



**HOLIDAY HOMEWORK( 2014-15)**

**Class: X**

**Subject- Assamese**

Write an article about the various traditions followed in Assamese Marriage system with supporting photographs. ( Ref. Book : " Axomiya Loko Sanskriti" by Dr. Nirmal Prava Bordoloi

Subject: French

**Refaites les exercices grammaticaux de lecon-1 et 2 dans votre cahier.**

**Subject: Physics**

**A. Solve the following: (in the class work copy)**

1. A wire of resistance 20 Ohm is stretched so that its length is twice its original length. Calculate its new resistance. What is the percentage change in its resistance?
2. A conductor carries a current of 0.5A. Find the amount of charge that will pass through the conductor in 1.5 minutes. How many electrons will flow in this time interval?
3. Calculate the area of cross section of a wire, if its length is 1m, its resistance is 23 ohm and the resistivity of the material of the wire is  $1.84 \times 10^{-6}$  Ohm m.

**B. The following practical is required to be written in the Laboratory File from any Laboratory Manual.**

The aim of the experiment is-

"To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I."

This practical includes the following subtopics:

- a. Aim of the experiment
- b. Materials Required
- c. Theory
- d. Circuit diagram (to be drawn in the white page)
- e. Observation table
- f. Result
- g. Graph between V and I (to be drawn on the graph paper and to be pasted on the next white page)
- h. Precautions (At least 3 points)

**Subject :MATHS**

1. If  $\alpha$  and  $\beta$  are the zeroes of the quadratic polynomial  $f(x) = ax^2 + bx + c$ , then evaluate

(i)  $\alpha^2 + \beta^2$

(ii)  $\frac{1}{\beta} + \frac{1}{\alpha}$

(iii)  $\alpha^4 + \beta^4$

(iv)  $\frac{\alpha^2}{\beta^2} + \frac{\beta^2}{\alpha^2}$ .

2. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $f(x) = x^2 - p(x+1) - c$  such that  $(\alpha + 1)(\beta + 1) = 0$ . What is the value of  $c$  ?
3. If one zero of the polynomial  $(a^2 + 9)x^2 + 13x + 6a$  is reciprocal of the other. Find the value of  $a$ .
4. If the polynomial  $6x^4 + 8x^3 + 17x^2 + 21x + 7$  is divided by another polynomial  $3x^2 + 4x + 1$ , the remainder comes out to be  $(ax + b)$ , find  $a$  and  $b$ .
5. If the zeroes of the polynomial  $x^2 + px + q$  are double in value to the zeroes of  $2x^2 - 5x - 3$ , find the value of  $p$  and  $q$ .
6. Form a quadratic polynomial, one of whose zero is  $2 + \sqrt{5}$  and the sum of zeroes is 4.
7. What must be subtracted or added to  $p(x) = 8x^4 + 14x^3 - 2x^2 + 8x - 12$  so that  $4x^2 + 3x - 2$  is a factor of  $p(x)$  ?
8.  $\alpha, \beta, \gamma$  are zeroes of cubic polynomial  $kx^3 - 5x + 9$ . If  $\alpha^3 + \beta^3 + \gamma^3 = 27$ , find the value of  $k$ .
9. Two Zeroes of cubic polynomial  $ax^3 + 3x^2 - bx - 6$  are  $-1$  and  $-2$ . Find the third zero and value of  $a$  and  $b$ .
10.  $\alpha, \beta, \gamma$  are zeroes of cubic polynomial  $x^3 - 2x^2 + qx - r$ . If  $\alpha + \beta = 0$  then show that  $2q = r$ .
11. For what values of  $a$  and  $b$  does the following pair of linear equation have an infinite numbers of solutions ?  $2x + 3y = 7$  ;  $a(x + y) - b(x - y) = 3a + b - 2$ .
12. Solve the following pair of linear equations for  $x$  and  $y$  :  

