

| Question | Answer  | Marks | AO Element | Notes        | Guidance |
|----------|---|-------|------------|--------------|----------|
| 1        | B - motor nerve   | 1     |            |              |          |
| 2        | central <u>and</u> peripheral (nervous system) ;  | 1     |            |              |          |
| 3        | automatic / fast / protective / involuntary / predictable for a specific stimulus / unconscious ; | 1     |            |              |          |
| 4        | H: motor (neurone) ;<br>K: sensory (neurone) ;  | 2     |            |              |          |
| 5        | pupil response to light / AVP ;   | 1     |            |              |          |
| 6        | coordination / regulation, of body functions ;  | 1     |            |              |          |
| 7        | brain ;<br>spinal cord ;  | 2     |            | either order |          |

| Question    | Answer  | Marks | AO Element | Notes | Guidance |
|-------------|---|-------|------------|-------|----------|
| 8           | <p><i>any three from:</i><br/>                     drug <b>X</b> blocks, <b>D</b> / receptor (molecules) ;<br/>                     neurotransmitters are not able to bind to, <b>D</b> / receptor (molecules) ;<br/>                     drug <b>X</b> is similar in shape to neurotransmitter / complementary to shape of receptor (molecule) ;<br/>                     drug <b>X</b> stops, impulse/electrical signal, being transmitted in relay neurone ;<br/>                     (so) less / no, pain felt with drug <b>X</b> ;</p> | 3     |            |       |          |
| 9           | <p>motor / effector, (neurone) ;<br/>                     impulse ;<br/>                     synapse ;</p>  | 3     |            |       |          |
| [Total: 15] |   |       |            |       |          |