

#### 4.20.2 Electricity Paper 2 (448/2)

##### EXERCISE 1

(b)	As per the sample data of measured values of current (6 x 1) and voltage.	<b>6</b>
(c)	As per the sample data of calculated power. (6 x 1)	<b>6</b>
(d)	<ul style="list-style-type: none"> <li>– Parallax errors</li> <li>– Meter zeroing</li> <li>– Temperature changes.</li> </ul>	<b>1</b>

##### EXERCISE 3

(b)	Current values per the sample data. (7 x ½)	<b>3½</b>
(c)	Power dissipated as per the sample data. (7 x ½)	<b>3½</b>
(d)	<ul style="list-style-type: none"> <li>– Axes (2 x ½)</li> <li>– Plotting (7 x ½)</li> <li>– Joining curve (1 x ½)</li> </ul>	<b>1</b> <b>3½</b> <b>½</b>
(e)	(i) Maximum power dissipated. (1 x 1) (ii) Resistance of the potentiometer at maximum power. (1 x 1)	<b>1</b> <b>1</b>
(f)	Maximum power transfer. (1 x 1)	<b>1</b>

##### EXERCISE 4

(c)	As per the sample data. (14 x ½)	<b>7</b>
(d)	<ul style="list-style-type: none"> <li>– Axes (2 x ½)</li> <li>– Plotting (7 x ½)</li> <li>– Joining curve (1 x ½)</li> </ul>	<b>1</b> <b>3½</b> <b>½</b>
(e)	<ul style="list-style-type: none"> <li>– Forward biasing of a diode.</li> <li>– As a rectifier.</li> </ul> (Any 1 x 1)	<b>1</b>
(f)	The device P is a P-n junction diode. (1 x 1)	<b>1</b>