

**Information and Advice**

 The maximum amount of marks for this paper is **35 marks**

 The marks for questions are shown

 You may ask for additional paper and tracing paper if required

**Equipment and Instructions**

 For this paper you must have mathematical instruments

 **You may use a calculator**

 Complete all information on the front cover

 Answer all questions

 Use the space provided to answer all questions

 Show clear working

 Cross through any work you do not want to be marked

**Time Allowed: 35 Minutes**

**Teacher:**

**Surname:**

**Forename:**

**Y8 Science**

**KS3 Summer 2021 Assessments**

1. Which part of a plant cell absorbs energy from the Sun?

|  |  |  |
| --- | --- | --- |
| **A** | Cell membrane |  |
| **B** | Cell wall |  |
| **C** | Chloroplasts  |  |
| **D** | Cytoplasm |  |

**1 mark**

1. Which gas in the air is absorbed by plants for photosynthesis?

|  |  |  |
| --- | --- | --- |
| **A** | Carbon dioxide  |  |
| **B** | Nitrogen |  |
| **C** | Oxygen |  |
| **D** | Sulfur Dioxide |  |

**1 mark**

1. What is a feature of a ciliated cell?

|  |  |  |
| --- | --- | --- |
| **A** | Contains haemoglobin |  |
| **B** | Has a tail |  |
| **C** | Has branches at the end  |  |
| **D** | Has cilia hairs |  |

**1 mark**

1. Which will have the highest boiling point?

|  |  |  |
| --- | --- | --- |
| **A** | Distilled water  |  |
| **B** | Pure water |  |
| **C** | Salty water  |  |
| **D** | Tap water  |  |

**1 mark**

1. When a smell spreads, particles move away from where they originated. This is called .......

|  |  |  |
| --- | --- | --- |
| **A** | Diffusion |  |
| **B** | Condensation |  |
| **C** | Dispersion |  |
| **D** | Evaporation |  |

**1 mark**

1. If you reduce the volume of a gas .......

|  |  |  |
| --- | --- | --- |
| **A** | It expands  |  |
| **B** | It gets bigger  |  |
| **C** | The pressure increases |  |
| **D** | The temperature falls |  |

**1 mark**

1. A balloon is filled with gas. Inside the balloon the gas particles .......

|  |  |  |
| --- | --- | --- |
| **A** | Are avoiding each other  |  |
| **B** | Are moving slowly  |  |
| **C** | Are moving very quickly  |  |
| **D** | Are not moving |  |

**1 mark**

1. If distance is measured in metres and speed in m/s, time is measured in .......

|  |  |  |
| --- | --- | --- |
| **A** | Seconds  |  |
| **B** | Minutes  |  |
| **C** | Hours  |  |
| **D** | None of these |  |

**1 mark**

1. A car travels at 70 mph. How long will it take to travel 210 miles?

|  |  |  |
| --- | --- | --- |
| **A** | 20 minutes  |  |
| **B** | 2.1 hours |  |
| **C** | 3 hours |  |
| **D** | 7 hours |  |

**1 mark**

1. A bus takes 2 hours to travel 40,000 metres. The average speed of the bus in km/h is .......

|  |  |  |
| --- | --- | --- |
| **A** | 2Km/h |  |
| **B** | 20 Km/h |  |
| **C** | 33Km/h |  |
| **D** | 200Km/h |  |

**1 mark**

1. At a joint the ends of the bones are covered in .......

|  |  |  |
| --- | --- | --- |
| **A** | Cartilage  |  |
| **B** | Fluid  |  |
| **C** | Muscles  |  |
| **D** | Tendons  |  |

**1 mark**

1. Bones are held together at a joint by .......

|  |  |  |
| --- | --- | --- |
| **A** | Cartilage  |  |
| **B** | Ligaments  |  |
| **C** | Muscles  |  |
| **D** | tendons |  |

**1 mark**

1. The elbow is a hinge joint. Which is the flexor muscle?

|  |  |  |
| --- | --- | --- |
| **A** | Biceps  |  |
| **B** | Deltoid  |  |
| **C** | Quadriceps |  |
| **D** | Triceps |  |

**1 mark**

1. Antagonistic action of two muscles means .......

|  |  |  |
| --- | --- | --- |
| **A** | Both muscles contract  |  |
| **B** | Both muscles relax |  |
| **C** | As one muscles contracts the other relaxes  |  |
| **D** | Both muscles do nothing  |  |

**1 mark**

1. How will a thin string on a violin vibrate compared to a thick string?

|  |  |  |
| --- | --- | --- |
| **A** | It well vibrate with a greater amplitude  |  |
| **B** | It will vibrate with a greater frequency |  |
| **C** | It will vibrate with a smaller amplitude  |  |
| **D** | It will vibrate with a smaller frequency  |  |

**1 mark**

1. Frequency is measured in .......

|  |  |  |
| --- | --- | --- |
| **A** | Hertz |  |
| **B** | Meters  |  |
| **C** | Ohms |  |
| **D** | Volts  |  |

**1 mark**

1. A loudspeaker changes .......

|  |  |  |
| --- | --- | --- |
| **A** | Electrical energy to sound energy  |  |
| **B** | Potential energy to sound energy  |  |
| **C** | Sound energy to electrical energy  |  |
| **D** | Sound energy to potential energy  |  |

