

**SUMMER HOLIDAYS HOMEWORK****ENGLISH**

1. International Tobacco Control Programme is an Organization that is working worldwide to spread awareness about the hazards of tobacco use. Create a poster for the organization highlighting the harmful effects of smoking and tobacco consumption in other forms. Include a helpline number for quitting tobacco and a website address for more information on quitting smoking/tobacco.
2. SAHASTRADHARA – A Water conservation organization needs a poster to promote water conservation.  
You may draft the poster highlighting the following points:
  - a. Water crisis facing the country
  - b. Need of water conservation
  - c. Simple tips to save water
3. Collect five display advertisements of different school's summer camps and prepare one display advt. for your school's summer camp. Invent all necessary details.

**ACCOUNTANCY****A. Prepare a project on the following topic and submit it in a folder.**

Visit a commercial bank. Interview the Bank Manager. Find out the procedure to open various bank accounts and their suitability to the business. Find out the details of various agency and general utility services provided by the Bank.

**B. Answer the following questions:-**

1. Anil had the following transactions:
  - i. Commenced business with cash Rs. 1, 00,000 of which he deposited Rs. 60,000 in bank.

- ii. Bought goods for cash Rs. 30,000 and on credit Rs. 40,000.
  - iii. Purchased a machine for Rs. 2, 00,000 by raising loan from P.N.Bank, Hisar.
  - iv. Sold goods costing Rs. 20,000 @ a profit of 20% on cost to Mohan on credit.
  - v. Took goods of Rs. 5,000 and cash Rs. 4,000 for personal use.
  - vi. Paid interest on loan Rs. 4,000 and installment of bank loan Rs. 20,000 by cheque.
  - vii. Commission received in advance Rs. 8,000
  - viii. Paid Rs. 20,000 to creditor by cheque.
  - ix. Mohan settled his account at a discount of Rs. 500
  - x. Charge depreciation on machine @10% for the whole year.
- Use accounting equation to show the effect of above transactions.
2. Use accounting equation for the following transaction of Vijay:-
- i. Started business with cash Rs. 80,000.
  - ii. Bought goods for cash Rs. 20,000 and on credit from Ram for Rs. 30,000.
  - iii. Sold goods bought for cash to Mohan for Rs. 24,000.
  - iv. Settled the account of Ram by paying Rs. 29,500.
  - v. Salary paid to Ajay Rs. 8,000.
  - vi. Ajay requested for advance against salary of Rs. 1,000 and he got it.
  - vii. Paid rent Rs. 7,000 but Rs. 1,000 rent is still due.
  - viii. Paid insurance premium of Rs. 2,000 of which  $\frac{1}{4}$ <sup>th</sup> premium is for next year.
3. X started business with a capital of Rs. 1,20,000. During the year, he introduced further capital Rs. 30,000 but withdrew Rs. 25,000 during the year for personal use. At the end of the year, his assets worth Rs. 2,00,000

and liabilities amounting to Rs. 30,000. Determine his capital at the end of the year and profit or loss incurred during the year.

4. Find the opening capital of X from the following information:

Total assets Rs. 1, 40,000, outside liabilities Rs. 30,000. During the year, he introduced Rs. 30,000 as further capital and withdrew Rs. 20,000 for personal use and earned a profit of Rs. 30,000 during the year.

5. Give an example of each type of transaction from the following information:

- i. Decrease in asset, decrease in liability.
- ii. Increase in asset, decrease in another asset.
- iii. Increase in liability, decrease in another liability.
- iv. Increase in asset, increase in liability.
- v. Increase in asset, increase in capital.
- vi. Decrease in asset, decrease in owner's equity.

6. A) Pass opening entry of Rohit as on 1-1-2010 from the following details:

Assets: Cash Rs. 5,000, Bank Rs. 12,000, Debtors Rs. 35,000 ( Ashok Rs. 8,000, Balbir Rs. 7,000, Hari Rs. 20,000), Stock Rs. 25,000, Furniture Rs. 23,000.

