

# **RSM PUBLIC SCHOOL, SUPAUL**

## **Summer Vacation Assignment-2022**

### **Class-10<sup>th</sup>**

#### **Subject- Information Technology**

1. What are the different types of networking? Explain.
2. Describe about Network architecture.
3. Explain the meaning and function of modem.
4. Write down the process for transferring data on the Internet.
5. What is the definition of networking?
6. What are the advantages of networking?

#### **Subject- English**

1. **Read the passage given below and answer the questions that follow:**

1. To make our life a meaningful one, we need to mind our thoughts, for our thoughts are the foundations, the inspiration and the motivating power of our deeds. We create our entire world by the way we think. Thoughts are the causes and the conditions are the effects. Our thoughts affect the whole body. Each thought once generated and sent out becomes independent of the brain and mind and will live upon its own energy depending upon its intensity.

2. Our circumstances and conditions are not dictated by the world outside; it is the world inside us that creates the outside. Self-awareness comes from the mind, which means the soul. Mind is the sum total of the states of consciousness grouped under thought, will and feeling. Besides self-consciousness, we have the power to choose and think. What we choose is what we become. That is why, it is extremely important that we choose to remain positive and harbour positive thoughts.

3. Krishna says, "No man resteth a moment inactive." Even when inactive on the bodily plane, we are at the time acting on the thought plane. Therefore, if we observe ourselves, we can easily mould our thoughts. If our thoughts are pure and noble, natural actions follow the same. If our thoughts are filled with jealousy, hatred and greed, our actions will be the same.

4. Thought or intent is more responsible and dynamic than an act. One may perform a charitable act, but if he does not think charitably and is doing the act just for the sake of gain and glory, it is his thoughts that will determine the result. No matter how small the thought, these small thoughts are like seeds that grow together to make up a large tree or a thought that determines one's general character.

#### **Word-Meanings**

generated : created		harbour : entertain
intensity : depth		charitable : generous
extremely : very		dynamic : active

**(a) Answer the following questions:**

- (i) What determines a person's general character?
- (ii) How are thoughts and actions related to each other?
- (iii) What do you understand by mind?
- (iv) What we choose is what we become? What do you understand by this statement?

**(b) On the basis of your reading of the passage, answer the following:**

- (i) The meaning of the word 'entire' in para 1 is \_\_\_\_\_ .  
(a) partial (b) whole (c) extended (d) complete
  
- (ii) In para 3, the synonym of the word 'noble' is \_\_\_\_\_ .  
(a) generous (b) polite (c) kind (d) good

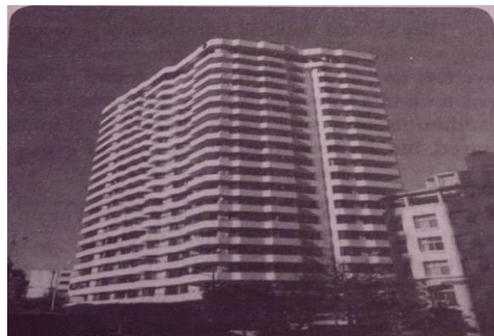
**(c) Find words from the passage which mean the same as:**

- (i) encouraging (para 1)
- (ii) energetic (para 4)

2. You are Rani/Ronita, a student of Class X. Write an article on the topic "Internet Addiction is Not Good for Health".



3. High buildings, metro, shopping malls, big parks, wide roads, etc. attract people to live in a metro city. On the other hand traffic jams, pollution, crime, insecurity, etc disappoint them. Write an article on the topic 'Impact of Development on Life in a Big City'. Take help of visual inputs given below.



4. Write an article on the success story of Narendra Modi- The Prime Minister of India.

5. Write an article in about 100-120 words on "can computers Replace Books?" with the help of the given information

a great advancement in science and technology - utility services provided by computers - downloading any material - internet facility - books easy to consult - books more economical - computer manuals in book form.

