

## Summer Assignment (2018-19)

Class X

### Subject - FOIT

Q.1 Answer the followings:

- (i) What do you understand by internet?
- (ii) What do you understand by HTML? Explain with example?
- (iii) What do you understand by network technologies?

Q.2 Explain:

- (i) LAN, WAN, MAN
- (ii) ALU AND CU
- (iii) Block Diagram of computer

### Subject - English

Ques. 1) One page daily handwriting (English) for 30 days, and date should be mentioned.

Ques.2 ) News paper cutting from Free Press or Times of India (positive news only) should be cut and pasted with five vocabularies and their meanings from 'dictionary' (30 days' news)

Ques. 3) Dream job: What do you want to become in your future....write one/two pages.

### Subject – Maths (Prepare for Periodic Test -1)

1. Write the condition satisfied by 3125 so that a rational number  $\frac{11}{3125}$  has a terminating decimal expansion.
2. Given that  $\text{HCF}(306, 657) = 9$ , find  $\text{LCM}(306, 657)$
3. Explain why  $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$  is a composite number.
4. There is a circular path around a sports field. Anu takes 21 minutes to drive one round of the field, while Meenu takes 14 minutes for the same. Suppose they both start at the same point and at the same time, and go in the same direction. After how many minutes will they meet again at the starting point.
5. Show that every positive odd integer is of the form  $4q + 1$  or  $4q + 3$  for some integer  $q$ .
6. An army contingent of 600 members is to march behind an army band of 32 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march?
7. Show that any positive integer of the form  $3q$  or  $3q + 1$  or  $3q + 2$  where  $q$  is some integer.
8. Prove that  $-2 + \sqrt{3}$  is irrational.
9. In a military academy, there are two divisions in the infantry department – infantry section A and infantry section B. There are 18 soldiers in infantry section A and 24 soldiers in infantry section B. Determine the minimum number of rifles required for their department so that they can be distributed equally among the soldiers of infantry section A or infantry section B.
10. Show that any positive odd integer is of the form  $8q + 1$  or  $8q + 3$  or  $8q + 5$  or  $8q + 7$  where  $q$  is some integer.

11. Show that any numbers of the form  $4^n$ ,  $n \in \mathbb{N}$  can never end with the digit 0 .
12. Check whether  $6^n$  can end with the digit 0 for any natural number.
13. Using Euclid's division algorithm, find the HCF of 56, 96 and 404.
14. Use Euclid's division algorithm to find the HCF of 3375 and 4550. Express the HCF as the linear combination of 3375 and 4550.
15. If the HCF of 65 and 117 is expressible in the form  $117x + 65y$ . Find  $x$ .
16. In a school there are two sections of class X. There are 36 students in section A and 42 students in section B. Find the minimum number of books required for their class library so that they can be distributed equally among students of section A or section B.
17. Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion. (a)

$$\frac{189}{125} \quad (b) \quad \frac{29}{343} \quad (2)$$

18. Three sets of Hindi, Science and Mathematics books have to be stacked in such a way that all the books are stored topic wise and the height of each stack is the same. The number of Hindi books is 144, the number of Science books is 180 and the number of Mathematics books is 192. Assuming that the books are of the same thickness, determine the number of stacks of Hindi, Science and Mathematics books.
19. Find the largest positive integer that will divide 430 and 398 leaving remainder 5 and 8 respectively.
20. Use Euclid's division lemma to show that the cube of any positive integer is of the form  $9m$ ,  $9m + 1$  or  $9m + 8$  for some integer  $m$ .

**SANMATI H. S. SCHOOL**

**SUMMER ASSIGNMENT**

***SUBJECT: SOCIAL SCIENCE***

***CLASS: X***

***Topic:***

***Submitted to:***

***Submitted by:***

# ACKNOWLEDGEMENT

For this project our team would like to thank our Social Science teacher \_\_\_\_\_ madam as she had provided us lot of efforts.

We would also like to thank our **Principal Mrs. Pinky Joshi Madam** as she gave us a golden opportunity to show our talent.

We would also like to thank our parents as they provided us with necessary materials needed for the project

‘No Endeavour achieves success without the advice and co-operation of other’

# CERTIFICATE

This is to certify that under signed have assented and evaluated the project on

Topic:

Submitted by – \_\_\_\_\_

This project is original to the best of our knowledge and has been accepted for Internal Assessment.