Liabilities: Creditors Rs. 30,000 (Mohan Rs. 15,000, Kapil Rs. 9,000 and Amar Rs. 6,000), Bank Loan Rs. 20,000, Capital Rs. 65,000.

- B) Following balances appeared in the books of Vijay General Store on 1-4-2015

Assets: Cash Rs. 8,000, Bank Rs. 10,500, Debtors Rs. 25,000 ( A Rs. 10,000, B Rs. 8,000, C Rs. 7,000), Stock Rs. 24,500, Furniture Rs. 12,000.

Liabilities: Creditors Rs. 22,000 ( X Rs. 8,000, Y Rs. 5,000 and Z Rs. 9,000), Bank Loan Rs. 15,000.

7. Journalize the following transactions:

- i. Sold goods costing Rs. 20,000 to Amit at 30% profit on cost less trade discount 10% and cash discount 2% but Amit was not willing to avail cash discount.
- ii. Bought a second hand machine from Goel Store for Rs. 20,000. Paid Rs. 500 on carriage and Rs. 1,500 towards installation cost.
- iii. Paid insurance premium which include Rs. 400 towards next year.
- iv. Rent paid Rs. 3,000 but Rs. 1,000 is still due.
- v. Sold goods to Deepak of list price Rs. 20,000 less trade discount 10% and cash discount 2%. Deepak gave cheque for 40% amount which was banked.
- vi. Paid Goel Stores Rs. 5,000 in cash and cheque for Rs. 15,000.
- vii. Amit met with accident and died so nothing could be recovered from him.
- viii. Charge 10% depreciation on machine.
- ix. Allow interest on capital Rs. 4,000.
- x. Charge interest on drawing Rs.500.

8. Following balances appeared in the books of Super Garments as on 1<sup>st</sup> January, 2010:

Assets- Cash Rs. 5,000; Cash at Bank Rs, 12,500; Debtors Rs. 14,000 ;(Ashok Rs. 5,000, Kewal Rs. 6,000, Mohan Rs. 3,000), Stock Rs. 24,500 and Furniture Rs. 14,000

Liabilities- Creditors Rs. 12,000 (Ram Rs. 4,000; Amit Rs. 5,000 and Sunil Rs. 3,000), Bank Loan Rs. 18,000.

Following transactions took place during January, 2010:

Jan 3 Bought goods from Suresh for Rs. 25,000 at a trade discount of 20% and cash discount of 2%. Paid 40% amount immediately.

- Jan 5 Sold goods to Kewal Rs. 10,000.
- Jan 8 Received Rs. 15,500 from Kewal in full settlement of his account.
- Jan 10 Received cheque from Ashok Rs. 4,900 allowing him discount Rs. 100
- Jan 12 Cheque received from Ashok was deposited into bank.
- Jan 15 Cheque received from Mohan Rs. 2,950 in full settlement of his account, was deposited in bank on the same day.
- Jan 18 Cheque of Ashoka was dishonoured.
- Jan 20 Bought goods from Brown for Rs. 10,000.
- Jan 23 Goods bought from Brown was sold to James at a profit of 20%
- Jan 25 Withdrew cash from bank Rs. 4,000 for office use and Rs. 1,000 for private use.
- Jan 27 Goods distributed as free sample Rs. 3,000 and given as charity Rs. 1,000.
- Jan 29 Ashoka became insolvent and paid 60% only.
- Jan 30 Goods sold to cash Rs. 11,000 of which Rs. 6,000 deposited into bank.
- Pass Journal entries for above transaction.

## ECONOMICS

### **Chapter-9 Measures of Central Tendency – Arithmetic mean**

1. The following figures are the heights in cm of 7 children chosen at random  
64, 59, 67, 69, 65, 70, 68

Calculate the simple arithmetic mean of the heights by (i) direct method (ii) step deviation method and (iii) short-cut method.

