



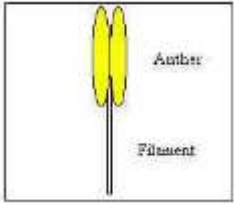
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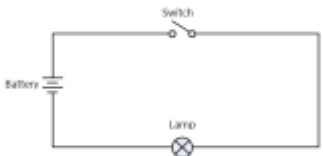
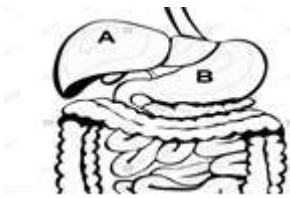
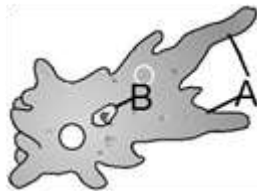
	INDIAN SCHOOL MUSCAT MIDDLE SECTION ANNUAL EXAMINATION 2019 - 20	
	<u>SUBJECT - SCIENCE</u>	Code:MYSC09
CLASS 7	SET B (ANSWER KEY)	Time Allotted: 2 ½ hrs
02.03.2020		Max .Marks: 80
<p>General Instructions.</p> <p>1.The question paper comprises of three sections A ,B& C. You have to attempt all the sections.</p> <p>2.All the questions are compulsory.</p> <p>3.All the answers should be written in the answer sheet provided.</p>		

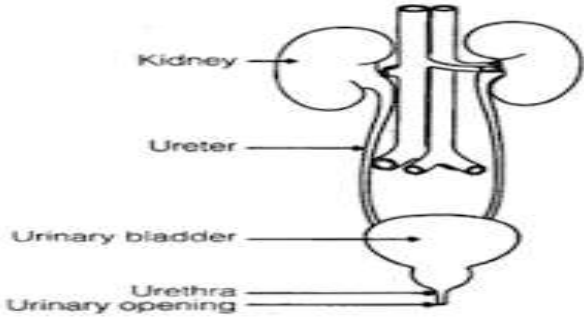
Q.NO1	<u>SECTION 'A' - ('1' MARK EACH) - TOTAL - 20 MARKS</u>	Marks
(a)	Muscle cramps are caused due to the accumulation of _____ in muscles. a. lactic acid b. acetic acid c. hydrochloric acid d. citric acid	1
(b)	This appliance does not work using the magnetic effect of electricity. a. electric motor b. electric kettle c. electric bell d. telephone	1
(c)	Pick out the fibre that is made of protein a. cotton b. jute c. coir d. wool	1
(d)	The digestion of which nutrient starts in the stomach a. vitamin b. protein c. carbohydrate d. fat	1
(e)	An image that can't be obtained on a screen is called a. virtual b. real c. enlarged d. shadow	1
(f)	The upper limit of groundwater at a place a. aquifer b. infiltration c. water table d. tube well	1
(g)	Chemicals that can be used to kill germs in water a. chlorine, oxygen b. ozone, chlorine c. bromine, chlorine d. fluorine, ozone	1
(h)	The cells of the blood that helps in clotting a. W.B.C b. R.B.C c. plasma d. platelet	1
(i)	_____ is an instrument that measures the speed of a vehicle. a. speedometer b. anemometer c. odometer d. thermometer	1
(j)	This plant reproduces through its leaves a. bryophyllum b. fern c. croton d. balsam	1
(k)	What are the products of aerobic respiration? Carbondioxide, water	1
(l)	Which organ helps in the exchange of gases in a shark? gills	1
(m)	Why do we use a coil of wire rather than a straight wire as an element in an electric heater? The heat produced depends on the length of the wire, the longer the wire, the more heat it will produce.	1
(n)	Why is scouring done in the processing of wool? To remove dirt, dust and grease	1
(o)	a. What is the principle behind the working of a magnifying glass? When an object is kept very close to a lens it produces enlarged, virtual images.	1
(p)	What is potable water? Water that we can drink is called potable water.	1

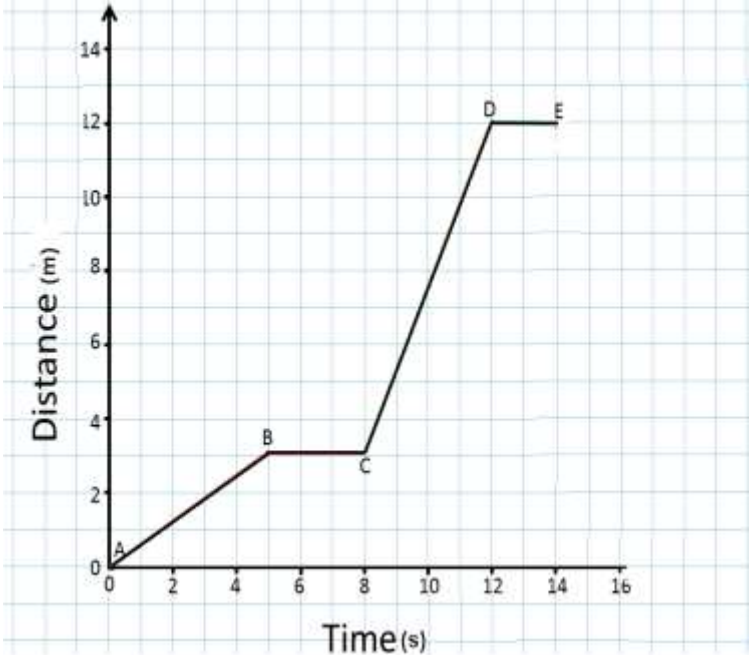
(q)	Chemicals such as paints, medicines and insecticides should not be thrown down the drains. Give reason. Because they can kill the bacteria that help in purifying waste water.	1
(r)	What are thunderstorms? They are strong winds accompanied by lightning, thunder and heavy rains.	1
(s)	Which blood vessel carries deoxygenated blood from heart to lungs? Pulmonary artery.	1
(t)	Convert 90 Km/hr to m/s. A) $90 \times \frac{5}{18} = 25 \text{m/s}$	1

