# ST. XAVIER'S SR. SEC. SCHOOL, JAYNAGAR

# **SUMMER VACATION WORK 2019**

# Class –X (Ten)

## English

Write your answers in ruled sheets

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- 1. Read the newspaper every day. Pick any five editorials. Stick these clippings on a ruled sheet. Write the Caption along with the date for each editorial. Write the summary of any two editorials.
- 2. Write five stories in 200-250 words based on the given prompts in the grammar notebook
  - (a) There is a hole in the sky where the moon used to be .....
  - (b) I woke up to hear knocking on the glass. At first I thought it was the window until I heard it come from the mirror again ......
  - (c) "I can't marry her. She would kill me within a week.".....
  - (d) She asked why I was breathing so heavily. I wasn't.....
  - (e) Mr. Thomas was a wealthy businessman. One day he was alone sitting at his dining table when .....

#### Mathematics

1)Topic:- Number System

Word problems on HCF & LCM - 2 questions

Prove that type questions on Euclid division lemma - 3 questions

Proving given numbers irrational - 2 questions

## 2) Topic :- Polynomials

Verification of relation between coefficient and zeroes of quadratic polynomial -3 questions

Find all zeroes of polynomial if some of its zeroes are given-2 questions.

Find new polynomial from given quadratic polynomial when relation between zeroes of given and new polynomial is given - 2 questions

- 3) Similar Triangles
  - 3 question BPT
  - 3 questions- similarity criterion
  - 3 questions- Pythagoras theorem and converse
  - 2 questions Area theorem
- 4) Collect data of Loksabha election 2019 related to 5 major parties (number Of seats won) and represent it graphically. Analyse and interpret.

## Physics

1. What is the SI unit of electric charge? How many electrons make one coulomb of charge?

2. Define the SI unit of current.

- 3. Define the electric potential difference between two points in an electric circuit carrying some current.
- 4. Define the SI unit of Electric potential.
- 5. State the law relating the potential difference across a conductor and the current through it?
- 6. The V–I graph is a straight line that passes through the origin of the graph. What do you conclude from this observation?
- 7. Define resistance of a material. Define its SI unit.

### Chemistry

1. Consider the following reactions:

Arrange the metals Fe,Cu,Zn and Al in increasing order of reactivity and write the colour of all metal sulphates.

2. Balance the following chemical equations:

(i)  $S + H_2SO_4 \longrightarrow SO_2 + H_2O$ (ii)  $NH_4Cl + Ca(OH)_2 \longrightarrow CaCl_2 + NH_3 + H_2O$ 

- (iii) S +HNO<sub>3</sub>  $\longrightarrow$  H<sub>2</sub>SO<sub>4</sub> +NO<sub>2</sub>+ H<sub>2</sub>O
- (iv) KClO<sub>3</sub> \_\_\_\_ KCl +  $O_2$
- 3. Write the balanced chemical equations for the following reactions and classify them.
- (a) Lead acetate solution is treated with dilute hydrochloric acid to form lead chloride and acetic acid solution.
- (b) A piece of sodium metal is added to absolute ethanol to form sodium ethoxide and hydrogen gas.
- (c) Iron(III) oxide on heating with carbon monoxide gas reacts to form solid iron and liberates carbon dioxide gas
- (d) Hydrogen sulphide gas reacts with oxygen gas to form solid sulphur and liquid water
- 4. What happens when
  - (a) Barium nitrate is heated
  - (b) Potassium iodide reacts with lead nitrate
  - (c) Zinc metal reacts with nitric acid
  - (d) Iron metal reacts with steam
- 5. Find out oxidising and reducing agent in the following reactions.
  - (a)  $MnO_2 + 4HCl \longrightarrow MnCl_2 + 2 H_2O + Cl_2$
  - (b)  $CuO + H_2 \longrightarrow Cu + H_2O$
- (c)2 Na + 2H<sub>2</sub>O  $\longrightarrow$  2NaOH +H<sub>2</sub>
- (d) Mg + 2HCl  $\longrightarrow$  MgCl<sub>2</sub> + H<sub>2</sub>

## Biology

- 1. What will happen if mucus is not secreted by Gastric glands?
- 2. What are variegated leaves? Give two examples
- 3. What are the various processes that take place in the duodenum?
- 4. What would happen to the rate of photosynthesis if:
  - a) It is cloudy day
  - b) soil is dry without water
  - c) Good manuring
  - d) Stomata gets blocked by dust.

# **Social Science**

On the political map of India locate all major dams (Multipurpose projects) built across important rivers of India.

Make a collage using newspaper cutting/ magazine to show how human activities have resulted in land degradation in India.

# Hindi

- यदि आप इस लोकसभा चुनाव में खड़े होते तो सर्वाधिक मत प्राप्त करने के लिए अपना प्रचार किस प्रकार करते ? इस विषय पर अपने विचार व्यक्त कीजिए ।
- किन्हीं चार छायावादी कवियों के चित्र लगाकर उनका जीवन परिचय दीजिए तथा उनकी किन्हीं दो – दो रचनाओं की विस्तृत जानकारी दीजिए।
- 3) आप जिस सोसायटी में रहते हैं , वहाँ पर रहने वाले कुछ ऐसे व्यक्ति जिनकी चारित्रिक विशेषताओं ने आपको प्रभावित किया हो ; उनके विषय में लिखिए और साक्षात्कार के साथ फोटो भी लगाइए ।

Note: Also complete the tasks given in the diary.