



**LOYOLA CONVENT SCHOOL**  
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SESSION-2020-21

**Summer Vacation Holiday Homework of Class - IX**

**ENGLISH**

- 1) 'Ours is a world of advertisements' The electronic and print media has an advertisement galore. Most of these adds are misleading and false. Should there be a check on what they claim? Draft an article in 250 -300 words.
- 2) Write a bio sketch of the person whom you consider as your role model. Word limits 100 – 150 words.
- 3) Smart Score – Complete the following worksheets-
  - Module 1 (Reading) :** (a) Practice Assignment – 1 to 5 (b) Home Assignment – 1 to 5
  - Module 2 (Article Writing) :** (a) Practice Assignment – 1 to 4 (b) Home Assignment – 1 to 4
  - Module 4 (Diary Entries) :** (a) Practice Assignment – 1 to 3 (b) Home Assignment – 1 to 3
  - Module 6 (Grammar Concepts) :** (a) Direct and Indirect (b) Clauses
  - Module 8 (Literature) :** (a) Bee Hive – Unit 1 & 2 (Poem-Wind) (b) Moments – Unit 1 & 2
- 4) Read the interesting extract, L-6 (Beehive) MY CHILDHOOD from the life of the world's greatest scientist and one of India's most prominent Presidents, Dr. A.P.J Abdul Kalam and attempt the following questions.
  - a) 'I felt very sad, and so did Ramanadha Sastry. He looked utterly downcast as I shifted to my seat in the last row.'
    - 1) Who is 'I' in this extract? Why did he feel sad?
    - 2) Who looked utterly downcast?
    - 3) Why did he feel utterly downcast?
    - 4) Why was the seat shifted?
  - b) Why did the demand for tamarind seeds increase suddenly? How did it help Kalam? (Answer in 30 -40 words)
  - c) In what sense was Sivasubramania Iyer 'something of a rebel'? (Answer in 30 -40 words)
  - d) How did Abdul Kalam earn his 'first wages'? How did he feel at that time? (Answer in 80 -100 words)
  - e) Teachers can either 'make' or 'break' their students' lives. Cite two incidents from "My Childhood" to prove the truth of this statement. (Answer in 80 -100 words)

**HINDI**

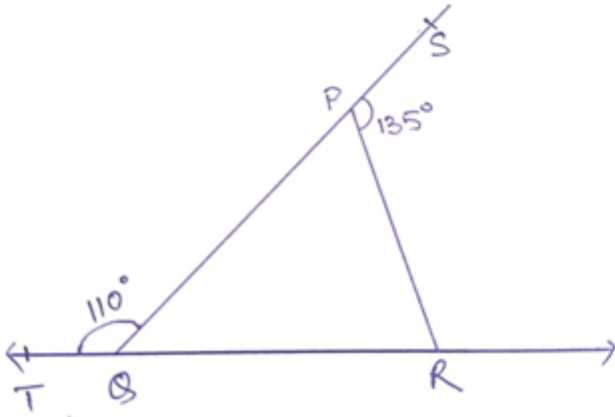
1. अपठित गद्यांश-दूगैदर विद से अभ्यास प्रश्न 3, 4, 5, 6, 7 अभ्यास पुस्तिका में ही लिखें। यदि स्थान अपेक्षित न हो तो अपेक्षित न हो तो अतिरिक्त पेपर में लिखकर उसे वहीं संलग्न करें।
2. संकेत बिंदुओं के आधार पर निबंध लेखन-  
अभ्यास प्रश्न संख्या 1, 2, 18, 26, 28  
निबंध लिखकर दूगैदर विद अभ्यास पुस्तिका में संलग्न करें।
3. संवाद लेखन - दूगैदर विद अभ्यास प्रश्न से प्रश्न संख्या 2, 3, 6, 8, 10 को लिखकर 'पेपर' अभ्यास प्रश्न के पास संलग्न करें।
4. पत्र लेखन - अभ्यास प्रश्न संख्या 4, 8, 9, 14, 20 को अतिरिक्त पेपर में लिखकर अभ्यास प्रश्न के पास संलग्न करें।

## SANSKRIT

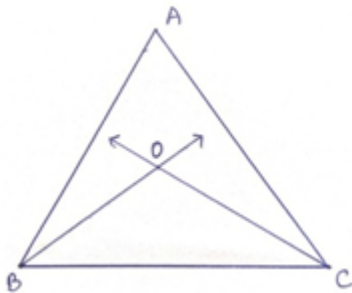
1. खण्ड -क - 'अपठित अवबोधनम्' अभ्यास प्रश्न 1-10 पुस्तिकायामेव लिखत। (दूगेदर विद)
2. खण्ड -घ - 'शेमुषी प्रथमः भागः' पुस्तिकायाः पाठिताध्यायाः - क. स्वर्ण काकः ख. कल्पतरुः ग. सूक्तिमौक्तिकम् आधारित समस्त प्रश्नान् दूगेदर पुस्तिकामेव लिखत।
3. खण्ड -ख - संख्याधारित समस्त प्रश्नान् दूगेदर पुस्तिकायामेव लिखत।

