

Roll Number		
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SET B



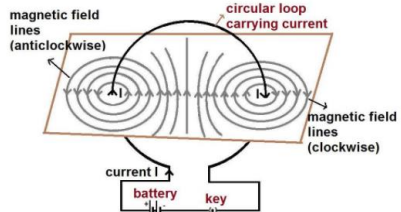
**INDIAN SCHOOL MUSCAT
SECOND PRE - BOARD EXAMINATION
SCIENCE 086**

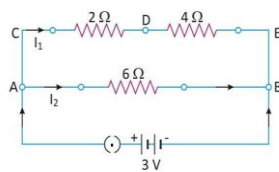
CLASS: X

TERM 2

Max.Marks: 40

MARKING SCHEME			
SET	QN.NO	VALUE POINTS	MARKS SPLIT UP
	1	(a) Ethene- $\frac{1}{2}$ Mark, C_2H_4 - $\frac{1}{2}$ Mark (b) One – 1 Mark	(1 + 1)
	2	(a) 18 th Group and 2 nd Period ($\frac{1}{2}+\frac{1}{2}$) (b) Increase- 1 Mark	(1+1)
	3	Spore formation is a mode of asexual reproduction in Rhizopus (bread mould). When a slice of bread is kept in moist dark place for a few days, spores of Rhizopus present in air settle on the bread to form bread mould (Rhizopus). It has a knob like structure which is involved in reproduction called sporangia, containing spores that develop into new Rhizopus. Advantages : It is a faster mode of reproduction. Off springs produced are identical.(Any relevant point)	1 $\frac{1}{2} + \frac{1}{2}$
	4	1. a .Formation of sperms/ secretion of testosterone b. Delivery of sperms from testis to urethra. 2. They need lower temperature than the body temperature for the formation of sperms	$\frac{1}{2}$ $\frac{1}{2}$ 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 $\frac{1}{2} + \frac{1}{2}$ 1 1
	6	a) as I increase B also increases As r increase B also decreases	1 1

	<p>b) Right hand thumb rule states that if a current carrying conductor is held in the right hand such that the thumb points in the direction of current, then curled fingers of hand indicate the direction of magnetic field. OR</p> <p>(a)</p>  <p>(b) Right hand thumb rule states that if a current carrying conductor is held in the right hand such that the thumb points in the direction of current, then curled fingers of hand indicate the direction of magnetic field.</p>	<p>1</p> <p>1</p> <p>1</p>
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>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p> <p>1</p> <p>1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p>
8	<p>(a) Butanol- $\frac{1}{2}$ Mark Structure- 1Mark</p> <p>(b) Butanal - $\frac{1}{2}$ Mark Structure- 1 Mark</p>	<p>$(1\frac{1}{2} + 1\frac{1}{2})$</p>
9	<p>(a) Valence Electrons=3-($\frac{1}{2}$ mark) Valency=No of valence Electrons=3-($\frac{1}{2}$) Mark.</p> <p>(b) X_2O_3 (or) Al_2O_3 -1 Mark.</p> <p>(c) Name: Aluminium Chloride- $\frac{1}{2}$ Mark Formula: $AlCl_3$- $\frac{1}{2}$ Mark.</p> <p>(or)</p> <p>(a) Alkane- $\frac{1}{2}$ Mark Reason-$\frac{1}{2}$ Mark</p> <p>(b) P,Q, R (or) C_3H_8, C_4H_{10}, C_5H_{12} - ($\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$) mark</p> <p>(c) Any one character- $\frac{1}{2}$ Mark</p>	<p>$(1+1+1)$</p> <p>(or)</p> <p>$(1 + 1\frac{1}{2} + \frac{1}{2})$</p>
10	<p>1. Purple colour flowers</p> <p>2. 3:1</p> <p>3. White</p>	<p>1</p> <p>$\frac{1}{2}$</p> <p>$\frac{1}{2}$</p>

		Reason: Being a recessive trait, white colour can only be expressed in the recessive homozygous condition or in the absence of dominant trait.	1
11	<p>a) kW-h . 1kW-h = 3.6 10⁶ J</p> <p>b) P₁= 80W</p> <p>V₁= 220V</p> <p>R= V²/P = 240 x 240/60 = 960 ohm</p> <p>V₂ = 192 V</p> <p>P₂ = V₂²/R 192 x192/960 = 38.4 W</p>	<p>1/2 1/2</p> <p>1/2 ,1/2</p> <p>1/2 ,1/2</p>	
12	<p>a) The resistance of a conductor depends on length of the area of cross section.</p> <p>(b)</p>  <p>R_S =R₁ + R₂ = 2 + 4 = 6Ω</p> <p>1/R_P = 1/ R_S + 1/R₃</p> <p>= 1/6 + 1/6 = 2/6</p> <p>Total resistance R_P = 6/2 =3Ω</p> <p>Total current I = V/ R_P</p> <p>= 3/3 =1A</p> <p>OR</p> <p>c) The SI unit of current is Volt. If 1C of charge flows through a conductor in 1J work has done then voltage produced is said to be 1V</p> <p>d)</p> <p>1/R_P = 1/30 +1/10 + 1/5 = 10/30</p> <p>R_P =3 Ω</p> <p>Total current I = V/ R_S</p> <p>= 6/3 =2A</p>	<p>1/2 1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2 ,1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p> <p>1/2</p>	

13	<p>If we kill all the organisms in one trophic level, the following effects will take place:</p> <p>The population of organisms in the previous trophic level will increase.</p> <p>The organisms in the next trophic level will not be able to get the food, so they will migrate to some other ecosystem or die.</p> <p>It will cause an ecological imbalance in the food chain.</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. Fallopian tube/ oviduct is blocked in female.</p> <p>c. Warts and aids Using condoms on penis.</p> <p style="text-align: center;">OR</p> <p>Any method which prevents conception/ pregnancy is called contraception. They prevent sperm from meeting the ovum.</p>	1 1 2
15	<p>(a) Deflection in galvanometer in one direction (b) Deflection in galvanometer in opposite direction.</p> <p>(c) Electromagnetic induction Electromagnetic induction is the process of inducing current in an electric circuit due to the change in the magnetic field.</p> <p style="text-align: center;">OR</p> <p>Fleming's right hand rule According to the Fleming's right hand rule, if we hold our right-hand forefinger, middle finger and the thumb at right angle to each other, 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>	1 1 1, 1