

58th INTERNATIONAL CHEMISTRY OLYMPIAD 2026 UK Round One STUDENT ANSWER BOOKLET

In order to print your certificate, we need to store your name, school, and mark in a database for up to 12 months: these details are only viewable by your school and the RSC Chemistry Olympiad project team.

Your participation in the competition indicates that you are happy for us to do this.

Please PRINT details clearly using CAPITAL LETTERS:

First name

Surname (Family name)

Nationality

Date of birth

School name

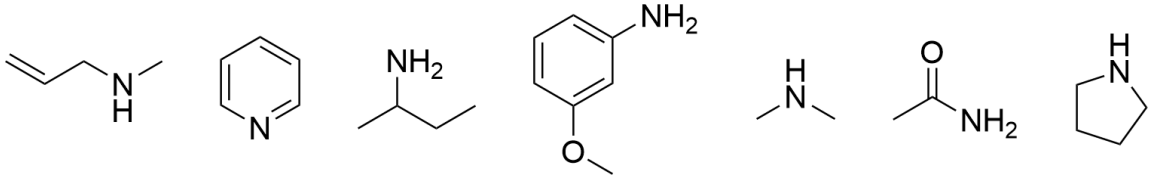
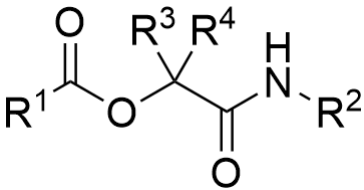
School Year (e.g., Year 12, Scottish Higher)

Date paper taken/...../2026

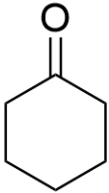
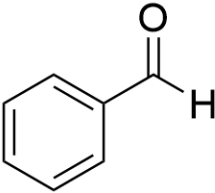
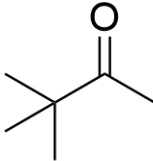
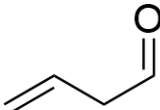
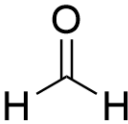
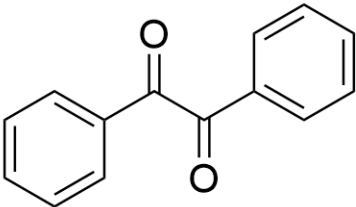
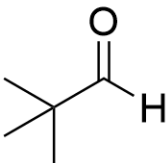
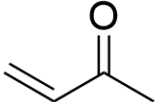
| Question | 1 | 2 | 3 | 4 | 5 | Total |
|-----------------|---|----|----|----|----|-------|
| Marks Available | 8 | 18 | 19 | 26 | 13 | 84 |
| Marks Scored | | | | | | |

| 1. | This question is about pee in the pool | | | Mark |
|-----|--|------|-----|-----------------------------------|
| (a) | Cl ₂ | HOCl | HCl | <div><div></div><div></div></div> |
| (b) | | | | <div><div></div></div> |
| (c) | (i) | | | <div><div></div></div> |
| | (ii) | | | <div><div></div></div> |
| (d) | | | | <div><div></div></div> |
| (e) | | | | <div><div></div></div> |
| (f) | | | | <div><div></div></div> |
| | Total out of 8 | | | |

| 2. | This question is about isocyanides | Mark |
|-----|------------------------------------|--|
| (a) | | <input data-bbox="1401 241 1481 320" type="checkbox"/> |
| (b) | (i) | <input data-bbox="1401 477 1481 555" type="checkbox"/> |
| | (ii) | <input data-bbox="1401 685 1481 763" type="checkbox"/> |
| (c) | | <input data-bbox="1401 913 1481 992" type="checkbox"/> |
| (d) | (i) C | <input data-bbox="1401 1283 1481 1361" type="checkbox"/> |
| | (ii) D | <input data-bbox="1401 1675 1481 1753" type="checkbox"/> |

| | | |
|-----|---|--|
| (e) | | <input type="checkbox"/> |
| (f) |  | <input type="checkbox"/> <input type="checkbox"/> |
| (g) | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| (h) | | <input type="checkbox"/> |
| (i) |  | <input type="checkbox"/> |

