



Tagore International School

Holiday Homework
Science Stream
Class-XI



ENGLISH

1. Read The Canterville Ghost by Oscar Wilde and write a book review focusing on the story line. Write this in your regular English notebook. (125-150 words)
2. In your English register, do the following writing skills.
 - a. Notice-2 (Any two)
 - b. Comprehension Passage 2 from BBC

BIOLOGY

1. Select the topic and make project.
 - According to the guidance given by your Biology Teacher.
 - Complete question & Answers of chapters Living world and cell cycle
 - Learn the given chapters above for revision test.

CHEMISTRY

Exercise :- 1.4,1.9,1.24,1.29,1.34,1.35,1.36,2.9,2.12,2.16,2.22,2.30,2.31,2.34,

PHYSICAL EDUCATION

1. Learn all the topics of Volleyball
2. Do 10 questions of chapter 1 in notebook.

Note: All the home assignments to be done in class work notebook.



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Holiday Homework Commerce Stream Class-XI



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ACCOUNTANCY

- Q.1 Mr. Ganpati, The proprietor of a business, sold his residential house for Rs. 50 Lac. Will it be recorded in the books of accounts? (Value Based)
- Q.2 How is accounting influenced by Personal Judgment?
- Q.3 Identify the values being violated in case of Window Dressing? (Value Based)
- Q.4 Discuss the value involved in classifying the expenditure into Capital and Revenue (Value Based)
- Q.5 Write a short note on Inventory?
- Q.6 Prepare the Accounting Equation on the basis of following.
- a. Started business with cash ` 1,40,000 and stock ` 2,50,000
 - b. Sold goods (costing ` 50,000) at a Profit of 25% on cost.
 - c. Deposited into Bank Account `1, 80,000
 - d. Purchased goods from Mohan ` 80,000
- Q.7 Show the accounting equation on the basis of the following transaction and also show the Balance sheet.
- a. Started business with cash ` 60,000 and goods ` 30,000
 - b. Purchased goods for cash ` 40,000 and on credit ` 25,000
 - c. Goods costing ` 48,000 sold at a profit of 33½ %. Three- fourth payment received is Cash.
 - d. Goods costing ` 20,000 sold at a loss of 5% out of which ` 12,000 received is cash.
 - e. Paid Rent `4,000 and salary ` 6,000
 - f. Received cash from debtor ` 15,000
 - g. Paid telephone bill amounting to ` 800.
- Q.8 Open 'T' shape account for furniture
1. Furniture purchased for ` 50,000

2. Furniture sold costing ` 20,000
3. Furniture destroyed by fire ` 16,000
4. Furniture again purchased ` 32,000
5. Old Furniture discarded `2,000
6. Value of furniture was reduced by `15,000

Note: All the home assignment to be done in Class work Notebook, as they will be marked.

PHYSICAL EDUCATION

1. Learn all the topics of Volleyball
2. Do 10 questions of chapter 1 in notebook.

ECONOMICS

1. Prepare a chart explaining the occupational distribution of India at the time of Independence.
2. What is the difference between 'Growth' and Development?
3. Prepare a chart – For all the plan periods with the respective short term objectives.
4. Write the difference between definition of economics given by 'Marshall' and 'Robbins'.
5. Prepare a questionnaire enquiring the preference of the consumer for any product in relation to project work.
6. Write a short note on 'Census of India'.

BUSINESS STUDIES

1. Field Visit
 - Visit to a handicraft unit
 - Visit to a Mall
 - Visit to a Departmental Store
2. Case Study
3. Aids to Trade
 - Banking
 - Insurance
 - Communication
 - Transportation

Any one out of three



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Holiday Homework
Humanities Stream
Class-XI



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6. Write a short note on 'Census of India'.

HISTORY

1. Make Project file on the topics as discussed in the class.
2. Do the map work (Political map of Asia, Europe, Africa, South & North America & Australia).

