CLASS - IX
SESSION 2023-2024
HOLIDAY HOMEWORK

| SUBJECTS | HOMEWORK |
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| ENGLISH | Art integrated project <br> Introduce Madhya Pradesh and Bihar as lands of many natural splendours. <br> Add pictures to highlight the charm and appeal of these states. Explore some well-known parts of these states and find out information about its flora, fauna, wildlife, monuments, festivals, culture , the magnificent heritage architecture, colourful folk festivals, beautiful arts and crafts, traditional and contemporary music, theatre and films and delicious ethnic specialties that make these states truly a brilliant experience offering unique diversities. <br> Compare and Contrast the two states- Weather, costumes , dialects, physical stature of people living here. <br> To boost tourism of these states, prepare an advertisement of approximately 25-30 seconds. You may use Adobe Spark/ Windows movie maker/ PPT or record your own video to highlight the hidden facets of the given places. Insert a lot of pictures to make your advertisement appealing and captivating. |
| HINDI | कला एकीकरण परियोजना काय <br> बिहार की लोककथाएँ, शिल्प, पोशाक, त्योहार, भोजन, घुमने के स्थान, वेशभूषा, कवि तथा लेखक (प्रमुख कवि विद्यापति ठाकुर) आदि के बारे में सचित्र वर्णन कीजिए। <br> https://voutu.be/cLP50Ycguis <br> https://youtu.be/w7fKxJrwYcQ |
| MATHS | Q. 1 Add $2+\sqrt{5}$ and $5+\sqrt{5}$ <br> Q. 2 Find the value of $k$, if $x=2, y=1$ is a solution of the equation $2 x+3 y=k$. <br> Q. 3 Show that $0.3333 \ldots$ can be expressed in the form $\mathrm{p} / \mathrm{q}$, where p and q are integers and $\mathrm{q} \neq 0$. <br> Q. 4 Multiply $6 \sqrt{5}$ by $2 \sqrt{3}$. <br> Q. 5 Find the decimal expansions of $\frac{10}{3}$ <br> Q. 6 If $a=5+2 \sqrt{6}$ and $b=1 / 2$, then what will be the value of $a^{2}+b^{2}$ ? <br> Q. 7 Show that 0.2353535 .... can be expressed in the form $p / q$, where $p$ and $q$ are integers and $q \neq 0$. |


|  | Q. 8 Check whether -2 and 2 are zeroes of the polynomial $2 x+2$ Activity- <br> To construct a square-root spiral. |
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| SCIENCE | BIOLOGY: <br> Topic: Research on management practices of natural resources. Students have to prepare a comparative research report of Paired states (Bihar \& MP) on the above topic under the following sub headings: <br> 1 Types of resources <br> 2. Percentage of available natural resources in both the states <br> 3. Rate of pollution of different resources <br> 4. Sustainable management practices taken up by both the states. <br> CHEMISTRY PROJECT : <br> How can we use chemical principles and processes to create art that reflects the cultural traditions and practices of Madhya Pradesh and Bihar, and what can we learn about the role of chemistry in art and the influence of art on scientific discovery and innovation in these regions? <br> OR <br> Make project based on different mineral resources of Madhya Pradesh and Bihar used for different purposes \& Climatic conditions responsible for it. <br> If you follow me and make a loss, our company will fully compensate you <br> PHYSICS: <br> Answer the following questions <br> Q 1. State the condition under which the distance covered and displacement of moving object will have the same magnitude. <br> Q 2. A particle is moving in a circular path of radius ' $r$ '. What will be the displacement after half a circle? <br> 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? <br> Q 4. Sunil takes 10 minutes to walk from his house to school. If his average speed of walking is $6 \mathrm{~km} / \mathrm{h}$, calculate the distance between the school and his house. <br> Q 5. The speed of a train is $36 \mathrm{~km} / \mathrm{h}$. what is its speed in $\mathrm{m} / \mathrm{s}$ ? <br> Q 6. An object covers 10 m in first 2 seconds and then $\mathbf{2 5} \mathbf{m}$ in $\mathbf{4}$ seconds. Is this motion uniform or non-uniform? Why? <br> Q 7. Can speed of an object be negative? <br> Q 8. Name the instrument used for measuring the distance covered by a vehicle during a given time. <br> Q 9. Name the instrument fitted in automobiles for measuring its instantaneous speed. <br> Q 10. Define retardation. <br> Q 11. Give an example of uniform and non-uniform motion. <br> $Q$ 12. Draw the velocity-time graph for uniform motion along a straight line. <br> $Q$ 13. What is the value of acceleration of a body at rest? <br> Q 14. Name the quantity which is measured by the area occupied under the velocity-time graph. <br> Q 15. What does the slope of speed-time graph represents? |