2. Compute the arithmetic mean from the following frequency table

Height in cm	58	60	62	64	66	68
No. of plants	12	14	20	13	8	5

3. Find mean for the following data by using (i) direct method (ii) short cut method

(iii) Step deviation method.

x	100-200	200-300	300-400	400-500	500-600
y	10	18	12	20	40

4. The following table shows the age of workers in a factory. Find out the average age of workers.

Age in years	20-29	30-39	40-49	50-59	60-69
workers	10	8	6	4	2

5. Calculate the mean from the following data

Mid value	10	20	30	40	50
Frequency	8	12	15	9	6

6. Find the average age from the following data:

Age in years	Less than 10	10-20	20-30	30-40	More than 40
No. of persons	5	8	12	6	4

7. Calculate Median from the following data:

Marks	46-50	41-45	36-40	31-35	26-30	21-25	16-20	11-15
No. of students	5	11	22	35	26	13	10	7

8. Suppose mean of a series of 5 items is 30. Four values are 10, 15, 30 and 35 respectively. Explain the missing 5<sup>th</sup> value of the series.

9. Calculate the value of median from the following data

Income	1200	1800	5000	2500	3000	1600	3500
No. of persons	12	16	2	10	3	15	7

10. Find out the median size from the following

Size	10-20	20-30	30-40	40-50
Frequency	42	25	58	40

11. Find the median from the following

Marks(more than)	0	10	20	30	40	50	60	70
No. of students	100	92	78	44	32	18	15	13

12. From the following data, calculate the value of mode.

Salary in Rs.	2000	2100	2400	2900	3100	3300
No. of workers	3	5	10	19	8	4

**13.** Calculate the mode from the following data:

Marks	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	8	11	9	25	12	16

**14.** Find out modal value from the following data:

Marks	0-9	10-19	20-29	30-39	40-49	50-59
No. of students	3	7	15	25	10	4

Q.15. Calculate Mode from of the following data:

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	2	5	7	5	2

### ***BUSINESS STUDIES***

- A. 1.** Shruti cooks food at home for her family but Shelly cooks food and sells it to others in a restaurant who is engaged in business activity? Give reason in support of your answer.
- 2.** In whose name the shares of a government company are purchased?
- 3.** Is dairying a genetic or an extractive industry? Give reason in support of your answer.
- 4.** In 2001, only three industries were reserved exclusively for the public sector. Name these industries.



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5. A, B and C are partners in a firm. C used firm's money to buy shares without disclosing it other partners. Which value C is violating and what will be the treatment of profit earned by C?
  6. Name the enterprise which is the result of partnership between two companies. Why do two companies join together to work as one enterprise? Give two reasons.
  7. Public sector enterprises have played vital role in the economic development of India. However, Government of India vigorously pursues the policy of disinvestment of such units. What is the rationale of disinvestment at this time?
  8. Anshul is a farmer. His elder brother Deep is an advocate while his sister Chhavi is a clerk in a government office. Name the economic activity in which they are engaged and distinguish among them on the basis of
    - i. Reward / Return
    - ii. Capital Investment
    - iii. Risk
  9. "The Indian Partnership Act has effectively ensured the registration of firms without making it compulsory." Comment. Also explain briefly the procedure for registration.
  10. The owner of a general store wants to open a branch in a nearby town. Will you advise him to take a partner to run the branch store or employ a manager / assistant? Give reasons for your advice.
- B.** Collect 5 important business news every week from the newspaper or business journals and paste them in a register.

