# *STEPHENS INTERNATIONAL PUBLIC SCHOOL*

Holidays Homework for Class – 10th – 2018-19

---

**ENGLISH:**

**Novel** – The Story of My Life

Read Chapters V, VI, & VII and answer the following questions.

Q:1. How does author's visit to the banks of the Tennessee River help to grow her knowledge about things? Discuss.

Q:2. Why does the author call mimosa tree as her "tree of paradise"? Explain.

Q:3. Discuss the words in which Miss Sullivan explained the meaning of 'love' to the author.

Q:4. Discuss author's interest in Arithmetic, Zoology and Botany.

Q:5. In which words does the author praise her teacher for making the first year of her education so beautiful? Explain.

Q:6. You are Himanshi / Ankit living at 16/52 Utlan lines, Delhi, the residents of your area are facing lots of inconvenience due to poor maintenance of the public park of your locality. Write a letter to the Editor of a local daily newspaper drawing the attention of the concerned higher authorities towards the problem and requesting them to solve it.

Q:7. Write an article on the topic – the evil practice of child labour prevalent in India (120-150words).

Q:8. "When you live for a strong purpose, then hard work isn't an option. It is a necessity." Both Nicola and Jacopo were hard working and uncomplaining. You too realized the importance of hard work after reading their story. Write an article in 120–150 words on the virtues of hard work. (Two Gentlemen of Verona)

- Revise all the work done in the class.

---

**HINDI**

ç1- dcj th dh ^lk[k* d vfrjDr dN vU; nkg fy[kA

ç2- ehjkckb dh Jhd".k d ifr HkfDr&Hkkouk dk fp=k nokjk n'kk,A

ç3- dfo lfe=kunu ir dh dN dforkvk d uke fy[kdj dN fPk= Hkh fpidk,A

ç4- dN nl nl egkoj fy[kdj mud okD; e i;kx djA

ç5- ekdV e u;k i; ^BMk dkyk* ipfyr dju d fy, foKkiu r;kj djA

---

**MATHEMATICS**

**Use separate notebook for holiday's homework**

Q:1. Show that $n^2 - 1$ is divisible by 8, if $n$ is odd integer.

Q:2. There is 250 and 425 litres of milk in two containers. What is the maximum capacity of the container which can measure completely the quantity of milk in the two containers?

Q:3. Find the H.C.F. and L.C.M. of 336 and 54 by prime factorization method and verify that H.C.F. × L.C.M. = Product of the two numbers.

Q:4. Examine whether $(4)^n$ can end with the digit 0 for any natural number $n$.

Q:5. Show that $5 \times 7 \times 11 \times 13 + 55$ is a composite number.

Q:6. Prove that $\sqrt{3}$ is not a rational number.

Q:7. If α, β are the zeroes of $p(x) = x^2 - 5x + 4$, find the value of (i) $\alpha^2 + \beta^2$, (ii) $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$

Q:8. If α, β are the zeroes of the quadratic polynomial $x^2 + kx + 12$, such that $\alpha - \beta = 1$, find k.

Q:9. Find the quadratic polynomial where zeros are square of the zeros of $x^2 - x - 1$.

Q:10. If one of the zeros of $(k - 1)x^2 + kx + 1$ is –3, find the value of k.

Q:11. If α, β are the zeros of $x^2 - (k + 6)x + 2(2k - 1)$, find k, if $(\alpha + \beta) = \frac{1}{2}\alpha\beta$.

Q:12. If the product of two zeros of $3x^3 + 5x^2 - 7x - 27$ be 3, find other two zeros.

---

Q:13. Solve: $\frac{x}{a}+\frac{y}{b}=a+b$ and $\frac{x}{a^2}+\frac{y}{b^2}=2$

Q:14. The sum of a two-digit number and the number formed by reversing the digits is 132. If 12 is added to the number, the new number becomes 5 times the sum of the digits. Find the original number.

Q:15. Ten years hence, a man's age will be twice the age of his son. Ten years ago, the man was 4 times as old as his son. Find their present ages.

Q:16. For what value of *a* and b, the following system of linear equations
$2x + 3y = 7$ and $2ax + (a + b)y = 28$ has infinite many solution?

Q:17. For which value of k, the system of equations $kx + 2x = 5$, $3x + y = 2$ has a unique solutions?

Q:18. Find the roots of $2x^2 - 5x + 3 = 0$ if they exists by the method of completing the squares.

Q:19. Find the roots of $36x^2 - 12ax + (a^2 - b^2) = 0$ by factorization method.

Q:20. If the roots of the equation $(a - b)x^2 + (b - c)x + (c - a) = 0$ are equal, prove that $2b = a + c$.

Q:21. If $\sin(A + B) = 1$ and $\cos(A - B) = \frac{\sqrt{3}}{2}$, find A and B.

Q:22. If $\theta = 45^o$, find $\cos^2\theta - \sin^2\theta$.

Q:23. Evaluate: $\sin 30^o \cos 45^o + \cos 30^o \sin 45^o$

Q:24. If $\sin\theta = \sqrt{3}\cos\theta$, find $\sin\theta$ and $\cos\theta$.

Q:25. If $\tan\theta = \frac{3}{4}$, find other five trigonometric ratios.

Activity 1 To obtain the condition for consistency of a system of linear equation in two variables by graphical method.