Teacher's

HOD's

CO-ORDINATOR's

PRINCIPAL's

Signature

Signature

Signature

Signature

# PROJECT EVALUATION PROFORMA

SCHOOL'S NAME:

\_\_\_\_\_

ADDRESS: \_\_\_\_\_

STUDENT'S NAME: \_\_\_\_\_

ROLL NO. : \_\_\_\_\_

CLASS: \_\_\_\_\_

SECTION: \_\_\_\_\_

## TEACHERS' ASSESSMENT

1. Content accuracy and originality	
2. Presentation and creativity	
3. Process of project completion	
4. Viva – Voce'	

5. Overall remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Teacher's signature \_\_\_\_\_

Date \_\_\_\_\_

## **Subject: Social Science**

Multipurpose River Valley Projects and alternate water supply methods

- Role of multipurpose river valley projects
- Evaluation of positive and negative aspects of river valley projects
- Case study on one river valley and one local area conservation project

Narmada Bachao Andolan

The case study should include the following:-

- Rehabilitation of the displaced population
- Environment Impact Assessment

OR

### **Pocket Guide on First Aid**

Prepare a pocket guide on First Aid for your school. The First Aid pocket guide should contain aid that needs to be given for fractures, poisoning, cuts and burns, heat and cold wave and other threats that are prevalent in that area. The content shared in the guide should be supported with adequate pictures so as to give a clear and elaborate understanding about the topic. Choose awareness campaign strategy for either senior citizens or illiterate people and prepare a brief write-up.

OR

The Origin of Money

"Secondary" Functions of Money

The Various Kinds of Money 1 Money and Money Substitutes

The Peculiarities of Money Substitutes

The Commodity Money of the Past and of the Present

Money and the State 1 the Position of the State in the Market

The Legal Concept of Money

The Influence of the State on the Monetary System

Following essentials are required to be fulfilled for its preparation and submission-

1. The total length of the project report will not be more than 15 written pages of foolscap size (A-4 size).
2. The project report will be handwritten and credit will be awarded to original drawings, illustrations and creative use of materials.
3. The students should continuously discuss with the teacher and prepare a draft before finalizing the report.
4. The project report will be presented in a neatly bound simple folder.

5. The project report will be developed and presented in this order Cover page showing project title, student information, school and year List of contents with page numbers. Acknowledgements (acknowledging the institution, offices and libraries visited and persons who have helped).

Project Overview : Purpose, Aim, Methodology and experiences while doing the project.

Chapters with relevant headings.

Summary and conclusions based on findings. Planning and activities to be done during the project, if any giving a calendar of activities.

Bibliography : should have the Title, pages referred, author, publisher, year of publication and if a website the name of the website with the specific website link which has been used. All the photographs and sketches should be labeled and acknowledged.

### **Subject:- Physics**

- 1) Give us the factors on which resistance of the conductors depends
- 2) Why is Tungsten used almost exclusively for filament of electric lamps?
- 3) What is the difference between Open circuits and closed circuits?
- 4) Why does the cord of an electric heater not glow while heating element does?
- 5) Why do we use copper wire as connecting wires in the circuit?
- 6) Gave the formula for each

1	Ohm's Law	
2	Resistance in terms of Length, Area, resistivity	
3	Current in terms of Resistance and Voltage	
4	Equivalent Resistance for Resistors in Series	
5	Equivalent Resistance for Resistors in Parallel	
6	Power produced in the resistance	

- 7) A wire of length 3 m and area of cross-section  $1.7 \times 10^{-6} \text{ m}^2$  has a resistance  $3 \times 10^{-2} \text{ ohm}$ .
  - a) What is the formula for resistivity of the wire and what is the unit of it
  - b) Calculate the resistivity of the wire

- 8) The table given below shows the resistivity of three Material X, Y and Z?

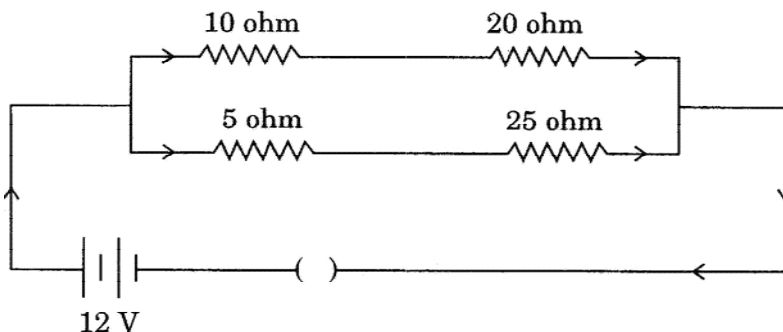
Samples	X	Y	Z
Resistivity	$3 \times 10^{-9}$	$11.1 \times 10^{-6}$	$18 \times 10^{-17}$

- 9) There are m resistor each of resistance R. First they all are connected in series and equivalent resistance is X. Now they are connected in parallel and equivalent resistance is Y. What is the ratio of X and Y?
- 10) We have four resistors A ,B ,C and D of resistance 4ohm,8ohm ,12 ohm and 24 ohm respectively?



