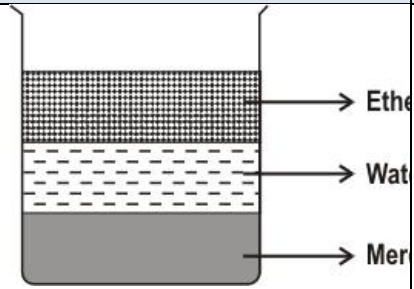
Question Paper

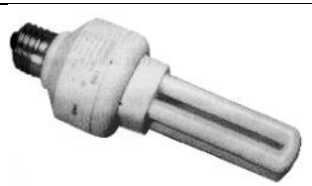
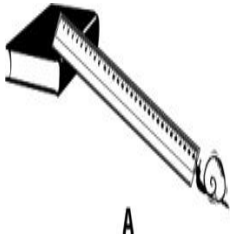
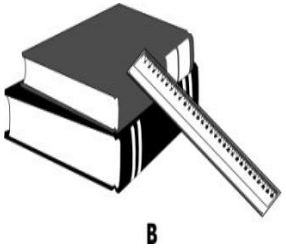
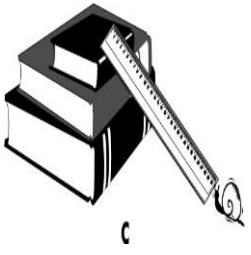
Subject: Science

Grade: 9th

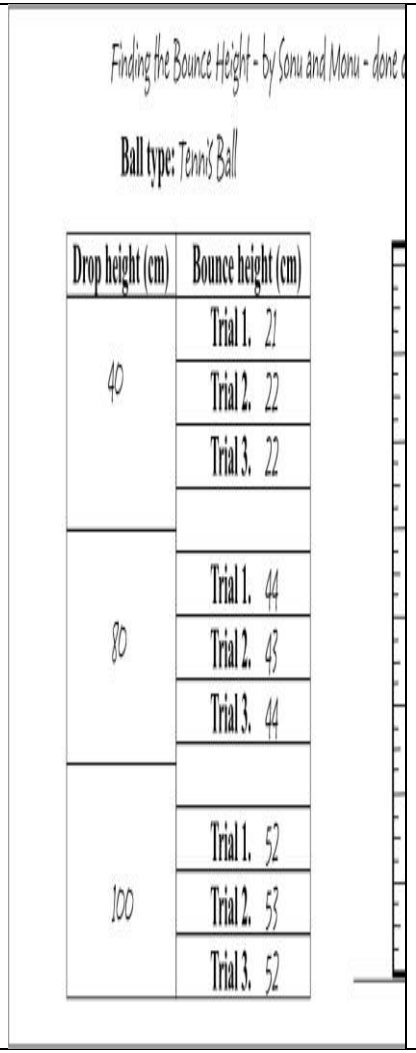
Set-8

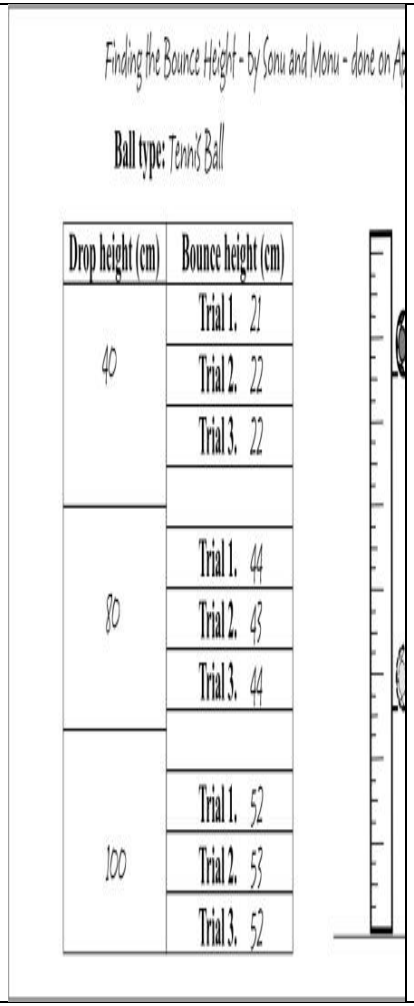
Q.N	Folder name & Question Code	Topic	Question with Answer Option	Image (If Any)	Correct Answer (Option-A,B,C,D)
1	**2_10 Science 4156**	GRAVITATION Class -IX	Ether (density 0.71 g/cc), water (density 1.00 g/cc) and mercury (density 13.6 g/cc) are 3 liquids which do not mix with each other. They are filled in a container as shown here.A piece of diamond (density 3.5 g/cc) is dropped into the liquid. Where will it come to rest?		**C**
Answer Options					
		Option A In the ether layer.	Option B In the water layer.	Option C Between the water and the	Option D In the mercury layer

