

# **CLASS X**

## **SUMMER HOLIDAY HOMEWORK**

### **ENGLISH**

Prepare a Bio – Sketch of P.B. Shelly (2 Pages only)

### **HINDI**

- 1) Do one unread prose and one unread poetry in your copy.
- 2) Practice Kriya and Vachya
- 3) Write an essay on ‘Vigyapan ka Prabhav’.

### **BENGALI**

- 1) Learn the poem “Kandari Husier “ and practice the question and answers
- 2) Revise “Samas”
- 3) Write a Story (100 words) with the following link. Write the title of the story and mention what did you learn from the story.

Mitu studies in class V. In her adjacent a girl of 5 to 6 yrs. works as a domestic help----- She is beaten , cries screams -----  
Neighbours keep quiet ----- Mitu and her friends of her age saves the girl from the situation.

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1) In  $\triangle ABC$  right angled at B,  $AB=4$ ,  $BC=3$  and  $AC=5$ . Find the value of the following :

(i)  $\sin A \cos A$

(ii)  $\sin A \cos C + \cos A \sin C$

2) If  $\operatorname{Cosec} \theta - \sin \theta = 1$  and  $\sec \theta - \cos \theta = m$

Prove that  $l^2 m^2 (l^2 + m^2 + 3) = 1$

3) Prove that

$$(1 + \cot \theta - \operatorname{Cosec} \theta)(1 + \tan \theta + \sec \theta) = 2$$

4) If A, B and C are interior angles of a triangle ABC. Show that

$$\frac{\sin(B+C)}{2} = \frac{\cos A}{2}$$

5) Prove that

$$\left(1 + \frac{1}{\tan^2 \theta}\right) \left(1 + \frac{1}{\cot^2 \theta}\right) = \frac{1}{\sin^2 \theta - \sin^4 \theta}$$

6) If  $\operatorname{Cosec} \theta - \sin \theta = m$

$\sec \theta - \cos \theta = n$

Prove that  $(m^2 n)^{2/3} + (mn^2)^{2/3} = 1$

7) If  $\cos(40^\circ + x) = \sin 30^\circ$  Then the value of x is

(a) 70 (b) 100 (c) 20 (d) 10

8) If  $\cot \theta = \frac{1}{3}$  then the value of  $\frac{1 - \cos^2 \theta}{2 - \sin^2 \theta}$  is

(a)  $\frac{4}{5}$  (b)  $\frac{3}{2}$  (c)  $\frac{3}{5}$  (d)  $\frac{2}{3}$