
iv) Asking clarifying questions
b) What is the purpose of feedback in communication?
i) To criticize the speaker
ii) To provide validation
iii) To offer suggestions for improvement
iv) To dominate the conversation

Q3. Determine whether the statements are true or false.
a) Empathy is essential for effective communication.
b) Non-verbal communication only includes body language.
c) Feedback should always be given immediately after a conversation.

Biography

2. Being a Computer Science student, it is important for you to know about different inventors/ developers in the world of technology. Research on any one of the following mentioning, their achievements and contributions in the field of technology.

   Create a biography of any one of the following:-

   1. Charles Babbage
   2. Steve Jobs
   3. Bill Gates
   4. Steve Wozniak
   5. BjarneStroustrup

PROJECT

(Project on Python)

1.Learners are require to create a project on python, with the knowledge and coding they have acquired in class. Some examples for a python project can be an animator, a quiz, throw a dice game or guess a number game etc.

Learners can choose a topic of their choice or a topic from the list above.
Happy coding :)
PROJECT WORK: Re- Create this document using MS Word and paste it in your notebook.

ACCOUNTANCY

Assignment -1

Q1.State whether the following statements are true or false :

(i) Accounting is the language of business.

(ii) Accounting is helpful in raising loans.

(iii) Accounting is not accepted as evidence in legal matters

Q2.Which of the following transactions are of financial character and will be recorded in the books?

(i) Credit purchase of goods

ii) Strike by employees.

(iii) Goods worth 20,000 taken from the business and given by the proprietor to his friend as gift.

(iv) Withdrawing of money by proprietor from business for personal use

(v) Interviewing the candidates for employment.

(vi) Sale of household furniture for 10,000,

(vii) Payment of school fees of proprietor's son from proprietor's personal bank account.

(viii) Make a promise to send the goods.

(ix) Receiving an order to send the goods.

(x) Loss of goods by fire.

Q3.Accounting Cycle starts with:

(A) Recording of Transactions in Ledger (B) Recording of Transactions in Journal

(C) Preparing Trial Balance (D) Preparing Trading Account

Q4.Creditors of the business want to know:

(A) Profitability of the Business

(B) Capability of the business to pay higher salaries

(C) Creditworthiness of the business

(D) Employment Opportunities

Q5. The advantages of accounting are

(A) Information regarding Profit or Loss

(B) Information regarding Financial Position

(C) Helpful in Prevention of Errors

(D) All of these

Q6.Which of the following is not a subfield of accounting?

(A) Financial accounting (B) Bookkeeping

(C) Management accounting

(D) Cost Accounting

Q7.Which of the following is the most relevant accounting information for taxation authorities?

(A) Cash Balance of the firm

(B) Book Value of the Fixed Assets

(C) Credit Sales of the year

(D) Profit generated during the year

Q8. Which of the following limitations of accounting states that accounts may be manipulated to conceal vital facts:

(A) Accounting is not fully exact

(B) Accounting may lead to window dressing

(C) Accounting ignores price level changes

(D) Accounting ignores qualitative elements

Q9.Which qualitative characteristics of accounting information is reflected when accounting information is clearly presented?

(A) Relevance. (B) Comparability

(C) Reliability. (D) Understandability

Q10.Use of common unit of measurement and common format of reporting promotes:

(A) Comparability. (B) Reliability

(C) Relevance.   (D) Understandability

Assignment -2

Q1.Give the answer of the following questions

1. Godrej Ltd. imported from Germany one machinery for sale in India and another machinery for production purpose. Will you treat them as goods or fixed assets?

2. Mr. Jaspal Singh dealing in electronic goods sold 20 TV sets costing 30,00% each at ₹40,000 each. Out of this ₹5,00,000 were received in cash and the balance is not yet received. State the amount of revenue.

3. Mr. Dinanath who owed us ₹50,000 became insolvent and paid only 40% of this amount. What is the term used for the amount not received?

4. Why are assets classified into current and non- current?

5. Why are receipts classified into capital and revenue?

6. Why expenditure is classified into capital and revenue.

7. What is the reason that the capital expenditure is shown in the Balance Sheet

Q2.Given below are two statements, one labelled as Assertion (A) and other labelled as Reason (R):Which one of the following is correct?