**6. Answer the following questions:-**

- (a) Lencho called the post office employees 'a bunch of crooks'. What does it show about his attitude towards men? Was he not a person of humanity, appreciation and greatfulness? Elaborate.
- (b) Nelson Mandela joined the African National Congress as a young man. It transformed his life. What made him join it?
- (c) Have there been times when you felt depressed or helpless? Have you experienced a similar moment that changed your mood that day?
- (d) Mrs Pumphrey is a very loving and caring mistress for Tricki. But excess of everything in bad. Elaborate with reference to Mrs Pumphrey and Tricki.
- (e) Love is the basic human attribute that can transform evil into goodness. How did this attribute of Anil changed Hari Singh?

**Subject- Hindi (हिंदी)**

1. 'सूर के पद' पाठ के प्रश्न एवं उत्तर लिखें।
2. आपके विचार से भोलानाथ अपने साथियों को देखकर सिसकना क्यों भूल जाता है?
3. 'माता का आंचल' शीर्षक की सार्थकता स्पष्ट कीजिए।
4. फणीश्वर नाथ रेणु की आंचलिक रचनाओं के नाम लिखें।
5. 'एकता में बल है' विषय पर लघु कथा लिखिए।
6. संज्ञा की परिभाषा लिखें एवं भेदों के नाम उदाहरण सहित लिखें।
7. 'सूर के पद' में अलंकारों की पहचान कर पंक्तियां लिखें।
8. 'मृदा प्रदूषण - कारण और बचाव' परियोजना बनाएँ। (कार्डबोर्ड पर बनाएँ)

**Subject- Science**  
**[Physics]**

1. How is image formed?
2. Explain the Characteristics of image formed by a plane mirror.
3. Distinguish between Concave mirror and Convex mirror.
4. Distinguish between real image and virtual image.
5. Write the rules of image formation by Concave mirror with ray diagram.
6. Show the following terms with figure.  
(a) Pole (b) Center of curvature (c) principal axis (d) focus (e) focal length
7. How will you determine the focal length of Concave mirror. Show it with ray diagram.
8. Draw the ray diagram of image formed by Concave mirror.
9. What do you mean by refraction of light. Show it through glass slab.
10. What are the laws of refraction? Show it for light ray going from water to air.

**[Chemistry]**

**Answer the following questions:-**

Q.1 What is a redox reaction?

Q.2 What is corrosion? Explain its advantages and disadvantages.

- Q.3 What is meant by endothermic and exothermic reaction? Give suitable examples for each?
- Q.4 Why is Photosynthesis Considered as an Endothermic reaction?
- Q.5 In electrolysis of water, why is the volume of gas collected over one electrode double that of the other electrode?
- Q.6 What happens when water is added to solid calcium oxide taken in a container? Write a chemical formula for the same.
- Q.7 Give one use of quick lime.
- Q.8 Give three types of decomposition reactions.
- Q.9 How will you test for the gas which is liberated when HCl reacts with an active metal?
- Q.10 Give an example of Photochemical reaction.
- Q.11 Give an example of a decomposition reaction. Describe any activity to illustrate such a reaction by heating.
- Q.12 On what basis is a chemical equation balanced?
- Q.13 What change in colour is observed when silver chloride is left exposed to sunlight? Also mention the types of chemical reaction.
- Q.14 Identify the type of reaction in the following
- $$\text{Fe} + \text{CuSO}_4 \longrightarrow \text{FeSO}_4 + \text{Cu}$$
- $$2\text{H}_2 + \text{O}_2 \longrightarrow 2\text{H}_2\text{O}$$
- Q.15 What is observed when a solution of potassium iodide is added to lead nitrate solution? What type of reaction is this? Write a balanced chemical equation for this reaction?

### **PROJECT WORK**

Prepare a project report on the various chemical reactions.

### **[Biology]**

- Heterotrophic organisms include
  - Animals and fungi
  - Plants
  - Bacteria and fungus
  - Fungus only
- Absorption of light-energy is done by
  - Leaf
  - Mid-rib
  - Vein
  - Chlorophyll
- \_\_\_\_\_ are utilised for providing energy to the plants.
  - Carbohydrates
  - Enzymes
  - Protein
  - Carbon dioxide
- Human body stores energy in the form of.
  - Glucose
  - Glycogen
  - Insulin
  - Fructose
- To write the answer of questions of page No - 95, 101 and 110 of chapter Life Processes.

