Date: 25-04-2019

**Summary Report on WIT & WIL**

**(Daily Report)**

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| **Name of the Faculty: Dr. L. SRINIVASA RAO** | **Name of Subject: ENGINEERING PHYSICS** |
| **Class/Section: I-B.TECH. II SEMESTER (EIE-A)** | |

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|  | Grid Reference No.: | 6 | |
|  | Scenario Reference No.  (Mapping with Syllabus) |  | |
|  | Topic covered in every class | **Unit-6:** **Engineered Semiconductor Materials - (Revision)** | |
|  | Brief write-up (500 words) for every class:  We have revised the details about Direct and Indirect band gap semiconductors. We also focused on p-n junction diode. Then we went in depth into the concepts of Working principle of LED. We have summarized on V-I characteristics of Solar Cell.  **Applications of PN junction diode:**   1. Transistors, Voltage regulators, Rectifiers, Oscillators, Multi-vibrators etc. 2. LEDs and Photo cells 3. Clamping circuits for DC distortion 4. Clipping circuit for wave shaping 5. Electronics and Communication systems.   **Applications of LED:**   1. LED displays (like LED bulbs, LED display panels, Traffic signal lights etc.) 2. LEDs used in Communication systems for modulation process. 3. TV Screens and Backlighting 4. Smartphone Screens and Backlighting 5. Automotive head lamps 6. Dimming of lights for Aviation. 7. Medical devices like light healing for muscle pains. 8. Camera flashes etc.   **Applications of Solar Cell:**   1. Solar modules (power stations) that generate electrical power from sunlight. 2. Solar ovens 3. Photo-voltaic cell used in communication for demodulation process. 4. Solar automatic street lights 5. Solar vehicles 6. Solar satellite panels etc.   **LED Display Panel at Railway Station**    **Laser Diode for OFC**    **Transient Voltage Suppression Diode**    **Solar Panels at Satellite Solar Car**  Image result for solar panels in satellite | | |
|  | Relevant additional illustration if any: | | |
|  | Video Links/Web Links if any: | | <https://www.youtube.com/watch?v=8S5hNYepw14> |
|  | Signature of Repository Administrator: | |  |