| | | |
|------------------------|--|--------------------------|
| (j) | | <input type="checkbox"/> |
| | | <input type="checkbox"/> |
| (k) | | <input type="checkbox"/> |
| | | <input type="checkbox"/> |
| <i>Total out of 18</i> | | <input type="checkbox"/> |

| 3. | This question is about compounds in henna tattoos | Mark |
|-----|---|--|
| (a) | | <input data-bbox="1401 271 1481 353" type="checkbox"/> |
| (b) | | <input data-bbox="1401 591 1481 674" type="checkbox"/> <input data-bbox="1401 725 1481 808" type="checkbox"/> |
| (c) | <div data-bbox="236 987 344 1178"></div> <div data-bbox="517 987 732 1178"></div> <div data-bbox="906 1003 1059 1162"></div> <div data-bbox="1166 1025 1326 1133"></div> <div data-bbox="225 1263 352 1386"></div> <div data-bbox="448 1218 804 1424"></div> <div data-bbox="900 1240 1067 1402"></div> <div data-bbox="1171 1274 1326 1375"></div> | <input data-bbox="1401 1093 1481 1176" type="checkbox"/> <input data-bbox="1401 1227 1481 1310" type="checkbox"/> |
| (d) | (i) and (ii) | <input data-bbox="1401 1525 1481 1608" type="checkbox"/> <input data-bbox="1401 1659 1481 1742" type="checkbox"/> <input data-bbox="1401 1794 1481 1877" type="checkbox"/> |

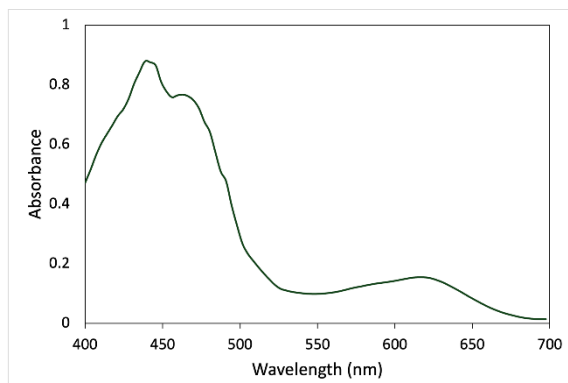
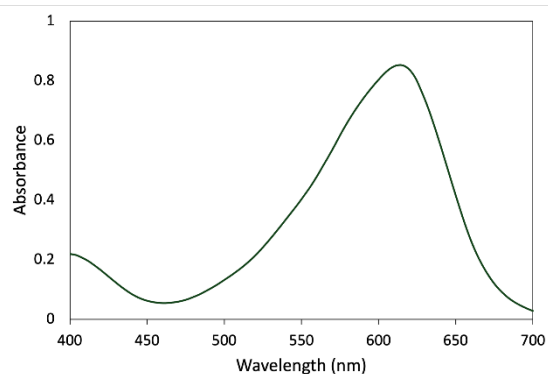
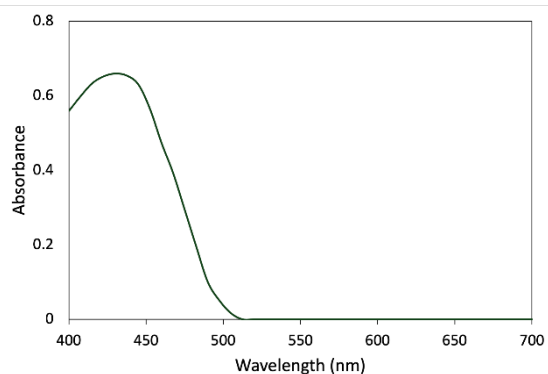
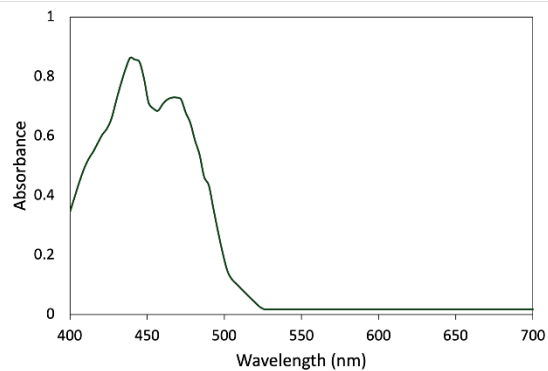
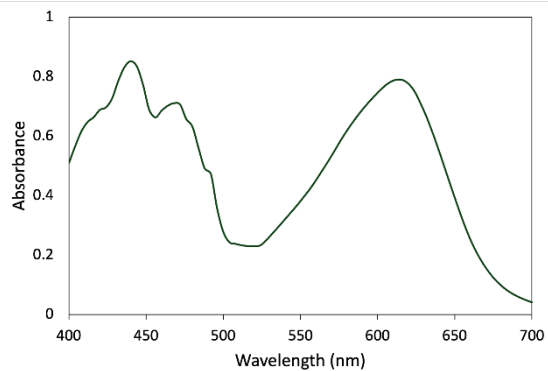
| | | | | | | |
|-----|---|--|-----------|-----------|------------|--|
| (e) | electrophilic aromatic substitution | nucleophilic aromatic substitution | reduction | oxidation | hydrolysis | <input type="checkbox"/> |
| | | | | | | |
| (f) | (i) | | | | | <input type="checkbox"/> |
| | (ii) | | | | | <input type="checkbox"/> |
| (g) | (i) | | | | | <input type="checkbox"/> |
| | (ii) | | | | | <input type="checkbox"/> <input type="checkbox"/> |

