# DEWAN PUBLIC SCHOOL INTERNATIONAL, MEERUT

# KANWAR HOLIDAY ASSIGNMENT 2018-19

# CLASS-IX

## ENGLISH

Diary Entry (Assignment-19) page-144 (BBC)

Unseen Passages (Assignment-4,5) page-50-53 (BBC)

Editing /Omission (Assignment-26) page-252,253

## HINDI

(1) आप उत्तर–प्रदेश परिवहन निगम की वातानुकूलित बस में यात्रा कर रहे थे। भूलवश आपका सामान बस में ही छूट गया है। इस घटना की सूचना देते हुए 'परिवहन अधिकारी' को पत्र लिखिए।

(2) निम्नलिखित विषयों में से किसी एक पर सारगर्भित निबन्ध लिखिए (250 से 300 शब्द)

(क) वो भयावह बरसात का दिनं

(ख) महानगरों में बढ़ता प्रदूषण।

(ग) हमारे राष्ट्रीय पर्व।

आलोक समस्त कार्य व्याकरण पुस्तिका में किया जाएगा।

## SANSKRIT

प्र01 मित्राय विवाहस्य निमंत्रणपत्रम् लिखत।

प्र02 मञ्जूषायाः पदानां सहाय्येन 'मम प्रिय मित्रम् सखि वा' इति विषयम् आधृत्य एकम् अनुच्छेदं लिखत।

मञ्जूषा–पञ्चदशवर्षीयः, स्वस्थशरीरः भद्रः च, गृहकार्यम्, हितप्रदेकार्ये, रहस्यम्, गणान्, प्रकटयति, क्रीडासु, कुशलः

## MATHS

1. Find two rational numbers between 0.1 and 0.11.

2. Two adjacent angles on a straight line are in the ratio 5:4. Find the measure of each one of these angles.

3. Factorise : $x^2 - x - 156$.

4. Prove that if two lines intersect then the vertically opposite angles are equal.

5. Show that in a quadrilateral ABCD, AB + BC + CD + DA > AC + BD.

6. Factorise : $(a-b)^3 + (b-c)^3 + (c-a)^3$.

7 . State Euclid's first postulate.

8. Define linear polynomial.

9. Draw the graph of the equation $3x+2y = 12$ . At what points does the graph cut the x-axis and y-axis?

10. Show that the median of a triangle divide it into two triangles of equal areas.

11. Show that in a right angled triangle the hypotenuse is the longest side.

12. If $x = (3+\sqrt{8})$, find the value of $(x^2+\frac{1}{x2})$.

13. Find the remainder when the polynomial $f(x) = 4x^3-12x^2+14x-3$ is divided by $(2x-1)$.

14. In the given figure , O is the centre of circle and  angle BOD=150.Find the values of X and Y.
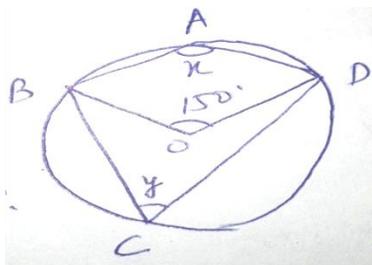
15. If both (x-2) and $(x-\frac{1}{2})$ are factors of $px^2 + 5x + r$, show that $p = r$.

16. Without actually calculating the cubes, find the value of : $(0.2)^3 - (0.3)^3 + (0.1)^3$

17. . In the given figure, AB=AD, AC = AE and ∠BAD = ∠EAC, then prove that BC = DE.
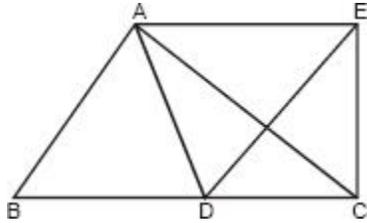


18. Represent $\sqrt{9.3}$ on the number line.

19. Factorize : $(5a-7b)^3+(9c-5a)^3+(7b-9c)^3$.

20. Express 0.344444....... as a fraction in simplest form.

## SCIENCE

## PHYSICS

1. A pile of carom coins is hit with a fast sliding striker. What happens to the carom coins and why?

2. Why is it advised to wear a seat belt in a moving car?

3. Give reasons:

(a) A karate player suddenly reduces the speed of his hand while hitting an ice slab.

(b) Glass ware are covered with paper and straw while transportation.

4. Two cars having masses in the ratio 4 : 5, accelerate in the ratio 2 : 3. Find the ratio of forces exerted by each of them.

5. "Force necessary to change the momentum of an object depends on the time rate at which momentum is changed". Comment with an example.