## MATHEMATICS

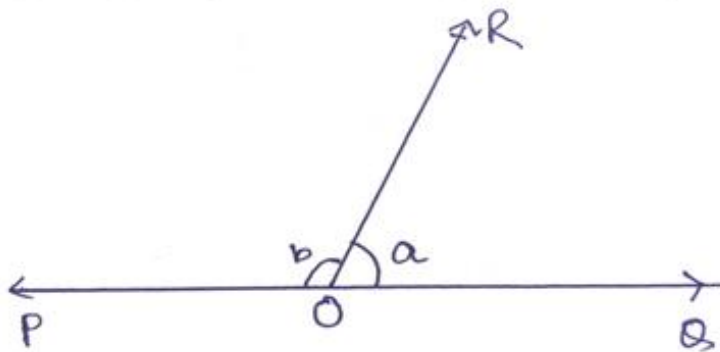
- 1) Find five rational number between  $\frac{3}{5}$  &  $\frac{4}{5}$ .
- 2) Locate  $\sqrt{3}$  on a number line.
- 3) Find three different Irrational Numbers between the Rational Number  $\frac{5}{7}$  &  $\frac{9}{11}$ .
- 4) Rationalise the denominator of (a)  $\frac{1}{7+3\sqrt{3}}$  (b)  $\frac{3\sqrt{3}+4}{3\sqrt{3}-4}$  (c)  $\frac{3\sqrt{5}-2\sqrt{6}}{4\sqrt{3}-2\sqrt{6}}$
- 5) Calculate the perimeter of a rectangle whose area is  $25x^2 - 35x + 12$ .
- 6) Find the value of  $x^3 + y^3 + z^3 - 3xyz$ . If  $x^2 + y^2 + z^2 = 83$  &  $x + y + z = 15$ .
- 7) Find the remainder when  $t^3 + 2t^2 + t + 1$  is divided by  $(t - 1)$ .
- 8) In the given figure side QP and RQ of  $\Delta PQR$  are produced to point S and T respectively. If  $\angle SPR = 135^\circ$  and  $\angle PQT = 116^\circ$ , find  $\angle PRQ$ .



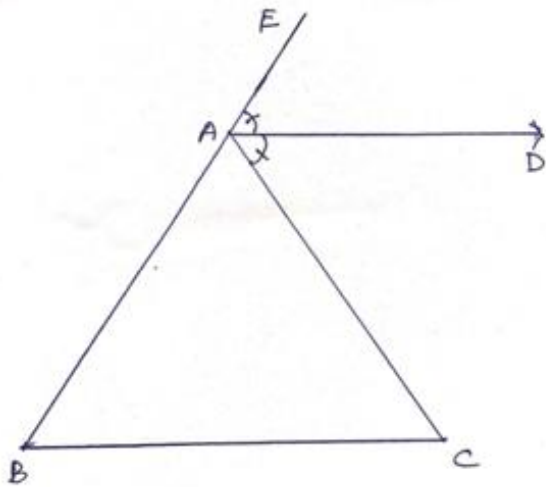
- 9) In fig the bisector of  $\angle ABC$  and  $\angle BCA$  intersect each other at point O. Prove that  $\angle BOC = 90^\circ + \frac{1}{2}\angle A$



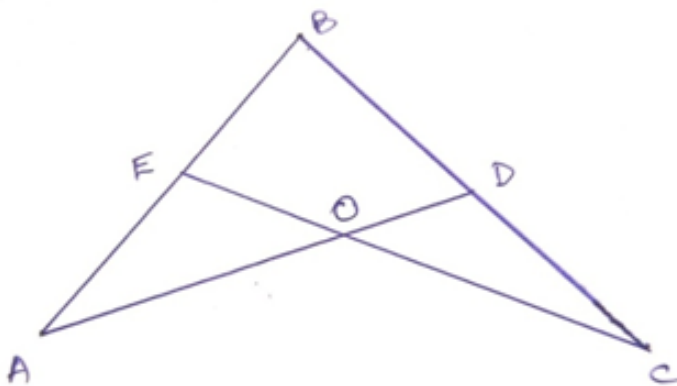
10) In the given figure  $\angle POR$  and  $\angle QOR$  form a linear pair if  $(b - a) = 80^\circ$ . Find the value of reflex of  $b$ .



11)  $\triangle ABC$  is an Isosceles triangle with  $AB = AC$ . AD bisect the exterior  $\angle A$ . Prove that  $AD \parallel BC$



12) In the given figure  $\angle A = \angle C$  and  $AB = BC$ . Prove that  $\triangle ABO \cong \triangle CBE$



13) Factorise the following -

(i)  $x^3 + 8y^3 + 64z^3 - 24xyz$       (ii)  $80^3 - b^3 - 12a^2b + 6ab^2$

14) By long division method prove that the polynomial  $2x^3 + 4x^2 + x - 34$  is exactly divisible by  $(x-2)$ .

