|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CODE No.KVS/GR/SC/HY | | | | Total Pages: 3 | | | |
| KENDRIYA VIDYALAYA SANGATHAN  GUWAHATI REGION  H. YEARLY EXAM SESSION 2018-19 | | | | | | | |
| SUBJECT | | SCIENCE |  | | CLASS: | IX | |
| TIME | | 3 HOURS |  | | Max.Marks: | 80 | |
| Instructions : | | | | | | | |
| **1. All questions are compulsory.   5. Question numbers 1 to 2 are 1 mark questions. These are to be answered in one word or one sentence.   6. Question numbers 3 to 5 are two marks questions, to be answered in about 30 words.   7. Question number 6 to 15 are three marks questions, to be answered in about 50 words.   8. Question number 16 to 21 are five mark questions, to be answered in about 70 words.   9. Question numbers 22 to 27 are two marks based on practical skills.** | | | | | | | |
|  | **SECTION - A** | | | | | |  |
| Q.1 | Name the two organelles that contain their own genetic material. | | | | | | 1 |
| Q.2 | What is meant by term chemical formula? | | | | | | 1 |
| Q.3 | Write any two conditions essential for good health? | | | | | | 2 |
| Q.4 | Convert the following temperature to Celsius scale.   1. 300 K (b) 573 K | | | | | | 2 |
| Q.5 | Why does an object float or sink when placed on the surface of water? | | | | | | 2 |
| Q.6 | How are colloidal solution, solution and suspension different from each other. Give one example of each. | | | | | | 3 |
| Q.7 | Write three differences between mixture and compound. | | | | | | 3 | |
| Q.8 | Write Archimedes’ principle of buoyancy and any two applications based on it. | | | | | | 3 | |
| Q.9 | What happens to the gravitational force between two objects if   1. The mass of one object is doubled. 2. The distance the object is tripled. 3. The masses of both objects are doubled. | | | | | | 3 | |
| Q.10 | Give reasons   1. How does the water kept in an earthen pot become cool during summer? 2. For any substance, why does the temperature remain constant during change of state. 3. A gas fills completely the vessel in which it is kept. | | | | | | 3 | |
| Q.11 | Give the name of elements present in the following compounds.   1. Quick lime (b) Baking powder (c) Potassium Sulphate | | | | | | 3 | |
| Q.12 | Give reason   1. Lysosomes are known as suicide bag. 2. Plasma membrane is called selectively permeable membrane 3. Mitochondria is called power house of the cell.   OR  Draw well labelled diagram of plant cell. | | | | | | 3 | |
| Q.13 | A stone is thrown in a vertically upward direction with a velocity of 5 m per second. If the acceleration of stone during its motion is 10 ms**-2** in the downward direction, what will be the height attained by the stone and how much time will it take to reach there? | | | | | | 3 | |
| Q.14 | Give Reasons   1. When a carpet is beaten with stick dust comes out of it. 2. You fall in the forward direction when a moving bus brakes to a stop. 3. If action is always equal to reaction, explain how a horse can pull a cart. | | | | | | 3 | |
| Q.15 | Who discovered cell? Why is the cell called the structural & functional unit of life? | | | | | | 3 | |
| Q.16 | (A)What are the different means by which infectious disease are spread?( Write any three means)  (B) What precautions can you take to reduce the incidence of infectious disease? ( Any two) | | | | | | 3  2 | |
| Q.17 | (A) Write the molecular formula of  (i) Magnesium hydroxide (ii) Sodium sulphide (iii) Aluminium sulphate  (B) Calculate the molar mass of (i) Nitric acid (HNO**3**) (ii) Ethyne (C**2**H**2**) | | | | | | 3  2 | |
| Q.18 | How is a prokaryotic cell different from eukaryotic cell (Any three differences)? Draw labelled diagram of prokaryotic cell. | | | | | | 5 | |
| Q.19 | What do you mean by evaporation? What are the factors affecting the rate of evaporation and how? (Explain any three factors) | | | | | | 5 | |
| Q.20 | (A) Derive the second equation of motion ( **s = ut + ½ at2** ) numerically or graphically.  (B) A racing car has a uniform acceleration of 4 m s**-2**. What distance will it cover in 10 second after starting from rest? | | | | | | 3  2 | |
| Q.21 | Write the statement of law of conservation of momentum. Derive the law of conservation of momentum from Newton’s third law. **OR**   1. Write the statement of Newton’s second law of motion. 2. A motorcar is moving with a velocity of 108 km per hour and it takes 4 second to stop after brakes are applied. Calculate the force exerted by the brakes on motorcar if its mass along with passenger is 1000 kg? | | | | | | 2  3 | |
|  | **SECTION - B** | | | | | |  | |
| Q.22 | If an object weighing 50 N displaces water weighing 10 N, then find the buoyant force of water on object. What will be the weight of object in water? | | | | | | 2 | |
| Q.23 | How are cell wall & plasma membrane different? | | | | | | 2 | |
| Q.24 | Mass of cubical copper block of 2 cm side is 64 gm. Calculate the density of copper in SI unit. | | | | | | 2 | |
| Q.25 | Write melting point of ice and boiling point of water in degree centigrade and kelvin scale. | | | | | | 2 | |
| Q.26 | Find the least count of spring balance having 10 divisions between 0 to 20 gwt. | | | | | | 2 | |
| Q.27 | How can we separate a mixture of salt and ammonium chloride? | | | | | | 2 | |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*