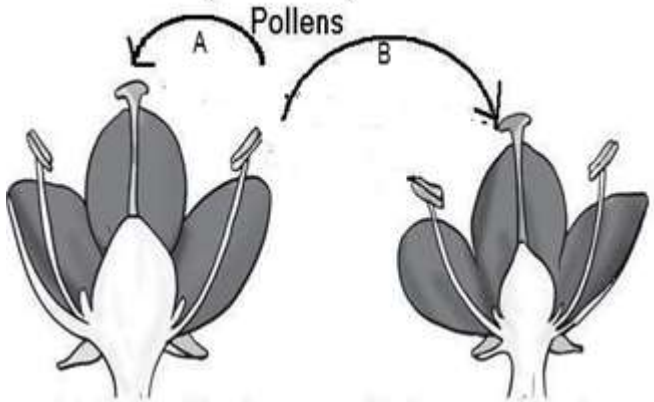
Q.NO	<u>SECTION 'B' – ('3' MARKS EACH) – TOTAL – 30 MARKS</u>	Marks
(2)	<p>a. Which organism is added to grape juice to change it into wine? yeast</p> <p>b. Why is this organism added? They respire anaerobically and convert sugar into ethyl alcohol and carbon dioxide.</p> <p>c. Write the word equation for this change. Glucose (in the absence of oxygen) ----- carbon dioxide + ethyl alcohol Or</p> <p>a. Where do the processes of breathing and respiration occur? Breathing – lungs respiration - cells</p> <p>b. Which organs move to help in breathing? Ribs, diaphragm</p> <p>c. How do these organs move during inhalation? During inhalation ribs move up and diaphragm moves down</p>	3
(3)	<p>a. What is selective breeding? Selecting parents with preferred characters</p> <p>b. Which are the two types of fibres that form the fleece of sheep? Coarse beard hair, soft under hair</p> <p>c. Why shearing does not hurt the sheep? Because the upper layer of skin is dead.</p>	3
(4)	<p>a. What is the difference between a convex mirror and concave mirror?(one difference) Convex mirror the reflecting surface is bulged outwards. Concave mirror the reflecting surface is curved inwards. Convex mirror is diverging mirror. Concave mirror is converging mirror.</p> <p>b. Which mirror is used as rear view mirrors in cars. State the reason. Convex mirror because it forms virtual, erect images spread over a large area.</p> <p>c. Give two uses of concave mirror. Dentists mirror, torches</p>	3
(5)	<p>a. State any two ways by which you can prevent wastage of water at home. Repair leaking pipes, use shorter showers, wipe cars etc.</p> <p>b. What is rain water harvesting? Collection of rainwater for future use is called rainwater harvesting. The runoff rainwater is collected in an underground reservoir. The reservoirs are filled with sand and gravel to filter out impurities from water.</p>	3
(6)	<p>a. How is sludge decomposed? Sludge is decomposed with the help of anaerobic bacteria.</p> <p>b. What is aeration? How does it help?</p>	3

	<p>It is the process by which air is pumped into water to allow the growth of aerobic bacteria. It helps to remove organic wastes from water</p>		
(7)	<p>a. What is a cyclone? A very low pressure system with very high speed winds revolving around it is called cyclone.</p> <p>b. Why are there more chances of roofs of houses getting blown off whenever there is a storm? It is caused because of pressure difference. When wind moves above the roof it causes low pressure to build up while its still high pressure inside the house. This pressure difference causes the roof to be blown off.</p> <p>c. Give two safety measures that can be taken in case of a cyclone. Move belongings and people to a safer area, store enough water and food,</p>	3	
(8)	<p>a. Why does wind make leaves flutter? The kinetic energy of wind makes things move.</p> <p>b. What is direction in which wind will move? Wind moves from a region of high pressure to low pressure.</p> <p>c. A flag mounted on a flag post on sea coast flutters in the direction of the sea. At what time does this happen, in the afternoon or at midnight? Why? At midnight because of land breeze which blows from land to sea.</p>	3	
(9)	<p>a. Why is the colour of blood red? Because of the presence a red pigment called haemoglobin.</p> <p>b. Which is the carrier of this red colour? R.B.C</p> <p>c. What is its function? It binds with oxygen and transports it to all parts of the body.</p> <p style="text-align: center;">Or</p> <p>a. Which tissue makes up the transporting vessels in a plant? Vascular tissue</p> <p>b. Name the two types of vessels. A) xylem, phloem</p> <p>c. Write the difference in their functions? Xylem conducts water and minerals. Phloem conducts prepared food to all parts of the body.</p>	3	
(10)	<p>a. What are the two types of motion associated with a simple pendulum? Oscillatory motion, periodic motion</p> <p>b. What is the relation between the time period and length of the simple pendulum? The time period increases with the length of the pendulum.</p> <p>c. A simple pendulum takes 38s to complete 20 oscillations. Calculate the time period of the pendulum? Time period=time taken/no. of oscillations $= 38/20=1.9s$</p>	3	
(11)	<p>(11) a. Name the male and female reproductive part of a flower. Stamen, pistil</p> <p>b. Draw and label the male reproductive part of a flower.</p> <p>c. What type of flower is hibiscus in terms of sexual character? Justify your answer. It is a bisexual flower because it has both the male and female reproductive organs.</p>		3

