



**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
ANNUAL EXAMINATION 2018-19**



SCIENCE

Code: MYSC03

CLASS: VII

ANSWER KEY

Time Allotted: 2 ½ Hrs.

05.03.2019

Max .Marks: 80

SECTION A

1.Fill in the blanks

| | | |
|----|---------------------------|---|
| a. | Spiracles | 1 |
| b. | Reeling | 1 |
| c. | Amino acid | 1 |
| d. | Concave | 1 |
| e. | Reduced / decreased / low | 1 |
| f. | Plasma | 1 |

2. Choose the correct answer

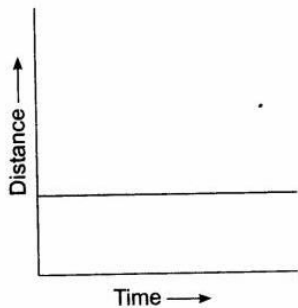
| | | |
|----|----------------------------|---|
| a. | iii) lactic acid | 1 |
| b. | ii) Hans Christian Oersted | 1 |
| c. | iv) Molars and Premolars | 1 |
| d. | ii) sodium bicarbonate | 1 |
| e. | i)Typhoon | 1 |
| f. | iv) Bryophyllum | 1 |

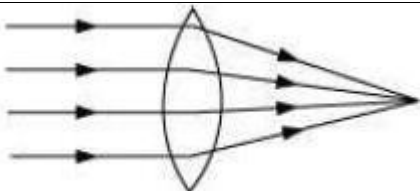
3. State TRUE or FALSE

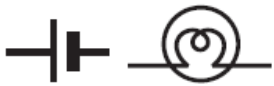
| | | |
|----|-------|---|
| a. | True | 1 |
| b. | True | 1 |
| c. | True | 1 |
| d. | False | 1 |
| e. | False | 1 |
| f. | False | 1 |

4. Give ONE word / term for the following

| | | |
|----|-------------|---|
| a. | Element | 1 |
| b. | Sericulture | 1 |
| c. | Anthrax | 1 |
| d. | Lichens | 1 |
| e. | Liver | 1 |
| f. | Tornado | 1 |

| | | |
|--|---|---|
| g. | Zygote | 1 |
| SECTION B | | |
| Questions 5 to 19 carry 1 mark each | | |
| 5 | Stomata-Tiny pores on leaves – ½ mark Function-Exchange of oxygen and carbon dioxide (or) Transpiration – ½ mark | 1 |
| 6 | Electromagnets-A coil with a core of iron which acts as a magnet only when electric current flows through it – ½ mark Used in electrical appliances like electric bell, fan, motor, TV - ½ mark (any one) | 1 |
| 7 | Coarse beard hair and fine soft under hair close to the skin. | 1 |
| 8 | Villi- finger-like outgrowths present on the inner walls of the small intestine- ½ mark Function- increase the surface area for absorption of digested food- ½ mark | 1 |
| 9 | Light travels only along a straight line (or) Rectilinearpropogation of light. | 1 |
| 10 | Uneven heating of equator and poles - ½ mark Uneven heating of land and water- ½ mark | 1 |
| 11 | Odometer-measures the distance moved by the vehicle in kilometer's. Speedometer-shows the speed of the vehicle. | 1 |
| 12 | (a)Spirogyra (alga) -½ mark (b)Fragmentation - ½ mark | 1 |
| 13 | Miniature circuit breakers are switches which automatically turn off when current in a circuit exceeds the safe limit. | 1 |
| 14 | Cellulose - ½ mark The bacterium present in ruminants which can digest cellulose is absent in humans. - ½ mark | 1 |
| 15 | 7 colours namely Violet, Indigo, Blue, Green, Yellow, Orange, Red | 1 |
| 16 | Air exerts pressure in the opposite direction in which bicycle is moving. | 1 |
| 17 | Time period = time taken / no. of oscillations = 25 / 20 = 1.25 s (1.25 - ½ mark ; seconds – ½ mark) | 1 |
| 18 | Prevent overcrowding, avoids competition for sunlight, water and minerals, invade new habitats. (any 2 ; ½ mark each) | 1 |
| 19 |  | 1 |
| Questions 20 to 29 carry 2 marks each | | |
| 20 | Anaerobic respiration- Respiration in the absence of oxygen. - 1mark Yeast respire anaerobically producing alcohol. - 1mark | 2 |
| 21 | Shearing– The process of removing fleece from the sheep. - 1mark The uppermost part of the skin holding the hair has dead cells. – 1mark | 2 |