Codes:

(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.

1. Assertion (A):Any expenditure that gives benefit for one accounting period is known as capital expenditure.

Reason (R):A Revenue Expenditure, the benefit of which will accrue in more than one financial year has to be written off in more than one accounting period is called Deferred Revenue Expenditure.

2.Assertion (A): Fictitious assets are those assets which cannot be realised in cash or no further benefit can be derived from these assets.

Reason (R):Goodwill, patents and trade-marks are fictitious assets.

3.Assertion (A):The essence of the convention of prudence is to anticipate no profit and provide for all possible losses.

Reason (R):Convention of prudence results in understatement of profits and assets and overstatement of liabilities.

4. Assertion (A):As per Going Concern Concept it is assumed that the business will continue to exist for a long period in future.

Reason (R):Entire life of the firm is divided into time intervals for the measurement of profits in accordance with the 'Going Concern Concept".

5.Assertion (A)) Accrual basis of accounting makes a complete record of all cash as well as credit transactions. It, however, does not follow the matching principle of accounting.

Reason (R): Accrual basis of accounting is superior to cash basis of accounting because it depicts true profit or loss of the business and is recognised by Companies Act, 2013

Q3. Non monetary transactions are not recorded in the books of accounts. Explain

Q4. What is the primary reason for business students and others to study accounting discipline?

Q5.Identify the stakeholder group who would be most interested in the following:
(i) The ethical or environmental activities of the firm.
(ii) Whether the firm has a long-term future.
(iii) The ability of the firm to carry on providing quality products

Q6. Distinguish between profit and gain.

Q7. Explain the following terms-
   a. Drawings
   b. Tangible assets
   c. Current liabilities
   d. Expenditure
   e. Trade payables
   f. Discount
   g. Deferred revenue expenditure

Q8.Explain the following:
(i) Dual Aspect Concept

(ii) Accrual Concept

(iii) Going Concern Concept

(iv) Cost Concept

(v) Accounting Period Concept

Q9.If office rent for the month of December 2018 is paid in January 2019, It would be recorded in the book of the Firm in January 2019, Similarly sale of goods on credit in the month of January 2019 would not be recorded in January but recorded in April, 2019 when the payment of sale is received. Identify the Basis of Accounting used in the above statement and clarify is it a more appropriate basis of Accounting?

PROJECT

Prepare an accountancy project based on the following instruction and submit it without spiral.

Order for the project

I. Front page printed on glossary paper.

II. Certificate

III. Acknowledgement

IV. Index

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

VI. Bibliography

Instructions for accountancy project

1. Use A4 plain or one side ruled paper only.

2. Matter should be written on one side of the paper and bar diagrams ,charts should be the flip side only.

3. Project should be neat and systematically presented.

4. Excessively colourful and adorned projects are not accepted.

BUSINESS STUDIES

Assignment-1

1. Classify the following into economic and non-economic activities:
   a. Smita cooks food for her family.
   b. A person selling cold drinks on the railway station.
   c. A student praying in a temple for good marks in the test.
   d. A doctor treating patients at his clinic.
   e. An old lady attending a 'Satsung'.
   f. A person teaching his daughter for her Board Exams.
2. Give examples of various types of industries. (three each).
3. Identify the services detailed below:
   a. The service which helps in removing hindrance of knowledge.
   b. The service which helps in removing hindrance of exchange.
   c. The service which helps in removing hindrance of place.
   d. The service which helps in removing hindrance of time.
   e. The service which helps in removing hindrance of risk.
4. 'Risk in an inherent element of a business'. Do you agree? Give reasons.
5. Which type of business risk involves both the possibility of gain as well as the possibility of loss?
6. Differentiate between Business and Profession.
7. "Profit is an essential objective of business due to certain reasons". Comment.
8. Differentiate between Economic and Non-Economic Activities.
"Is Profit maximization the sole objective of a business." Comment.

