Sir Padampat Singhania School, Kota

Holiday Homework
Session: 2019-20
Class – X

English

1. Compose a creative, original write up for your school magazine.
2. Read, Write and Summarize any poem of Robert Frost other than the text book. Create a pictorial presentation for the same.
3. Write an article on the following topics –
   (a) Voting is the foundation of Democracy.
   (b) Technology explosion has ruined the creativity of students.

Hindi

प्रीतिभोज – आधुनिक भोज (बुफे) एवं प्राचीनतम स्नेहभोज प्रणाली पर तुलनात्मक संवाद लिखें ।

Social Science

1. Prepare a project on any one of the following topics as per the instruction given in the class.
   (a) Consumer awareness
   (b) Social issues
   (c) Sustainable development

Worksheet
Political Science: Federalism

Answer the following.

1. How is a Federal government organised?
2. "Indian constitution has a unitary bias". Support the statement with one example.
3. Define Federalism.
4. Why was States Reorganisation Commission formed?
5. What is a coalition government?
6. Distinguish between 'Coming together federation' and 'Holding together federation' with examples. India comes under which type of federation?
7. Why has the government of India not imposed any particular language as an official language for the whole Nation? explain
8. Write any four characteristics of language policy of India
9. What is meant by decentralization of power? What is the basic idea behind decentralization?
10. How is a Federal government better than unitary government?
11. Explain any five provisions of the constitutional amendment of 1992 that strengthened the third tier of government in India.

Or

Which Constitutional amendment made the third tier of government in India more effective and powerful? Describe the constitutional steps taken in this amendment to empower local government.

12. What is Gram Sabha describe any four functions of a Gram Sabha.
13. Explain any five features of Panchayati Raj system.
14. Critically analyse the centre state relationship prior to 1990 and after.
15. What are the salient features of federalism practiced in India?

Worksheet

Geography: Agriculture

I. Define the following

1) Primitive subsistence agriculture 2) Slash and Burn agriculture

3) Plantation crops 4) Cropping season 5).Commercial farming

II Answer the following questions

1) Why is India called an agrarian country?

2). Compare and contrast between rice and wheat.

3). Explain the climatic condition required for jute and cotton.

III Mark and locate the following on the outline map of India.

1) Soil types with its features.

a) Black soil b) Alluvial soil

c) Laterite soil d) Sandy soil

e) Red and yellow soil f) Forest or mountain soil

2) Types of crops with its features

rice, wheat, millets, maize , rubber , jute , cotton tea ,coffee

Worksheet

Economics: Sectors of Indian Economy.

Answer the following.

1. What is economic development?
2. Biscuits for the consumer in the market are an example of which type of goods?
3. What is per capita income?
4. Define economic activity.
5. State any two factors of production.
6. Expand the following:
   (i) GDP
   (ii) NREGA 2005.
7. What is GDP?
8. What is called the 'final goods'?
9. Mention some of the Acts that companies in the organised sector have to follow.
10. Why is the primary sector called as such?
11. Who has the ownership of assets in public sector?
12. Name the sector which is the largest employer in India.
13. Where is disguised unemployment found mostly?
14. What was the most important sector of economic activities at the earliest stages of development?
15. Through which act is Right to Work implemented?
16. What does tertiary sector include?
17. Which sector has grown considerably in the recent years?
18. What is non-economic activity?
19. In which sector are a large number of workers losing their jobs since 1990?
20. Define the term enterprise

Science

Biology

1. To prepare the temporary mount of leaf peel to study stomata in lab copy.
2. Differentiate between pepsin and trypsin.
3. Mention various digestive glands, juices secreted by them and write their functions.
4. What are Dental Caries? How it is caused and how it can be prevented.
5. Explain the process of nutrition in amoeba with well labelled diagrams.

Physics

1. A current of 0.5 A is drawn by a filament of electric bulb for 10 min. Find the amount of electric charges that flows through the circuit.
2. How does the resistance of a wire vary with temperature?
3. Electrical resistivities of some substances at 20^0C are as follows.

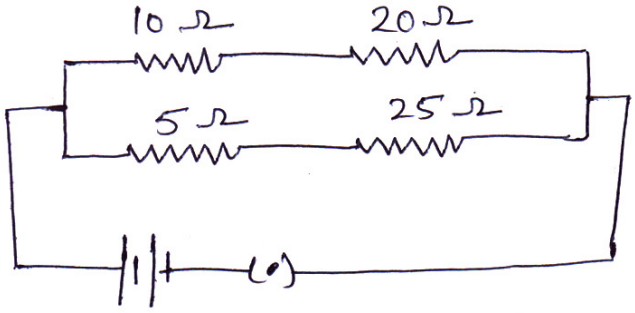
Silver	1.60×10^{-8} Ω-m
Copper	1.62×10^{-8} Ω-m
Tungsten	5.2×10^{-8} Ω-m
Nichrome	100×10^{-6} Ω-m

Which one of them is

(a) The best conductor and why?