| 22 | A) Bile Juice – Liver secretes bile juice which helps in digestion of fats. - 1mark B) Hydrochloric acid is secreted by Stomach and it helps to kill bacteria and also maintains the acidity of stomach. - 1mark | 2 | | | | | | | | | | | | |
|--|--|-----------------|--------------|--|--|--------------------------------------|---|---|--|-----------------------------------|-------------------------------|------------------------------|---|---|
| 23 | <div></div> <div>Lens and rays – 1 ½ marks Direction – ½ mark</div> | 2 | | | | | | | | | | | | |
| 24 | The rain containing excess of acids is called an acid rain. The rain becomes acidic because carbon dioxide, sulphur dioxide and nitrogen dioxide (which are released into the air as pollutants) dissolve in rain drops to form carbonic acid, sulphuric acid and nitric acid respectively. – 1mark Acid rain can cause damage to buildings, historical monuments, plants and animals- (any 2) 1mark | 2 | | | | | | | | | | | | |
| 25 | <table><thead><tr><th><u>Arteries</u></th><th><u>Veins</u></th></tr></thead><tbody><tr><td>1. Arteries carry blood from the heart to all parts of the body.</td><td>1. Veins carry blood from all parts of the body back to the heart.</td></tr><tr><td>2. Arteries carry oxygen-rich blood.</td><td>2. Veins carry carbon dioxide-rich blood.</td></tr><tr><td>3. There are no valves present in arteries.</td><td>3. There are valves present in veins which allow blood to flow only towards the heart.</td></tr><tr><td>4. The arteries have thick walls.</td><td>4. The veins have thin walls.</td></tr><tr><td>5. Arteries are deep seated.</td><td>5. Veins are found closer to the surface.</td></tr></tbody></table> <p>(Any two each from arteries and veins) - ½ mark each</p> | <u>Arteries</u> | <u>Veins</u> | 1. Arteries carry blood from the heart to all parts of the body. | 1. Veins carry blood from all parts of the body back to the heart. | 2. Arteries carry oxygen-rich blood. | 2. Veins carry carbon dioxide-rich blood. | 3. There are no valves present in arteries. | 3. There are valves present in veins which allow blood to flow only towards the heart. | 4. The arteries have thick walls. | 4. The veins have thin walls. | 5. Arteries are deep seated. | 5. Veins are found closer to the surface. | 2 |
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| 26 | Speed of the bus = 45 km/h Time = 10 min = $\frac{10}{60}$ h = $\frac{1}{6}$ h Distance = Speed x Time ½ mark = 45 km/h x $\frac{1}{6}$ h ½ mark = $\frac{45}{6}$ = 7.5 km½ mark + ½ mark | 2 | | | | | | | | | | | | |
| 27 | Unisexual flower - Flowers which contain either only pistil or only stamens . Examples are Corn, papaya and cucumber - 1mark (any 1) Bisexual flower - Flowers which contain both stamens and pistil. Examples are Mustard, rose and petunia– 1mark (any 1) | 2 | | | | | | | | | | | | |
| 28 | When we inhale, the dust particles get trapped in the hair present in the nasal cavity.- 1mark Sometimes these particles get past the hair and irritates the lining of nasal cavity and we sneeze. - 1mark | 2 | | | | | | | | | | | | |

| | | |
|--|--|---|
| 29 | When phenolphthalein is added to basic solution, it turns deep pink colour. – 1mark When phenolphthalein is added to acidic solution, it remains colourless. – 1mark | 2 |
| Questions 30 to 34 carry 3 marks each | | |
| 30 | (i) Electric cell (ii) Electric bulb ($\frac{1}{2}$ mark each)  (b) (i) closed circuit – The electric path which starts from the positive terminal of a cell/battery and ends at negative terminal without any break. - 1mark (ii) open circuit – The electric path which starts from the positive terminal of a cell/battery but is broken at some point before reaching the negative terminal. - 1mark | 3 |
| 31 | (a)Convex mirror – virtual, erect, diminished (any 2 points – $\frac{1}{2}$ mark each) (b) Plane mirror - virtual, erect, same size of object (c) Concave lens - virtual, erect, diminished | 3 |
| 32 | (i)Reaction between an acid and a base is neutralisation reaction. Salt and water are produced with the evolution of heat. - 1mark (ii) (a) When ant bites, it injects formic acid. To neutralise this, calamine which contains zinc carbonate (base) is rubbed. - 1mark (b)When the soil is basic, organic matter (compost) is added to it. Organic matter releases acids which neutralises the basic nature of the soil. - 1mark | 3 |
| 33 | (a) Tom is at rest. i.e. his speed is zero. - 1mark (b) non-uniform motion - 1mark (c) Speed=Distance/Time $\frac{1}{2}$ mark $= \frac{225-150}{12-8} = \frac{75}{4} = 18.75 \text{ m/min- } \frac{1}{2} \text{ mark}$ | 3 |
| 34 | (a) Self-pollination- 1mark (b) If the pollen lands on the stigma of the same flower it is called self-pollination. When the pollen of a flower lands on the stigma of another flower of the same plant, or that of a different plant of the same kind, it is called cross-pollination.- 1mark (c) Fusion of male and female gametesproducing zygote.- 1mark | 3 |
| Questions 35 carries 5 marks | | |
| 35 | (a) A – kidney ($\frac{1}{2}$ mark each) B - ureter C – urinary bladder D – urethra (b) Removing waste products from the blood and produce urine. - 1mark (c) Sometimes a person’s kidneys may stop working due to infection or injury. As a result of kidney failure, waste products start accumulating in the blood. - 1mark Such persons cannot survive unless their blood is filtered periodically through an artificial kidney. This process is called dialysis. - 1mark | 5 |