

**DAV PUBLIC SCHOOL, IFFCO, PARADEEP**  
**SUMMER HOLIDAY HOMEWORK, 2022-23**  
**STD – IX**

SL. NO	SUBJECT	H.W DETAILS
1	<b>English</b>	<p>Q.1. Prepare a comparative study between Evelyn Glennie and Bismillah Khan.</p> <p>Q.2. Watch BBC news daily and write five positive news in a separate notebook.</p> <p>Q.3. Prepare at least five extra questions from ‘The Fun They Had’, ‘The Road Not Taken’, ‘The Sound of Music’, ‘The Lost Child’ and ‘The Adventures of Toto’ by going through the text line by line and write along with answers.</p> <p>Q.4. Read the given passage and prepare ten objective type questions based on inference, analysis, interpretation, evaluation, vocabulary and write along with answers.</p> <p>1. Crash dieting may help you lose weight, in the short term, but, ultimately it can hinder weight loss in the long term, as most of the weight that you have lost with crash dieting will bounce back, meaning you will gain all the weight that you have lost and more. Crash dieting not only removes fat but also leans muscles and tissues. Contrary to the belief of many who start this diet, this form of dieting is neither healthy nor successful in achieving long term weight loss as it induces the slowing down of the body’s basal metabolic rate – the body seeks to conserve every calorie and so weight loss becomes increasingly difficult. Basal metabolic rate is the amount of calories your body needs on a daily basis, to maintain its regular activities. This means your body will need fewer calories than it did previously, making weight gain more likely once you stop dieting.</p> <p>2. Most crash diets involve eating low – calorie foods for several weeks or eating the same food or food groups for several weeks. Even if you ‘re only trying the diet for a week or two, eating such a strict diet of the same food can cause nutritional deficiencies. Eliminating one or more food groups will not provide you with adequate, long – term nutrition. Nutritional deficiencies such as this can have multiple immediate side effects such as haggard look, dark under eyes, dull skin, sloppy posture and less stamina.</p> <p>3. This is also why exercise is recommended in any weight – loss plan to build muscles and maintain your metabolic rate. Again common mistakes that are observed with exercise are joining the gym only till the New Year, so that you can lose weight and once the party is over, the party for not exercising continues. On the other hand, we have some who make New Year resolutions and with the gym memberships which are so tempting during the New Year , take up annual memberships, which is not bad. What is bad is to break the resolution. It is good to take up an exercise programme during the new year and to make a resolution about exercise, provided you do not break your resolution and continue exercising year long. What is important is consistency.</p> <p>4. It’s strongly recommended not to go on a Crash Diet, even if you are motivated to lose weight to fit into clothes a couple of sizes smaller. What is</p>

good is to make a conscious effort to lead a healthy lifestyle. This in the long run will help you achieve normal weight and help you be energetic and cheerful. Safe weight loss is considered to be no more than half a kilogram to one kilogram per week. No single food can be considered good or bad. A single meal does not make or break a healthy diet, as all food can fit into a good diet when consumed in moderation.

**अनुच्छेद लेखन:-(100-150 शब्दों में लिखिए)**

(1)आतंकवाद:विश्व के मानचित्र पर एक धब्बा

संकेत बिंदु:-आतंकवाद का अर्थ,भारत में आतंकवाद,भारतीय संसद पर हमला,मुंबई में 26/11 की घटना

(2)देश का निर्माण एवं युवा वर्ग

संकेत बिंदु:-युवा वर्ग में भटकाव की स्थिति,युवा वर्ग में असंभव को संभव करने की क्षमता ,युवा शक्ति देश की शक्ति

(3)सामाजिक जीवन में बढ़ता भ्रष्टाचार

संकेत बिंदु:-आधुनिक युग भ्रष्टाचार,भ्रष्टाचार फैलाने का सबसे बड़ा माध्यम,पारिवारिक संबंधों पर भ्रष्टाचार का प्रभाव,भ्रष्टाचार और वर्तमान समाज

**पत्र लेखन:-( 120 शब्दों में लिखिए)**

(1)अपने मित्र को पत्र लिखकर ग्रीष्मावकाश अपने साथ बिताने का निमंत्रण पत्र लिखिए

(2)अपने पिताजी को पत्र लिखकर अपने विद्यालय के वार्षिकोत्सव के विषय में लिखिए

(3)अपने मित्र को पत्र लिखकर साक्षरता अभियान के अंतर्गत आपके द्वारा किए जा एहे कार्यों का विवरण दीजिए