**1 mark**

1. When light travels from air to glass at any angle other than ninety degrees, which of the following is true?

|  |  |  |
| --- | --- | --- |
| **A** | It bends away from the normal  |  |
| **B** | It bends towards the normal  |  |
| **C** | The direction will not change  |  |
| **D** | The speed is unchanged  |  |

**1 mark**

1. Colours are caused by light having different:

|  |  |  |
| --- | --- | --- |
| **A** | Frequencies and speed |  |
| **B** | Frequencies and wavelength  |  |
| **C** | speed |  |
| **D** | Wavelengths and speed |  |

**1 mark**

1. Why does grass look green in daylight?

|  |  |  |
| --- | --- | --- |
| **A** | It absorbs green and yellow light |  |
| **B** | It absorbs green light |  |
| **C** | It reflects green and yellow light |  |
| **D** | It reflects green light |  |

**1 mark**

1. Which is the MAIN energy transfer taking place when a gas fire burns?

|  |  |  |
| --- | --- | --- |
| **A** | Chemical 🡪 sound |  |
| **B** | Chemical 🡪 thermal  |  |
| **C** | Thermal 🡪 chemical |  |
| **D** | Thermal 🡪 light |  |

**1 mark**

1. Which type of energy is stored energy in a stretched rubber band?

|  |  |  |
| --- | --- | --- |
| **A** | Chemical  |  |
| **B** | Elastic  |  |
| **C** | Kinetic  |  |
| **D** | Thermal  |  |

**1 mark**

1. Which one of the following shows discontinuous variation?

|  |  |  |
| --- | --- | --- |
| **A** | Eye colour |  |
| **B** | Height  |  |
| **C** | Strength  |  |
| **D** | Weight  |  |

**1 mark**

1. Which one of the following is an inherited variation?

|  |  |  |
| --- | --- | --- |
| **A** | Blood Group  |  |
| **B** | Long Hair |  |
| **C** | Scar on your Knee  |  |
| **D** | Speaking English  |  |

**1 mark**

1. The list which best describes the properties of metals is .......

|  |  |  |
| --- | --- | --- |
| **A** | Strong, good conductor of heat and electricity, solid  |  |
| **B** | Strong, poor conductor of heat and electricity, shiny  |  |
| **C** | Weak, ductile, good conductor of heat and electricity  |  |
| **D** | Weak, low melting point, poor conductor of heat  |  |

**1 mark**

1. Moments (turning forces) depend on .......

|  |  |  |
| --- | --- | --- |
| **A** | Force and distance from the pivot  |  |
| **B** | Force and mass |  |
| **C** | Force and weight |  |
| **D** | Mass and distance from the pivot |  |

**1 mark**

1. Which one of these describes a metamorphic rock?

|  |  |  |
| --- | --- | --- |
| **A** | A block rock formed on the Earths surface  |  |
| **B** | A glass type rock formed by volcanoes  |  |
| **C** | A rock formed from grains of sand squeezed together  |  |
| **D** | A white rock, showing layers formed by heat and pressure on chalk or lime stone  |  |

**1 mark**

1. Granite is an intrusive igneous rock. Which best describes its characteristics?

|  |  |  |
| --- | --- | --- |
| **A** | A soft rock, small crystals due to fast cooling magma  |  |
| **B** | A hard rock, small crystals due to fast cooling lava  |  |
| **C** | A hard rock, large crystals due to slow cooling of magma |  |
| **D** | A soft rock, small crystals due to fast cooling magma  |  |

**1 mark**

1. In food chains plants are?

|  |  |  |
| --- | --- | --- |
| **A** | Decomposers |  |
| **B** | Herbivores  |  |
| **C** | Primary Consumer  |  |
| **D** | Producers  |  |

**1 mark**

1. In the following food chain 'grass → grasshopper → rat → snake → hawk', the rat is:

|  |  |  |
| --- | --- | --- |
| **A** | A herbivore  |  |
| **B** | The primary consumer  |  |
| **C** | The secondary consumer  |  |
| **D** | The top carnivore  |  |

**1 mark**

1. The life support system for a baby is in:

|  |  |  |
| --- | --- | --- |
| **A** | The ovary  |  |
| **B** | The oviduct  |  |
| **C** | The uterus  |  |
| **D** | The Vagina  |  |

**1 mark**

1. Choose the correct order leading to a fertilised egg attaching itself to the uterus wall

|  |  |  |
| --- | --- | --- |
| **A** | Cell division, ovulation, fertilisation, implantation |  |
| **B** | Ovulation, fertilisation, cell division, implantation |  |
| **C** | Implantation, cell division, ovulation, fertilisation |  |
| **D** | Fertilisation, cell division, implantation, ovulation |  |

**1 mark**

1. Which of the following statements about balanced forces is NOT true?

|  |  |  |
| --- | --- | --- |
| **A** | A moving object will continue to move at a constant speed |  |
| **B** | A stationary object will not move  |  |
| **C** | They are the same size acting in the opposite directions |  |
| **D** | They are the same size acting the same direction |  |

**1 mark**

1. On Jupiter, 1kg weighs approximately 25 newtons. What would be the weight of 100g?

|  |  |  |
| --- | --- | --- |
| **A** | 0.25N |  |
| **B** | 2.5N |  |
| **C** | 250N |  |
| **D** | 2500N |  |

**1 mark**

1. Which of these show a diatomic element?

|  |  |  |
| --- | --- | --- |
| **A** | CO |  |
| **B** | H2 |  |
| **C** | He |  |
| **D** | SO2 |  |

**1 mark**