

HOLIDAY HOMEWORK 2016-17

Class XI - Sub-English

Chapter – 1 The Portrait of a Lady (Khushwant Singh)

Questions :

1. Why was it hard for the author to believe that his grandmother was once young and pretty ?
2. How does the author describe his grandfather ?
3. 'Grandmother appeared like 'The Winter– Landscape in the Mountains'. Why ? Discuss.
4. ' There was a turning point in our friendship '. What was the turning point ?
5. Mention the ways in which the sparrows expressed their sorrow when the author's grandmother died.

Poetry

A Photograph (Shirley Toulson)

Chapter -1

Questions :

1. What is the central idea of the poem ?
2. What impression do you form about the poetess' mother ?
3. What has not changed over these years ? Does this suggest something to you ?
4. Explain ' labored ease of loss '
5. The three stanzas depict three different phases. What are they ?

Snapshots

Chapter-1 The Summer of the Beautiful White Horse - Willam Saroyar

Questions :

1. Did the boys return the horse because they were (a) science – stricken or because they were afraid ?
2. How does the author explain that their tribe was very poor ?
3. Why did Aram think that his cousin Mourad didn't steal the horse ?
4. ' A suspicious man would believe his eyes instead of his heart '. Who said these words and why ?
5. John Byro was a happy man in the end ? Why ?

Novel

Read the Dovel ' The canterville Ghost ' and write a brief summary of it in 300 words.

Class XI : Physics

- In the formula : $x=3YZ^2$, X and Z have dimensions of capacitance and magnetic induction respectively. What is the dimension of Y?
- If force (F), length (L) and time (T) are chosen as the fundamental quantities, then what would be the dimensional formula for density?
- Reynold number N_R (a dimensionless quantity) determine the condition of laminar flow of a viscous liquid through a pipe. N_R is a function of the density of the liquid ' ρ ', its average speed ' v ' and coefficient of viscosity ' η '. Given that N_R is also directly proportional to ' D ' (the diameter of the pipe). Show from dimensional considerations that $N_R \propto \frac{\rho v D}{\eta}$
- The depth x to which a bullet penetrates a human body depends upon (i) coefficient of elasticity η and (ii) kinetic energy E_k . By the method of dimensions, show that:
$$x \propto [E_k / \eta]^{1/3}$$
- Time period of an oscillating drop of radius r , density ρ and surface tension S is $t = K \sqrt{\frac{\rho r^3}{S}}$.
Check the correctness of the relation.
- $\alpha = \frac{FV^2}{\beta^2} \log_e \left(\frac{2\pi\beta}{V^2} \right)$ where F = force, V = velocity. Find the dimensions of α and β
- In the formula; $P = \frac{nRT}{V-b} e^{-\frac{a}{RTV}}$, Find the dimensions of ' a ' and ' b ', where P =pressure, n =no. of moles, T =temperature, V =volume and R = universal gas constant.
- The frequency ' ν ' of vibration of a stretched string depends upon:
 - Its length ' l ',
 - Its mass per unit length ' m ' and
 - The tension T in the string.Obtain dimensionally an expression for frequency ' ν ' .
- Derive by the method of dimensions, an expression for the volume of a liquid flowing out per second through a narrow pipe. Assume that rate of flow of liquid depends on
 - The coefficient of viscosity ' η ' of the liquid
 - The radius ' r ' of the pipe and
 - The pressure gradient (p/l) along the pipe. Take $K = \pi/8$
- The velocity of sound ' v ' through a medium may be assumed to depend on:
 - The density of the medium ' d ' and
 - The modulus of elasticity ' E '.Deduce by the method of dimensions the formula for the velocity of sound. Take $K=1$.

Class XI - Biology

Characteristics of phylum porifera to chordata with all examples given in the NCERT Book.

Class – XI Maths

PART- A

1. The angles in a triangle are in A.P and the ratio of the smallest angle in degree to greatest angle in radian is $60 : \pi$. Find the angle of triangle in degree and radian.
2. Find the value of following angles $\cos(1395^\circ)$, $\tan\left(\frac{11\pi}{12}\right)$, $\tan(-330^\circ)$, $\operatorname{cosec}(-1170^\circ)$
3. Prove that $\sin^2 6x - \sin^2 4x = \sin 2x \sin 10x$
4. Prove that $\cos 9^\circ + \sin 9^\circ = \sqrt{2} \sin 54^\circ$
5. Prove that $\tan 8\theta - \tan 6\theta - \tan 2\theta = \tan 8\theta \tan 6\theta \tan 2\theta$
6. Prove that $\frac{\cos 9^\circ - \sin 10^\circ}{\cos 9^\circ + \sin 10^\circ} = \tan 35^\circ$
7. Prove that $\frac{\sin x + \sin y}{\cos x + \cos y} = \tan\left(\frac{x+y}{2}\right)$

