**< DE/EJ/ET/EN/EX/EQ/IE/IS/IC >: < 22636> : < Emerging Trends in Electronics >:**

**< Recent Electronic Components >: <UO2a.2: Describe the Li-ion and Nuclear types of battery**.**>**

**<Assessments>: <Formative>**

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| **Set 1: Question No 1** | **Set 1: Question No 2** | **Set 1: Question No 3** |
| 1. A Lithium-ion battery is rechargeable electrochemical battery converting \_\_\_\_\_\_\_\_ energy into \_\_\_\_\_\_ energy | 1. Mostly Non-aqueous electrolyte is used in Li-ion battery because \_\_\_\_\_\_\_ | 1. In Li-ion battery, the ………………. is/are lithium ion based |
| **Recall/ Remembering** | **Understanding** | **Application** |
| a) chemical , electrical | a)Aqueous medium is not conductive   1. Aqueous medium is not conductive 2. Aqueous medium is not conductive | a) Negative Electrode |
| b) mechanical, electrical | b) Non aqueous medium is conductive | b) Positive electrode   1. Positive electrode 2. Positive electrode |
| c) electrical, mechanical | c) Pure lithium is very inactive | c) Positive & Negative Electrode |
| d) negative, positive | d)Pure lithium is very reactive | d) Electrolyte electrode |
| **Ans: (a)** | **Ans: (d)** | **Ans: (b)** |

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| **Set 2: Question No 1** | **Set 2: Question No 2** | **Set 2: Question No 3** |
| 1. A nuclear battery uses energy from\_\_\_\_\_\_\_\_ to generate electricity. | 1. Nuclear batteries are very \_\_\_\_but have an extremely \_\_\_\_\_\_ and high energy density compared to other batteries. | 1. Nuclear batteries are used in \_\_\_\_\_applications due to its compact insize and light weightand long lasting reliable voltage supply, independent of atmospheric conditions. |
| **Recall/ Remembering** | **Understanding** | **Application** |
| a) Hydrocarbon | a) cheap, short life | a) Space |
| b) decay of radioactive isotope | b) costly, short life | b) medical |
| c) Hydrogen | c) cheap, long life | c) defence |
| d) chain reaction of radioactive element   1. chain reaction of radioactive element   cha   1. chain reaction of radioactive element | d) costly , long life | d) industry |
| **Ans: (b)** | **Ans: (d)** | **Ans: (a)** |