Assignment-2

1. **Define** promotion.
2. Name the smallest unit in which the capital of a company is divided.
3. Explain the term 'minimum subscription'.
4. Briefly explain the term 'Return of allotment'.
5. How does a cooperative society exemplify democracy and secularism? Explain.
6. Which form of business is suitable for following types of business and why?
   a. Beauty Parlour
   b. Small retail outlet
   c. Hotels
   d. Shopping malls
   e. Medium size trading concern
7. What is table F?
8. he business assess of a firm are worth rs. 70,000 but the debts remain unpaid are worth rs. 1,00,000. But course of action can the characters take in the following cases:
   a. The organization in sole proprietorship firm
   b. The organization in partnership firm with A and B, two partners sharing profit equally
9. "One man control is the best in the world if that man is big enough to manage everything." Explain the statement.
10. Bhuvan Ltd. Issues 5,00,000 shares of rs. 10 each for public subscription. Application along with money was received for 4,00,000 shares. Can company allot these shares. Explain.

PROJECT

Project: Select a Consumer durable public limited company of your choice and collect the following information regarding that company :
   a. Brief history
   b. Mission statement
   c. Names of its top level officials.
   d. Details of the products manufactured and marketed
   e. Brand name, brand mark and standardization mark adopted by the company.
   f. Market standing
   g. Types of sales promotional techniques used. (paste the advertisements given in the newspapers/ magazines)
   h. Labelling of its products. (paste the labels of its various products)
   i. Innovations made by the company and future plans
   j. Kinds of risks faced by the company
   k. Comment on the social responsibility pursued by that company.
   l. Type of organizational structure followed
   m. Customer support services provided by the company.

Number of pages -10-15

   1. Cover Page must contain School Name, Name of the company with a Logo of the company
   2. Certificate
   3. Acknowledgement
   4. Index
   5. Content
   6. Conclusion
   7. Bibliography

   **The project should also include graphs/some statistics, images and pictures to support your chosen topic.

#AD-MAD: Preparation of a small advertisement (video) on any of the topics covered in the class.

Guidelines:.   **(Duration: 2-3minutes)**

   1. Video should have high quality content with sufficient material (3-4 minutes)
   2. It should be an independent, self-directed piece of study and not copied from some other source.

ECONOMICS

Assignment-1

Numericals:-

1. If ΔQ/Q = -0. 6 and price elasticity is (-) 0.75, calculate the percentage change in price. Also calculate the new expenditure if initial expenditure was rs. 500 at the price of rs. 20.
2. The price elasticity of demand For goods X and Y are known to be 1 and 2 respectively. Price of X rises by 5% while that of good Y falls by 5%. What are the percentage changes in the quantities demanded of X and Y?
3. A consumer spends rs. 80 on a commodity when it's price is rs. 1 per unit and spends rupees 96 when its price is rs. 2 per unit. Calculate price elasticity of demand for the commodity by the percentage method?
4. Suppose a consumer can buy 5 units of good X and 4 units of good Y, if he spends his entire income. The price of good X is 10 and that of Y is 12. Calculate the income of the consumer.
5.   An unemployed person, Ramesh is looking out for a job. Ramesh receive the
   two job offers: one for rs. 20,000 from ICICI Bank and other offer of rs. 15,000
   from HDFC Bank. What is the opportunity cost for Ganesh if he accept the offer of
   ICICI Bank?
6.   Calculate the missing figures.

Units	1	2	3	4	5
TU in units	5	9	–	14	–
MU in units	–	–	3	–	1

Assignment-2

Case Studies:-

1. "An economy always produces on, but not inside, a PPF", Defend or refute.
2. What will be the impact of "Education for all campaign" (Sarv shiksha abhiyan) on the production possibilities curve of the Indian economy and why?
3. " law of dimension marginal utility bill operate even if consumption takes place in intervals". Defend or refute.
4. A consumer consumes only two goods X and Y whose prices are rs. 4 and rs. 5 respectively. Iska consumer choses a combination of the two goods with marginal utility of X equal to 5 and

that of Y equal to 4, is the consumer in equilibrium? Give reasons. What will be a rational consumer to in this situation? Use utility analysis.

5. State with reasons whether the following items will have elastic or inelastic demand:
   a. Matchbox
   b. Coke
   c. Medicines
   d. NCERT Textbook
   e. Electricity
   f. Cigarettes
   g. Butter for a poor person.