PART –B

8. Prove that

$$\sin^8 A - \cos^8 A = (\sin^2 A - \cos^2 A)(1 - 2 \sin^2 A \cos^2 A)$$

9. Prove that $\tan \alpha \tan(60^\circ - \alpha) \tan(60^\circ + \alpha) = \tan 3\alpha$
10. Prove that $2\cos \frac{\pi}{13} \cos \frac{9\pi}{13} + \cos \frac{3\pi}{13} + \cos \frac{5\pi}{13} = 0$
11. Prove that $\tan 20^\circ \tan 40^\circ \tan 60^\circ = \sqrt{3}$

Note :- Solve all the questions of Ex-3.1 and 3.2 of NCERT

Class XI – Chemistry

1. Calculate the weight of 6.022×10^{23} molecules of CaCO_3 .
2. A piece of Cu weight 0.635 g . How many atoms of Cu does it contain ?
3. Calculate the number of molecules in 11.2 litres of SO_2 gas at NTP .
4. One atom of an element X weight 6.644×10^{-23} g . Calculate the number of gram atoms in 40 kg of it.
5. Find the number of atoms in 48 g of ozone at NTP . (1.8066×10^{24})
6. What is the ratio of the volumes occupied by 1 mole of O_2 and 1 mole of O_3 in identical conditions . (1:1)
7. Calculate the mass of 5 moles of CaCO_3 in grams . (500g)
8. The vapour density of a gas is 11.2. Calculate the volume occupied by 11.2 g of the gas at NTP .
[Hint : Mol. Wt = $2 \times \text{VD}$] (11.2 litres)
9. Calculate the number of oxygen atoms in 0.2 mole of $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$. (1.56×10^{24})
10. Calculate the volume occupied by 5.25 g of nitrogen at normal temperature and pressure .

11. Find the ratio of the number of molecules contained in 1 g of NH_3 and 1 g of N_2 . (28:17)
12. Calculate the total number of electrons in 1.6 gm of CH_4 .
13. Calculate the total number of atoms in 0.5 mole of $\text{K}_2\text{Cr}_2\text{O}_7$. ($3 \cdot 31 \times 10^{24}$)
14. Calculate the total number of electrons present in 18 mL of water . ($10 \times 6.022 \times 10^{23}$) .
15. How many years it would take to spend Avogadro's number of rupees at the rate of 10 lac rupees per second ?
16. Weight of one atom of an element is 6.644×10^{-23} g . Calculate g atom of element in 40 kg .
17. How many moles of electrons weigh one kilogram
18. From 160 gm of SO_2 (g) sample , 1.2046×10^{24} molecules of SO_2 are removed then find out the volume of left over SO_2 (g) at STP. (11.2L)
19. Which has the maximum number of atoms
 - (a) 24 g of C (b) 56 g of Fe (c) 27 g of Al (d) 108 g of Ag

Class XI - Economics

Part – A

1. What is an economic activity ?
2. What is economics ?
3. Define Statistics in singular sense.
4. Define Statistics in plural sense.
5. Economics is a science or an art. Explain.
6. Mention two functions of statistics.
7. Mention two limitations of statistics.
8. " Statistics can prove anything " . Explain.
9. " Stastical methods are no substitute for common sense " . Comment with examples.
10. Who is known as the " Father of Economics " ?

Part-B

1. Name some notable economist who estimated India's per capital income during the colonial period.
2. Name some modern Industries which were in operation in our country at the time of Independence.
3. Explain the two fold motive behind systematic de-industrialization by the British in the colonial period.
4. What do you understand by the drain of Indian wealth during the colonial period ?
5. When was railways introduced in India ?
6. Which year is regarded as the defining year to mark the demographic transition in India?
7. Define Grass Domestic Product (GDP).
8. When was India's first official Census operation undertaken ?
9. What was the positive contribution made by the British in India ?
10. What do you understand by Capital good industries ?

