

<b>Roll Number</b>		
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**SET A**



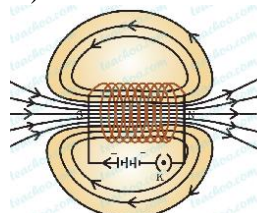
**INDIAN SCHOOL MUSCAT  
SECOND PRE - BOARD EXAMINATION  
SCIENCE 086**

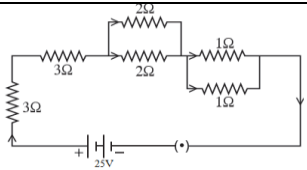
**CLASS: X**

**TERM 2**

**Max.Marks: 40**

MARKING SCHEME			
SET	QN.NO	VALUE POINTS	MARKS SPLIT UP
	1	(a) Structure -1 Mark (b) (i)Alcohol (or) (-OH) Group -½ Mark (ii) Carboxylic Acid (or) (-COOH) Group - ½ Mark	(1+1)
	2	(a) 2,8,8,2 - 1 Mark. (b) 2 <sup>nd</sup> Group-½ Mark 4 <sup>th</sup> Period- ½ Mark	(1+1)
	3	Multiple fission is better than binary fission.  Reason: it produces many daughter cells at a time.  Inside a protective structure called cyst which ensures their survival under adverse conditions.	1  ½  ½
	4	1.No 2.Placenta 3. Gonorrhea and Syphilis	½ ½ 1
	5	The transmission of characteristics from one generation to another is known as heredity. Seed shape, pod colour (any relevant point) OR 1. Segment of DNA on a chromosome which carries information for the appearance of a particular character is called a gene. It helps in the inheritance of the character from one generation to another. So, we can say that changes in gene can be brought about by change in DNA. 2. The type of sex chromosome contributed by the male gamete determines the sex of an infant. Since the ratio of male gametes containing X chromosome and those containing Y chromosome is 50: 50, the statistical probability of male or a female infant is also 50: 50.	1 1   1  1
	6	(a) Diagram to represent a uniform magnetic field in a given region. a) Any two properties of magnetic field lines. OR b) A solenoid is a circular coil of insulated copper wire wound in	1 ½ ½  1

		<p>the form of a cylinder.</p> <p>c)</p> 	1
7	<p>1.Hawk Bio magnification.</p> <p>2. In a food chain energy moves progressively through the various trophic levels and is no longer available to the organisms of the previous trophic level.</p> <p>Or</p> <p>1. When CFCs reach the upper layers of atmosphere, they cause depletion of ozone layer and allow harmful UV radiations to reach the surface of the earth to create health hazards.</p> <p>2. Skin cancer , Cataract</p>	<p>1/2</p> <p>1/2</p> <p>1</p> <p>1</p> <p>1/2 + 1/2</p>	
8	<p>(a) 16<sup>th</sup> Group- 1/2 Mark 3<sup>rd</sup> Period - 1/2 Mark</p> <p>(b) Sulphur- 1 Mark Acidic in Nature- 1 Mark</p>	(1+ 2)	
9	<p>(a) Alkene- 1/2 Mark</p> <p>(b) C<sub>n</sub>H<sub>2n</sub>- 1/2 Mark, C<sub>4</sub>H<sub>8</sub>- 1/2 Mark C<sub>7</sub>H<sub>14</sub>- 1/2 Mark</p> <p>(c) Double and Single Bonds- (1/2 + 1/2 ) Mark.</p> <p>(or)</p> <p>(a) Explanation-1 1/2 Mark.</p> <p>(b) Explanation- 1 1/2 Mark.</p>	<p>(1/2 + 1 1/2 + 1)</p> <p>(or)</p> <p>(1 1/2 + 1 1/2)</p>	
10	<p>1. Tall plants</p> <p>2. 3: 1</p> <p>3 Dwarf</p> <p>Reason: Being a recessive trait, dwarfness can only be expressed in the recessive homozygous condition or in the absence of dominant trait.</p>	<p>1</p> <p>1/2</p> <p>1/2</p> <p>1</p>	
11	<p>(a) Decreased because resistance is inversely proportional to area of cross-section</p> <p>(b) E=P x t</p> <p>Total energy E =500 x 5+300 x12+1400 x2</p> <p>=2500 + 3600 + 2800</p> <p>= 2.5 +3.6+2.8 kWh</p> <p>= 8.9kWh</p> <p>Cost of electricity bill = E x n x unit price</p> <p>= 8.9 x 30 x 4</p> <p>= Rs. 1068/-</p>	<p>1/2 1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p>	
12	<p>(a)high resistivity and high melting point</p> <p>b)</p>	1/2 + 1/2	

