

# Mark scheme March 2006 

## GCSE

## Science: (Modular) Physics

## Module 23

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## Physics in Action: Foundation Tier

| $\begin{gathered} \hline \text { Question } \\ \text { No. } \\ \hline \end{gathered}$ | KEY |
| :---: | :---: |
| One | $\begin{aligned} & \hline 1 \text { - parallel } \\ & 2 \text { - real } \\ & 3 \text { - sharp } \\ & 4 \text { - focus } \\ & \hline \end{aligned}$ |
| Two | 1 - the thermistor gives a low output <br> 2 - the heater switches on <br> 3 - the thermistor gives a high output <br> 4 - the heater switches off |
| Three | $\begin{aligned} & 1 \text { - relay } \\ & 2 \text { - LED (light-emitting diode) } \\ & \text { 3 - NOT gate } \\ & \text { 4 - AND gate } \\ & \hline \end{aligned}$ |
| Four | $\begin{aligned} & \hline 1 \text { - relay } \\ & 2-\text { LDR } \\ & 3 \text { - LED } \\ & 4 \text { - buzzer } \end{aligned}$ |
| Five | $\begin{aligned} & 1 \text { - charge } \\ & 2 \text { - potential difference } \\ & 3 \text { - current } \\ & 4 \text { - resistance } \end{aligned}$ |
| Six | moisture switch thermistor |
| Seven | $\begin{aligned} & \hline \mathrm{J} \\ & \mathrm{M} \\ & \hline \end{aligned}$ |
| Eight | $8.1-\mathrm{C}, 8.2-\mathrm{C}, 8.3-\mathrm{C}, 8.4-\mathrm{A}$ |
| Nine | 9.1-B, $9.2-\mathrm{B}, 9.3-\mathrm{D}, 9.4-\mathrm{C}$ |
| Ten | 10.1 - B, 10.2-D, 10.3-A, 10.4-C |

## Physics in Action: Higher Tier

| $\begin{gathered} \hline \text { Question } \\ \text { No. } \\ \hline \end{gathered}$ | KEY |
| :---: | :---: |
| One | $\begin{aligned} & \hline 1 \text { - charge } \\ & 2 \text { - potential difference } \\ & 3 \text { - current } \\ & 4 \text { - resistance } \\ & \hline \end{aligned}$ |
| Two | 1 - illuminated <br> 2 - as shown <br> 3 - darkened <br> 4 - reversed |
| Three | $\begin{aligned} & \hline \mathrm{J} \\ & \mathrm{M} \end{aligned}$ |
| Four | 1 is the converging lens and 3 is the flat glass sheet 2 is the diverging lens and 3 is the flat glass sheet |
| Five | $5.1-\mathrm{C}, 5.2-\mathrm{C}, 5.3-\mathrm{C}, 5.4-\mathrm{A}$ |
| Six | $6.1-\mathrm{B}, 6.2-\mathrm{B}, 6.3-\mathrm{D}, 6.4-\mathrm{C}$ |
| Seven | $7.1-\mathrm{B}, 7.2-\mathrm{D}, 7.3-\mathrm{A}, 7.4$ - C |
| Eight | $8.1-\mathrm{D}, 8.2-\mathrm{B}, 8.3-\mathrm{A}, 8.4-\mathrm{D}$ |
| Nine | 9.1 -D, 9.2 - B, 9.3 - A, 9.4 - C |
| Ten | 10.1 - D, 10.2-C, 10.3-D, 10.4-B |