Class-XI - Entrepreneurship

Chapter 1

- Q1 Identify the type of function with specification that an entrepreneur is involve in following cases:-
- Dhirubhai took a challenge of growing best variety mango ALPHONSO on a barren land in Jamnagar
 - Siv Nadar's said that he makes sure that his employees who are moving out of gate in evening would be coming back day
 - Tata manufacturing Nano for middle income group
 - Mrs. Srinivasan started her dress designing company by selling her jewellery.
- Q2 Role of women has gone for drastic change from 3K to 3 P to 3 E. Over a period of time in India. . In light of this statement explain various problems faced by women entrepreneur .
- Q3 Decision of shifting the manufacturing plant of Nano from Singur to Sanand refers to a particular entrepreneurial competency. Identify it?
- Q4 Differentiate between employee and entrepreneur.
- Q5 Explain various entrepreneurial myth . How is the present government trying to remove this through its various plans.

CLASS XI - ACCOUNTANCY

- Q1. Define Accounting and explain its objectives.
- Q2. Differentiate between Book Keeping and Accounting.
- Q3. Explain Accounting as a source of Information.
- Q4 Explain parties interested in Accounting information.
- Q5. Explain any five advantages of Accounting.
- Q6. Explain any five limitations of Accounting.
- Q7. Explain Qualitative characteristics of accounting information.
- Q8. Identify the value being violated incase of window Dressing.
- Q9. What is last step of Accounting Process?
- Q10. Huge loss occurred due to strike by employees. Will it be recorded? Why?
- Q11. Define: Following Terms:
a) Capital b) Drawings c) Liabilities d) Asset e) Bad Debts
f) Insolvent g) Liquid Assets h) Revenue
- Q12. Give two examples of Current Assets.
- Q13. Give two examples of Tangible Assets.
- Q14. Give two examples of Intangible Assets.
- Q15. Classify the following into (i) Assets (ii) Liabilities (iii) Expenses and (iv) Revenue
Sales, Bank Balances, Debtors, Bank Overdraft, Creditors, Salary to Managers, Discount to debtors, Cost of goods sold.

CLASS-XI Business Studies

Chapter 1

- Amit's grandfather is a practicing C.A. Can he transfer his interest to his grandson who is doing articleship under him?
- As a leading business man one needs to adopt various method of dealing with business risk . Identify five methods of dealing with risk
- How aids to trade are is related to tertiary sector?
- Which type of risk is arises due to change in market condition?

5. A factory under compulsion has to go for lock up which had adversity affected the production followed by down fall in market reputation? Which type of risk is involved here? Can this risk be eliminated in market?
6. What is an extended version of profit maximization?
7. Ram's mother sells old newspapers and used plastic bottles to the scrappers to further channelize these products for recycling. Is this act of Ram's mother a business? Give value associated with this?
8. What are the factors to be considered before starting a business?
9. There is an earthquake and ABC building develop cracks at the column which makes it risky for living. Identify the type of risk and comment on the insurance part of it?
10. Is the security deposit given at the time of employment considered as capital investment? Give reason.
11. Which industry does fishery refer to ?
12. Which manufacturing industry is purely irreversible?
13. A doctor joining Medanta hospital refer to which type of economic activity ?
14. A nurse joining in a hospital gets married to the doctor who is the owner of that hospital. Later she continues to visit hospital off and on. Comment on the nature of this activity?
15. The sand at river side has no value but when transported to the construction site gains value . Identify the form of utility and explain the reason for the same?
16. An army school reserve 5% of seat for war widows. Identify the objective and give the reason for the same. What are the value associated with these?
17. Is management is a full fledged . Give reason for your answer?
18. Rahim as a manager in XYZ business organization deals with various function at enterprising level . List out 4 such functions?
19. Raghav is a lawyer and his brother Ramesh is a doctor . They both are leading professionals in their field . Name the professional association regulating their code of conduct?
20. Under what condition entrepot is to be promoted?

CLASS-XI Hindi

- Learn Print Media
- किताब – आरोह भाग 1
चेप्टर– 1 और 2 अभ्यास कार्य करें ।

CLASS-XI Computer Science

1. Explain all the generation of Computer.
2. Write the examples of all kind of Computers.
3. Convert the following into Binary Number system :

i) 425	ii) 648	iii) 65	iv) 61
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CLASS-XI History

1. Prepare Timeline on Chapter – I Beginning of time.
2. Prepare the development of skull in early man with diagram.

CLASS-XI Political Science

1. Prepare a list of provisions borrowed from other constitutions.
2. Make a list of Fundamental Rights / Preamble.