# Bal Bharati PUBLIC SCHOOL

# SUMMER HOLIDAY HOMEWORK ( 2022- 2023)

# CLASS – IX

| SUBJECTS | HOMEWORK |
|---|---|
| **ENGLISH** | **Part-A 1)Discuss the title of the poem "The Road Not Taken". Is it appropriate for the poem?**<br><br>**2)Suppose you are Margie. Write a diary entry dated 17th May 2157 about Tommy's real book that he found in his attic.**<br><br>**3)Can you imagine a school without teachers and books? Give your opinion on the basis of the lesson 'The Fun They Had'.11. Can you imagine a school without teachers and books? Give your opinion on the basis of the lesson 'The Fun They Had'. (100-150 words).**<br><br>**4)As the poet who took the road not taken by many people, write a letter to your friend stating how "It has made all the difference".**<br><br>**Part-B. On an A4 sized sheet of paper write on the topic of 'Friendship'.**<br><br>**It may be a self-composed poem/description of a person who is your ideal friend/ diary entry in about 150-200 words.**<br><br>**Reading skills-** |

| | |
|---|---|
| | A list of books is recommended for you below. You must read the stories and write a review in<br><br>about 120-150 words on any two books.<br><br>1. Kabuliwala by Rabindranath Tagore<br><br>2. Untouchable by Mulk Raj Anand<br><br>3. Children's Omnibus – Ruskin Bond<br><br>4. Malgudi Days – R.K. Narayan<br><br>5. The Pterodactyl's Egg – Annie Besant<br><br>6. The Adventures of Tom Sawyer by Mark Twain<br><br>Writing skills -<br><br>A rally was organised by the women of 'Welfare Organisation'. All the women were holding banners such as<br><br>● We are not weak<br>● don't treat us like this<br>● reserve seats for women in colleges and parliament<br>● grant women their due<br>● stop harassment<br><br>Write an article in 100-150 words on 'The Sufferings of Indian Women' for your school magazine. You are Suresh/Shivani of DAV Public School, New Delhi. |
| **HINDI** | <u>पाठ्य पुस्तक</u><br>1.पाठ के आधार पर खरबूजे वाली बुढ़िया का चरित्र चित्रण कीजिए । 2.भगवाना कौन था? उसकी मृत्यु कैसे हुई? |

| | |
|---|---|
| | 2. दुख काअधिकार कहानी देश में फैले अंधविश्वास है और ऊंच-नीच के भेदभाव का पर्दाफाश करती है पाठ के आधार पर स्पष्ट कीजिए व्यक्ति के सुख दुख में समाज की क्या भूमिका होती है अथवा मनुष्य एक सामाजिक प्राणी है पाठ के आधार पर स्पष्ट कीजिए। <br> 3..दुख का अधिकार कहानी नाटक के रूप में संवादों के द्वारा लिखिए। <br> 4.पाठ के आधार पर रैदास की भक्ति भावना को वर्णन अपने शब्दों में कीजिए । <br> 5. रैदास के पदों का केंद्रीय भाव अपने शब्दों में लिखिए। <br> 6.रैदास की दास्य- भक्ति से क्या अभिप्राय है <br> 7. गिल्लू पाठ के आधार पर बताइए कि किस प्रकार गिल्लू ने स्वच्छंद बिहार के साथ-साथ लेखिका का ध्यान अपनी ओर आकर्षित करने में सफलता प्राप्त की। <br> 8. गिल्लू एक संवेदनशील प्राणी है सिद्ध कीजिए। <br> <u>व्याकरण</u> <br> 9. अनुस्वार का शाब्दिक अर्थ क्या है? <br> 10.मुख और नासिका से उच्चारित होने वाले शब्द क्या कहलाते हैं| <br> 11. <u>उपसर्ग और मूल शब्द अलग कीजिए -</u> <br> बावजूद, निस्संकोच वाकायदा, प्रतिक्षण प्रहार, अनभिज्ञ दुर्भाग्य, अधिखिला सुरक्षा, आशंका दुर्वचन, सद्गति आग्रह, विगत निराधार, प्रतिद्वंद्वी निश्चल,चिराय परिवर्तन,उपस्थित । <br> 12.<u>मूलशब्द और प्रत्यय अलग कीजिए-</u> <br> औद्योगिक , क्रोधित ,वास्तविक , पढ़ाकू , अंकित , चिकनाहट ,मिलान लिखावट आर्थिक प्रसन्नता, समर्पित, पहाड़ी, प्रतिष्ठित, सपेरा, कालिमा, कृपालु ,आनंदित, सौदागर, नैतिक बहाव । <br> <u>लेखन कार्य</u> <br> 13. व्यायाम के महत्व को दर्शाते हुए अनुज को पत्र। <br> 14. सखी को जन्मोत्सव में भाग लेने के लिए निमंत्रण पत्र। |
| **MATHEMATICS** | Q.1 Locate $\sqrt{3}$ on the number line. <br><br> Q.2 Express 0.232323… in the form p/q. <br><br> Q.3 Find an irrational number between 1/7 and 2/7. <br><br> Q.4 Add $2\sqrt{5} + 3\sqrt{6}$ and $3\sqrt{5} + 4\sqrt{6}$ <br><br> Q.5 Divide $25\sqrt{6}$ by $5\sqrt{6}$ <br><br> Q.6 Find P(0), P(1) and P(2) for the following <br><br>      $P(x)=2+t^2+2t^2-3t^3$ <br><br> Q.7 Divide the polynomial $3x^2+x-1$ by $1+x$ <br><br> Q.8 Divide the polynomial $3x^4-4x^3-3x-1$ by $1-x$. |