**निम्नलिखित वाक्यों में काले शब्दों में पदों का नाम लिखिए:-**

(1) रमेश दिल्ली जाएगा।

(2) नदी के किनारे-किनारे अनेक शहर बसे हैं।

(3) सचिन बहुत अच्छे इंसान हैं।

(4) वे सब यहाँ से चले गए।

मेरी छोटी बहन कलकोता में रहती है।

3	Odia	<p>i) ନିମ୍ନ ରଚନା ଗୁଡ଼ିକ ଲେଖ ।</p> <p>କ) ହାତ୍ର ଜୀବନରେ ଶୃଙ୍ଖଳା</p> <p>a) ଜୀବନ ଗଠନର ପ୍ରଥମ ସୋପାନ- ହାତ୍ରାବସ୍ଥା</p> <p>b) ଶୃଙ୍ଖଳା ବିଧିର ନିୟମ – ଶିକ୍ଷାନୟ, ପରିବାର, ଶିକ୍ଷାନୟ, କ୍ରୀଡ଼ାଭୂମି,</p> <p>c) ସମାଜ ଗଠନ ରେ ଏହାର ପ୍ରଭାବ</p> <p>d) ବିଶୃଙ୍ଖଳା ବର୍ଜନ</p> <p>e) ଶେଷକଥା ( ନିଜସ୍ବ ମତାମତ )</p> <p>ଖ) ପରିବେଶ ପୁରସ୍କା</p> <p>a) ପରିବେଶ କଣ ( ଆମ ଚାରିପଟ ରେ ଯାହା ସବୁ ରହିଛି, ପ୍ରାଚୀନ ସମୟର ପରିବେଶ ଓ ବର୍ତ୍ତମାନ ର ପରିବେଶ )</p> <p>b) ପ୍ରଦୂଷଣର ପ୍ରକାର ( ବାୟୁ, ଜଳ, ଶବ୍ଦ )</p> <p>c) ପ୍ରଦୂଷଣର କାରଣ ( ଜଳକାରଖାନା, କୃତ୍ରିମ ସାର, ଗାଡ଼ି ମଟରର ବ୍ୟବହାର, ଜନସଂଖ୍ୟା, ଆଣବିକ ଅସ୍ତ୍ର, ବୈଜ୍ଞାନିକ ଯନ୍ତ୍ରପାତିର ବ୍ୟବହାର, ଜଙ୍ଗଲ ନାଶ )</p> <p>d) ନିରାକରଣ</p> <p>e) ଶେଷକଥା – ନିଜସ୍ବ ମତାମତ</p> <p>ଗ) ମାନବ ସେବାରେ ବିଜ୍ଞାନ</p> <p>a) ବିଜ୍ଞାନ – ଯେକୌଣସି ବିଷୟରେ ସମ୍ୟକ ଭାବରେ ଜାଣିବା )</p> <p>b) ପ୍ରାଚୀନ ଯୁଗରୁ ଆଜି ପର୍ଯ୍ୟନ୍ତ ସଭ୍ୟତା ର ବିକାଶ</p> <p>c) ବିଜ୍ଞାନର ଉପକାରिता</p> <p>d) ବିଜ୍ଞାନର ଅପକାରिता</p> <p>e) ଶେଷକଥା ( ନିଜସ୍ବ ମତାମତ )</p> <p>ଘ) ଓଡ଼ିଶାର ପର୍ବପର୍ବାଣୀ</p> <p>a) ଓଡ଼ିଆ କ ଜଗତର ଜଗନ୍ନାଥ । ପର୍ବ ପର୍ବାଣୀ ଉତ୍କଳୀୟ ମାନବର ଧାର୍ମିକ ଚେତନାର ପରିଚୟ ଦିଏ ।</p> <p>b) ପର୍ବ ପାଳନର ଉଦ୍ଦେଶ୍ୟ</p> <p>c) ମୁଖ୍ୟ ପର୍ବ [ଗ୍ରୀଷ୍ମ – ଅକ୍ଷୟ ତୃତୀୟା, ଦୂର୍ବିହ ଜନ୍ମ, ସାବିତ୍ରୀ ବ୍ରତ, ଶୀତଳ ଷଷ୍ଠୀ, ରଜ ପର୍ବ, ବର୍ଷା ଋତୁ – ଖୁବୁରୁକୁଣୀ, ରଥଯାତ୍ରା, ବଜ୍ରବ୍ରତ ଜନ୍ମ, ଜନ୍ମାଷ୍ଟମୀ, ଅନନ୍ତ ବ୍ରତ, ଶରତ ଋତୁ – ଦୂର୍ଗା ପୂଜା, କାଳୀ ପୂଜା, ଦୀପାବଳି, ବାଲିଯାତ୍ରା, ଶୀତ ଋତୁ – ପ୍ରଥମାଷ୍ଟମୀ, ମାଣବସା, ଶାସ୍ତ୍ର ବର୍ଷମା,</p> <p>d) ସମାଜ ଉପରେ ଏହାର ପ୍ରଭାବ</p> <p>e) ଶେଷକଥା ( ନିଜସ୍ବ ମତାମତ )</p> <p>ଙ) ବନ ମହୋତ୍ସବ</p> <p>a) ପ୍ରାଚୀନ ସଭ୍ୟତା ରେ ବୃକ୍ଷ ପୂଜା</p> <p>b) ମାନବ ସଭ୍ୟତାର ପୁରସ୍କା କବଚ – ବୃକ୍ଷ</p> <p>c) ବନ ପୁରସ୍କୃତ ନ ରହିଲେ ହେଉଥିବା ପ୍ରଭାବ</p> <p>d) ସରକାରୀ ପଦକ୍ଷେପ</p> <p>e) ଶେଷକଥା ( ନିଜସ୍ବ ମତାମତ )</p> <p>Update all CW / HW copies . Learn all question answers</p>
4	Sanskrit	<p>1. " अविवेकः परमापदां पदम् " इति विषयस्य प्रश्नोत्तरम्</p> <p>2. षट् कारकाणि लिखित्वा तेषाम् उदाहरणानि यच्छत।</p> <p>3. लभ्- सेव्- रुच् धातूनां रूपाणि कण्ठस्थीकरणं कृत्वा पुस्तिकायाम् लिखत ।</p> <p>4. दीर्घ- गुण- वृद्धि - यण- अयादिसिधिनां प्रत्येकं दश - दशोदाहरणानि गृहकार्यपुस्तिकायां लिखत।</p> <p>5. वर्गस्य तृतीयः तथा पञ्चमवर्णयोः आदेशः, उत्त्व तथा च मो अनस्वार सन्धिनाम् प्रत्येकं दश - दशोदाहरणानि लिखत ।</p>