Q.NO	<u>SECTION 'C' – ('5' MARKS EACH) – TOTAL – 30 MARKS</u>	Marks	
(12)	<p>a. Draw a circuit diagram of an open circuit using electric bulb, battery, conducting wire and switch.</p> <p>b. Which safety device can protect electrical circuits from possible fires? fuse</p> <p>c. Can we use a thick wire for the above safety device. State the reason why. We cannot use a thick wire as it will not melt easily.</p> <p>d. How can you make a magnet out of a current carrying coil of wire in a circuit? We can make a magnet by inserting an iron core in the coil of wire.?</p>		5
(13)	<p>a. Identify the organs labelled A and B in fig1 A- liver B- stomach</p> <p>b. How does the organ A help in digestion? It secretes bile which help in the digestion of fats.</p> <p>c. Which is the acid secreted by Organ B? What are its functions? It secretes hydrochloric acid. It kills the germs in the food, It changes the medium to acidic.</p> <p>d. How is the lining of organ B protected from this acid? The lining secretes mucus Or</p> <p>a. Which organism is shown in fig 2. A) Amoeba</p> <p>b. Name the structures A and B. A) pseudopodia B) food vacuole</p> <p>c. What are the functions of A. captures food, movement</p> <p>d. How does structure B help in the digestion process? Digestive juices are secreted into the food vacuole They act on the food and break it into simpler substances. Gradually Digested food is absorbed.</p>	 <p style="text-align: center;">fig.1</p>  <p style="text-align: center;">fig 2</p>	5
(14)	<p>a. Which property of light forms images on smooth, shiny surfaces? Reflection of light.</p> <p>b. State two properties of image formed by a plane mirror? Images are erect, virtual, same size as the object, laterally inverted, distance between the image and the mirror is same as the distance between the mirror and object.</p> <p>c. Write out the image of the word 'WOW' as seen in a plane mirror. A) WOW, lateran inversion.</p> <p>d. A girl is standing at a distance of 30cm away from a plane mirror, what will be the distance her image from the mirror? 30cm</p>		5

(15)	<p>a. Draw the human excretory system and label the kidneys, ureter, urinary bladder and urethra.</p>  <p>b. Why do we see white patches on our clothes when we sweat? Salts are present in sweat.</p> <p style="text-align: center;">Human excretory system</p>	5
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(16)	<p>Observe the distance-time graph of an object travelling along a straight line and answer the questions given below.</p>  <p>a. Calculate the speed of the object from C to D? speed= $\frac{12-3}{12-8} = \frac{9}{4} = 2.25 \text{ m/s}$</p> <p>b. What does B to C and D to E indicate? The object is stationary</p> <p>c. What is the distance travelled by the object in 13 sec. 12m</p> <p>d. Where is the body travelling with more speed, at A to B or C to D. CD</p> <p>e. What kind of motion does this graph indicate? Non uniform motion</p>	5
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(17)	<p>a. What do processes A and B indicate. A- self pollination B-cross pollination</p> <p>b. Differentiate between A and B. self pollination-transfer of pollen grains from anther to stigma of same flower. Cross pollination- transfer of pollen grains from anther of one flower to stigma of another flower of the same plant or another flower of another plant of the same kind.</p> <p>c. Explain the process after a pollen grain germinates?</p> 	5
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The male gamete and the female gamete fuse to form the zygote.

c. What does the ovary and ovule develop into?

Ovary develops into fruit, ovule develops into seeds.

Or

a. How do the following reproduce 1) spirogyra-fragmentation 2) yeast -budding 3) potato-buds 4) rose plant-stem cutting

b. What kind of reproduction is this? Asexual reproduction Why is it called so? They reproduce through other parts of the plant other than the flower or no gametes are involved.

c. What is the advantage of this kind of reproduction?

Produce many copies of the parent plant. Only one parent is necessary.

d. How do spores survive unfavourable conditions?

Spores have a hard covering which can withstand unfavourable conditions.

End of the question paper.