$$\frac{b}{a}x + \frac{a}{b}y = a^2 + b^2 ; x + y = 2ab.$$
13. In a two digit number, the tens digit is three times the unit digit. When the number is decreased by 54, the digits are reversed. Find the number.
14. A man invested Rs. 30000 in two types of bonds. On one, he earns 5 % and on the other, he gets 7 %.  
If his total earning are Rs. 2000, find his investment in each type of bond.
15. Solve for  $x$  and  $y$  :  $a^2x + b^2y = c^2$  ;  $b^2x + a^2y = d^2$ .
16. Solve for  $x$  and  $y$  :  $\frac{xy}{x+y} = \frac{1}{2}$  ;  $\frac{xy}{x-y} = \frac{1}{6}$ , where  $x + y \neq 0, x \neq y$ .

17. Solve the equation graphically :  $2x + y = 2$  ;  $2y - x = 4$ . What is the area of the triangle formed by the two lines and the line  $y = 0$  ?

18. A man walks a certain distance with certain speed. If he walks 0.5 km/hr faster, he takes 1 hour less.

But if he walks 1 km/hr slower, he takes 3 more hours. Find the distance covered by the man and his original rate of walking.

19. A railway half ticket costs half the full fare and the reservation charge is the same on half ticket as on

full ticket. One reserved full ticket from Guwahati to Dibrugarh costs Rs. 216 and one full and one half reserved tickets costs Rs. 327. What is the full fare and the reservation charge ?

20. The age of the father is equal to the sum of the ages of his 6 children. After 15 years, twice the age of the father will be the sum of the ages of his children. Find the age of the father.

**Subject: Sanskrit**

**Write and learn shabdaropani of Nadee, Lata, Jagat, Bhawat and Wari.**

Subject: - Science (BIOLOGY)

Writing of practicals done in the class( in lab files)

- Light is essential for photosynthesis
- Carbon dioxide is essential for photosynthesis
- Carbon dioxide is evolved in respiration
- Stomatal structure( Leaf peel)

Subject: History(to be done in classwork copy)

1. On an outline political map of India locate the following:

(i) The three main pre- colonial ports in India

(ii) The main large- scale industrial regions during the colonial period

2. On an outline political map of Asia find and draw the sea and land links of the textile trade from India to Central Asia, West Asia and Southeast Asia.