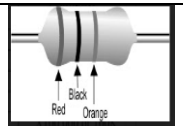
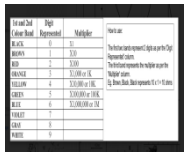
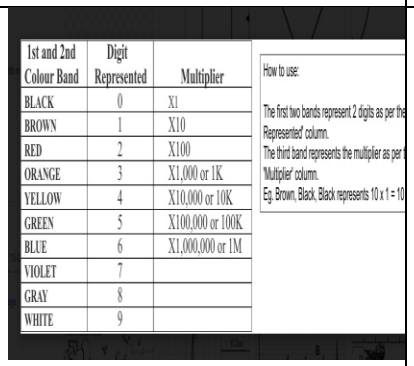
				mercury layers.	(it will sink to the bottom).
2	**2_10 Science 4157**	GRAVITATION Class -IX	A paper and a stone are dropped from the top of a building. Which one will reach the ground first and why?		**B**
Answer Options					
		Option A The stone, because it is heavier (air resistance plays no part.)	Option B The stone, only because it faces much less air resistance.	Option C The paper, because it is lighter (air resistance plays no part.)	Option D The paper, only because it faces much less air resistance.
3	**2_9 Science 5061**	Work and Energy	When Ram was about to switch on the light in his room, his sister stopped him. She told him that he should first DRY his hands (which were wet), before touching the electric switch.(Was Ram's sister correct?)Why / why not?		**C**
Answer Options					
		Option A Yes. The water can cause a short circuit (There is no increased danger to Ram)	Option B No. We should be careful in any case - dry or wet makes no difference.	Option C Yes. Wetness reduces body resistance and increases danger of shock.	Option D No. Water is a poor conductor of electricity, hence wet fingers are safer.
4	**3_16 Science**	WORK ENERGY AND POWER	The architect of a multiplex is advising the owners to fit Compact Fluorescent Lamps (CFL) in place of regular lamps where they will		**C**

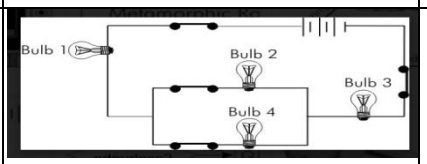
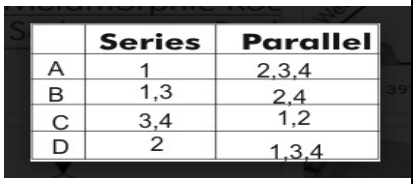
	2518		be kept on for over 18 hours every day. What could be the reason for this?		
Answer Options					
		Option A The wattage of CFL Lamps is higher and hence they give brighter light.	Option B CFL Lamps give white light which is not possible with other lamps.	Option C CFL Lamps use less energy and savings can be high with high usage.	Option D CFL Lamps are priced much lower than regular lamps.
5	**1_3 SCIENCE 6669**	WORK & ENERGY Class-IX	In the pictures below, which snail does the least amount of work? (The same scale is used in all the pictures.)	No image	
Answer Options					
		Option A  	Option B  	Option C  	Option D 

6	**1_3 SCIENCE 6642**	WORK & ENERGY Class-IX	One form of energy can be converted into other forms. An aerial fire cracker was lit on the ground. It rose up to burst and produce beautiful patterns in the sky. Here chemical energy stored in the cracker is converted mainly into _____.	No image	**C**
Answer Options					
		Option A Sound energy only	Option B Sound and light energy only	Option C Sound, light and mechanical energy	Option D Mechanical energy only
7	**2_9 SCIENCE 6041**	WORK & ENERGY Class-IX	What energy conversion takes place when a TV is switched on for a long period of time?	No image	**B**
Answer Options					
		Option A Electrical energy to light and sound energy only.	Option B Electrical energy to light, heat and sound energy.	Option C Electrical energy to mechanical energy only.	Option D Electrical energy to light energy only.