| | |
|---|---|
| | Q.9 Find the remainder when $x^3-ax^2+6x-a$ is divided by x-a.<br><br>Q.10 Factorise<br><br>(i) $x^3-2x^2-x+2$   (ii) $12x^2-7x+1$ |
| **SCIENCE** | BIOLOGY:<br>Answer the following questions:<br>1. How do substances like carbon dioxide and water move in and out from the cell?<br>2. Why are lysosomes known as suicide bags?<br> 3. How is a prokaryotic cell different from a eukaryotic cell?<br>4. Why do doctors advise gargles with salt solution during throat infections?<br> 5. What are the constituents of plasma membrane?<br> 6. Name the cell organelles/ structures which are commonly called: (a) Kitchen of the cell (b) Power house of cell (c) Skeleton of the cell (d) Suicidal bags of the cell (e) Digestive bags of the cell (f) Heredity vehicles (g) Master molecule of the cell (h) Packaging and dispatching unit of cell (i) Storage bags of the cell 7. Name the cell organelles which contains DNA. 8. How amoeba take its food?<br>9. What happens : (a) If plant cell is kept in hypertonic solution. (b) Dry apricot first kept in water and then transfer to sugar solution/ (c) RBC kept in water.<br>10. Why is the plasma membrane called a selectively permeable membrane?<br>11. A person takes concentrated solution of salt, after some time, he starts vomiting. What is the phenomenon responsible for such situation?<br> 12. Name any cell organelle which is non-membranous.<br>13. Why does the skin of your finger shrink when you wash clothes for a long time?<br> 14. If you provided with some vegetables to cook, you generally add salt during cooking process. After adding salt, vegetables release water. What mechanism is responsible for this? |

15. Draw a neat label diagram of plant cell and animal cell.
16. Differentiate animal cell and plant cell.

**CHEMISTRY:**

1.Which of the following phenomena would increase on raising the temperature?

(a) Diffusion, evaporation, compression of gases

(b) Evaporation, compression of gases, solubility

(c) Evaporation, diffusion, expansion of gases

(d) Evaporation, solubility, diffusion, compression of gases

2. A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement?

(a) Water, air, wind

(b) Air, sugar, oil

(c) Oxygen, water, sugar

(d) Salt, juice, air

3. The boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C, 56°C and 118°C respectively. Which one of the following correctly represents their boiling points in Kelvin scale?

(a) 306 K, 329 K and 391 K

(b) 308 K, 329 K and 392 K

(c) 308 K, 329 K and 391 K

(d) 329 K, 392 K and 308 K

4.The boiling point of water at sea level is

(a) 0°C

(b) 273 K

(c) 373 K

(d) 273°C

5.Which of the following conditions is most favourable for converting a gas into a liquid?

(a) High pressure, low temperature

(b) Low pressure, low temperature

(c) Low pressure, high temperature

(d) High pressure, high temperature.

6.Which of the following statements are true for pure substances?

(i) Pure substances contain only one kind of particles

(ii) Pure substances may be compound or mixtures

(iii) Pure substances have the same composition throughout

(iv) Pure substances can be exemplified by all elements other than nickel

(a) (i) and (ii)

(b) (i) and (iii)

(c) (iii) and (iv)

(d) (ii) and (iii)

7. Tincture of iodine has antiseptic properties. This solution is made by dissolving

(a) iodine in potassium iodide

(b) iodine in vaseline

(c) iodine in water

(d) iodine in alcohol

8.Which of the following are homogeneous in nature?

