**1. Multiple Choice: 1: Electrons are usually lost by.......**

|  |  |
| --- | --- |
| **Question** | Electrons are usually lost by....... |
| **Answer** | Question 1 - Correct Answer1 Metals  non-metals  inert gases  Metalloids |

* **2. Multiple Choice: 2: Which property of metals is better th...**

|  |  |
| --- | --- |
| **Question** | Which property of metals is better than ceramics? |
| **Answer** | Hardness  Question 2 - Correct Answer2 Ductility  Toughness  Thermal insulation |

* **3. Multiple Choice: 3: When two identical atoms share electr...**

|  |  |
| --- | --- |
| **Question** | When two identical atoms share electron pairs and exert force on each other then the bond formed is |
| **Answer** | polar covalent bond  ionic bond  Question 3 - Correct Answer3 non-polar covalent bond  double covalent bond |

* **4. Multiple Choice: 4: Salient feature of Silicon age (1950 ...**

|  |  |
| --- | --- |
| **Question** | Salient feature of Silicon age (1950 - present) was |
| **Answer** | Ability to mould cast iron  Question 4 - Correct Answer2 Ability to make thin films  Ability to oxidize silicon  Ability to melt silicates to form glass |

* **5. Multiple Choice: 5: Identify the hardest metal from the f...**

|  |  |
| --- | --- |
| **Question** | Identify the hardest metal from the following |
| **Answer** | Diamond  Silicon Carbide  Sodium  Question 5 - Correct Answer4 Tungsten |

* **6. Multiple Choice: 6: Glass is an example of which class of...**

|  |  |
| --- | --- |
| **Question** | Glass is an example of which class of materials. |
| **Answer** | Metals  Polymers  Question 6 - Correct Answer3 Ceramics  Composites |

* **7. Multiple Choice: 7: Which of the following is not an appl...**

|  |  |
| --- | --- |
| **Question** | Which of the following is not an application of Biomaterials? |
| **Answer** | Heart valve replacement  Vascular graft  Question 7 - Correct Answer3 Heart transplant  Hip replacement |

* **8. Multiple Choice: 8: Which of the following is a type of a...**

|  |  |
| --- | --- |
| **Question** | Which of the following is a type of actuator? |
| **Answer** | quantum dots  Question 8 - Correct Answer2 magnetostrictive materials  nanomaterials  Carbon nano tubes (CNT) |

* **9. Multiple Choice: 9: In an atomic model, degenerate energy...**

|  |  |
| --- | --- |
| **Question** | In an atomic model, degenerate energy levels have: |
| **Answer** | Question 9 - Correct Answer1Equal energy  Same shape  Equal number of electrons  Electrons with the same spin |

* **10. Multiple Choice: 10: How many orbitals can have the follow...**

|  |  |
| --- | --- |
| **Question** | How many orbitals can have the following quantum numbers, n = 3, l = 1, ml = 0? |
| **Answer** | Question 10 - Correct Answer1 1  2  3  4 |

* **11. Multiple Choice: 11: The order of increasing energy of orb...**

|  |  |
| --- | --- |
| **Question** | The order of increasing energy of orbitals in the sixth row of periodic table is |
| **Answer** | 6s 5f 5d 6p  6s 6p 4f 5d  6s 6p 6d 6f  Question 11 - Correct Answer4 6s 4f 5d 6p |

* **12. Multiple Choice: 12: Which of the following is a possible ...**

|  |  |
| --- | --- |
| **Question** | Which of the following is a possible set of 4 quantum numbers for 4d electrons |
| **Answer** | 4, 3, 3, +1/2  Question 12 - Correct Answer2 4, 2, 1, +1/2  4, 2, 1, 0  4, 3, 2, -1/2 |

* **13. Multiple Choice: 13: The most elastic material among the f...**

|  |  |
| --- | --- |
| **Question** | The most elastic material among the following is \_\_\_\_\_\_\_\_\_. |
| **Answer** | Rubber  Brass  Question 13 - Correct Answer3 Steel  Glass |

* **14. Multiple Choice: 14: Hydrogen bonds are stronger than**

|  |  |
| --- | --- |
| **Question** | Hydrogen bonds are stronger than |
| **Answer** | Ionic bonds  covalent bonds  metallic bonds  Question 14 - Correct Answer4 van der Waals bonds |

* **15. True/False: 15: Melting point temperature is higher o...**

|  |  |
| --- | --- |
| **Question** | Melting point temperature is higher of a material if the bond energy is lower. |
| **Answer** | |  |  | | --- | --- | |  | True | | Question 15 - Correct Answer - False | False | |