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INDIAN SCHOOL MUSCAT MID TERM EXAMINATION- 2017-18

SCIENCE - ANSWER KEY

Class: VIII
Date: 17.09.2017
hrs.

Total Marks: 80
Duration: 2 ½

Instructions:

- Questions 1-3 carry 6 marks each
 - Question 4 carry 7 mark
 - Questions 5-19 carry 1 mark each
 - Questions 20 to 29 carry 2 marks each
 - Questions 30 to 34 carry 3 marks each
 - Question 35 carries 5 marks.
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ALL ANSWERS SHOULD BE WRITTEN IN THE ANSWER SHEET PROVIDED.

Q1. FILL IN THE BLANKS:-

- a) There will be a force of **attraction** between a charged body and an uncharged body.
- b) The device used to measuring the force acting on an object is **spring balance**.
- c) The process of separating the various constituents of petroleum is known as
Refining or fractional distillation.
- d) The most common fire extinguisher is **water**.
- e) Marble cancer caused by **Acid rain**
- f) The star that is nearest to the earth after the Sun is **Alpha Centauri**.

Q2. CHOOSE THE CORRECT ALTERNATIVE AND WRITE THE ANSWER:-

- a) A suitable term for the various components of cells is
 i) tissue **ii) cell organelles** iii) chromosomes iv) genes

b) The fibre made up by the chemical treatment of wood pulp is

- i) **Rayon** ii) Nylon iii) Polyester iv) none of these

c) Exhaustible natural resources are

- i) unlimited in quantity ii) not dependent on nature

- iii) **limited quantity** iv) not exhausted by human activities.

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d) Combustion is a chemical reaction in which a substance reacts with

- i) Hydrogen ii) Nitrogen iii) **Oxygen** iv) Chlorine

e) The largest planet is

- i) Mercury ii) Mars iii) **Jupiter** iv) Saturn

f) Chlorofluorocarbon is used in

- i) Refrigerators ii) Air conditioners iii) Aerosol sprays iv) **All of these**

Q3. STATE TRUE OR FALSE: -

- a) Force has magnitude and direction. **True**
- b) The substances that reduce friction are called lubricants. **True**
- c) Teflon is used for non-stick coating on Cook wares. **True**
- d) Coal is a pure form of carbon. **False**
- e) Charcoal is an inflammable substance. **False**
- f) Cholera is water borne disease. **True**

Q4. NAME THE FOLLOWING: -

- a) Green coloured plastids found in plant cells. **Chloroplast**
- b) Synthetic fibres that appears to resemble wool. **Acrylic**
- c) The slow process of conversion of dead vegetation into coal. **Carbonisation**
- d) The lowest temperature at which a substance catches fire. **Ignition temperature**
- e) Water which is fit for drinking. **Potable water**
- f) A celestial body that revolves around a planet. **Satellites or moon**
- g) The amount of heat energy produced on complete combustion of 1Kg of fuel.
Calorific value

Q5. State any two effects of force?

Force can change the **speed, shape or direction** – any two – 1mark

Q6. There is a huge amount of atmospheric pressure acting on us but we do not experience its effect. Why?

The pressure inside our bodies is equal to the atmosphere - 1mark

Q7. Why do Porters wear turban when they carry heavy loads on their heads?

Area of contact increases – ½ mark

Pressure on the head decreases – ½ marks

Q8. What is the cause of friction?

Friction is caused by interlocking of irregularities on the two surfaces of contact

- 1mark

Q9. Why do kabaddi players rub their hands with soil?

To get a better grip - 1mark

Q10. How do ball bearings reduce friction in machines?

By changing sliding friction into rolling friction because rolling friction is

Smaller than the sliding friction – 1mark

Q11. It is not advisable to wear synthetic clothes while working in a kitchen. Why?

If the clothes catch fire, the fabric melts and sticks to the body of the person

Wearing it - 1mark

Q12. State any two tips to save petrol/diesel while driving.

Drive at constant and moderate speed as far as possible

Switch off the engine at traffic lights, Ensure correct tyre pressure

Ensure regular maintenance of the vehicle

Any two correct points - ½ + ½ = 1mark

Q13. What is the full form of CNG? Write one of its advantages.

Compressed Natural Gas - ½ mark

It can be used directly for burning in homes and factories where

It can be supplied through pipes

Less pollution - any one point – ½ mark

Q14. Which zone of flame does goldsmith use for melting gold and silver? Why?

Outer zone (or) zone of complete combustion (or) Non luminous zone -1/2 mark

It is the hottest part of the flame – ½ mark

Q15. What is acid rain? Write one of its effects.

Oxides of Sulphur and Nitrogen dissolve in rain water and form acids. Such rain is called acid rain – ½ mark

It is harmful for crops, buildings and soil – any one point -1/2 mark

Q16. Name any two greenhouse gases

Carbon dioxide, Methane, Nitrous oxide, Water vapour

– any two - $1/2 + 1/2 = 1$ mark

Q17. Name any two sources that cause air pollution.

Forest fire, volcanic eruptions, factories, automobiles, burning of fuels like fire wood, cow dung, coal etc.- Any two correct sources - $1/2 + 1/2 = 1$ mark

Q18. State the two factors that have polluted river Ganga.

Increasing population and industrialization - $1/2 + 1/2 = 1$ mark

Q19. What do you understand by the term “phases of the moon”?

The various shapes of the bright part of the moon as seen during a month are called phases of the moon – 1 mark

Q20. a) What is muscular force? Why is it called a contact force?

The force resulting due to the action of muscles – $1/2$ mark

Muscular force can be applied only when it is in contact with an object so it is called contact force - $1/2$ mark

b) Give two examples of non contact forces.

