



# DELHI PUBLIC SCHOOL JAMMU

## Holiday Homework

for

### Classes IX - XII

### Session 2019-20



Dear Parents,

True education starts from home. Parents are the first teachers and they have a key role in shaping up the character of their children. A balance of education at home and school moulds a student's actual learning.

If parents extend a helping hand in the educational journey of their children and inspire them with hope and values, we will create successful, wholesome and future ready human beings.

Here are a few ways which parents can adopt to help with their children's education:

- ▶▶ Become a partner in your children's education. Show them how exciting and meaningful a school life can be, if they give out their best.
- ▶▶ Doing things together with parents gives children a sense of support and confidence. Reading books or the lessons together is one of the best ways to be close with the child's learning at school.
- ▶▶ The general habits of the children are closely linked with how they perform in their studies. Help them to be more organized with their daily routine and find enough time for the lessons.
- ▶▶ Remember: Lessons + Play time + Rest = Quality Student Life.
- ▶▶ Avoid unnecessary quarrels in your child's presence. Both parents should ensure that the kids are provided with adequate moral support and peaceful, loving and pleasant atmosphere at home.
- ▶▶ If you notice that your children are not performing well or giving less importance to studies, correct them at the beginning itself. Make them understand what is right and wrong rather than using ill words to blame them.
- ▶▶ When it is their exam time, don't leave them alone with their lessons. Help them to prepare for the tests with good guidance and support. You may even conduct mini tests at home before the actual test to lessen their exam worries and tensions.
- ▶▶ Kindly avoid unnecessary trips or functions that can affect their study schedule. Don't encourage your children to take unnecessary leaves from school for silly matters and make them understand the importance of daily class attendance.
- ▶▶ Lastly, make efforts to know your child's areas of interests and include them in the holiday time to give them a good relief from the stress of studies.

**IMPORTANT:** Many studies and surveys have shown that parent's involvement in their children's education has led to their better grades at school, higher self-esteem, better social skills and improved behaviour.

We hope that, in coming times we would see improved parent-child- teacher relationship and together we can " fulfil the promise of our children's tomorrow."

Happy Parenting!! Happy Holidays!!

Principal  
DPS Jammu

**CLASS: X**

**SUBJECT: ENGLISH**

***Instructions:***

- *Holidays Homework is compulsory for all the students*
- *Q no.2 is to be done on an A4 size sheet*
- *Q no.4 and 5 is to be done on a separate note-book*
- *Revise the whole syllabus covered in the class*

**Q1:** Collect any 5 news items on the given issues and paste them in a scrap-book. Comment on any two of them in 120-150 words.

- a) Environmental issues
- b) Technological developments
- c) Women centric issues

**Q2:** Make a poster and write a slogan to back the endeavor to protect the fast disappearing tigers. Draw pictures to add value to your design.

**Q3:** Create and illustrate a weekly journal covering the following points in a scrap-book:

- a) Editorial
- b) Sports
- c) Entertainment

**Q4:** Write 5 articles in 120-150 words each on general issues spreading awareness.

**Q5:** Read the poem 'Amanda' and critically analyze it in 80-100 words.

दिल्ली पब्लिक स्कूल ,जम्मू

सत्र (2019 –20)