6. What will be the impact of the following changes on the demand curve of:
   a. Cars when there is an increase in price of laptops.
   b. Desktop computers with increase in price of laptops.
   c. Bread with increase in its price
   d. Trousers due to change in preference in favour of jeans.
   e. Bajra pura poor person income of such person Rises.
   f. Coffee then price of tea falls.
   g. Petrol if its price is expected to rise in near future.

PROJECTS

Project: Students are required to make a video and a Poster on Socio-Economic impact of Covid 19 (globally OR with respect to India).

The expectations of the video and poster are:

1. Video should have quality good content with sufficient material (3-4 minutes)
2. It should be an independent, self-directed piece of study.
3. Poster should be original and not copied from some other source. Amalgamation of art and socio-economic impact of Covid 19 should be clearly visible in the poster.

Learners may work along the following lines as a suggested:

1. Choose a theme or case study to showcase the socio economic impact of Covid 19.
2. Collection of the research material/data.
3. Organization of material/data,
4. Present material/data in the form of Video
5. Analysing the material/data for conclusion in the form of POSTER (Art Integration)

HISTORY

Assignment 1

1.When and where did archaeological work begin in Mesopotamia first of all?

2.When did ancient town begin to flourish in Mesopotamia?

3.Who founded Ur and when?

4.List some items which are essential for urban development.

5.What do you know about Mari?

6.Which was the earliest language known to Mesopotamia's? By which language was it replaced?

7.Which sea separates the continents of Europe and Africa?

8.Which rivers made boundaries of the Roman empire from the north side?

9.What is another name of the third century in the Roman empire?

10.Which languages were spoken in upper classes in east and west of the early empire of Rome?

11.Who had established the regime in 27 BCE?

Assignment 2

1.Why do you think the Roman government stopped coining in silver? And which metal did it begin to use for the production of coinage?

2.Which were the two powerful empires that ruled over most of Europe?

3.What do you mean by the 'Augustan age'?

4.Who was Tiberius?

5.What was Dressel 20 in Spain?

6.Who was Columella?

7.Why would the early temple have been much like a house?

8.What do ancient stories tell us about the civilization of Mesopotamia?

9.What does the Bible depict about floods?

10.What is the meaning of Cuneiform?

11.Which two things indicate that 'only a few Mesopotamia's could read and write'?

12.Which was the earliest temple town of Egypt? How did it become reliable?

Project:

Methodology: Learners are required to make a History Project file to develop the skill to gather data from a variety of sources, investigate diverse viewpoints and arrive at logical deductions. The project will help develop lasting interest in the discipline.

Learners can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches and other information available on websites. Secondary sources may also be used after proper authentication.

FEW SUGGESTIVE TOPICS FOR PROJECTS (Pick any one)

1. Anthropological Research based on Darwin's Theory

2. Critique of the industrialization in Britain

3. Relations and impacts of past crusades

4. Making and unmaking of Mesopotamia

5. Paradigms of Greeco-Roman civilization

6. Aspirations of women in Renaissance period

7. Paths to Modernization of Japan /China

8. An Exploratory study into Humanism

9. Piecing together the past of Genghis Khan

10. An in-depth study into "now and then" paradigm of Christianity

11. An exploratory study into the realism and the transmission of Humanistic ideas.

12. Scientific Revolution and the origins of modern science

13. An exploratory study into the making of America

14. Myriad Realms of Slavery in ancient, medieval and modern world

Guidelines for making of Project file:

This should consist of an introduction, and all the information under various sub-headings. The inferences drawn in the discussion should be included in the conclusion. Max pages: 15

1) Beautifully illustrated Cover page.

2) Acknowledgment

3) Index

4) Introduction – Why Mesopotamian Civilisation? Why did it arouse our curiosity? Why is it well known in the history of the world?

5) Chronology of the Time period. (Broad Contours of the Political History)

6) Geographical location. (Map)

7) Political, Economic and Social changes if any.

8) Art, architecture, Language of the time (scripts of the empire, coins, costume) if any.

9) It would be advisable that the students incorporate pictures, anecdotes, stories, maps, etc. in the file.

10) Bibliography

The project work can culminate in the form of Power Point Presentation/Prezie Presentation also.

POLITICAL SCIENCE

ASSIGNMENT 1

Answer the following questions

Q1 Why is it necessary for a country to have a clear demarcation of powers and responsibility in the constitution what would happen in the absence of such a demacration?