15) Without actually calculating the cubes. Find the value of  $- 26^3 + (-15)^3 + (-11)^3$

## PHYSICS

- 1) Stating four examples of Physical Quantities, define it.
- 2) In a long distance race, the athletes were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200 m.
  - (i) What is the total distance to be covered by the athlete?
  - (ii) What is the displacement of the athletes when they touch the finish line?
  - (iii) Is the motion of the athletes uniform or non-uniform?
  - (iv) Is the displacement of an athlete and the distance moved by him at the end of the race equal?
- 3) Write three equation of motion. Also derive it graphically.
- 4) State Newton's first law of Motion. Also define Inertia.
- 5) Obtain a relation for the distance travelled by an object moving with a uniform acceleration in the interval between 4<sup>th</sup> and 5<sup>th</sup> seconds.
- 6) What is the Quantity which is measured by the area occupied below the v-t graph and slope of v-t graph?

## CHEMISTRY

- 1) Write five things which you use in home and on your body or take in diet to increase immunity against pandemic corona covid-19. Write the chemicals present in them which helps to fight or protect against viral infections.
- 2) Write differences between solid liquids and gases over molecular force of attraction, molecular space, compressibility, rigidity and kinetic energy of molecules.
- 3) What is latent heat? Also define latent heat of vaporisation and latent heat of fusion.
- 4) What is evaporation? Write the factors on which evaporation causes cooling and explain them.
- 5) Briefly explain about plasma state and Bose –Einstein condensate of matter.
- 6) Explain the difference between pure substances and mixtures by giving examples.
- 7) Write ten things which you see in your home and surroundings and classify them as solution, colloids and suspension.
- 8) Differentiate between solutions, suspensions and colloidal solutions over 5 points.
- 9) Write method and principle on which we can separate two miscible liquids whose boiling point difference is less than 25 k. Explain the Steps of method along with diagram.
- 10) Give the reasons for following.
  - (a) Water kept in earthen pot becomes cool.
  - (b) Evaporation causes cooling.
  - (c) We can easily move our hand in air than on wooden plank.
  - (d) Iron almirah is solid.
  - (e) Naphthalene balls disappear when kept in open for few weeks.

## **BIOLOGY**

- 1) Differentiate between macronutrients and micronutrients.
- 2) What do you understand by composite fish culture? Write the advantages of composite fish culture.
- 3) What are the biological control methods for pests and pathogens?
- 4) Differentiate between prokaryotic and eukaryotic cell.
- 5) Differentiate between diffusion and osmosis.
- 6) Draw a well - labelled diagram of a prokaryotic cell.
- 7) Draw a well - labelled diagram of a plant cell and an animal cell.

## **HISTORY & GEOGRAPHY**

- 1) How would you explain the rise of Napoleon?
- 2) What types of freedoms were granted to the citizens of France after French revolution?
- 3) Explain the different causes of the French Revolution.
- 4) Describe the French Society during the late 18<sup>th</sup> century.
- 5) Explain the age of social change in Russia during early 18<sup>th</sup> Century.
- 6) Which events led to the October revolution of 1917 in Russia?
- 7) Describe the importance of strategic central location of India in Asia.
- 8) On the outline map of India label its different physiographic units.
- 9) On the outline map of India label the following:  
(a) The Karakoram (b) The Zaskar (c) The Patkai Bum (d) The Jaintia (e) The Vindhyas Range (f) The Aravali  
(g) K<sub>2</sub> (h) Kanchenjunga (i) Western Ghats (j) Eastern Ghats
- 10) Explain in detail about the positive –impact of Lock-Down to the environment with suitable pictures, drawings and Proofs.

## **ECONOMICS**

- 1) There are four requirements for production of goods and services. What are they? Explain.
- 2) What is the difference between multiple cropping and modern farming method?
- 3) Describe the main production activity in Palampur. What are the features?
- 4) How is Land distributed between the farmers of Palampur?
- 5) How did the spread of electricity help farmers in Palampur?
- 6) Why are the labourers in Palampur is less than the minimum wages?
- 7) What are drawbacks of modern farming methods?
- 8) Explain the issues farm labourers face in terms of unemployment. Mention three issues.

## CIVICS

- 1) How many forms of government are there. Mention all the forms in relevant to five countries?
- 2) State three features of different forms of government like :
  - Monarchy
  - Aristocracy
  - Oligarchy
  - Direct Democracy
- 3) Define Constitutions. What are the different types of Constitutions?

## INFORMATION TECHNOLOGY

- 1) What is Communication Skill? Explain the elements of Communication Cycle.
- 2) What is the verbal and non-verbal communication?
- 3) Write short notes on Visual communication?
- 4) What is self management skill?
- 5) Explain the factor that plays a vital role in building self confidence.
- 6) What is Time management? Explain.
- 7) Explain the function and components of CPU.
- 8) What is difference between RAM and ROM?
- 9) What is Motherboard? Explain.
- 10) Explain working of MICR (Magnetic Ink Character Reader).