

**KENDRIYA VIDYALAYA RRL JORHAT**  
**WINTER BREAK HOMEWORK**  
**CLASS- XI SUB – HINDI**

प्रश्न -1 दबा हुआ आदमी एक कवि है ,यह बात कैसे पता चली और इस जानकारी का फ़ाइल की यात्रा पर क्या असर पड़ा ?

प्रश्न -2 भारत माता के प्रति नेहरू जी की क्या अवधारणा थी ?

प्रश्न -3 वे आँखे कविता में किसान की पीड़ा के लिए किन्हें ज़िम्मेदार बताया गया है ?और आज का किसान की किन किन समस्याओं से जूझ रहा है ?

प्रश्न - 4 चेजारों के साथ गाँव समाज के व्यवहार में क्या बदलाव आया है पाठ के आधार पर लिखिए ?

प्रश्न -5 बेबी हालदार आलो अंधारि पाठ के किन अंशों के आधार पर समाज की यह सच्चाई उजागर होती है कि पुरुष के बिना स्त्री का कोई अस्तित्व नहीं है |क्या वर्तमान समय में स्त्री की इस सामाजिक स्थिति में कोई परिवर्तन आया है ?तर्क सहित उत्तर दीजिए |

---

**KENDRIYA VIDYALAYA RRL JORHAT**  
**WINTER BREAK HOMEWORK**  
**CLASS- XI SUB – SCIENCE**

1. Define growth, differentiation, development, dedifferentiation, redifferentiation, determinate growth, meristem and growth rate.
2. Why is not any one parameter good enough to demonstrate growth throughout the life of a flowering plant?
3. Describe briefly:
  - (a) Arithmetic growth
  - (b) Geometric growth
  - (c) Sigmoid growth curve
  - (d) Absolute and relative growth rates
4. List five main groups of natural plant growth regulators. Write a note on discovery, physiological functions and agricultural/horticultural applications of any one of them.
5. What do you understand by photoperiodism and vernalisation? Describe their significance.
6. Why is abscisic acid also known as stress hormone?
7. 'Both growth and differentiation in higher plants are open'. Comment.
8. 'Both a short day plant and a long day plant can produce can flower simultaneously in a given place'. Explain.
9. Which one of the plant growth regulators would you use if you are asked to:
  - (a) induce rooting in a twig
  - (b) quickly ripen a fruit
  - (c) delay leaf senescence
  - (d) induce growth in axillary buds
  - (e) 'bolt' a rosette plant
  - (f) induce immediate stomatal closure in leaves.

10. Would a defoliated plant respond to photoperiodic cycle? Why?

11. What would be expected to happen if:

(a) GA3 is applied to rice seedlings

(b) dividing cells stop differentiating

(c) a rotten fruit gets mixed with unripe fruits

(d) you forget to add cytokinin to the culture medium.

1. The enthalpy of combustion of methane, graphite and dihydrogen at 298 K are  $-890.3 \text{ KJ mol}^{-1}$ ,  $-393.5 \text{ KJ mol}^{-1}$  and  $-285.8 \text{ KJ mol}^{-1}$  respectively. Enthalpy of formation of  $\text{CH}_4(\text{g})$  will be

(i)  $-74.8 \text{ KJ mol}^{-1}$

(ii)  $-52.27 \text{ KJ mol}^{-1}$

(iii)  $+74.8 \text{ KJ mol}^{-1}$

(iv)  $+52.26 \text{ KJ mol}^{-1}$

2. Calculate the number of kJ of heat necessary to raise the temperature of 60 g of aluminium from  $35^\circ\text{C}$  to  $55^\circ\text{C}$ . Molar heat capacity of Al is  $24 \text{ J mol}^{-1} \text{ K}^{-1}$ .

3. For an isolated system  $\Delta U = 0$ ; what will be  $\Delta S$ ?

4. Draw the Lewis structures for the following molecules and ions:

$\text{H}_2\text{S}$ ,  $\text{SiCl}_4$ ,  $\text{BeF}_2$ ,  $\text{HCOOH}$

5. Define Octet rule. Write its significance and limitations.

6. Write the favourable factors for the formation of ionic bond.

7. Which important property did Mendeleev use to classify the elements in this periodic table and did he stick to that?

8. What does atomic radius and ionic radius really mean to you?

9. Write the complete symbol for the atom (X) with the given atomic number (Z) and atomic mass (A)

(i)  $Z = 17, A = 35$

(ii)  $Z = 92, A = 233$

(in)  $Z = 4, A = 9$ .