Q2 write a short note on the constituent assembly of India.

Q3 How is the independence of the election commission of India ensured

Q4 what do you mean by proportional representation?

Q5 Define the term executive and discuss its various forms.

Q6 MCQ

1 The elections to Constituent Assembly were held on the basis of:

(a) Universal Franchise

(b) Equal Franchise

(c) Communal Franchise

(d) No Franchise.

2. Who was the temporary Chairman of the Constituent Assembly?

Dr Rajendra Prasad

Doctor Ambedkar

Doctor sachhidanand Sinha

Pandit Jawaharlal Nehru

3.Who was permanent Chairman of the of Constituent Assembly ?

(a) Dr. Rajendra Prasad

(b) Dr. Ambedkar

(c) Dr. Sachindanand Sinha

(d) Pt Jawaharlal Nehru

4. Who moved the 'Objective Resolution' in the Constituent Assembly?

(a) Dr. Ambedkar

(b) Pt Jawaharlal Nehru,

(c) Alladi Krishna Swami Ayyar

(d) Dr. Rajendra Prasad

5. Assertion (A): Dr. Rajender Prasad was President of Constituent Assembly.

Reason (R): Dr. B. R. Ambedkar was Chairman of Drafting Committee.

(a) Both (A) and (R) are true and (R) is the correct explanation of A

(b) Both (A) and (R) are true and (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true

Q7 very short answer type question

1 How many seats seats are reserved for Scheduled tribe in the Lok Sabha?

2. which state have more than30 Lok Sabha seats?

3.Describe any one test of a good electrol system

4.Mention the salary of the member of election commission of India.

5. Who said sabka Sath sabka Vikas?

<div align="center">ASSIGNMENT 2</div>

Q1 what do you understand by universal adult franchise

Q2.Describe any four function of election commission give two features of cabinet system in India

Q3 Write two executive powers of the president

.Q4.what do you understand by committed bureaucracy

Q5 How is the president of India elected

Q6 What is the parliamentary government

Q7 What is the relationship between the president and the prime minister in our country?

Q8 Do you agree Rajya Sabha enjoy very few power than Lok Sabha.

Q9 Discuss the composition and functions of Lok Sabha.

Q10 How does a bill become an act in the Indian Parliament?

#Project : **"Democracy cannot succeed unless those who express their choice are prepared to choose wisely. The real safeguard of democracy, therefore is education."**

Keeping the above statement in mind, all students are required to prepare a project report on any topic from their Political Science books:

- **Indian Constitution at work**

- **Political Theory.**

PROJECT SUBMISSION GUIDELINES:

a. The Project Report should be handwritten by the students themselves.
b. The project should be made in the given format:
1. Index
2. Acknowledgment
3. Introduction
4. Content
5. Conclusion
6. Bibliography

PSYCHOLOGY

PREPARE A CASE PROFILE. You are required to choose a person on whom you want to do your case study. Choose your case/individual/ as any of your family member. You may choose a person who is gifted/ has some physical disability / lower socio-economic background 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 colored pen (not red or pink).
- Spiral bound the project file.
- A suggested format for writing the
- case profile is given.

FORMAT FOR WRITING CASE PROFILE

1. **Cover Page- Case Study**
2. **Contents**
3. **Explain case study method**; advantages and disadvantages of this method
4. **Precautions Taken** (Voluntary Participation; Informed Consent; Debriefing And Sharing Results; Confidentiality – Refer To Class 11NCERT Psychology Book)
5. **Methods/Tools Used** for Collecting Data:
   Observation Method (Explain)/ Observation Schedule
   Interview Method (Explain) / Interview questionnaire
6. **Reasons for choosing** my subject
7. **Rapport Formation**:
   A friendly conversation was carried out to make the subject feel at ease. Assured the subject that results would be kept confidential. All of his/her queries related to the study were clarified.
8. **Demographic Information**:
9. **Interview Questionnaire**:
   a. Sample questions will be shared with the students. Students are required to frame their own questions –specific to their subject.
   b. Subject's Interview (15 To 20 Questions) Examples Of Questions
10. **Interview Analysis**
    a. Subject Interview Analysis (Summary of responses that you have received.)
    b. Subjects Mother's Interview Analysis
    c. Subjects Father's Interview Analysis
    d. Subjects Friend's Interview Analysis