ग्रीष्मावकाश कार्य

विषय : हिन्दी

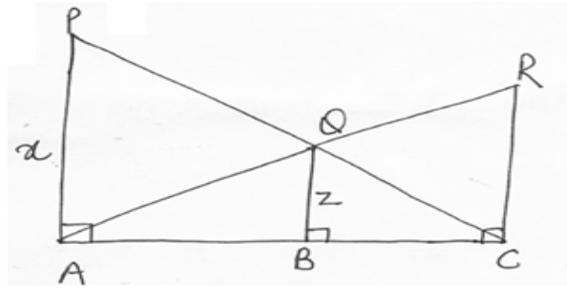
कक्षा दसवीं

- 1) प्रेमचंद के जीवन और उनकी महत्त्वपूर्ण रचनाओं की जानकारी देते हुए एक सचित्र परियोजना तैयार कीजिए।
- 2) हिंदी सिनेमा के विकास की क्रमिक यात्रा का वर्णन करते हुए सचित्र परियोजना तैयार कीजिए।
- 3) ग्रीष्मावकाश में आपके विद्यालय में ' नेशनल स्कूल ऑफ ड्रामा ' एक कार्यशाला का आयोजन कर रहा है। इसकी सूचना देते हुए और नामांकन के लिए आमंत्रित करते हुए छात्र सचिव की ओर से सूचना तैयार कीजिए।
- 4) आजकल इंटरनेट से पूरी दुनिया सिमट गई है , देश विदेश की जानकारी पल भर में मिल जाती है परंतु इससे कुछ नुकसान भी है अतः इसके लाभ व हानियों की चर्चा करते हुए अपने विचार लिखकर प्रकट कीजिए।
- 5) स्वतंत्रता आंदोलन में अनेक महिलाओं का योगदान रहा है। किन्ही तीन महिलाओं के विषय में संक्षिप्त जानकारी प्राप्त कर उसे सचित्र परियोजना तैयार कीजिए।

आवश्यक निर्देश :

- ❖ गृहकार्य के लिए ए-4 आकार के पत्र (शीट) का प्रयोग आवश्यक है।
- ❖ कार्य रचनात्मक व आकर्षक शैली में किया जाए।
- ❖ कार्य करने में पूर्ण रूप से हिंदी भाषा का प्रयोग किया जाए।
- ❖ स्वच्छता व प्रस्तुतीकरण का विशेष ध्यान रखा जाए।
- ❖ कक्षा में पढ़ाए गए पाठ्यक्रम को दोहराएं।
- ❖ प्रतिदिन एक सुलेख संवाद , पत्र या अनुच्छेद आदि के रूप में लिखिए।
- ❖ पढ़ाए गए पाठ्यक्रम पर आधारित blueprint sheets करके लाएं।

- Q1. Find the greatest number that will divide 445, 572 and 699 leaving remainders 4, 5 and 6, respectively.
- Q2. Find H.C.F. and L.C.M. of 1152 and 1664.
- Q3. If  $p$  is a prime, prove that  $\sqrt{p}$  is an irrational
- Q4. The values of the remainder  $r$ , when a positive integer  $a$  is divided by 3 are 0 and 1 only. Justify your answer.
- Q5. Show that  $n^2 - 1$  is divisible by 8, if  $n$  is an odd positive integer.
- Q6. Check whether  $15^x$  can end with digit zero for any natural number  $x$ .
- Q7. If  $\alpha$  and  $\beta$  are zeroes of the quadratic polynomial  $x^2 - 6x + a$ , find the value of 'a'  $3\alpha + 2\beta = 20$ .
- Q8. Can  $(x - 1)$  be the remainder on division a polynomial  $p(x)$  by  $(2x + 1)$  ? Justify your answer.
- Q9. Check whether  $x^2 + 3x + 1$  is a factor of  $3x^4 + 5x^3 - 7x^2 + 2x + 2$  ?
- Q10. What must be added to polynomial,  $f(x) = 4x^4 + 2x^3 - 2x^2 - 2x + x - 1$  so that the resulting polynomial is exactly divisible by  $x^2 + 2x - 3$  ?
- Q11. Prove that :
- i) 
$$\frac{\cot A + \operatorname{cosec} A - 1}{\cot A - \operatorname{cosec} A + 1} = \frac{1 + \cos A}{\sin A}$$
- ii) 
$$\frac{1}{1 + \sin(90^\circ - \theta)} + \frac{1}{1 - \sin(90^\circ - \theta)} = 2 \operatorname{cosec}^2 \theta$$
- Q12. If  $\frac{\cos \alpha}{\cos \beta} = m$  and  $\frac{\cos \alpha}{\sin \beta} = n$ , prove that  $(m^2 + n^2) \cos^2 \beta = n^2$
- Q13. What is the maximum value of  $\frac{1}{\operatorname{cosec} \theta}$  ?
- Q14. If  $\tan \theta + \frac{1}{\tan \theta} = 2$ , prove that  $\tan^2 \theta + \frac{1}{\tan^2 \theta} = 2$
- Q15. Write the acute angle  $\theta$  satisfying  $\sqrt{3} \sin \theta = \cos \theta$
- Q16. State and prove Thale's Theorem.
- Q17. In the given figure, PA, QB, RC are each perpendicular to AC, prove that  $\frac{1}{x} + \frac{1}{y} = \frac{1}{z}$