| | | |
|------------------------|--|--|
| (h) | | <input type="checkbox"/> |
| (i) | | <input type="checkbox"/> <input type="checkbox"/> |
| (j) | | <input type="checkbox"/> <input type="checkbox"/> |
| <i>Total out of 19</i> | | <input type="checkbox"/> |

| | | | | | | | | | |
|--------------|--|--------------|--|--------------|--|--|--------------------------|--|--------------------------|
| | (ii) | | <input type="checkbox"/> | | | | | | |
| (f) | <table><tr><td>yes</td><td>no</td></tr><tr><td></td><td></td></tr></table> | yes | no | | | | <input type="checkbox"/> | | |
| yes | no | | | | | | | | |
| | | | | | | | | | |
| (g) | <table><tr><td>it decreases</td><td>it stays the same</td><td>it increases</td></tr><tr><td></td><td></td><td></td></tr></table> | it decreases | it stays the same | it increases | | | | | <input type="checkbox"/> |
| it decreases | it stays the same | it increases | | | | | | | |
| | | | | | | | | | |
| (h) | | | <input type="checkbox"/> <input type="checkbox"/> | | | | | | |
| (i) | A | B | <input type="checkbox"/> <input type="checkbox"/> | | | | | | |
| | C | D | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | | |

| | | | | | |
|-----|------|--------|--------|-----|--------------------------|
| E | | | | | <input type="checkbox"/> |
| F | | | | | <input type="checkbox"/> |
| (j) | blue | yellow | orange | red | <input type="checkbox"/> |
| | | | | | |

(k)



Total out of 26



| 5. | This question is about minerals | Mark |
|-----|---|-----------------------------------|
| (a) | | <div></div> |
| (b) | | <div></div> |
| (c) | <div><div>libethenite</div><div>turquoise</div></div> | <div><div></div><div></div></div> |

| | | |
|-----|------|--|
| (d) | | <div data-bbox="1396 302 1484 392"><input type="checkbox"/></div> <div data-bbox="1396 414 1484 504"><input type="checkbox"/></div> |
| (e) | (i) | <div data-bbox="1396 952 1484 1041"><input type="checkbox"/></div> <div data-bbox="1396 1064 1484 1153"><input type="checkbox"/></div> |
| | (ii) | <div data-bbox="1396 1624 1484 1713"><input type="checkbox"/></div> |

| | | |
|-----|------------------------|--|
| (f) | (i) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| | (ii) | <input type="checkbox"/> |
| | <i>Total out of 13</i> | <input type="checkbox"/> |