11. **Observation Method**

   Report of Subject's Observation (Share how he /she is in school / with friends /with parents i.e. according to students observation)

12. **Student's Comments – Limitations and Suggestions**
13. **Teacher's Feed Back**

GEOGRAPHY

Assignment 1

1. What does the word sial stand for?
2. Name the main parts of a volcano.
3. Name all active volcanoes in India.
4. What is a crater?
5. Name the three fundamental layers of the earth.
6. What is a seismograph ?
7. What are 'Shadow Zones'?
8. Name three types of volcanoes.
9. Distinguish between Longitudinal and Transverse waves.
10. Describe the distribution pattern of volcanoes in the world.

Assignment 2

1. Who first proposed Continental Drift Theory?
2. Name the southern continent in Pangea.
3. How many major plates are there on the earth's crust?
4. Which is the largest tectonic plate?
5. What is convergence plate?
6. What is Pangea ?
7. What is Jigsaw fit?
8. What is plate tectonic?
9. What is meant by polar wandering?
10. Explain sea floor spreading.

PROJECTS

Project Topics: (Do any two)

1. Population Growth and Distribution

2. Climate Change and its Impact

3. Sustainable Development

4. Urbanization and its Challenges

5. Natural Disasters and Management

Objectives:

To develop research and analytical skills.

To enhance understanding of geographical concepts.

To promote awareness of contemporary geographical issues.

Project Format:

- Title Page:

- Project Title

- Student's Name

- Roll Number

- School Name

- Academic Year

Index:

List of Contents with Page Numbers

Introduction:

Brief introduction to the chosen topic (150-200 words).

Content:

Detailed explanation and analysis of the topic.

Use of maps, graphs, charts, and diagrams where necessary.

Case studies or real-life examples to support the content.

Conclusion:

Summary of findings and personal observations (150-200 words).

Bibliography:

List of sources and references used in the project.

Project Guidelines:

Research:

Use books, scholarly articles, reliable internet sources, and geographical databases.

Ensure all information is up-to-date and relevant to the topic.

Presentation:

- The project should be handwritten.

- Use A4 size sheets for the project.

- Maintain clarity and neatness throughout the project.

- Properly label diagrams, maps, and charts.

Word Limit:

The total length of the project should be between 1500-2000 words.

Originality:

Ensure the project is original and free from plagiarism.

Acknowledge all sources of information and data.

Submission:

Submit the project in a neatly bound file or folder.

Ensure the project is submitted by the due date announced by the teacher.

Assessment Criteria:

- Research and Content (30 marks): Depth of research, relevance, and accuracy of content.

- Presentation (20 marks): Neatness, organization, and visual appeal of the project.

- Originality and Creativity (20 marks): Unique approach, innovative ideas, and originality.

- Analysis and Understanding (20 marks): Analytical skills, understanding of the topic, and conclusions drawn.

- Timeliness (10 marks): Submission by the due date.

PHYSICAL EDUCATION

PROJECT

Practical-1: Drawing a Labeled Diagram of a 400 M Track & Field with Computations

Objective:

To understand the layout and accurate measurements of a 400-meter standard track and field.

Instructions and Guidelines:

Research and Materials:

Study the standard dimensions and layout of a 400-meter track and field as per CBSE Physical Education curriculum.

Use A3 size paper, ruler, compass, protractor, and colored pens/pencils for accuracy and neatness.

Drawing the Diagram:

Outer and Inner Track: Draw the outer and inner perimeters of the track. Ensure the total length of the track is 400 meters.

Lanes: Include all lanes, each 1.22 meters wide, numbering the lanes clearly.

Curves and Straights: Draw the curves with accurate radii (36.5 meters for the inner edge). Ensure the straight sections are correctly proportioned.

Field Events Areas: Mark and label areas for field events such as long jump, high jump, and shot put.

Computations:

Straight Sections: Calculate the total length of the straight sections (2 x 84.39 meters).

Curved Sections: Compute the lengths of the curved sections using the formula for the circumference of a circle segment:

Length=Radius×Central Angle

Length=Radius×Central Angle (convert the angle to radians if necessary).