HINDI

लिखित कार्य :-

1. 'नमक का दरोगा' पाठ से किन्हीं 5 मूल्यपरक प्रश्नों की संरचना कर उत्तर लिखें।
2. शब्द कोष निर्माण की प्रक्रिया को बताते हुए किन्हीं 20 उदाहरणों से अभ्यास दर्शावें।
3. संचार प्रक्रिया का सविस्तार उल्लेख करें।
4. शिकायती पत्र तथा आवेदन पत्र के किन्हीं 2-2 विषयों पर पत्र लिखें।
5. किन्हीं 2 विषयों पर फीचर लिखें।

PHYSICAL EDUCATION

1. Learn all the topics of Volleyball
2. Do 10 questions of chapter 1 in notebook.



Tagore International School

Holiday Homework

Science Stream

Class-XII



Subject : English

HW Create: (Writing Skills)-5 Classifieds / 2 Displays Ads/ 1 Poster/2 Notice

Literature (Flamingo) : 1. Should Child labour be eliminated ? (Article writing word limit: 100 words)

2. Hazards of Bangle making industry (Article writing word limit: 100 words)

Novel: Reading of the Novel. The Invisible Man

Subject: Mathematics

1. If $A^{-1} = \begin{bmatrix} 3 & 2 & 6 \\ 1 & 1 & 2 \\ 2 & 2 & 5 \end{bmatrix}$ then find A by using $AI = A$

2. If $A = \begin{bmatrix} 1 & \tan x \\ -\tan x & 1 \end{bmatrix}$ then find $A^T A^{-1}$.

3. Find the Product of $\begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix} \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$ and using the result solve the system of eqⁿ $x - y + z =$

$4, x - 2y - 2z = 9; 2x + y + 3z = 1$

4. Without expanding & using of Properties of determinant prove that

$$\begin{vmatrix} (2^x + 2^{-x})^{+2} & (2^x - 2^{-x})^2 & 1 \\ (3^x + 3^{-x})^2 & (3^x - 3^{-x})^2 & 1 \\ (4^x + 4^{-x})^2 & (4^x - 4^{-x})^2 & 1 \end{vmatrix} = 0$$

5. Using prop. of determinant Prove that

i) $\begin{vmatrix} x & y-z & y+z \\ x+z & y & z-x \\ x-y & y+x & z \end{vmatrix} = (x+y+z)(x^2 + y^2 + z^2)$

ii) If $a + b + c \neq 0$ and $\begin{vmatrix} a & b & c \\ b & c & a \\ c & 0 & b \end{vmatrix} = 0$

Prove that $a = b = c$

$$\text{iii) } \begin{vmatrix} (b+c)^2 & ab & ac \\ ab & (a+c)^2 & bc \\ ac & bc & (a+c)^2 \end{vmatrix} = 2abc(a+b+c)^3$$

6. If R be relation defined on R is defined by $R = \{(x, y) : x - y + \sqrt{2} \in T\}$ then check its is equivalence or not.

7. If $f : Q \rightarrow Q, g : Q \rightarrow Q$ are two function defined by $f(x) = 2x$ and $g(x) = x + 2$ then find $(g \circ f)^{-1}$

8. Let $A = Q \times Q$ and $*$ is binary defined on A by $(a, b) * (c, d) = (ac, b + ad)$ for $(a, b), (c, d) \in A$ then

a) find the identity element

b) Invertible element

c) check $*$ is commutation and Associative

9. If $\sin^{-1}x + \sin^{-1}y + \sin^{-1}z = \pi$

then P.T. $x^4 + y^4 + z^4 + 4x^2y^2z^2 = 2(x^2y^2 + y^2z^2 + z^2x^2)$

10. Find the sum of the series :

$$\tan^{-1}\left(\frac{1}{1+1+1^2}\right) + \tan^{-1}\left(\frac{1}{1+2+2^2}\right) + \tan^{-1}\left(\frac{1}{1+3+3^2}\right) + \dots$$

Subject: Chemistry

Ch.2 - Q.2.17,2.20,2.21,2.32,2.40,2.41

Ch-3 Ch.3,3.5,3.9,3.12,3.15,3.18

*** Investigatory Project to be completed.

Subject: Physics

1. The electric field E due to a point charge at any point near it is defined as where q is the test charge and F is the force acting on it. What is the physical significance of this expression? Draw the electric field lines of a point charge Q when (i) $Q > 0$ and (ii) $Q < 0$.
2. Define electric flux. Write its S.I. units. A spherical rubber carries a charge that is uniformly distributed over its surface. As the balloon is blown up and increases in size, how does the total electric flux coming out of the surface change? Give reason.
3. State Gauss's theorem in electrostatics. Using it, deduce an expression for electric field intensity at a point near a thin infinite plane sheet of electric charge.
4. State Gauss's theorem in electrostatics. Apply this theorem to derive an expression for electric field intensity at a point outside a uniformly charged thin spherical shell.
5. Derive an expression for the potential energy of an electric dipole of moment in an electric field
6. Which orientation of an electric dipole in a uniform electric field would correspond to stable equilibrium?
7. Define the term electric dipole moment of a dipole. State its S.I. unit.
An electric dipole of dipole moment is held in a uniform electric field.
(i) Prove that no translatory force acts on the dipole.