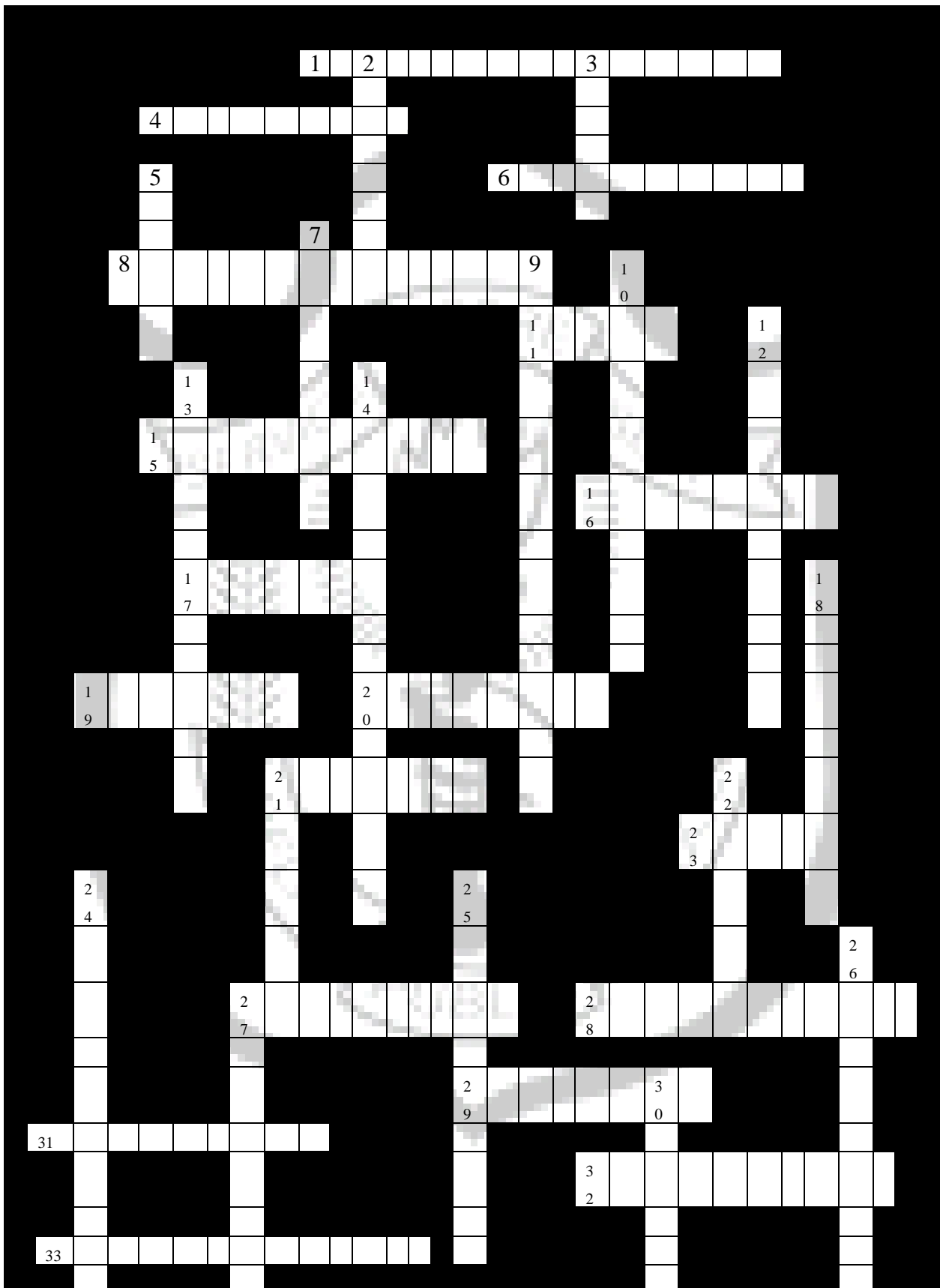
3. Imagine yourself as a British merchant and give three reasons why you could not be persuaded to buy a new machine.

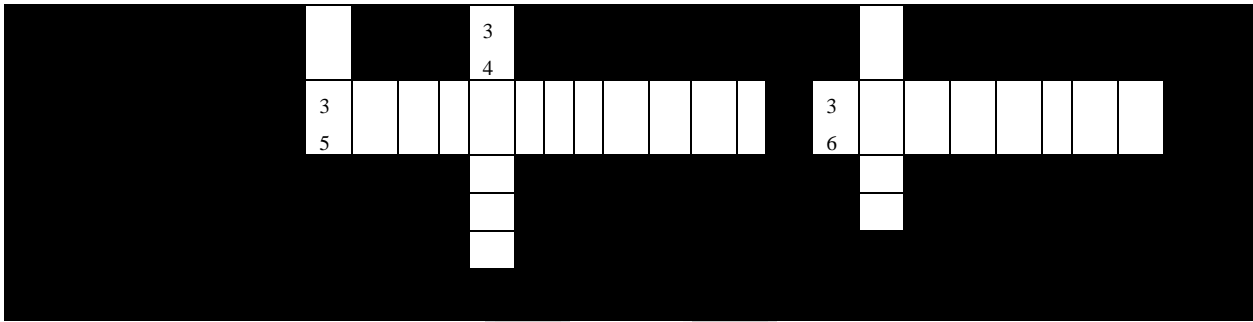
OR

Imagine yourself as an Indian weaver in the 19<sup>th</sup> century and explain three problems you faced under the company rule in the context to your occupation.

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Subject: Civics(to be done in classwork copy)  
Activity 1: Crossword (Do and paste in civics copy).





