**NAME OF SUBJECT TEACHER: MR SOLOMON UWAOMA**

**CLASS: SS3**

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**SUBJECT: BASIC ELECTRICITY**

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|  | **TOPIC** | **CONTENT** | **PERFORMANCE OBJECTIVES** | **PRACTICE QUESTIONS** |
| 1. | **ENERGY CONVERSION** | -concept of energy  -relationship between the various types of energy  -process of energy conversion . | Explain the meaning of energy conversion.  Explain relationship between electrical, mechanical and thermal energy.  Explain the process of energy conversion. | 1. explain the concept of energy  2. Identifies the sources of various energy generation.  3. Explain the processes of energy conversion |
| 2. | **Transformers(Features and Operational)** | -features of transformer  -classification of transformers: single phase, three phase, shell type and core type  -working principle of transformers including transformation ratio. | -Identify the basic constructional features of a transformer.  -Classify transformers by phase and by core.  -Explain the working principles of a transformer including transformation ratio. | 1. Explain the working principles of transformer  2. Explain how to calculate transformer ratio  3. Draw a transformer, identify and explain its parts.  4. Explain the various classes of transformer |
| 3. | **Transformers efficiency, Cooling Losses and Application** | -transformer efficiency  -methods of cooling transformers  -transformer losses  -application of tramsformers | -Explains and calculate efficiency of transformers  -State methods of cooling a transformer.  -List transformer losses.  -State application of a transformer. | 1. What is transformer efficiency  2. explain the various transformer losses  3. Explain the various methods of cooling a transformer.  4. State any two applications of a transformer. |
| 4. | **EARTHING** | -important of earthing  -methods of earthing  -accessories for earthing | State the meaning of earthing.  Describe the process of earthing. | 1. What is function of an earth leakage circuit breaker(ELCB)  2. Describe the various methods of earthing  3. Explain earth faults  4. Mention any two earthing accessories. |