Activity 2 To make a clinometers and use it to measure the height of an object i.e. (Tree, Tower etc)

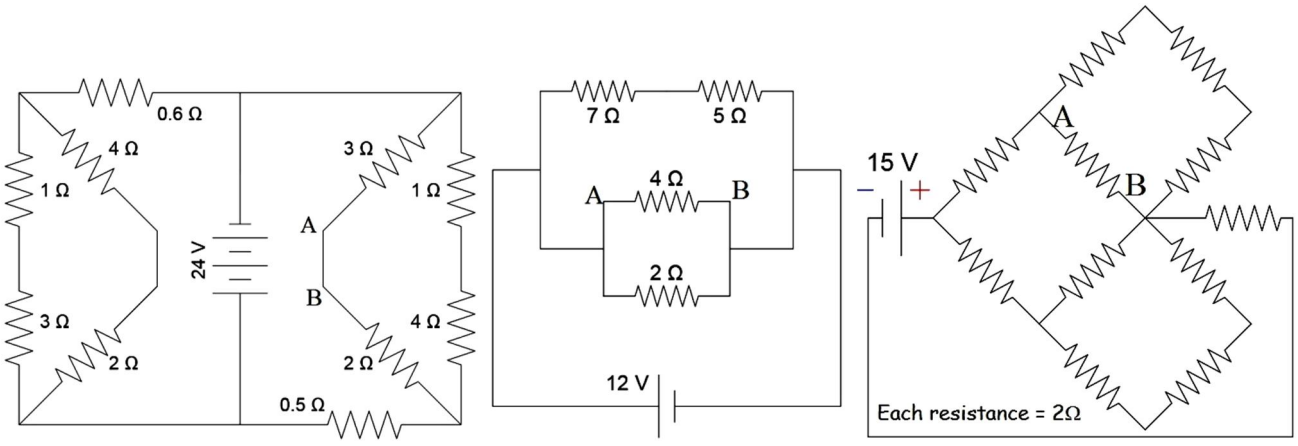
Activity 3 To verify the Pythagoras theorem by the method of paper folding, cutting and pasting.

---

**SCIENCE**

**Physics:-**

Q:1. Determine the total current drawn from the battery in the three circuits shown in Figure 1




(a) (b) (c)

Figure 1

Q:2. Calculate the current flowing through part AB in circuits shown in Fig 1 (a, b, c).

Q:3. Determine the electric power consumed by the part AB of each circuit shown in Fig 1.

---

Q:4. In figure 2, what is the equivalent resistance between the points (i) d and e (ii) c and f (iii) a and b? Assume each resistance to be 1Ω.

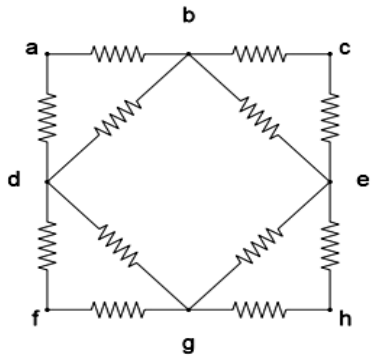


Figure 2

Q:5. Calculate the electric energy in commercial units consumed in your home during the period of your summer vacation (June 10th to June 30th). {Warning: no two students should arrive at the same answer for this problem unless they are siblings and live in the same home}

**Chemistry**

Q:1. What is the name and formula of the product formed when water is added to quick lime for white wash?

Q:2. Name one type to which aluminothermy reaction belongs.

Q:3. Give one example of a reaction which is precipitation as well as double decomposition reaction.

Q:4. Can we place copper sulphate solution in an iron vessel? Why or why not?

Q:5. Identify oxidizing and reducing agent in the following reaction giving reason

$$2H_2S + SO_2 \longrightarrow 3S + 2H_2O$$

**Biology**

Q:1. Write activity 6.1, 6.2, 6.3, 6.4 and 6.5 in your practical files. Draw suitable diagrams where necessary. (*Refer page no. 40, 41, 42 of Pradeep Refresher for completion of these activities*)

Q:2. What are plant hormones? Name them and mention one-one function of each.

Q:3. Draw the structure of a Neuron and explain the parts of Neuron.

Q:4. Name the correct substrates for the following enzymes.

(a) Trypsin (b) Amylase (c) Pepsin (d) Lipase

Q:5. Subject Enrichment Activity:-

Write one page paragraph as information on the topics:-

(a) Haemodialysis (b) Peptic Ulcers

(c) High Blood Pressure (d) Heart failure

(*Do any two. You are permitted to collect information from internet or any other magazine or book*)

---

**SOCIAL SCIENCE**

Q:1. Trace the process of German Unification.

Q:2. What is the different between a federal form of government and a unitary one? Explain with examples.

Q:3. How does public sector contribute in a developing nation?

Q:4. Explain the land use pattern in India. Why has the land under forest not increased much since 1960–1961?

Q:5. Make a wall magazine on importance of water as a resource. (Roll No. 1 to 15)

Q:6. Make a wall magazine on water conservation. (Roll No. 16 onwards)

Q:7. On a political map of India locate and label the following:-

Important centres of Indian National Movement

(i) Champaran (Bihar) – Movement of Indigo Planters

(ii) Kheda (Gujrat) – Peasant Satyagrah

(iii) Ahmedabad (Gujarat) – Cotton Mill Workers Satyagraha

(iv) Amristar (Punjab) – Jallianwala Bagh Incident

(v) Chauri Chaura (U.P.) – calling off the Non Cooperation Movement

(vi) Dandi (Gujarat) – Civil Disobedience Movement

***Note:- Learn the syllabus covered in the class.***