6. (a) State the law that provides the formula for measuring force and the law which provides the definition of force.
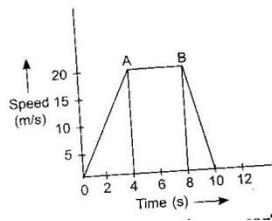
(b) Velocity-time graph of a 50 g marble rolling on floor is given below. Find-
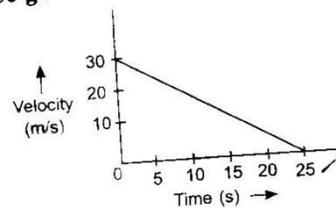


7. (i) When a corpet is beaten with a stick dust comes out of it. Explain?

(ii) Calculate the force required to impart a car with a velocity of 30 m/s in 10 s starting

8. The speed-time graph of a car of 1000 kg mass is given. On the basis of this, answer the following questions:



9. A horse continues to apply a force in order to move a cart with a constant speed. Explain why?

10. Velocity versus time graph of a ball of mass 50g rolling on a concrete floor is shown in Fig. 9.1. Calculate the acceleration and frictional force of the floor on the ball.

11. A truck of mass M is moved under a force F. if the truck is then loaded with an object equal to the mass of the truck and the driving force is halved, then how does the acceleration change?

12. Two friends on roller-skates are standing 5 m apart facing each other. One of them throws a ball of 2 kg towards the other, who catches it, How will this activity affect the position of the two? Explain your answer.

13. Using second law of motion, derive the relation between force and acceleration. A bullet of 10 g strikes a sand-bag at a speed of $10^3$ m s$^{-1}$ and gets embedded after travelling 5 cm. Calculate

(i) the resistive force exerted by the sand on the bullet

(ii) the time taken by the bullet to come to rest.

14. Derive the unit of force using the second law of motion. A force of 5 N produces an acceleration of 8 m s$^{-2}$ on a mass $m_1$ and an acceleration of 24 m s$^{-2}$ on a mass $m_2$. What acceleration would the same force provide if both the masses are tied together?

15. What is momentum? Write its SI unit. Interpret force in terms of momentum. Represent the following graphically

(a) momentum versus velocity when mass is fixed.

(b) momentum versus mass when velocity is constant.

## CHEMISTRY

1. When 100g of a saturated solution is evaporated at $50^\circ$ C 50g of solid is left over. Find the solubility of the substance at $50^\circ$C.

2. Explain why particles of a Colloidal solution do not settle down when left undisturbed, while in the case of a suspension they do.

3. Smoke and Fog both are aerosols. In what way are they different?

4. Name the technique which could be use to separate:

(a) Iodine Crystals from sand

(b) Petrol from Cude oil

5. Give some example of Tyndall effect observed in your surroundings.

6. Give the basic principle of

(a) Distillation                               (b) Chromatography

7. Calculate the mass of glucose needed to prepare 250 g of 5% solution by mass

8. 10 ml of 5% sugar solution is mixed with 20 ml of 10% sugar solution. What is the final concentration of solution?

9. Name the process by which annuminum chloride and sodium chloride can be separated. During the process of sublimation what do use call the pure substance obtained on the inner side of the funnel?

10. 300g of 25% solution and 400g of 40% solution by mass are mixed together to get a solution. Calculate mass percentage of resulting solution.


# BIOLOGY

## Topic- Cell And Tissue

### Instructions

✓ **Solve the assignment in biology noteboOK**

1. Explain the differences between parenchyma, collenchyma and sclerenchyma.

2. Differentiate between the striated, unstriated and cardiac muscles.

3. Draw a well labelled diagrams of the following.

   (a) Neuron

   (b) Types of muscles

   (c)Types of simple tissue (parenchyma, collenchyma and sclerenchyma)

4.  Draw a well labeled diagram of Prokaryotic cell.

5. What are the advantages of multicellularity ?

6. Write down the functions of the following.

(a) Plastids

(b) Chloroplast

(c) Vacuole

(d) Mitochondria

(e) Endoplasmic reticulum

(f) Golgi appartus

## SOCIAL SCIENCE

## HISTORY& POLTICAL SCIENCE

1. Define these terms

(i) Kulaks

(ii) The Duma

(iii) The Liberals

(iv) The conservatives

(v) The Preamble

2. What were the major differences between conservatives and Radicals?

3. What were the social, economic and social and political conditions in Russia before 1905?

4. Describe the February Revolution and October Revolution on the basis of-

(a) Who was involved in each.

(b) Who were the Leaders.

(c) Impact of each on soviet history.

5. What were the main changes brought about by the Bolsheviks immediately after the October Revolution?

6. Write a short note on Nelson Mandela?

7. How are the non whites discriminated?

8. Which was the first organization that led the struggle against Apartheid?

9. Write a short note on the first Constituent assembly?

10. Why is South Africa called a 'Rainbow nation' today?

## GEOGRAPHY

1. What is the latitudnal extent of India?

2. Write a short note on "deccan plateau"

3. Differentiate between Perennial rivers and Peninsular rivers.

4. Do map no. 11 & 12.