10. What is the number of photons of light with wavelength 4000 pm which provide 1 Joule of energy ?

---

Q1: Deduce the relation between orbital velocity of a body moving round the earth just over its surface and its escape velocity. 3 Q2: The ratio of the weights of a body on the earth's surface, so that on the surface of a planet is 9:4. The mass of the planet is 1/9th of that of the earth. If R is the radius of the earth, what is the radius of the planet? (Take the planets to have the same mass density) 5 Q3: The mass of the moon is 1/81 of earth's mass and its radius 1/4th that of the Earth. If the escape velocity from the earth's surface is 11.2 km/s, what will be its value for the moon? 5 Q4: A Solid sphere, A hollow sphere and a ring are released from top of an inclined plane (frictionless), so that they slide down the plane. Then which of them will have maximum acceleration down the plane (no rolling). 2 Q5: The mass of the earth is increasing at the rate of 1 part in  $5 \times 10^{19}$  per day by the attraction of meteors falling normally on the earth's surface. Assuming that the density of earth is uniform, what will be the rate of change of the period of rotation of the earth.

---

**KENDRIYA VIDYALAYA RRL JORHAT  
WINTER BREAK HOMEWORK  
CLASS- XI SUB – MATHS**

1. Write three activities from your mathematics practical manual.
2. Solve the half yearly question paper in your note book.
3. Solve the questions given below:
  - a. If  $\tan A = 1/2$  and  $\tan B = 1/3$ , then the value of  $A+B =$ 

(a)  $45^\circ$       (b)  $60^\circ$       (c)  $30^\circ$       (d)  $0^\circ$
  - b. The value of  $\tan 3A - \tan 2A - \tan A$  is equal to
 

(a)  $\tan 3A \tan 2A \tan A$   
 (b)  $-\tan 3A \tan 2A \tan A$   
 (c)  $\tan A \tan 2A - \tan 2A \tan 3A - \tan 3A \tan A$   
 (d) None of these
  - c. The value of  $\tan 20^\circ + 2 \tan 50^\circ - \tan 70^\circ$  is equal to
 

(a) 1    (b) 0    (c)  $\tan 50^\circ$     (d) None of these
  - d. The conjugate of  $i-35$ 

(a) 1.      (b) -1      (c) i      (d)  $-i$
  - e. If  $i^{103} = a + ib$  then  $a + b$  is equal to
 

(a) 1      (b) -1      (c) 0      (d) 2
  - f. If  $z_1 = 3 + 2i$  and  $z_2 = 2 - 4i$  and  $|z_1 + z_2|^2 + |z_1 - z_2|^2$  is equal
 

(a) 11    (b) 22    (c) 55    (d) 66

- g. If there are 30 students in a group. If all shake hands with one another ,how many hand shake are possible?
- h. A college has 6 good badminton players. A team of 4 has to be sent for inter college tournament. In how many ways can the team be selected.
- i. If  $C(n,r-1)=36$ ,  $C(n, r)=84$  and  $C(n,r+1)=126$ , then find  $C(r,2)$ .
- j. Eight chairs are numbered from 1 to 8. Two women and 3 men wish to occupy one chair each. First the women chose the chairs among st the chairs 1 to 4 and then men select from the remaining chairs. Find the possible arrangement.
- k. Find the sum of all the natural numbers between 1 and 200 which are neither divisible by 2 nor by 5.
- l. The sums of n terms of two arithmetic progressions are in the ratio  $5n+4: 9n+6$ . Find the ratio of their 18th terms. m. Find equation of the line which is equidistant from parallel lines  $9x + 6y - 7 = 0$  and  $3x + 2y + 6 = 0$ .
- n. Find the equation of the lines through the point (3, 2) which make an angle of  $45^\circ$  with the line  $x - 2y = 3$ .

---

**KENDRIYA VIDYALAYA RRL JORHAT  
WINTER BREAK HOMEWORK  
CLASS- XI SUB – ENGLISH**

**Q1:** Narrate the story 'the Adventure' in your own words in about 200 words. 10

**Q2:** What happened when the narrator visited Mrs Dorling's house for the second time?  
10

**Q3:** What were the miseries of the mother in the play 'Mother's Day'? How was she able to come out of her miseries? 10

**Q4:** Prepare a debate on "Both Board Exam and Competitive Exam are really essential to assess students' abilities to take admission in professional courses" in about 200 words. 10

---

**KENDRIYA VIDYALAYA RRL JORHAT  
WINTER BREAK HOMEWORK  
CLASS- XI SUB – COMPUTER SCI.**

**1. From Sumita Arora Book**

**Solve the following questions :**

**Page No. 439 to 441 Q. 1 to Q. 20.**

**2. Prepare CS Practical file as per the practical list given in study group.**

---