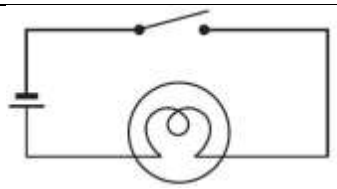
INDIAN SCHOOL MUSCAT – MIDDLE SECTION – DEPARTMENT OF SCIENCE

QUESTION BANK – SCIENCE – CLASS 7 – TERM :01 – (2019 – 20)

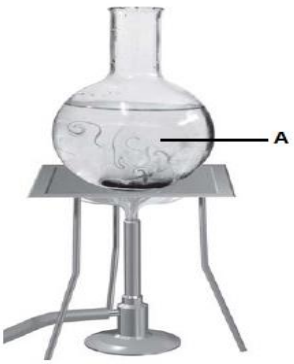
S.NO	MCQ(1 Mark Each)
1	Amarbel is an example of a) Autotroph b) Parasite c) heterotroph d) host
2	In solids, the heat is transferred by the process of a) conduction b) convection c) radiation d) none of these
3	On adding phenolphthalein indicator to a colourless solution, no change is observed. The nature of the solution is a) basic b) either acidic or basic c) either acidic or neutral d) either basic or neutral
4	Which of the following is a physical change? a) Rusting of iron b) Cooking of vegetables c) Burning of candle d) Melting of wax
5	One litre of water at 30ºC is mixed with one litre of water at 50ºC. The temperature of the mixture will be a) 80°C b) more than 50°C but less than 30°C c) 20°C d) between 30°C and 50°C
6	During exhalation, the ribs a) move outwards b) move downwards c) move upwards d) do not move at all
7	Which of the following statements is incorrect for penguins? a) They huddle together b) They cannot swim c) They have webbed feet d) They have streamlined body
8	A chemical change may involve a) change in colour only b) change in temperature only c) evolution of gas only d) all of the above
9	Which of the following appliances is not based on the principle of heating effect of electric current? a) Electric kettle b) Electric motor c) Electric bulb d) Electric bell
10	Which of the following briefly describes the desert climate? a) Hot and humid b) Dry and humid c) Hot and dry d) Hot and wet
11	_____ are partial heterotrophs. a) Algae b) Cuscuta c)Croton d) Pitcher plant
12	The normal temperature of human body is _____ a) 23°C b) 35°C c) 37°C d) 42°C
13	Out of the given definitions, which is the most appropriate definition of climate? a) Changes in weather conditions in a year. b) Average weather pattern of many years. c) Change in weather pattern in a few years. d) Weather conditions during summer.
14	Which of the following is a natural indicator? a) Turmeric b) Lime water c) Vinegar d) Baking soda
15	Which of the following is a physical change?

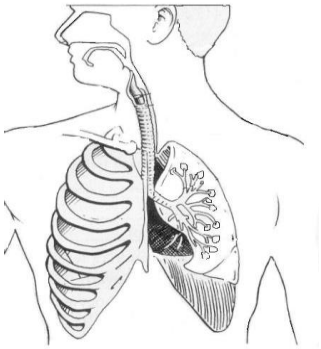
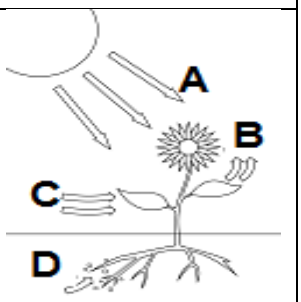
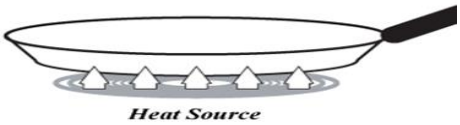
	a) Neutralization b) Crystallization c) Digestion d) Explosion
16	The liquid metal used in a thermometer is _____ a) Mercury b) Silver c) Gold d) Copper
17	In cockroaches, air enters the body through _____ a) Nostrils b) Spiracles c) Gills d) Lungs
18	The magnetic effect of a current was first observed by ---------- a) Michael Faraday b) H. C. Oersted c) Ohm d) Joule
19	When magnesium ribbon is burnt in candle flame it burns with _____. a) Brilliant red light b) Brilliant green light c) Brilliant white light d) Brilliant yellow light
20	Bean plants live in symbiotic relationship with a. virus b. protozoa c. fungi d. bacterium
21	The transfer of heat in mercury takes place by a. radiation b. conduction c. convection d. none of these
22	Plastic is an insulator because a. it does not allow heat to pass through it. b. it does not allow heat to pass through it easily. c. it allows heat to pass through it. d. it allows heat to pass through it easily.
23	A particular sample changed to magenta colour when china rose was used as an indicator on some given samples. The sample that showed magenta colour will be a. lemon juice b. lime water c. baking soda d. milk of magnesia
24	Burning of magnesium ribbon produces a. magnesium sulphide b. magnesium oxide c. magnesium nitrate d. magnesium carbonate
25	A gas was evolved when a given sample A reacted with a given sample B. The gas when passed through lime water turned it milky. The gas is a. carbon dioxide b. oxygen c. hydrogen d. nitrogen
26	Plants breathe through a. leaves b. stems c. roots d. all of these
27	The bird that has a long large beak to reach the fruits on the branches of trees is a. crane b. wood pecker c. toucan d. parrot
	VSA –I VERY SHORT ANSWER TYPE QUESTIONS(1 Mark Each)
30	What are saprotrophs?
31	Why do we prefer light coloured clothes in summer?
32	What are indicators?
33	What is the average body temperature of a healthy person?
34	Why does lime water turn milky when carbon dioxide is passed into it?
35	Why is yeast used to make wine and beer?
36	When are the maximum and minimum temperatures recorded during the day?
37	What is crystallization?
38	What happens if you place a compass near a current conducting wire?
39	What do you mean by migration?
40	Which bacterium helps to convert atmospheric nitrogen into a soluble form?
41	Which type of heat transfer does not require a medium of transmission?
42	Write any two main elements that determine the weather of a place.