Magnetic force, electrostatic force, force of gravity – any two – $1/2 + 1/2 = 1$ mark

Q21. There are two stones A and B of equal mass. Stone A is kept on a wooden plank of area 5m^2 and stone B is kept on wooden plank of area 2m^2 . Which stone will apply more pressure on the ground? why?.

Stone B – 1mark

Pressure is inversely proportional to area or any other relevant reason – 1mark

Q22. “Friction is a necessary evil.” Justify this statement by giving examples.

Any one advantage and one disadvantage of friction – $1+1 = 2$ marks

Q23. What is drag? State any two factors on which it depends.

The frictional force exerted by fluids – 1mark

Speed with respect to the fluid, shape of the object, nature of the fluid

- any two - $1/2 + 1/2 = 1$ mark

Q24. a) What are Chromosomes? Write its function.

Nucleus contain thread like structures called chromosomes - $1/2$ mark

Carry genes / transfer of characters from the parents to the offspring or any relevant function - any one point - $1/2$ mark

b) Amoeba can change its shape. Give two ways by which this characteristic helps Amoeba.

Help in movement and in capturing food -1/2 +1/2 = 1mark

Q25.a) Name the first artificial fibre. Write any two of its properties.

Nylon -1/2 mark strong, elastic, light, lustrous, not absorb water

-any two correct properties -1/2 +1/2 = 1mark

b) What are biodegradable materials?

A material which gets decomposed through natural process, such as action by bacteria -1/2 mark

Q26. Name the constituent of petroleum which is used for following purposes.

a) Aero plane fuel - **kerosene** b) Solvent for dry cleaning - **petrol**

c) Road surfacing -**Bitumen** d) Fuel for home and industry – **LPG**

- each ½ mark

Q27. What type of combustion is represented by

a) Burning of white phosphorous in air at room temperature?

- Spontaneous combustion

b) Burning of LPG in a gas stove? – **Rapid combustion**

c) Ignition of Crackers? - **Explosion**

d) Burning of coal dust in a coal mine? – **Spontaneous combustion-**

- each ½ mark = 2 marks

Q28. What is smog? Name any two diseases caused by it.

Smog is a mixture of air pollutant which is made up of smoke and fog -1mark

Asthma, cough, wheezing – any two -1 mark

Q29. a) What are constellations?

The stars forming a group that has a recognizable shape – 1 mark

b) Name the brightest star in the night sky and also Name the constellation that helps to locate it.

Sirius - ½ mark

Orion - ½ mark

Q30. a) Write any **two** differences between stars and planets.

stars	planets
Very big	small
Very far	closer
Luminous	Non luminous
Appear to twinkle	Appear to give steady light
Appear as point source	Appear as discs of light

- any two correct differences – 2 marks

b) Give any **two** uses of artificial satellite.

Forecasting weather, transmitting television and radio signals, telecommunication and remote sensing or any two correct uses – 1 marks

Q31. a) What are thermosetting plastics? Give two examples.

Some plastics which when moulded once cannot be softened again by heating are called thermosetting plastics – 1mark Bakelite and melamine – $\frac{1}{2} + \frac{1}{2}$ mark

b) How are they different from thermoplastics in arrangement of their units?

thermo plastics –linear, thermosetting plastics – cross linked arrangements-1mark

Q32. Name any **three** useful products obtained from the coal when it is processed in Industry and also write **one use** of each product.

Coke, coal tar and coal gas -each $\frac{1}{2}$ marks = 1 $\frac{1}{2}$ marks

each use – $\frac{1}{2}$ mark = 1 $\frac{1}{2}$ marks

Q33. a) What is the difference between eukaryotic and prokaryotic cells?

Eukaryotic cells - The cells having well organized nucleus with a nuclear membrane

Prokaryotic cells - The cells having nuclear material without nuclear membrane

- 1mark

b) Name the largest cell. **Largest cell – egg of an Ostrich – $\frac{1}{2}$ mark**

c) Draw a neat diagram of nerve cell and write its function.

Neat diagram - 1 mark it receives and transfers messages – ½ mark

Q34.a) Write any four characteristics of a good fuel.

Readily available, cheap, moderate rate of combustion, high calorific value, does not leave any residue on burning – any four – each 1/2 marks = 2marks

b) You can boil water in a paper cup without burning the paper? Explain.

**The heat supplied to the paper cup is transferred to water by conduction – ½ mark
the water in the paper cup does not allow it to reach its ignition temperature**

-1/2 mark

Q35. Observe the following cell and answer the following questions.

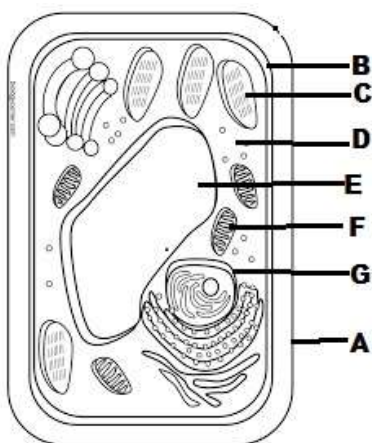
a) Label the parts **B, D & E**.

B- cell membrane

D- Cytoplasm

E- vacuole

each ½ mark = 1 ½ marks



b) Write the function of A, F & G

A – it gives shape and protection

F – produce energy by respiration

G – control the activities of the cell

-each ½ mark = 1 ½ mark

c) Write any two similarities between this cell and the human cheek cell?

Both the cells have nucleus, cell membrane, cytoplasm or Any two correct similarities – 2 mark