A – Up to date CW, HW and NCERT EXAMPLAR.

B – Solve the following important problems from R.D.Sharma and Exemplar problem book in HW copy.

1. Convert 0.454545..... in p/q form.

2. Find two rational and two irrational number between  $\frac{1}{4}$  and  $\frac{1}{3}$ .

3. Simplify:  $\frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}}$ .

4. Rationalise the denominator:  $\frac{1}{\sqrt{3}+\sqrt{2}-\sqrt{5}}$ .

5. If  $x = 3 + \sqrt{8}$ , find the value of

(i)  $x^2 + \frac{1}{x^2}$

(ii)  $x^2 - \frac{1}{x^2}$

(iii)  $x^3 + \frac{1}{x^3}$

(iv)  $x^4 + \frac{1}{x^4}$

6. If  $x = \sqrt{7 + 4\sqrt{3}}$ , find the value of  $x + \frac{1}{x}$ .

7. Prove that:  $\sqrt{x^{-1}y} \times \sqrt{y^{-1}z} \times \sqrt{z^{-1}x} = 1$ .

8. If  $a=2, b=3$  then find the value of (i)  $(a^b + b^a)^{-1}$  (ii)  $(a^a + b^b)^{-1}$

9. Find the value of:  $81^{0.16} \times 81^{0.09}$

10. Write the coefficient of  $x$  in the expansion of  $(x+5)^3$ .

11. If  $p(x) = x^3 - x^2 + x + 1$ , then find the value of  $\frac{p(1)+p(-1)}{2}$ .

12. For the polynomial  $\frac{x^3+3x+9}{5} - \frac{7}{11}x^2 - x^5$ , write

(i) degree of the polynomial

(ii) coefficient of  $x^3$

13. Find the value of 'a' for which  $x+a$  is a factor of  $x^2+px+3-p$ .

14. If  $a+b+c=7$  and  $ab+bc+ca=20$ , then find the value of  $a^2+b^2+c^2$ .

15. If  $ab=5$  and  $a-b=2$  find the value of  $a^3 - b^3$ .

16. Using remainder theorem, find the value of  $k$ , so that  $(4x^2+kx-1)$  leaves remainder 2 when divided by  $x-3$ .

