

# **J. H. Govt. P.G. College Betul (M.P.)**

## **Department of Physics**

### **List of Experiments Session: 2023-24**

#### **Class B.Sc.-III (Minor/Elective)**

<b>S. No.</b>	<b>Name of Experiments</b>
<b>1</b>	<b>To Study the characteristic curve of a PN Junction diode.</b>
<b>2</b>	<b>To Study the characteristic curve of a Zener diode.</b>
<b>3</b>	<b>To Study the characteristic curve of a Light Emitting diode (LED).</b>
<b>4</b>	<b>To determine the energy band gap of a semiconductor using PN diode (reverse bias).</b>
<b>5</b>	<b>To determine ripple factor of half wave and full wave rectifier.</b>
<b>6</b>	<b>To study characteristics curves of PNP/NPN transistor in common base mode configuration and determination current gain.</b>
<b>7</b>	<b>To study characteristics curves of PNP/NPN transistor in common emitter mode configuration and determination current gain.</b>
<b>8</b>	<b>To study characteristics curves of junction field effect transistor (JFET).</b>
<b>9</b>	<b>To study frequency response curves of single stage RC amplifiers in CE mode.</b>
<b>10</b>	<b>Study of characteristic curve of solar cell</b>

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#### **Class B.Sc.-III (Major)**

<b>S. No.</b>	<b>Name of Experiments</b>
<b>1</b>	<b>Measurement of wavelength of mercury source spectrum by constant deviation spectrograph and celebration of drum.</b>
<b>2</b>	<b>Determination of wavelength of sodium light source with the help of plane transmission grating.</b>
<b>3</b>	<b>Verification of Fresnel's law of reflection.</b>
<b>4</b>	<b>Verify Cauchy's formula using spectrometer.</b>
<b>5</b>	<b>Determination of Stefan's constant.</b>
<b>6</b>	<b>To draw the characteristic curve of Photo cell.</b>
<b>7</b>	<b>Determination of resolving power of plane transmission grating with the help of spectrometer.</b>
<b>8</b>	<b>To determine the resolving power of telescope.</b>
<b>9</b>	<b>To verify Brewster's law with the help of spectrometer.</b>
<b>10</b>	<b>To determine the wavelength of sodium light using calcite prism.</b>
<b>11</b>	<b>To Study the characteristic curve of a PN Junction diode.</b>
<b>12</b>	<b>To Study the characteristic curve of a Zener diode.</b>
<b>13</b>	<b>To Study the characteristic curve of a Light Emitting diode (LED).</b>
<b>14</b>	<b>To determine the energy band gap of a semiconductor using PN diode (reverse bias).</b>
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