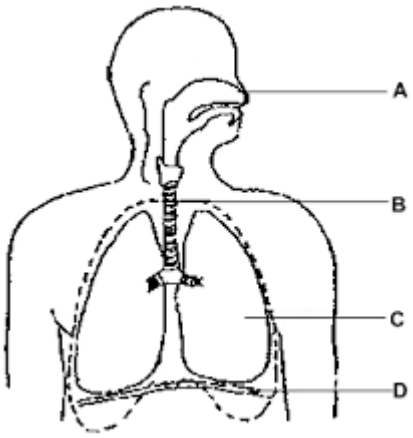
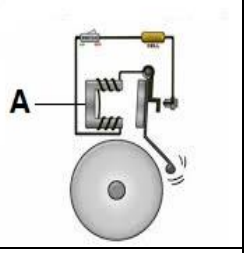
43	State the effect of china rose indicator on; (i) Soap solution (ii) Lemon juice
44	Which gas is evolved, when baking soda is added to vinegar? Is it a physical change or a chemical change?
45	What are the two scales of measurement of temperature?
46	Name the breathing organ of earthworm.
47	What is the principle behind the working of an electric bell?
48	(i) Name the instrument which is used to measure rainfall. (ii) When is the maximum temperature likely to occur during the day?
49	Write the word equation for the reaction between copper sulphate and iron.
50	Why is Cuscuta called a parasite?
51	What is the range of clinical thermometer?
52	How does a hot cup of tea become cold after sometime?
53	Why does a turmeric stain turn red on washing with soap?
54	Which process helps you purify salts from its impurities?
55	Besides new products formed, write any two changes associated with bursting of fire crackers?
56	Give the word equation for aerobic respiration.
57	Write two characteristics of a fuse wire?
58	Name any two elements of weather.
59	What do penguins do to keep themselves warm?
	SA-SHORT ANSWER TYPE QUESTIONS (3Marks Each)
60	Fungi and algae are two different types of plants. a. What is the mode of nutrition in each of the following plants? b. State two conditions required for growth of fungus? c. In which organism does algae and fungus live together?
61	Paheli is suffering from indigestion. a. Is it advisable to give orange juice, why? b. What would you suggest to help solve this problem and explain how it will work?
62	a. What is an indicator? b. Which is the indicator obtained from lichens? c. What colour change will you observe when this indicator is used with the following solutions? Window cleaner, vinegar, sugar solution, baking soda
63	a. Complete the word equation: Copper sulphate + Iron ⟶ b. What change is this? c. Identify two changes that you observed taking place in the above reaction.
64	a. What are the factors necessary for rusting of Iron? b. Which will rust faster, an iron nail placed in water or an iron nail placed in salt solution? c. Explain how iron pipes are protected from rusting?
65	a. What is the difference between inhaled air and exhaled air? b. Identify the breathing organ of grasshopper, earthworm, dolphin and shark. c. Why shouldn't we overwater plants?
66	a. What is an anaerobe?