1	Lowest resistance which can be obtained by combining these four resistors	
2	highest resistance which can be obtained by combining these four resistors	

- 11) An electric bulb draws a current of .8 A and works on 250 V on the average 8 hours a day.
- Find the power consumed by the bulb
  - If the electric distribution company charges Rs 5 for 6 KWH, what is the monthly bill for 60 days
- 12) What happens to resistance when length of conductor is doubled without affecting the thickness of conductor?
- 13) Calculate the number of electrons constituting one coulomb of charge.
- 14) Write SI unit of resistivity.
- 15) Write the relation between resistance R of filament of a bulb, its power (P) and a constant voltage V applied across it.
- 16) Power of a lamp is 100 W. Find the energy in joules consumed by it in 1 s.
- 17) State the factors on which the resistance of a cylindrical conductor depends. Hence, define resistivity.
- 18) In an electric circuit with a resistance wire and a cell, the current flowing is I. What would happen to this current if the wire is replaced by another thicker wire of same material and same length. Give reason.
- 19) A wire of length L and resistance R is stretched so that the length is doubled and area of cross – section halved. How will
- resistance change, and
  - resistivity change.
- 20) (a) What material is used in making the filament of an electric bulb?  
 (b) Name the characteristics which make it suitable for this.
- 21) State the factors on which the heat produced in a current carrying conductor depends. Give one practical application of this effect.
- 22) Which has a higher resistance : a 50 W lamp bulb or a 25 W lamp bulb and how many times ?
- 23) A wire of resistance 10 ohm is bent in the form of a closed circle. What is the effective resistance between the two points at the ends of any diameter of the circle ?
- 24) If a 12 V battery is connected to the arrangement of resistances given below, calculate (i) the total effective resistance of the arrangement and (ii) the total current flowing in the circuit.



25) The values of current I flowing in a given resistor for the corresponding values of potential difference V across the resistor are given below:

I (ampere)	0.5	1.0	2.0	3.0	4.0
V (volt)	1.6	3.4	6.7	10.2	13.2

Plot a graph between V and I and calculate the resistance of the resistor.

26) In a given ammeter, a student sees that needle indicates 17 divisions in ammeter while performing an experiment to verify Ohm's law. If ammeter has 10 divisions between 0 and 0.5A, then what is the value corresponding to 17 divisions?

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### Subject- Chemistry

#### Chemical reactions and equations

#### One mark questions

Q1. What do you mean by the reactants and product? What is meant by chemical reaction?

Q2. Write the chemical equations for the following statement:

- Hydrogen gas combines with nitrogen to form ammonia.
- Hydrogen sulphide gas burns in air to give water and sulphur dioxide.
- Barium chloride reacts with aluminium sulphate and precipitate of barium sulphate is formed.
- Potassium metal reacts with water to give potassium hydroxide and hydrogen gas.
- Quick lime is added to water to produce slaked lime.

Q3. Why should a magnesium ribbon be cleaned before burning in air?

Q4. Balance the following:

- $\text{HNO}_3 + \text{Ca}(\text{OH})_2 \rightarrow \text{Ca}(\text{NO}_3)_2 + \text{H}_2\text{O}$
- $\text{NaCl} + \text{AgNO}_3 \rightarrow \text{AgCl} + \text{NaNO}_3$
- $\text{BaCl}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{HCl}$
- $\text{NaOH} + \text{H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$
- $\text{H}_2\text{S} + \text{O}_2 \rightarrow \text{H}_2\text{O} + \text{SO}_2$
- $\text{Mg} + \text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$

Q5. Give reasons:

- Color of the copper sulphate changes when iron nail is dipped in it.
- Color of the copper coin changes when dipped in silver nitrate solution.
- Hydrogen peroxide kept in colored bottle.
- Silver article become black after sometime when exposed to air.
- Chips manufacture usually flush bags of chips with nitrogen gas.

Q6. What is combination reaction? Give example.

Q7. What is decomposition reaction? Give example.

Q8. What is displacement reaction? Give example.

Q9. What is double displacement reaction? Give example.

Q10. What is redox reaction? Give example.

#### Two marks questions

Q1. What happens when dilute hydrochloric acid is added to iron filling? Write chemical equations involved in it.

Q2. Define endothermic and exothermic reactions with example.

Q3. Why photosynthesis is considered an endothermic reaction?

Q4. What do you mean by balanced chemical equation? Which law it obey?