		 <p>For parallel arrangement (1)</p> $\frac{1}{R_1} = \frac{1}{2} + \frac{1}{2}$ $\frac{1}{R_1} = \frac{2}{2} = 1 \Omega$ $\therefore R_1 = 1 \Omega$ <p>For parallel arrangement (2)</p> $\frac{1}{R_2} = \frac{1}{1} + \frac{1}{1} = \frac{2}{1} = 2;$ $R_2 = \frac{1}{2} = 0.5 \Omega$ <p>For the series arrangement,</p> $R_3 = 3 + 3 = 6 \Omega$ $R_{eq.} = R_1 + R_2 + R_3 = 6 + 1 + 0.5 = 7.5 \Omega$ <p>Total current <math>I = V/R = 25/7.5 = 3.3A</math></p> <p><b>OR</b></p> <p>(a) In parallel circuit, if all electrical appliances working at same voltage. In parallel circuit, each electrical appliance will take different current according to their resistance. (<math>\frac{1}{2} + \frac{1}{2}</math>)</p> <p>(b) <math>R' = 4.8 \text{ ohm}</math> (Parallel combination) Total resistance = <math>4.8 + 7.2 = 112 \text{ ohm}</math> <math>I = V/R = 6/12 = 0.5 \text{ A}</math></p>	1+ 1
		<p><b>OR</b></p> <p>(a) In parallel circuit, if all electrical appliances working at same voltage. In parallel circuit, each electrical appliance will take different current according to their resistance. (<math>\frac{1}{2} + \frac{1}{2}</math>)</p> <p>(b) <math>R' = 4.8 \text{ ohm}</math> (Parallel combination) Total resistance = <math>4.8 + 7.2 = 112 \text{ ohm}</math> <math>I = V/R = 6/12 = 0.5 \text{ A}</math></p>	1     $\frac{1}{2}$ $\frac{1}{2}$ 1
	13	<p>1. Cleaner environment without any pollution, more nutrient will be released into the nutrient pool.</p> <p>2. Incineration, Recycling</p> <p>3. Food web is a group of several inter connected food chains in which an organism get food from many other organisms.</p>	1  1  1
	14	<p>a. To prevent unwanted pregnancies To control population rise or birth rate.</p> <p>b. Surgical methods Vas deferens is blocked in male.</p>	1  1

		<p>Fallopian tube/ oviduct is blocked in female.</p> <p>c. Warts and aids</p> <p>Using condoms on penis.</p> <p>OR</p> <p>Any method which prevents conception/ pregnancy is called contraception.</p> <p>They prevent sperm from meeting the ovum.</p>	2
	15	<p>(a) Deflection in galvanometer in one direction</p> <p>(b) Deflection in galvanometer in opposite direction.</p> <p>(c) Electromagnetic induction</p> <p>Electromagnetic induction is the process of inducing current in an electric circuit due to the change in the magnetic field.</p> <p>OR</p> <p>Fleming's right hand rule</p> <p>According to the Fleming's right hand rule, if we <b>hold our right-hand forefinger, middle finger and the thumb at right angle to each other</b>, then, if the forefinger represents the direction of the magnetic field, thumb represents the direction of motion of the conductor, then middle finger represents the direction of induced current.</p>	<p>1</p> <p>1</p> <p>2</p>