17. If  $a+b+c=0$ , then prove that  $\frac{(b+c)^2}{3bc} + \frac{(c+a)^2}{3ca} + \frac{(a+b)^2}{3ab} = 1$

18. Factorise:  $2y^3+y^2-2y-1$ .

19. Factorise:  $p^3(q-r)^3+q^3(r-p)^3+r^3(p-q)^3$ .

20. If  $a+b+c=5$  and  $ab+bc+ca=10$ , then prove that  $a^3 + b^3 + c^3 - 3abc = -25$ .

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Maths

**PHYSICS**  
**CHAPTER – MOTION**

1. (a) Make a 7 Layer Density tower using your favorite Liquids/solids. Share your experience using photographs.  
(b) How do you think the density of liquids will change if you increase their concentration? Form a hypothesis and design an experiment to investigate the research question
2. UP-TO DATE THE CLASS WORK AND HOME WORK COPY.
3. COMPLETE THE NCERT EXEMPLAR AND NCERT EXERCISE OF THE CHAPTER MOTION.
4. H C Verma, Section – E Pg No. 37 (Numerical QN.2,5,8,9,12,22,23)
5. SOLVE THE WORKSHEET IN HOME WORK COPY.

**WORKSHEET**

**1 Mark questions**

- Q. 1. The displacement of a body can never be greater than the distance covered by a body. Is the statement true or false?
- Q. 2. Give two examples of vector quantities.
- Q. 3. What is the nature of distance time graph for uniform motion of an object?
- Q. 4. What is the acceleration of a freely falling body?
- Q. 5. What is the acceleration of a body moving with uniform velocity?
- Q. 6. What does the slope of a distance-time graph gives?
- Q. 7. What does the area of a velocity-time graph gives?

**2 Marks questions**

1. An object is moving up an inclined plane. Its velocity changes from 15m/s to 10m/s in two seconds. What is its acceleration?
2. A body covered a distance of x metre along a semi circular path. Calculate the magnitude of displacement of the body, and the ratio of distance to displacement?
3. A particle moving with an initial velocity of 5m/s is subjected to a uniform acceleration of  $-2.5\text{m/s}^2$ . Find the displacement in the next 4 sec.
4. A car covers 30km at a uniform speed of 30km/hr. what should be its speed for the next 90km if the average speed for the entire journey is 60km/h?
5. Give one example of a uniformly accelerated motion.

**3 Marks questions**

1. A car moving along a straight line at a speed of 54km/hr stop in 5s after the brakes are applied. (a) Find the acceleration, assuming it to be constant. (b) Plot the graph of speed versus time. (c) Using the graph. Find the distance covered by the car after the brakes are applied?
2. A vehicle moves at a speed of 40 km/h. It is stopped by applying brakes which produces a uniform acceleration of  $-0.6\text{m/s}^2$ . How much distance will the vehicle move before coming to stop?
3. A boy throws a ball vertically upwards and catches it back in 10s. Calculate

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Science

- (i) the velocity with which it was thrown up.
  - (ii) maximum height attained by the ball.
4. A stone is dropped from the edge of a roof.
- (i) How long does it take to fall 4.9 m?
  - (ii) How fast does it move at the end of that fall?

### **CASE BASED QUESTION**

Read the following and answer any four questions from (i) to (v)

One day Rahul decided to go his office by his car. He is enjoying the driving along with listening the old songs. His car is moving along a straight road at a steady speed. On a particular moment, he notices that the car travels 150 m in 5 seconds.

- (i) What is its average speed ?
- (ii) How far does it travel in 1 second ?
- (iii) How far does it travel in 6 seconds ?
- (iv) How long does it take to travel 240 m ?

### **BIOLOGY**

#### **CHAPTER – THE FUNDAMENTAL UNIT OF LIFE**

##### **A- SOLVE NCERT EXAMPLAR**

[1] Prepare a power point presentation of the chapter THE FUNDAMENTAL UNIT OF LIFE. (MAXIMUM 20 SLIDES)

[2] Update your CW copy and go through all questions and answers written in it.

[3] ANSWER THE FOLLOWING QUESTIONS IN YOUR **HW** COPY.