|  | Q 16. A car is traveling with the velocity of $72 \mathrm{~km} / \mathrm{h}$ after 10 sec , it comes into the rest on applying brakes, find the acceleration and distance traveled by car in this time. <br> 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? <br> 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 $\mathrm{m} / \mathrm{s}$. <br> Q 19. A car moves with a speed of $10 \mathrm{~km} / \mathrm{h}$ for half an hour, $20 \mathrm{~km} / \mathrm{h}$ for one hour and 50 $\mathrm{km} / \mathrm{h}$ for 2 hours. Calculate the average speed of the car. <br> Q 20. A train accelerates uniformly from $18 \mathrm{~km} / \mathrm{h}$ to $36 \mathrm{~km} / \mathrm{h}$ in 10 s . Find the distance travelled. <br> Q 21. Rajdhani express starting from rest attains a velocity of $108 \mathrm{~km} / \mathrm{h}$ in 20 minutes. Find the acceleration and the distance travelled by the train for attaining this velocity assuming the acceleration to be uniform. <br> Q 22.An object moving with uniform acceleration acquired a velocity $12 \mathrm{~m} / \mathrm{s}$ in 2 s and 18 $\mathrm{m} / \mathrm{s}$ in 4 s . Calculate the initial velocity of the body. <br> Q 23.A car moving along a straight road increases its speed uniformly from $15 \mathrm{~m} / \mathrm{s}$ to 30 $\mathrm{m} / \mathrm{s}$ over a time interval of 1 minute. Find the acceleration and the distanced by it in this time interval. <br> Q 24.A motorcycle is being driven at a speed of $20 \mathrm{~m} / \mathrm{s}$ when brakes are applied to bring it to rest in 5 s . find the deceleration produced. <br> Q 25. The velocity-time graph is a horizontal straight line. What does this tell you about the velocity and acceleration? <br> Q 26. A car moving along a straight road increases its speed uniformly from $15 \mathrm{~m} / \mathrm{s}$ to 30 $\mathrm{m} / \mathrm{s}$ 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 velocity time graph. <br> Q 28 Derive the equation by the graphical method, where the symbols have their usual meanings. <br> Q 29. A body starting from rest moves with uniform acceleration. What is the value of acceleration if it travels 200 m in 10 s . |
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| SOCIAL STUDIES | Prepare a project file on educating the need and importance of Disaster management. Also write a report (case study) on any one natural disaster that occurred in Madhya Pradesh or Bihar in the past years. <br> *Objective: <br> - Create awareness among students about different disasters, their consequences and management. <br> - Prepare students in advance to face such situations. <br> - Ensure their participation in disaster mitigation plans. <br> *General Instructions: <br> 1) The project should be handmade. <br> 2) It should be well presented and pictorial. <br> 3) The project file should include: <br> - Index <br> - Acknowledgement <br> - Content with illustration. <br> - Case study (Madhya Pradesh or Bihar) |


| Information <br> Technology <br> (402) | Q1. What do you understand about a computer and how is it useful for <br> you? List down the strengths and weaknesses of a computer system? <br> Q2. What do you understand about ITes? <br> Q3. Explain the types of computers. |
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|  | Q4. What is the function of memory? What are its measuring units? <br> Q5. Which component of a computer system executes the program and <br> how? <br> Q6. Why is auxiliary memory required? <br> Q7. What are peripheral devices? Name some. <br> Q8. Some storage devices have volatile memory. Explain what is meant <br> by the term volatile. |
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