- (ii) Hence prove that the torque acting on the dipole is given by $pE \sin \theta$, indicating the direction along which it acts.
- (iii) How much work is required in turning the electric dipole, from the position of most stable equilibrium to the position of most unstable equilibrium?
8. A positive point charge (+q) is kept in the vicinity of an uncharged conducting plate. Sketch field lines originating from the point on the surface of the plate.
9. Deduce an expression for the electric potential due to an electric dipole at any point on its axis. Mention one contrasting feature of electric potential of a dipole at a point as compared to that due to a single charge.
10. A parallel plate capacitor, each with plate area A and separation d, is charged to a potential difference V. The battery used to charge it is then disconnected. A dielectric slab of thickness d and dielectric constant K is now placed between the plates. What change, if any will take place in
- (i) Charge on the plates
- (ii) Electric field intensity between the plates
- (iii) Capacitance of the capacitor.
- Justify your answer in each case.
11. Derive the expression for the energy stored in a parallel plate capacitor of capacitance C with air as medium between its plates having charges Q and -Q. Show that this energy can be expressed in terms of electric field as $\frac{1}{2} \epsilon_0 E^2 A d$ where A is the area of each plate and d is the separation between the plates. How will the energy stored in a fully charged capacitor change when the separation between the plates is doubled and a dielectric medium of dielectric constant 4 is introduced between the plates?
12. A 500 μC charge is at the centre of a square of side 10 cm. Find the work done in moving a charge of 10 μC between two diagonally opposite points on the square.
13. (i) Can two equi-potential surfaces intersect each other? Give reasons.
- (ii) Two charges -q and +q are located at points A (0, 0, -a) and B (0, 0, +a) respectively. How much work is done in moving a test charge from point P (7, 0, 0) to Q (-3, 0, 0)?
14. What is the electrostatic potential due to an electric dipole at an equatorial point?
15. Draw 3 equipotential surfaces corresponding to a field that uniformly increases in magnitude but remains constant along z-direction. How are these surfaces different from that of a constant electric field along z-direction?
16. Define the term 'potential energy' of charge 'q' at a distance 'r' in an external electric field.

BIOLOGY

1. Select the topic and make project.

- According to the guidance given by your Biology Teacher.
- Complete question & Answers of unit VI and unit VIII.
- Learn the given chapters above for revision test.



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English

HW Create: (Writing Skills)-5 Classifieds / 2 Displays Ads/ 1 Poster/2 Notice

Literature (Flamingo) : 1. Should Child labour be eliminated ? (Article writing word limit: 100 words)

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Novel: Reading of the Novel. The Invisible Man

Accountancy

- All additional questions of Ch1 & 2.
- Project work

Mathematics

1. If $A^{-1} = \begin{bmatrix} 3 & 2 & 6 \\ 1 & 1 & 2 \\ 2 & 2 & 5 \end{bmatrix}$ then find A by using $AI = A$

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4. Without expanding & using of Properties of determinant prove that

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- find the identity element
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ECONOMICS

- Do 20 numerical each of elasticity of demand and elasticity of supply from reference books.
- Define Stock, Output and Supply.
- Discuss factors Effecting Supply.
- Define supply functions, schedule and curve.
- State the law of supply Give its assumptions and exceptions.
- Why does law of supply operate?
- Distinguish between movement along and shift of supply curve.
- Explain all the five degrees of elasticity of supply.
- Explain factors effecting elasticity of supply.
- Prepare a question bank from unit 1st and 2nd of 'HOT' in the following order:
 - 10 one mark questions
 - 10 $\frac{3}{4}$ mark questions
 - 3 six marks questions.
- Project work- To be prepared according to guidelines

Business Studies

- All multiple choice questions from
 - Chapter I
 - Chapter II
 - Chapter III
- All case study questions from
 - Chapter I
 - Chapter II
 - Chapter III
- Project Work: Topic allotted is to be prepared according to guidelines.



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$$\text{ii) } \text{If } a + b + c \neq 0 \text{ and } \begin{vmatrix} a & b & c \\ b & c & q \\ c & 0 & b \end{vmatrix} = 0$$

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