6. To draw and level the followings:-

- (a) Stomata
- (b) Human Digestive System

### Subject- Social Science

1. Name the French artist who prepared a series of four prints visualising his dream of a new world.
2. What was the main aim of the French Revolutionaries?
3. Who implemented the civil code of 1804 in France?
4. Who hosted the Congress at Vienna in 1815?
5. Which type of soil in India is most widespread and important?
6. What is soil erosion?
7. How is over irrigation responsible for land degradation in Punjab?
8. Why soil in some parts is red and yellow in colour?
9. Name the two major ethnic communities of Sri Lanka.
10. Who elect the community government in Belgium?
11. Which city was chosen as its headquarter when the European union was formed?
12. Why is Power sharing desirable?
13. Define the term Per Capita Income.
14. State any two goals of development other than income.
15. Why do people look at a mix of goals for development?
16. What is BMI?
17. Who publishes Human Development Report?

### संस्कृतम्

1. पर्यावरणस्य संरक्षणाय द्वौ उपायं लिखत
2. प्रथमः पाठः (शुचिपर्यावरणम्) तथा द्वितीय पाठः (बुद्धिर्बलवती) सदा का प्रश्नोत्तर करें।
3. “वैश्विक महामारी कोरोना” इति विषये हिन्दी भाषयाः संस्कृतभाषायाश्च पंच वाक्यानि लिखत।  
(परियोजना कार्यम्)
4. सन्धि कुरुत।
  - a. कः + चित्
  - b. जगत् + नाथः
  - c. दिक् + अम्बरः
  - d. निः + चल
  - e. प्राक् + एव
5. तत्पुरुष समासस्य पंच उदाहरणं लिखत।
6. संस्कृते अनुवादं कुरुत
  - i. हमलोग भी संस्कृत पढ़ेंगे।
  - ii. हमलोग यहाँ आकर पढ़ते हैं।
  - iii. गणेश कलम से लिखता है।
  - iv. गंगा हिमालय से निकलती है।
  - v. श्री कृष्ण को प्रणाम है।

## MATHEMATICS

1. Show that  $\sqrt[3]{2}$  is irrational.
2. A, B and C starts cycling around a circular path in the same direction at the same time. Circumference of the path is 1980 m. If speed of A is 330 m/min, speed of B is 198 m/min and that of C is 220 m/min and they start from the same point, then after what time will they be together at the starting point ?
3. The HCF of 408 and 1032 is expressible in the form  $1032m - 2040$ . Find the value of m. Also, find the LCM of 408 and 1032.
4. The LCM of two numbers is 14 times their HCF. The sum of LCM & HCF is 600. If one number is 280, then find the other number.
5. If two zeroes of the polynomial  $p(x) = x^4 - 6x^3 - 26x^2 + 138x - 35$  are  $2 \pm \sqrt{3}$ , find other zeroes.
6. If  $\alpha$  &  $\beta$  are zeroes of the polynomial  $p(x) = x^2 - 3ax + a^2$ . Find a if it is given that  $\alpha^2 + \beta^2 = 7/4$ .
7. If  $\alpha, \beta$  are zeros of  $p(x) = ax^2 + bx + c$ , then find the value of  $1/(a\alpha + b)^2 + 1/(a\beta + b)$
8. If  $\alpha$  and  $\beta$  are the zeroes of  $P(X) = 2x^2 - 6x + 3$   
find the value of  $(\alpha^3 + \beta^3) - 3\alpha\beta(\alpha^2 + \beta^2) - 3\alpha\beta(\alpha + \beta)$ .
9. The angles of a cyclic quadrilateral ABCD are  $\angle A = (6x + 10)^\circ$ ,  $\angle B = (5x)^\circ$ ,  $\angle C = (x + y)^\circ$ ,  $\angle D = (3y - 10)^\circ$ . Find x & y and hence the values of the four angles.
10. At a certain time in a deer park, the number of heads and the number of legs of deer and human visitors were counted and it was found that there were 39 heads and 132 legs. Find the number of deers and human visitors in the park.
11. When the son will be as old as what his father is today their ages will add up to 126 years. When the father was as old as what his son is today, their ages added up to 38 years. Find their present ages.
12. A number consists of two digits. When it is divided by the sum of the digits, the quotient is 6 with no remainder. When the number is diminished by 9, the digit are reversed. Find the number.

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