- Q18. The areas of two similar triangles are  $81\text{cm}^2$  and  $49\text{cm}^2$  respectively. If the altitude of the biggest triangle is 405 cm find the corresponding altitude of the smallest triangle.
- Q19. If  $\alpha$ ,  $\beta$  and  $\gamma$  are zeroes of the polynomial  $6x^3 + 3x^2 - 5x + 1$ , then find the values  $\alpha^{-1} + \beta^{-1} + \gamma^{-1}$
- Q20. Determine, graphically, the vertices of the triangle formed by the lines  $y = x$ ,  $3y = x$ ,  $x + y = 8$
- Q21. If  $\sin\theta = \frac{a}{\sqrt{a^2 + b^2}}$ ,  $0^\circ < \theta < 90^\circ$ , find the values of  $\cos\theta$  and  $\tan\theta$ .
- Q22. In a  $\triangle ABC$ ,  $BD \perp AC$  such that  $BD^2 = DC \times AD$ . Prove that  $\triangle ABC$  is a right angled triangle.
- Q23. If  $\operatorname{Cosec}\theta - \sin\theta = 1$  and  $\sec\theta - \cos\theta = m$ , then prove that  $l^2 m^2 (l^2 + m^2 + 3) = 1$ .
- Q24. If the zeroes of the polynomial  $x^2 - 5x + k$  are the reciprocal of each other, then find the value of  $k$ .
- Q25. If  $\alpha$  and  $\beta$  are the zeroes of  $x^2 + 7x + 12$  then find the value of  $\frac{1}{\alpha} + \frac{1}{\beta} - 2\alpha\beta$

**NOTE : DO ALL THESE QUESTIONS IN YOUR MATHEMATICS NOTE-BOOK.**

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**HISTORY**

**UNIT 1 : INDIA AND THE CONTEMPORARY WORLD II**

**Nationalism in India**

Compare the policies and methods used by Sardar Vallabhai Patel in integration of States of India respectively.

The report should include:-

1. Condition of India immediately after 1947.
2. His role in integration of India.
3. How did the unification affect the growth of the respective country.

**POLITICAL SCIENCE**

A. Comparative study of India and any one country from the United States of America/ Australia/Canada/South Africa.

The study report to include:

1. Meaning of Federalism.
2. Features of Federalism in both—similarities and differences
3. Working of Federalism-- Federalism in theory and practice—give examples of center and state relationships and conflict and tension between center and state and state and state.
4. How successful has federalism been in both the countries
5. Which system—a federal or unitary, do you favour for India? Why?

**GEOGRAPHY-**

Make a project report on the following topics- ( Do any One)

1. Earth Quake- Causes and Mitigation.
2. Floods- Causes and Mitigation.
3. Changes and Development in Agriculture Industry.
4. Global Warming-Causes and Mitigation.

**ECONOMICS-**

Make a project report on the following-(Do any Two)

1. Human Development Index and find out India's position in the last three years.
2. Find out Body Mass Index of five boys and five girls between the age of 14-16 years.
3. Find out National income and per capita Income of your country and compare it with first developed countries of the World.
4. List few ways by which you as an individual can save our resources in order to get a sustainable economy

**NOTE:**

1. Use A4 size sheets for Holiday homework.

**PHYSICS**

- Q1. Draw the ray diagrams for both mirrors and lenses for different position of objects.  
Q2: Prepare a project file based on recombination of spectral lines by using two prisms.  
Q3: Do 2 numerical based on (a) Refractive index (b) mirrors (c) lenses.

**CHEMISTRY**

- Q1. Prepare a project file on types of chemical reaction.  
Q2. Write 30 chemical equations and balance them.  
Q3. Write the Chemical properties of Acid and Bases.

**BIOLOGY**

- Q1. Prepare a project file on stem cell regeneration.  
Q2. What are the adaptations of leaf for photosynthesis?  
Q3. Why are white blood corpuscles called soldiers of the body?  
Q4. How are the alveoli designed to maximize the exchange of gases?  
Q5. Describe double circulation in human beings. Why is it necessary?

**NOTE: 1. Project report should be on A4 size sheet.**

**2. Question should be on homework notebook.**

**Class- X**

**SUBJECT- COMPUTERS**

Design and create a colorful poster on “My School, My Pride” in Ms Word. You may use pictures from the School Website. Take a print out of the Poster and Paste it on the notebook.