Q5. identify the substance oxidized, reduced, oxidizing agent and reducing agent.

- $\text{CuO} + \text{H}_2 \xrightarrow{\Delta} \text{Cu} + \text{H}_2\text{O}$
- $\text{MnO}_2 + 4\text{HCl} \rightarrow \text{MnCl}_2 + 2\text{H}_2\text{O} + \text{Cl}_2$

Q6. What is a catalyst? What is the role of catalyst in a chemical reaction?

Q7. Define rancidity and how it can be prevented.

Q8. Corrosion of some metals is an advantage. Explain.

Q9. What is antioxidant?

Q10. What is precipitation reaction? Give example.

### Three marks question

Q1. List 4 observations that help us to determine whether a chemical reaction has taken place.

Q2. Define thermal, electrolytic and photolytic decomposition reaction.

Q3. i) A solution of a substance 'X' is used for testing carbon dioxide. Write the equation of the reaction of 'X' with carbon dioxide.

ii) How is 'X' obtained? Write the chemical equation.

Q4. Give the characteristic test for following gases.

- $\text{CO}_2$
- $\text{SO}_2$
- $\text{O}_2$
- $\text{H}_2$

Q5. What happens when zinc granules are treated with  $\text{HCl}$ ,  $\text{H}_2\text{SO}_4$ ,  $\text{HNO}_3$ ,  $\text{NaCl}$  and  $\text{NaOH}$ . Write chemical reaction also.

Q6. Explain the term oxidation and reduction with reference to oxygen, hydrogen and electron.

Q7. What do you mean by reactivity series or activity series? Arrange the elements in ascending order of reactivity series;

**F, Br, Cl, I**

Q8. A substance X which is a group 2 element is used intensively in cement industry. This element is present in bones. Also on treatment with water it forms a solution which turns red litmus blue. Identify X and also write the chemical reaction involved.

Q9. A small amount of calcium oxide is taken in a beaker and water is added slowly to it.

- Will there be any change in temperature.
- Name and define the type of reaction taking place.
- Write chemical reaction for the above reaction.

Q10. Name the salts that are used in black and white photography. Give reactions when they are exposed to light. Define the type of chemical reaction taking place.

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## Subject –Biology

### Nutrition

Q1. Draw the diagram of alimentary canal and label its various parts.

Q2. Name the substrate on which following enzymes act. Write the product formed after enzyme's action.

- Salivary Amylase
- Lipase
- Pepsin

Q3. What are the end products of complete digestion of carbohydrates, protein and fats?

Q4. How does photosynthesis take place in desert plants?

Q5. What happens to the rate of photosynthesis in the following situation?

- Cloudy days
- Closed stomata
- Water scarcity
- Sunny summer days

Q6. Write 3 events of photosynthesis?

Q7. HCl is secreted in stomach. How is stomach wall protected from harmful effects of HCl?

Q8. Where does digestion take place in the following situation –

- Saprophytic nutrition

- b. Holozoic nutrition
- Q9. Why is small intestine larger in carnivores than herbivores?
- Q10. Name the following-
- The process in plants that convert light energy into mechanical energy
  - Organisms that prepare their own food.
  - The location of photosynthesis.
  - Cell that surround stomata.
- Q11. What is emulsification of fats? What is its significance?
- Q12. Why is diffusion insufficient to meet the oxygen requirement in multicellular organisms like humans?
- Q13. What are outside raw materials used by an organisms?
- Q14. Where do plants get each of the raw materials required for the photosynthesis?
- Q15. What are the functions of digestive enzymes?
- Q16. How is the small intestine designed to absorb digestive food?
- Q.17 Write all biology experiments in BIOLOGY FILE.

## विषय-हिन्दी

### बोध आधारित

- समाज का शिक्षित होना क्यों जरूरी है, एक शिक्षित व्यक्ति समाज में क्या बदलाव ला सकता है, किन्हीं तीन प्रेरक व्यक्तियों के उदाहरण दे कर उत्तर स्पष्ट कीजिये।
- 20-20 अशुद्ध और शुद्ध वाक्यों को लिखिए-
- शब्द के विभिन्न भेदों को बताते हुए उनके चार्ट तैयार करें-

### रचनात्मक

- मातृ भाषा की समाज में क्या भूमिका है अपनी मातृ भाषा से लोक कथा या लोक गीत चुन कर अपनी मातृ भाषा के लालित्य पर टिप्पणी लिखिए।
- संतों की भक्ति से साहित्य समृद्ध हुआ है कथन के पक्ष में पांच लाभ बताते हुए भक्ति ज्ञान की विषय-वस्तु पर टिप्पणी कीजिये।