- (a) How is bacterial cell different from an onion peel cell?
- (b) What are the consequences of the following conditions?
  - (i) A cell containing higher water concentration than the surrounding medium
  - (ii) A cell having low water concentration than the surrounding medium.
  - (iii) A cell having equal water concentration to its surrounding medium.
- (c) Distinguish between hypotonic solution, isotonic solution and hypertonic solution.
- (d) Draw a well labelled diagram of an eukaryotic nucleus. How is it different from a nucleoid?
- (e) Unicellular organisms like Amoeba and Paramecium survive as a single cell. How?

### **CHEMISTRY**

#### **Unit I: Matter-Nature and Behaviour**

**Syllabus: Unit I:** Matter-Nature and Behaviour Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state: melting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation

##### **A- SOLVE NCERT EXAMPLAR**

- 1. Explain with an activity that Matter is made up of particles?
- 2. What is diffusion? Give an example.

		<p>3. The smell of sizzling food reaches you several metres away, but to get the smell from cold food you have to go close. Explain.</p> <p>4. A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?</p> <p>5. Sponge is a solid, yet we are able to compress it . Why?</p> <p>6. Why gases exert pressure? Give an example.</p> <p>7. What is the property of gas by which we can store a large volume of gas in a small cylinder?</p> <p>8. Diffusion is very fast in the gaseous state in comparison to other states. Explain.</p> <p>9. What is evaporation? Write three differences between evaporation and boiling?</p> <p>10. Particles of matter have space between them. Explain with an activity.</p> <p>11. What is boiling point? Mention its relationship with atmospheric pressure.</p> <p>12. What is Latent heat of evaporation?</p> <p>13. Evaporation causes cooling. Explain.</p> <p>14. What is Crystallization? Which is a better method to separate a pure substance from the mixture (Evaporation or Crystallization).</p> <p>15. When a solid melts, its temperature remains the same, so where does the heat energy go?</p> <p>16. Why should we wear cotton clothes in summer?</p> <p>17. Why do we see water droplets on the outer surface of a glass containing ice-cold water?</p> <p>18. What is sublimation? Give an example.</p> <p>19. What is Melting point?</p> <p>20. What is freezing point?</p>
7	Soc. Sc	<ul style="list-style-type: none"> <li>❖ <b>Geography</b> - Collect information about the silk route. Also find out the new developments which are improving communication routes in the regions of high altitude.</li> <li>❖ <b>History</b> – <ol style="list-style-type: none"> <li>1. Design the Time-Line Wheel of the French revolution.</li> <li>2. Make the diagram of political system of France under the constitution of 1791.</li> </ol> </li> <li>❖ <b>Political Science</b> - Write 10 points about the article 370 and article 35A included in the constitution of India in favour of Jammu and Kashmir.</li> <li>❖ <b>Economics</b> - Prepare a Project on the topic– ‘<b>Disaster Management</b>.’</li> </ul> <p>[Points to be included in the project are</p> <ul style="list-style-type: none"> <li>● Acknowledgement</li> <li>● Preface/objective of the project</li> <li>● Index</li> <li>● Introduction about Disaster</li> <li>● Importance of Disaster management</li> <li>● Types of Disaster (Natural Disasters- Geological Disasters,</li> </ul>

		<p style="text-align: center;">Hydrological Disasters Meteorological Disasters)</p> <p>Manmade Disasters</p> <ul style="list-style-type: none"> <li>• Disaster Management cycle</li> <li>• Mitigation Strategies</li> <li>• Conclusion</li> <li>• Bibliography</li> </ul> <p>Learn all the chapters completed.</p>
<b>8</b>	<b>IT</b>	<p style="text-align: center;"><b><u>CH – INTRODUCTION TO IT &amp; ITeS INDUSTRY</u></b></p> <p>Q1. Name seven websites of the Indian government which provide IT enabled services to the people.</p> <p>Q2. What are the pros and cons of using ICT?</p> <p>Q3. What precautions are required to ensure that ICT use is safe?</p>

**N.B:**

- ✓ Maintain index in your CW and HW copy.
- ✓ Draw margin line in your CW and HW copy.
- ✓ Do page numbering in all copies.

Its SUMMER TIME again. Time to strengthen your family bond, sharing joy and sorrow. Use your holiday home work as an opportunity to spend quality time together. Let your child take the lead and use his/ her imagination, creativity and knowledge to do the assigned work. The role of the parent is to be a facilitator and guide to sheer the child in the right direction. Take good care of your health and hygiene.

**WE WISH YOU TONS OF HAPPINESS, JOY AND FUN WHILE YOU ARE ON VACATION.**

**Supervisor**

**Coordinator**

**Principal**