**MATHEMATICS**

1. If  $A \cup B = A \cap B$ , prove that  $A = B$ .
2. Let  $A = \{ a, b \}$ ,  $B = \{ a, b, c \}$ . Then,
  - (i) What is the relation between sets A and B
  - (ii) What is  $A \cup B$
  - (iii) What is  $A \cap B$
3. In a group of 65 people, 40 like cricket, 10 like cricket and tennis. How many like tennis only and not cricket? How many like tennis?
4. If X and Y are two sets such that  $X \cup Y$  has 28 elements, X has 18 elements and Y has 25 elements; how many elements does  $X \cap Y$  have?
5. In a survey of 100 students in a school, 10 were listed as taking apple juice, 50 as taking orange juice and 5 were listed as taking both apple as well as orange juice. Find how many students were taking neither apple juice nor orange juice.
6. If  $A = \{ 1, 2 \}$ , then find  $\{ A \times A \times A \}$
7. Prove that : 
$$\frac{\sin 8x \cdot \cos x - \sin 6x \cdot \cos 3x}{\cos 2x \cdot \cos x - \sin 4x \cdot \sin 3x} = \tan 2x$$
8. Find the domain and range of the real function  $f(x) = \frac{1}{x-3}$
9. Let  $f = (1,1) (2,3), \dots$  be a function from  $Z$  to  $Z$ ,  $\{ \}$  defined by  $f(x) = ax + b$ , for some integers a and b. Determine a and b.
10. Find the domain and range of  $f(x) = \sqrt{9 - x^2}$
11. Find the domain and range of  $f(x) = 3 / 5 - x^2$
12. Find the domain and range of the real function  $f(x) = - | x |$
13. Find the values of  $\sin 18^\circ$  and  $\cos 36^\circ$ .
14. Prove that  $\sin 10^\circ \sin 30^\circ \sin 50^\circ \sin 70^\circ = (1/16)$
15. Prove that :  $\tan 70^\circ = \tan 20^\circ + 2 \tan 50^\circ$ .
16. Calculate the value of  $\sin 15^\circ$ ,  $\cos 75^\circ$ ,  $\tan 75^\circ$ .
17. Prove that:  $\cos 20^\circ \cos 40^\circ \cos 60^\circ \cos 80^\circ = 1/16$ .

18.Using PMI, prove that  $n^2 + n$  is even for all  $n \in$  natural numbers.

19.Show that  $\sin 105^\circ + \cos 105^\circ = (1/\sqrt{2})$

20.Solve:  $\sec x - \tan x = \sqrt{3}$

### ***PHYSICAL EDUCATION***

**Q1.** Define physical fitness and wellness. Elaborate the importance of physical fitness and wellness in detail.

**Q2.** Narrate the Components of positive lifestyle in detail.

**Q3.** Define physical education and explain its aim and objectives in detail.

**Q4.** Name the careers available in the field of physical education in India. Discuss the performance related careers in detail.

**Q5.** Elucidate about the development of values through Olympic movement..

**Q6.** Explain about Rajiv Gandhi Khel Ratna Award in detail.

**WINTER HOLIDAYS HOMEWORK**  
**CLASS-XI Commerce (2018-19)**

**English:**

1. Design a poster for promoting cleanliness in the surrounding of your colony.  
\* Points to be included:
  - (a) Slogans
  - (b) Visuals
  - (c) Issuing Authority

- Accountancy:-**
- 1) Prepare Journal, Ledger, Trial Balance, Financial Statements, Bar graph and pie charts on the basis of question given in the class.
  - 2) Prepare voucher of the given question in the class.
  - 3) Do Q8. (pg no P-36) for all
- Note :-** Submit your project in spiral binding.

- Business Studies:-** Prepare a project according to the instructions given in the class on the following topics.
- a) Departmental Stores
  - b) Insurance
  - c) Multinational Companies
  - d) Small Scale Industries
- Note :-** Submit your project in spiral binding.

- Economics :-** Students have to prepare 1 project of economics from Part-B. Topics for the projects can be related to any economic issues like:
- 1) Dissemination of price information for growers and its impact on consumers.
  - 2) Global Warming
  - 3) Designing eco-friendly projects applicable in school such as paper and water cycle.
  - 4) Impact of demonetization on Indian economy.