Total Length Verification: Ensure the sum of the straight and curved sections equals 400 meters.

Labeling:

Clearly label all parts of the track and field, including start/finish lines, lanes, and field event areas.

Use legible writing and color-coding for clarity.

Presentation:

Ensure neatness and accuracy in the diagram.

Attach a separate sheet detailing the computations and explanations.

Use different colors to highlight various parts of the track (optional but recommended).

Submission:

Attach the diagram and computations in a folder.

Include a cover page with your name, roll number, class, and project title.

Assessment Criteria:

Accuracy of Diagram: 20 marks

Computations: 20 marks

Labeling: 10 marks

Neatness and Presentation: 10 marks

Practical-2: Computations of BMI of Your Family Members and Preparation of Graphical Representation of the Data

Objective:

To calculate the Body Mass Index (BMI) of family members and represent the data graphically as per the CBSE Physical Education guidelines.

Instructions and Guidelines:

Data Collection:

Measure the height (in meters) and weight (in kilograms) of at least five family members.

Record the data accurately in a table.

BMI Calculation:

Use the formula: $BMI = Weight (kg) / (Height (m)^2)$.

Calculate the BMI for each family member.

Tabulate the results clearly, mentioning the names, heights, weights, and BMI values.

Graphical Representation:

Choose an appropriate graph type (bar graph, pie chart, or line graph) to represent the data.

Use graph paper or digital tools (e.g., MS Excel) for plotting.

Label the graph with family members' names on the x-axis and BMI values on the y-axis.

Analysis:

Write a brief analysis of the BMI data. Discuss any patterns or trends observed.

Provide insights on health implications based on BMI categories (underweight, normal, overweight, obese).

Report Preparation:

Create a report including:

Title Page

Introduction

Data Collection Table

BMI Calculations

Graphical Representation

Analysis and Conclusion

Ensure the report is neatly typed or handwritten.

Submission:

Submit the report in a bound folder.

Include a cover page with your name, roll number, class, and project title.

Assessment Criteria:

Data Collection: 20 marks

Accuracy of Calculations: 20 marks

Quality of Graphical Representation: 20 marks

Analysis and Conclusion: 20 marks

Presentation and Neatness: 20 marks

FINE ARTS

Assignment

1. Explain the elements of art.

2. Describe the principles of art.

3. Define any three elements of art.

4. Define any three principles of art.

5. How is a form different from a shape? Give examples.

6. What is the vanishing point in a painting?

7. Describe the two aspects of perspective drawing with respect to shapes

and atmospheric effects.

8. What are the three types of Balance?

9. Write a short note on the following:

(a) Space

(d) Rhythm

(g) Harmony

(b) Balance

(c) Dominance

(e) Perspective

(f) Variety

(h) Six limbs

LONG ANSWER QUESTIONS

1. "A man paints with his brains and not with his hands". -Michaelangelo Justify the statement given above with the help of Elements and Principles of Art.

2. Describe the canons / six limbs of art given by Vatsyayana.

3. Describe the art of prehistoric era from Bhimbethaka along with two paintings given in your course of study.

 4. Write a note on the following paintings with period, location and

medium:

(a) Roaring animal

(b) Wizard's dance

5. How did the invention of wheel and fire influence art ?

PROJECTS

1. **Theme Exploration**:

Choose a theme from the following options or pick one of your own:

Nature and its Elements

Urban Landscapes

Portraits: Expressions and Emotions

Cultural Diversity: Celebrations and Festivities

Create a series of sketches or small paintings exploring your chosen theme. Aim for at least 5 sketches or paintings.

2. **Art Appreciation**:

Select a renowned painting or artwork by an artist of your choice (from any era or style).

Write a detailed analysis of the painting, including its historical context, artistic style, techniques used, and its impact on the art world. Your analysis should be at least 500 words long.

3. **Colour Theory Exercise**:

Experiment with colour mixing using the primary colours (red, blue, yellow) and their combinations.

Create a colour wheel showcasing the primary, secondary, and tertiary colours along with their shades and tints.

4. **Still Life Composition**:

Set up a still life arrangement using everyday objects like fruits, flowers, utensils, etc.

Paint or sketch the still life composition focusing on capturing light, shadow, and textures.