	b. Name an anaerobe used in the wine making industry. **c. How does it help to make wine?** **Or** **a. Where does anaerobic respiration happen in animals?** **b. What happens if the rate of anaerobic respiration increases in animals?** **c. How can you relieve this condition?**
67	**a. What is a circuit diagram?** **b. Draw a circuit diagram for a closed circuit with cell, switch, bulb, conducting wires.**
68	**Two wires one of nichrome and another of copper were used in making a kettle.** **a. Which material will be used to make the element of the kettle? Why?** **b. Which material will be used to make the electrical wires for plugging into a source of current? Why?** **c. Name any two factors on which heat produced by a current carrying conductor depends on?**
69	**a. What is the main cause of changes in weather?** **b. What is the difference between weather and climate?** **c. When is maximum temperature and minimum temperature of the day recorded?**
70	**We can observe some fluffy patches on bread when it is left open for few days. Answer the following questions based on this observation.** **(i) Name the type of organism that grows on it.** **(ii) What is the mode of nutrition of this organism?** **(iii) Is it an autotroph or heterotroph?**
71	**(i) State any two differences between acids and bases.** **(ii) What is the effect of red litmus paper and blue litmus paper on distilled water?** **.**
72	**(i) Where does the breakdown of glucose take place in plants?** **(ii) What would happen if a potted plant is over-watered for a long time?** **(iii) State one difference between respiration and photosynthesis.** **Or** **(i) How do the gills in fish help it to breathe?** **(ii) Frogs are amphibians. How do they breathe?** **(iii) Why do dolphins and whales often come up to the water surface?**
73	**(i) Classify the following changes as physical and chemical changes;** **Boiling of water, Boiling of eggs.** **(ii) Justify your answer by giving 2 points of difference between them.**
74	**(i) Why does the bulb not glow in the circuit shown in the picture?** **(ii) How can it be made to glow?** **(iii) What is the use of the filament in the electric bulb?** 
75	**A farmer was unhappy because of his low crop yield. He discussed the problem with an agricultural scientist and realized that the soil of his field was too acidic. Help the farmer answering the following questions;** **(i) State the reason for the change in nature of the soil.** **(ii) What remedy would you suggest to neutralize this soil?** **(iii) Suggest one method to neutralize if the soil is too basic.**
76	**(i) What is an electromagnet?**

	(ii) Electromagnet is said to be a temporary magnet. Why? **(iii) Give two uses of electromagnets**
77	**(i) What is the name of the brownish substance that is formed if you leave a piece of iron in the open for some time?** **(ii) What are the essential components needed for the above change to take place?** **(iii) Give two methods to prevent this change.**
78	**How does the following body features help animals to adapt to their surroundings?** **(i) Large, long beak of a toucan bird.** **(ii) Large ears of elephant.** **(iii) Sticky pads on the feet of red-eyed frog.**
79	**a) What are stomata?** **b) Give two functions of stomata.**
80	**a) Why does a turmeric stain on a white shirt turn red when washed with soap?** **b) Is distilled water acidic, basic or neutral? How would you verify it?**
81	**A student took a solution of copper sulphate in a beaker and put a clean iron nail into it for about an hour.** **a) What are the changes seen in the solution and iron nail?** **b) Are these changes physical or chemical in nature?** **(OR)** **a) What kind of flame is produced by burning magnesium ribbon?** **b) Which compound is formed when magnesium ribbon burns in air?** **c) Is burning of magnesium ribbon in air physical or chemical in nature?**
82	**List three differences between aerobic and anaerobic respiration.**
83	**Ryan made an electromagnet by winding 50 turns of wire over an iron screw. Liya also made an electromagnet by winding 100 turns over a similar iron screw.** **a) Which electromagnet will attract more pins? Why?** **b) List two uses of electromagnets.**
84	**a) What do you mean by climate of a place?** **b) Name the elements that determine the weather of a place.**
85	**Explain why an antacid tablet is taken when we suffer from acidity.**
86	**a) What is rusting?** **b) Why does rusting take place faster during rainy season?** **c) List two ways to prevent rusting.**
87	**a) Name the respiratory organs in the following animals.** **(i) Fish (ii) Earthworm (iii) Human being (iv) Insects** **b) What happens to your breathing rate when you** **(i) exercise (ii) sleep**
88	**a) How does electric bulb cause wastage of energy?** **b) Which device is used in place of bulb to reduce this wastage?** **c) Name the device used these days in place of electric fuses.**
	LA –LONG ANSWER TYPE QUESTIONS(5 Marks Each)

