CLASS – XI-B	**WINTER BREAK**	**HOMEWORK**

Name:		**Date:**	

This is to bring to your kind notice that the school will reopen on Monday, 12th January 2015.

ENGLISH

1. Write a book review of "Canterville Ghost" by Oscar Wilde in around 200-250 words. Focus specifically on Ch 3-6 for the same.

2. You are Akash Juneja, Sports Captain of Aravali Heights School, Vasant Vihar. Write a letter to 'Glows Sports Shop' and order sports goods for the annual athletic meet in you school.

3. Based on your reading of 'Tale of Melon City', comment on the poem as a satire on the dysfunctional judiciary and bureaucratic system. (150 words)

4. Draft an advertisement for the classified section informing public abouit the sale of your Maruti Alto. You are going abroad and are urgently in need of a buyer. (50 words)

MATHEMATICS

1. Prove that $\tan 75^0 = 2 - \sqrt{3}$

2. Prove that $7^{2n} + 2^{3n-3}.3^{n-1}$ is divisible by 25.

3. Convert $-\sqrt{3}i + 1$ to polar form.

4. Find the modulus and argument of $(1 - i)^3$.

5. From 7 consonants and 4 vowels,how many different words can be formed consisting of 3 consonants and 2 vowels?

6. Find the domain and range of $y = \frac{2}{3-2x}$?

7.Find the term independent of x in the expansion of $(x^2 - \frac{2}{x})^9$.

8.If G is the geometric mean between two distinct positive numbers a and b,then show that

$$\frac{1}{G-a} + \frac{1}{G-b} = \frac{1}{G}$$

9. Find the derivative of the following using first principle:

   (a) cosec x   (b) $\frac{\cos x}{x}$ (c) xcosx   (d) $\frac{ax+b}{cx+d}$

10. Find the equation of the circle passing through (0,2),(3,0) and (3,2).

11. If $f(x) = \frac{x-1}{x+1}$, prove that $f(f(x)) = \frac{1}{x}$

12.Probability of solving a certain problem independently by A and B are 1/4 and 1/5 respectively.If both try to solve the problem,find the probability that

   (a) both of them solve

   (b) exactly one of them solves

   (c) no one solves

   (d) it is solved

13.Evaluate the following:

   (a) $\lim_{x\to0} \frac{x\tan x}{1-\cos x}$

   (b) $\lim_{x\to1}(1-x)\tan90x$

14.Divide 69 into 3 parts such that they are in A.P. and the product of two smaller parts is 483.

15.Find the sum of 7,7.7,7.77,7.777,…….upto 50 terms.

16.Find the number of ways in which the letters of the word MACHINE can be arranged so that the vowels may occupy the odd positions.

17.If three consecutive terms in the expansion of $(1 + x)^n$ are in the ratio 6 : 33 : 110,find n.

18.Prove that : $\frac{\sec 8A - 1}{\sec 4A - 1} = \frac{\tan 8A}{\tan 2A}$

SACHDEVA GLOBAL SCHOOL

BUSINESS STUDIES

Q1Explain loans from commercial banks as a source of business finance.

Q2 What are the services offered by retailers to wholesalers and consumers?

Q3 What are the incentives provided by the government for small scale industries?

Q4 Differentiate between the following:
   a) Shares and Debentures
   b) Equity Shares and Preference Shares
   c) Public Deposits and Bank Loans

Q5 Explain the role of small business in India.

Q6 Do you think that small business units can survive in a competitive market? Explain the   factors which make way for the scope of small business enterprise.

Q7 What are the different parameters used to measure the size of business? What is the definition used by the Government of India for Small-Scale Industries?

Q8 Describe the role of following in promotion of small industries in India:
   a) NSIC
   b) DICs

Q9 Why is equity share capital called 'Risk Capital'?

Q10 Itinerant traders have been an integral part of internal trade in India. Analyse the reasons for their survival in spite of competition from large scale retailers.

ACCOUNTANCY

PROJECT WORK

Prepare project on any one of the following:

1. Collection of Source Documents, Preparation of Vouchers, Recording of Transactions with the help of vouchers.
2. Preparation of Bank Reconciliation Statement with the Cash Book and the Pass Book with twenty to twenty-five transactions.
3. Comprehensive project starting with Journal entries regarding any sole proprietorship business, posting them to the Ledger and preparation of Trial Balance. Also prepare Trading and Profit and Loss Account. Expenses, incomes and profit (loss) are to be depicted using pie chart/ bar diagram.

1. Draw a scatter diagram to show perfect negative correlation between X and Y.

2. Calculate the range if the highest value is 75 and lowest value is 45.

3. Calculate mean deviation method from median from the following data:

Wage (₹)	15	25	35	45	55
No. of workers	10	30	50	30	20

4. Calculate Quartile deviation from the following data:

Class interval	50-100	100-150	150-200	200-250	250-300	300-350
Frequency	2	10	10	4	4	20

5. Calculate coefficient of variation from the following data:

(Take A = 50)

Class interval	0-20	20-40	40-60	60-80	80-100
Frequency	2	4	7	4	3

6. Calculate Karl's Pearson's coefficient of correlation from the following data. Also interpret the result.

X	2	1	5	3	4	7	6
Y	1	3	2	4	7	5	6

7. Calculate Spearman's coefficient of rank correlation from the following data. Also interpret the data.

X	12	13	11	12	12	14	18	15
Y	23	26	28	28	27	29	30	20

8. List the difference between absolute poverty and relative poverty.

9. Explain how investment in education stimulates economic growth?

10. Differentiate between human capital and human development.

11. Is it necessary to generate employment in formal sectors rather than in informal sectors? Give reasons.

12. Explain "growth oriented approach" to remove poverty.

13. Discuss the drawbacks of health infrastructure in India.

14. Explain any three measures taken by the government to improve agricultural marketing.

15. Define agricultural diversification. Why is agricultural diversification essential for agricultural livelihood?

Wishing you and your family a very happy and prosperous new year