(i) ice

(ii) wood

(iii) soil

(iv) air

(a) (i) and (iii)

(b) (ii) and (iv)

(c) (i) and (iv)

(d) (iii) and (iv)

9. In a water-sugar solution

(a) water is solute and sugar is solvent

(b) water is solvent and sugar is solute

(c) water is solute and water is also solvent

(d) none of these

10. Which of the following methods would you use to separate cream from milk?

(a) Fractional distillation

(b) Distillation

(c) Centrifugation

(d) Filtration

**ANSWER THE FOLLOWING  QUESTIONS:**

1.Sucrose (sugar) crystals obtained from sugarcane and beetroot are mixed together. Will it be a pure substance or a mixture? Give reasons for the same.

2. 'Sea water can be classified as homogeneous as well as heterogeneous mixture.' Comment.
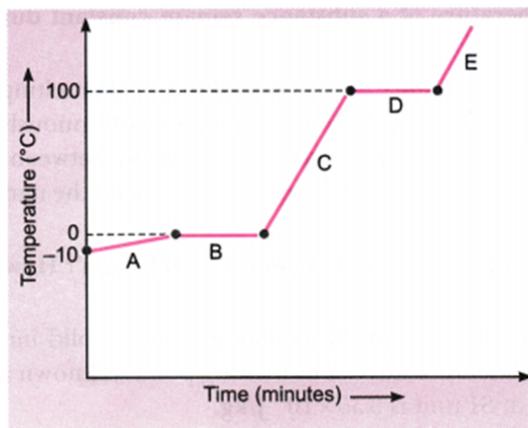
3. What happens when an inflated air balloon is pricked with a pin? Name the property of the gaseous state exhibited by this observation.

4. To which physical state of matter do the following statements apply?

(i) Incompressible, no fixed shape

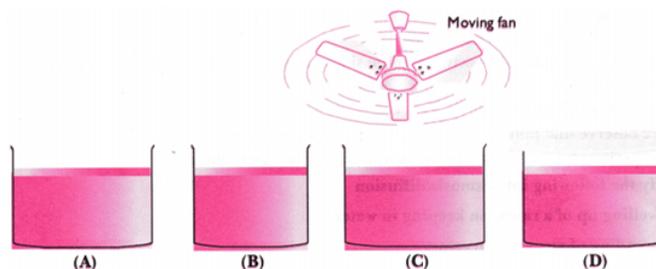(ii) Compressible, no definite volume

5. Analyse the temperature versus time graph of water, given below.



Which region contains all liquids?

**6.** Why does the temperature of a substance remain constant during its melting point or boiling point?

7. Look at the following figures and suggest in which of the glass containers, i.e., A, B, C or D, the rate of evaporation will be the highest? Explain.



8. Why do people sprinkle water on the roof after a hot sunny day?

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

10. Is water an element or a compound? Give reason in support of your statement

**PHYSICS**:

**Answer the following questions**

Q 1. State the condition under which the distance covered and displacement of moving object will have the same magnitude.

Q 2. A particle is moving in a circular path of radius 'r'. What will be the displacement after half a circle?

Q 3. Anil went from home to school 2 km away. On finding school closed, he returned to home immediately. What is his net displacement and distance covered?

Q 4. Sunil takes 10 minutes to walk from his house to school. If his average speed of walking is 6 km/h, calculate the distance between the school and his house.

Q 5. The speed of a train is 36 km/h. what is its speed in m/s?

Q 6. An object covers 10 m in first 2 seconds and then 25 m in 4 seconds. Is this motion uniform or non-uniform? Why?

Q 7. Can speed of an object be negative?
Q 8. Name the instrument used for measuring the distance covered by a vehicle during a given time.

Q 9. Name the instrument fitted in automobiles for measuring its instantaneous speed.

Q 10. Define retardation.

Q 11. Give an example of uniform and non-uniform motion.

Q 12. Draw the velocity-time graph for uniform motion along a straight line.

Q 13. What is the value of acceleration of a body at rest?

Q 14. Name the quantity which is measured by the area occupied under the velocity-time graph.

Q 15. What does the slope of speed-time graph represents?

Q 16. A car is traveling with the velocity of 72 km/h after 10 sec , it comes into the rest on applying brakes, find the acceleration and distance traveled by car in this time.

Q 17. An object travels 10 m in 2 sec and then another 10 m in 1 sec. What is the average speed of the object?