(b) The best suitable for heating element and why?

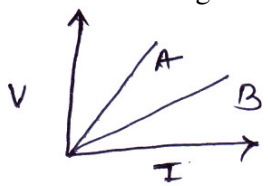
4. State the formula correlating the electric current flowing in a conductor and the voltage across it.
5. Keeping the potential difference constant, the resistance of circuit is 1/3rd. Then by what percentage the current changes?
6. If a 12 V battery is connected to the arrangement of resistance as shown below



(a) Find the effective resistance of the arrangement.

(b) The total current flowing in the circuit.

7. A student is asked to verify the Ohm's law experimentally. Draw the circuit diagram that shown an appropriate arrangement of different elements to verify the same.
8. Write the factors affecting resistance of a conducting wire. Derive the S.I. Unit of electrical resistivity. Define the electrical conductivity.
9. V-I graph for two wires A and B are shown in figure. If both wires are of same length and same thickness. Which wire has high resistivity. Give justification for your answer.



10. How three registers of 3 Ω should be attached in a circuit which will give effective resistance of 2 Ω ?

Chemistry

1. Complete the following equations and balance them :

(a) $Ca(OH)_2 + CO_2 \rightarrow ?$

(b) $BaCl_2 + K_2SO_4 \rightarrow ?$

2. Differentiate between exothermic and Endothermic reactions.

3. A magnesium ribbon is burnt in oxygen to give a white compound X accompanied by emission of light. If the burning ribbon is placed in an atmosphere of nitrogen, it continues to lurn and forms a compound Y. Write the chemical formula of X and Y.
4. Why do we store silver chloride in dark coloured bottles?
5. Write one example for each of decomposition reaction carried out with help of (a) Electricity (b) heat

Computer

Prepare a report on advantages and disadvantages of Internet.

Mathematics

Q1. Given that $\sqrt{2}$ is irrational, prove that $(5 + 3\sqrt{2})$ is an irrational number.

Q2. What is the HCF of smallest prime number and the smallest composite number?

Q3. Find HCF and LCM of 404 and 96 and verify that HCF x LCM = Product of the two given numbers.

Q4. Find all zeroes of the polynomial $(2x^4 - 9x^3 + 5x^2 + 3x - 1)$ if two of its zeroes are $(2 + \sqrt{3})$ and $(2 - \sqrt{3})$.

Q5. Show that $7-\sqrt{5}$ is irrational, give that $\sqrt{5}$ is irrational.

Q6. For what value of p will the following pair of linear equations have infinitely many solutions?

$$(p-3)x + 3y = p$$
$$Px + py = 12$$

Q7. Use Euclid's Division Algorithm to find the HCF of 726 and 275.

Q8. The HCF and LCM of two numbers are 9 and 360 respectively. If one number is 45, find the other number.

Q9. Find a quadratic polynomial, if the sum and product of its Zeroes are $\frac{1}{4}$ and -1 respectively

Q10. On comparing the ratios a_1/a_2 , b_1/b_2 and c_1/c_2 find out whether the lines representing thefollowing pairs of linear equations intersect at a point, are parallel or coincident

$$9x + 3y + 12 = 0$$
$$18x + 6y + 24 = 0$$

Q11. Find the zeroes of polynomial $p(x) = 6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the Coefficients.

Q12. Solve following pairs of equations.

$$\frac{5}{x-1} + \frac{1}{y-2} = 2, \qquad \frac{6}{x-1} - \frac{3}{y-2} = 1$$

Q13. Divide the polynomial p(x) by the polynomial g(x) and find the quotient and remainder of the following.

$$p(x) = x^3 - 3x^2 + 5x - 3,\ g(x) = x^2 - 2$$

Q14. For which value of k will the following pair of linear equations have no solution?

$$3x + y = 1$$
$$(2k - 1)\,x + (k - 1)\,y = 2k + 1$$

Q15. Use Euclid's division lemma to show that the cube of any positive integer is of the form 9m, 9m + 1 or 9m + 8.

Q16. Obtain all other zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$, if two of its zeroes are $\sqrt{5/3}$ and $-\sqrt{5/3}$.

Q17. Two water taps together can fill a tank in $9\frac{3}{8}$ hours. The tap of larger diameter takes 10hours less than the smaller one to fill the tank separately. Find the time in which each tapcan separately fill the tank.

Q18. A boat goes 30 km upstream and 44 km downstream in10 hours. In 13 hours, it can go 40 km upstream and 55 km down-stream. Determine the speed of the stream and that of the boat in still water.

Q19. Check graphically whether the pair of linear equations $4x - y - 8 = 0$ and $2x - 3y + 6 = 0$ is consistent. Also, Shade the region bounded by these lines and y-axis. Also find its area.

Q20. If we add 1 to the numerator and subtract 1 from the denominator, a fraction reduces to 1. It becomes $\frac{1}{2}$ if we only add 1 to the denominator. What is the fraction?