89	**Riya participated in a 400m race held at her school and won the race. When she came home she had cramps in the muscles in her leg. After a massage, she was relieved of the pain.** **a) What can be the reason for the pain in her legs?** **b) Why did she feel comfortable after a massage?**
90	a) **Name any two effects of electric current.** **b) What do you mean by a closed circuit?** **c) Why does a fused bulb not glow?** **d) Draw the symbols of the following circuit components.** **(i) Switch in 'on' position (ii) Electric bulb** **(OR)** **a) Draw the symbols of the following circuit components.** **(i) Battery (ii) Electric bulb** **b) List two factors on which amount of heat produced depends.** **c) Why does the fuse wire have low melting point?** **d) What do you mean by an open circuit?**
91	**a) Explain any two common adaptive features of a polar bear.** **b) How do elephants living in the tropical rainforest adapt itself?**
92	**a) What is a symbiotic relationship?** **b) How does symbiosis occur in the following?** **(i) an alga and a fungus** **(ii) legumes and rhizobium**
93	**a) Define temperature.** **b) Why is it advised not to hold the thermometer by its bulb while reading it?** **c) List any three differences between laboratory thermometer and clinical thermometer.**
94	**a) Explain neutralisation reaction with the help of a word equation.** **b) Why is calamine solution applied on the skin when an ant bites?** **c) How can acidic soil be treated?**
95	**Algae and other green plants are called autotrophs since they synthesize their own food.** **(i) Name the process.** **(ii) Write the word equation of this process.** **(iii) What is the role of stomata in this process?** **(iv) In what form does the food synthesized by the plants stored?** **(v) Why cannot animals perform this process?**
96	**Observe the figure and answer the following questions;** **(i) What is the mode of heat transfer occur in A as shown in the figure?** **(ii) Why this mode of heat transfer does not occur in solids?** **(iii) Identify a natural phenomenon that occurs due to this mode of heat transfer near coastal areas.** **(iv) Which type of thermometer can be used to measure the temperature of liquid?** **(v) Why does your mom use cotton clothes to handle hot objects in kitchen? Give any one reason** 
97	**(i) What is a neutralization reaction?** **(ii) Complete the following word equation:**

	Hydrochloric acid + Sodium hydroxide ⟶ _____ +_____ (iii) Which indicator is generally used to observe the above neutralization reaction? (iv) Give two situations where neutralization reactions are observed in daily life.
98	Observe the diagram given and answer the following: (i) Identify the organ system. (ii) Name the main organ of this system. (iii) Name the muscular sheet which forms the floor of the chest cavity. (iv) How does the size of chest cavity increase during inhalation? 
99	(i) Write any two factors that determine the amount of heat produced due to electric current. (ii) Name any one device which works on the principle of heating effect of electric current. (iii) Write one situation where heating effect of electric current results in wastage of energy. (iv) What is the special property of wires that are used for making electric fuses? (v) Name a device which is used in place of fuses nowadays.
100	(i) Why do Siberian cranes migrate? (ii) Write any four characteristics of polar bear which help to adapt itself in the polar region. Or (i) How do penguins living in the polar region adapt themselves? (Any 3 points) (ii) Write any two adaptations of lion-tailed macaque.
101	a. Identify the process shown in the picture. b. Label A, B, C, D c. What are the products of this process? d. How are these products useful to animals?  Or a. Identify the plant and its mode of nutrition. b. Write any two adaptations that help it to follow this mode of nutrition. c. Why is it known as a partial heterotroph? 
102	A  B  a. Identify the heat transfer taking place in A and B b. Write two differences between A and B. c. Name a natural phenomenon that happens in coastal areas due to process B? d. Why do cooking vessels have copper bottoms?

103	**a. What is neutralization reaction?** **b. Is this change a chemical change or physical change? State the reason.** **c. Name the salt obtained when Hydrochloric acid reacts with Sodium hydroxide.** **d. What can you do to neutralize acidic soil?**
104	**a. Label A,B,C,D** **b. What is the function of D in inhalation and exhalation?** **c. State two differences between respiration and breathing.** 
105	**a. Identify the device shown in the diagram.** **b. What principle does it work on?** **c. Label A and define it.** **d. Mention two ways in which you can increase A's strength.** 
106	**a. Define adaptation.** **b. Why do you say that polar regions have extreme climate?(any two points)** **c. Write two adaptations of a polar bear that help** **i. to keep it warm –** **ii. to make it a good swimmer-**