Q 18. The odometer of a car reads 1000 km at the start of a trip and 1600 km at the end of the trip. The trip took 6 hours; calculate the average speed of the car in m/s.

| | Q 19. A car moves with a speed of 10 km/h for half an hour, 20 km/h for one hour and 50 km/h for 2 hours. Calculate the average speed of the car. |
| | |

Q 19. A car moves with a speed of 10 km/h for half an hour, 20 km/h for one hour and 50 km/h for 2 hours. Calculate the average speed of the car.

Q 20. A train accelerates uniformly from 18 km/h to 36 km/h in 10 s. Find the distance travelled.

Q 21. Rajdhani express starting from rest attains a velocity of 108 km/h in 20 minutes. Find the acceleration and the distance travelled by the train for attaining this velocity assuming the acceleration to be uniform.

Q 22.   An object moving with uniform acceleration acquired a velocity 12 m/s in 2 s and 18 m/s in 4 s. Calculate the initial velocity of the body.

Q 23.   A car moving along a straight road increases its speed uniformly from 15 m/s to 30 m/s over a time interval of 1 minute. Find the acceleration and the distanced by it in this time interval.

Q 24.   A motorcycle is being driven at a speed of 20 m/s when brakes are applied to bring it to rest in 5 s. find the deceleration produced.

Q 25. The velocity-time graph is a horizontal straight line. What does this tell you about the velocity and acceleration?

Q 26. A car moving along a straight road increases its speed uniformly from 15 m/s to 30 m/s over a time interval of 1 minute. Calculate the acceleration and the distance travelled by it during this time interval.

Q 27. Establish the equation for position-velocity relation from the velocitytime graph.

Q 28 Derive the equation   by the graphical method, where the
symbols have their usual meanings.

Q 29. (a) Derive the equation   by the graphical method, where the symbols have their usual meanings.

(b).A body starting from rest moves with uniform acceleration. What is the value of acceleration if it travels 200 m in 10 s.

| | |
|---|---|
| | Q.30 Define uniform circular motion. Give two examples of uniform circular motion. Is uniform circular motion an accelerated motion? If yes, what is the direction of the acceleration?<br><br>Q 31.  What are the three equations of uniformly accelerated motion? A car starting from rest acquires a velocity of 36 km/hour in 5 second. Find the acceleration and the distance travelled in this time.<br><br>Q 32.  Define the following terms:<br>a.      Uniform and non-uniform motion<br>b.      Speed and velocity<br>c.      Average speed<br>d.      Uniform speed<br>e.      Acceleration<br><br>Q 33.  Define the term uniform acceleration. Give one example. A car driver traveling at 10 m/s applies break and brings the car to rest in 20 s. Find the retardation.<br><br>Q.34 (i) Write the difference between distance and displacement.<br>(ii) Write the difference between velocity and speed of body.<br><br>Q.35 A ball is dropped from the height 25 cm then it reaches the ground with 5 m/sec , find time taken by ball to reach on the ground. |
| **SOCIAL SCIENCE** | 1.  Prepare a project file on the topic "**Disaster Management**".<br>    Guidelines for project work.<br>a.  Use A-4 size file paper<br>b.  Use Blue/Black ink to write your project.<br>c.  The project work should not be less than 15 pages.<br>d.  Include a case study as well.<br><br> 2. Answer the following questions (To be done in your notebooks) |

| | |
|---|---|
| | - Discuss the non-farm activities of earning livelihood in Palampur.<br><br>- 'Sale of surplus farm produce helps in increasing fixed capital.' Explain.<br><br>- What are factors of production? Explain.<br><br>- 'Even with fixed supply of land, yield can be increased.' Explain how this can be done.<br><br>- What is sustainability of land? What are the adverse impacts of overusing chemical fertilizers?<br><br>- How many crops are grown in Palampur? What is multiple cropping and how does it benefit the farmers?<br>What is the reason behind the success of multiple cropping in Palampur?<br><br>- 'Large farmers save for investment in capital whereas small farmers borrow from moneylenders for future investment.' Give examples from the village of Palampur for the above statement.<br><br>- Give an example of how farm land distribution impacts yield.<br><br>- Explain the difference between traditional farming and modern farming. |
| **COMPUTER** | Q1. What do you understand about a computer and how is it useful for you?<br>Q2. List down the strengths and weaknesses of a computer system?<br>Q3. What do you understand about ITes?<br>Q4. Explain the types of computer. |

**CLASS TEACHER**

**UZMA ABBASI**