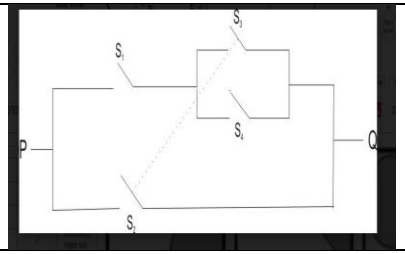
8	**2_9 SCIENCE 5002**	WORK & ENERGY Class-IX	Sonu and Monu are performing an activity on bouncing balls. They drop a normal tennis ball from different heights (DROP HEIGHT) and record how high the ball bounces (BOUNCE HEIGHT). This is what they have recorded. Study it carefully and answer question. If the ball is dropped from a height of 60 cm, it is likely to bounce back to a height of about:		**B**
Answer Options					
		Option A 20 cm.	Option B 30 cm.	Option C 42 cm.	Option D 120 cm

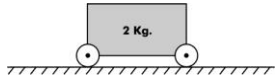
9	**2_9 SCIENCE 5003**	WORK & ENERGY Class-IX	Sonu and Monu are performing an activity on bouncing balls. They drop a normal tennis ball from different heights (DROP HEIGHT) and record how high the ball bounces (BOUNCE HEIGHT). This is what they have recorded. Study it carefully and answer question. Which of these questions can Sonu and Monu answer based on their experiment?		**B**
Answer Options					
		Option A Does the bounce height depend on the type of the	Option B How does the bounce height change when the drop height changes?	Option C Does the size of the ball affect the bounce height?	Option D Does the nature of the floor influence the bounce height?

		ball?			
10	**2_9 Science 5062**	Work and Energy	Resistors are semi-conductor devices which are important components of electronic circuits. Resistance is measured in OHMS, and each resistor has a rating in ohms. Because a resistor is small and may be fixed in any orientation, its resistance value is coded on it using coloured bands rather than writing its resistance value on it. A colour code is used to determine the value of a resistor as per this table. What is the resistance of the resistor shown here?	 	**D**
Answer Options					
		Option A 1000 ohms	Option B 20 ohms	Option C 2000 ohms	Option D 20000 ohms
11	**2_9 Science 5063**	Work and Energy	Resistors are semi-conductor devices which are important components of electronic circuits. Resistance is measured in OHMS, and each resistor has a rating in ohms. Because a resistor is small and may be fixed in any orientation, its resistance value is coded on it using coloured bands rather than writing its resistance value on it. A colour code is used to determine the value of a resistor as per this table. Which three colour bands represent 600 ohms?		**A**

Answer Options					
		Option A Blue, Black, Brown	Option B Blue, Black, Brown	Option C Brown, Blue, Black	Option D Violet, Blue, Brown
12	**3_16 Science** **2516**	Work and Energy	Which are the bulbs connected in series with each other and which are connected in parallel in the circuit shown here?	 	**B**

	Series	Parallel
A	1	2,3,4
B	1,3	2,4
C	3,4	1,2
D	2	1,3,4

Answer Options					
		Option A A	Option B B	Option C C	Option D D
13	**2_9 Science** **6169**	Work and Energy	In the circuit given below, electricity will flow if there is a closed path from P to Q. Switches S_2 and S_3 will not allow electricity to flow if either is open. In which of these cases will current flow?		**A**

		Option A S_1 and S_4 are open; others are closed.	Option B S_2 and S_4 are open; others are closed.	Option C S_1 and S_2 are open; others are closed.	Option D $S_3$and S_4 are open; others are closed.
14	**3_15** **Science** **3632**	Work and Energy	Nuclear power plants can produce energy more cheaply and with less pollution than thermal power plants. Why are there not more nuclear power plants than thermal power plants?		D
Answer Options					
		Option A There is an endless supply of fossil fuels like coal available.	Option B Nuclear fuels produce too little heat during the nuclear fission reaction	Option C A kilogram of fossil fuel produces more energy than a kilogram of nuclear fuel.	Option D The issue of disposal of radioactive nuclear waste is not satisfactorily resolved.
15	**3_16** **Science** **2502**	WORK AND ENERGY	In the diagram below, a 20 Newton force is used to push a 2 kilogram toy cart a distance of 5 meters. The work done on the cart is_____		B
Answer Options					

		Option A 40 J	Option B 100 J	Option C 150 J	Option D 200 J