## GCSE

## Science: (Modular) Physics

## Module 23

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## Physics in Action : Foundation Tier

| Question <br> No. | KEY |
| :---: | :---: |
| One | $\begin{aligned} & 1 \text { - resistor } \\ & 2 \text { - LED (light-emitting diode) } \\ & 3 \text { - capacitor } \\ & 4 \text { - NOT gate } \end{aligned}$ |
| Two | $\begin{aligned} & 1 \text { - LED (light-emitting diode) } \\ & 2 \text { - NOT gate } \\ & 3 \text { - resistor } \\ & 4 \text { - capacitor } \\ & \hline \end{aligned}$ |
| Three | $\begin{aligned} & \hline 1 \text { - lens } \\ & 2 \text { - converge } \\ & 3 \text { - focus } \\ & 4 \text { - burn } \\ & \hline \end{aligned}$ |
| Four | $\begin{aligned} & 1-\text { object } \\ & 2-\text { lens } \\ & 3 \text { - image } \\ & 4-\text { film } \\ & \hline \end{aligned}$ |
| Five | 1 - must be a NOT gate <br> 2 - could be an AND gate or an OR gate <br> 3 - must be an OR gate <br> 4 - must be an AND gate |
| Six | $\begin{aligned} & \mathrm{P} \\ & \mathrm{R} \end{aligned}$ |
| Seven | $\begin{aligned} & \mathrm{J} \\ & \mathrm{~N} \end{aligned}$ |
| Eight | $8.1-\mathrm{C}, 8.2-\mathrm{B}, 8.3-\mathrm{D}, 8.4-\mathrm{A}$ |
| Nine | 9.1-C, $9.2-\mathrm{A}, ~ 9.3-\mathrm{C}, ~ 9.4-\mathrm{B}$ |
| Ten | 10.1 - D, 10.2-A, 10.3-C, 10.4-A |

## Physics in Action : Higher Tier

| Question No. | KEY |
| :---: | :---: |
| One | 1 - must be a NOT gate <br> 2 - could be an AND gate or an OR gate <br> 3 - must be an OR gate <br> 4 - must be an AND gate |
| Two | 1 - resistance of the LDR becomes very large <br> 2 - potential difference across $X$ becomes very small <br> 3 - NOT gate output goes to high <br> 4 - current flows through the LED |
| Three | $\begin{aligned} & \hline \mathrm{J} \\ & \mathrm{~N} \\ & \hline \end{aligned}$ |
| Four | $\begin{aligned} & \mathrm{V} \\ & \mathrm{~W} \end{aligned}$ |
| Five | 5.1 - C, 5.2 - B, 5.3 - D, 5.4 - A |
| Six | $6.1-\mathrm{C}, 6.2-\mathrm{A}, 6.3-\mathrm{C}, 6.4-\mathrm{B}$ |
| Seven | $7.1-\mathrm{D}, 7.2-\mathrm{A}, 7.3-\mathrm{C}, 7.4-\mathrm{A}$ |
| Eight | 8.1 - B, $8.2-\mathrm{B}, 8.3-\mathrm{B}, 8.4-\mathrm{A}$ |
| Nine | 9.1 -B, $9.2-\mathrm{A}, 9.3-\mathrm{D}, 9.4-\mathrm{A}$ |
| Ten | 10.1 - B, 10.2-B, 10.3-B, 10.4-A |