- 5) Any economic issue like poverty, unemployment or population. Its causes and effects of inequalities of income and wealth in your country and steps taken by government to mitigate these.
- 6) Impact of GST bill on trade.
- 7) A project on make in India and its impact on Indian Economy.
- 8) What is national debt? Give your suggestions to overcome from this problem. Also suggest yours views on following measure?
  - a) Should the government make cuts to public spending in order to reduce the national debt?
  - b) Should the government raise taxes on the rich?
- 9) What are labour unions? Explain acts made for trade union. Do you believe labour unions help or hurt the economy?
- 10) New policies introduced by government and its impact on Indian Economy.
  - (ii) Highlights of changes in government budget and its impact on Indian economy.

**Note:** - Maximum length of a project should be 10 pages and need to be submitted in a neat folder.

### **MATHS:**

1. Reduce  $(\frac{1}{1-2i} + \frac{3}{1+i})(\frac{3+4i}{2-4i})$  to the standard form.
2. If  $(x+iy)^3 = u + iv$ , then show that  $\frac{u}{x} + \frac{v}{y} = 4(x^2 - y^2)$ .
3. Solve graphically:  $x+2y \leq 2000$ ,  $x+y \leq 1500$ ,  $y \leq 600$ ,  $x \geq 0$ ,  $y \geq 0$ .
4. How many numbers are there between 100 and 1000, which have exactly one of their digits as 7?
5. How many diagonals are there in a polygon of n sides?
6. Find the coefficient of  $x^{32}$  and  $x^{-17}$  in the expression of  $(x^4 - 1/x^3)^{15}$ .
7. The 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> terms in the expansion of  $(x + y)^n$  are 240, 720 and 1080 respectively. Find the values of x,y and n.
8. If the m<sup>th</sup> term of a given AP is n and its n<sup>th</sup> term is m then show that its p<sup>th</sup> term is  $(n+m-p)$ .
9. If p<sup>th</sup>, q<sup>th</sup> and r<sup>th</sup> term of an AP are a,b,c respectively. Show that  $(q-r)a + (r-p)b + (p-q)c = 0$ .
10. Find the sum  $1^2 + (1^2+2^2) + (1^2+2^2+3^2) + \dots +$  to n terms.
11. Prove that:  $\sin 5x - 2\sin 3x + \sin x / \cos 5x - \cos x = \operatorname{cosec} 2x - \cot 2x$
12. Prove that:  $\cos 20^\circ \cos 40^\circ \cos 60^\circ \cos 80^\circ = 1/16$

13. Prove that:  $\cos 5x = 16\cos^5 x - 20\cos^3 x + 5\cos x$
14. Solve:  $\sec x - \tan x = \sqrt{3}$
15. Using slopes, show that the vertices  $(-2, -1)$ ,  $(4, 0)$ ,  $(3, 3)$  and  $(-3, 2)$  are the vertices of a parallelogram.
16. Find the equation of line passing through  $(-2, -4)$  and perpendicular to the line  $3x - y + 5 = 0$ .
17. The mid-points of the sides of a triangle are  $(1, 5, -1)$ ,  $(0, 4, -2)$  and  $(2, 3, 4)$ . Find its vertices.
18. Solve miscellaneous exercise of Ch- Trigonometry (NCERT).
19. Solve miscellaneous exercise of Ch- limits and derivatives (NCERT).
20. Differentiate :
- $e^x(x^3 + \sqrt{x})$
  - $x^2 \tan x$
  - $(\sin x + \cos x / \sin x - \cos x)$
  - $(\sec x - 1 / \sec x + 1)$

**Physical Education: -**

1. Prepare physical education practical file. Revision of chapters 7 & 8.
2. Measures BMI of 10 members of your family or neighbourhood and how graphical representation of the collected data .

**Computer Science: -**

- ❖ Create a graphical application that accepts user input, performs some operation on them and then writes the output on the screen. For example, write a small Calculator. Use the tkinter Library.
- ❖ Take a Sample of 10 phishing e-mails and find the most common words.