### CLUES:

#### Across:

1. When power is taken away from Central and State governments and given to local governments. (16)
4. One of the important organs of government. (9)
6. System of government in which the power is divided between a central authority and various constituent units of the country. (10)
8. A belief that the majority community should be able to rule a country in whichever way it wants. (15)
11. Several states become a part of the country. (5)
15. Supreme law of the country. (12)
16. Self government.(8)
17. Areas of a country. (7)
19. Based on the principles of federalism. (7)
20. A government formed by two or more political parties. (9)
21. An elected representative of the people. (8)
23. A district. (5)
27. Based on careful calculation of gains and losses. (10)
28. The Parliament where laws are made. (11)
29. Head of a gram panchayat. (8)
31. Lack of agreement between opinions or principles. (9)
32. Based on language. (10)
33. Rural local government. (10, 3)
35. Guardian of the Constitution. (7, 5)
36. To give space to minority communities in the government and administration.

#### Down:

2. A violent conflict between opposing groups within a country that becomes so intense that it appears like a war. ( 5, 3)
3. Constituent units or provincial or regional governments. (6)
5. Number of Dutch and French speaking representatives in the central government of Belgium. (5)
7. A social division based on shared culture.(6)
9. Urban local government. (12)
10. Third kind of government in Belgium. (9)
12. A government formed by the people. (9)
13. A body of elected representatives. (10)
14. An area of legal authority. (12)
18. Power sharing among different levels of government. (8)
21. Political head of a municipality. (5)
22. Series or levels. (5)

24. Power sharing among different organs of government. (10)
25. All the voters in a village are its members. (4, 5)
26. It oversees the implementation of constitutional provisions and procedures. (9)
27. It is the decision-making body for the entire village. (10)
30. This list has subjects of common interest to both the Union and State Governments. (10)
34. Demand of the Tamils in Sri Lanka. (5)

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**Subject: Geography(to be done in classwork copy)**

1. Collect information regarding plants and animals from any one national park and one wildlife sanctuary located in Assam.
2. On an outline political map of India, locate and label the following:
  - a) Fourteen biosphere reserves in India.
  - b) Any ten wildlife sanctuaries in India
  - c) Any ten national parks in India

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**Subject: Economics**

1. Which organization publishes the Human Development Report ?
2. What is the full form of HDI?
3. Mention any three non material things which people need besides income?
4. Which countries according to the World Development Report 2012 called Rich countries?
5. In which category does India fall according to the World Development Report 2012?
6. Define Infant Mortality Rate (IMR)?
7. Mention the development goal of a girl from rich urban family?
8. How is World Development Report different from United Nations Development Programme(UNDP)?
9. Write two values that are associated with Public Facilities?
10. Give two examples where average is used for comparing situations?

**Subject: SUPW**

Prepare any one form the following which will be graded for SA – I

1. Paintings (glass painting, canvas painting, fabric painting etc.)
2. Flower pot
3. Flower making (organdie flower, paper flower, etc.)
4. Pen stand
5. Lamp shade
6. Embroidery work ( handkerchief, table mat, table cover)
7. Stitching work (foot mat, table cover etc.)
8. Any tie and dye product (dupatta, pillow cover, bed cover, table mat etc.)

9. Paper folder

10. Wall hanging.

Subject: Chemistry

- **Write synopsis for Chemistry exhibit** (static /working) based on Middle /High School level.

Choose any one topic from the following to select the project .

Green Chemistry

General Chemistry

Everyday chemistry

You are expected to write systematic steps( about 500 words) including Requirements of the project, Principle involved, Diagram /flow chart (if any), working , expected cost for preparing model (if any) etc.

Please submit your projects written on A-4 size paper ( **Stick File not required**)

Also mention its uses and importance in serving mankind/ saving environment.

- **There will be one mark on submission by 10<sup>th</sup> July included in FA II.**
- You are expected to write the following practical in your Lab files.

To perform and observe the following reactions and classify them into ;

- i) Combination reaction
- ii) decomposition reaction
- iii) displacement reaction
- iv) decomposition reaction

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Subject: English

**a) To Read Extra Reading Book, “THE DIARY OF A YOUNG GIRL” till diary entry of 31<sup>st</sup> March 1944. (the entire portion for S.A-1)**

**b) Integrated grammar practice 2, 3, 4 and 5 from the workbook.**

Subject: fgh

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