OXFORD PUBLIC SCHOOL, RANCHI

SUMMER HOLIDAY ASSIGNMENT (2018-19)

CLASS – IX

ENGLISH

Make a collage contrasting the schools of future and the schools of today based on the following value points -

1. Learning through computers; Learning through text-books.
2. Virtual class-room; Real class-room.
3. Robotic teacher; Human teacher.
4. Learning without classmates; Learning with classmates.

INFORMATION TECHNOLOGY

1. What do you mean by convergence of technologies? Explain major technology types that are being converged to form newer convergent technology include the following:
   (a) Computer Technology (b) Communication Technology (c) ICT (d) Content Technology
2. How are computers categorised? [Note:-Purpose Wise and Principle of operation wise**]**
3. Which component of a computer system executes the program and how?
4. For each of the following devices, describe the type of component it is and briefly describe its function within a computer:- Laser Printer, Mouse, 500 GB Hard drive, CPU, RAM, ROM
5. What are various categories of software? Explain with example.

PHYSICS

CHAPTER- MOTION

1. Change the speed of 6m/s into Km/hr.
2. Give two examples of bodies having non-uniform motion.
3. Name the physical quantity whose S.I.unit is: a) m/s b) m/s^2
4. What is meant by : a) Average speed b) Uniform speed
5. Write three differences between speed and velocity.
6. A train travels first 15 Km at a uniform speed of 30Km/hr the next 75Km at a uniform speed of 50 Km/hr and the last 10Km at a uniform speed of 20Km/hr. Calculate the average speed for the entire train journey.
7. A racing car has a uniform acceleration of $4m^2$.What distance will it cover in 10sec?
8. Show that Area under speed time graph is equal to distance covered.
9. Prove equation of motion graphically
   i) $V= u+at$ ii) $S= ut +1/2at^2$ iii) $v^2=u^2+2as$
10. What is difference between uniform linear motion and uniform circular motion?
11. What is meant by uniform circular motion? Give two examples of uniform circular motion.

CHEMISTRY

1. "Osmosis is a special kind of diffusion". Comment.
2. Water as ice has cooling effect, whereas water as steam may cause severe burns. Explain these observations.
3. Why does the temperature of a substance remain constant during its melting point or boiling point?
4. Define: (a) Latent heat of fusion (b) Freezing.
5. How will you demonstrate that particles of matter are continuously moving?

BIOLOGY

1. What are Manures? Make a note on different types of Manures.
2. What is Organic farming? What are the various methods adopted in Organic farming.
3. Why are irrigation system needed in India? Explain in brief about Drip irrigation and Sprinkler irrigation system.
4. Explain how excessive use of nitrate fertilizers in agricultural fields affects human life?
5. Make a chart showing various diseases of some major crops, their symptoms, pathogen and measures applied for their control.

MATHEMATICS

1. Insert two rational and irrational numbers between $\sqrt{2}\ and \sqrt{3}$.
2. Express $0.6 + 0.\overline{7} + 0.4\overline{7}$ in the form of p/q.
3. Put the following numbers on the number line :
   a) $\sqrt{3}$ b) $\sqrt{4.6}$
4. If $\frac{\sqrt{7}-1}{\sqrt{7}+1} - \frac{\sqrt{7}+1}{\sqrt{7}-1} = a + b\sqrt{7}$. Find the values.

5. If $x = \sqrt{\frac{5+2\sqrt{6}}{5-2\sqrt{6}}}$. Find the value of $x^2 (x - 10)^2$.
6. What is the value of $\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \frac{1}{\sqrt{3}+\sqrt{4}}$ …… upto 15 terms?
7. If $x= \frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$, $y= \frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}$. Find the value of $\frac{x^2+xy+y^2}{x^2-xy+y^2}$
8. A $=5 + 2\sqrt{6}$, find the value of :
   i) $A + \frac{1}{A}$ ii) $\sqrt{A} + \frac{1}{\sqrt{A}}$
9. Factorise $6x^2+5x-6$ by splitting the middle terms and also by factor theorem.
10. If (x+2) is a factor of $[(x+1)^5 + (2x + k)^3]$, find the value of K.
11. By remainder theorem, find the remainder when P(x) is divided by g(x). If $P(x) = x^3-6x^2+2x-4$ and $g(x) = 1- \frac{3}{2}x$.
12. If the polynomials ax^3+4x^2+3x-4 and x^3-4x+a leave the same remainder when divided by x-3, find the value of a.
13. If $\frac{x}{y} + \frac{y}{x} = -1$, find the value of x^3-y^3.
14. If a+b+c = 0 , then what is the value of $(a +b-c)^3 + (c+a-b)^3 + (b+c-a)^3$.

SOCIAL SCIENCE

History

1. Which institution declared France a Republic?
2. Which were the different factors responsible for the outbreak of protest in France? Discuss any three.
3. What is the significance of 'The Tennis Court Oath' in the French Revolution?
4. The French Revolution popularized many symbols. Each symbol depicted some basic values. Mention the symbols and related values.
5. Write a short note on Olympe de Gouges.

Civics

1. Name the famous political party of Mexico and Zimbabwe.
2. Why are China, Mexico and Estonia non-democratic countries though they declare themselves as democratic? State one reason for each of the country.
3. Explain any three difficulties faced by the people in a non-democratic country.
4. What do you mean by representative democracy? Why is representative democracy the most common form of government in modern times? Give any two reasons.
5. Is India a democratic country? Write any three points in favour of your answer.

Geography

1. A project on 'Disaster management' (Flood, Tsunami, Earthquake etc)
   (i) Causes (ii) Preventive measures (iii) Mitigation policies etc.

ECONOMICS

1. Define the meaning and aim of production.
2. 'Land is a natural resource, it is necessary to be very careful in its use'. Explain.
3. Explain the achievements of Green Revolution in Indian agriculture.
4. What is the importance of electricity for rural India?
5. Suggest different ways to reduce the consumption of chemicals on land to prevent its degradation.

विषय :– संस्कृतम्

1. शेमुषी पुस्तकात् (वसन्तगीतम्, स्वर्णकाकः, सोमप्रभम्)
   एकवाक्येन उत्तरत, प्रश्ननिर्माणं, प्रकृति प्रत्ययः, मेलनम् च लिखित्वा स्मरत।
2. निर्देशानुसारेण वर्णान् क्रमशः लिखत –
   स्वरवर्णाः– व्यंजन वर्णाः– स्पर्शवर्णाः– अन्तस्थवर्णाः – उष्मवर्णाः–
3. स्वरसंधेः सर्वान् भेदान् लिखित्वा तेषां दश–दश उदाहरणानि सविच्छेदेन लिखत।
4. शब्द रूपाणि लिखित्वा स्मरत – अस्मद्, युष्मद्, तत् (पु०, स्त्री०), रमा, साधु
5. धातु रूपाणि लिखित्वा पंचलकारेषु स्मरत– दृश्, गम्, स्था, खाद्, रक्ष्, अस्

हिन्दी

1. चार्ट पेपर पर अपने पाठ्यपुस्तक में से किसी एक साहित्यकार का जीवन परिचय सह रचना परिचय प्रस्तुत करें।
2. 'वाख' कविता का सार अपने शब्दों में लिखें।
3. पानी की बरबादी को रोकने हेतु उचित उपाय सुझाते हुए लगभग पाँच सौ शब्दों में एक निबंध लिखें।
4. अर्थ की दृष्टि से वाक्य के प्रमुख भेदों के चार–चार उदाहरण लिखें।
5. ग्रीष्मावकाश पर घूमने जाने हेतु अपने मित्र को एक पत्र लिखें।

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