

Question Number	Answer	Mark
<b>8 (a)</b>	1. growth (of organism) / increase in cell numbers / eq ; 2. asexual reproduction / production of clones / eq ; 3. repair of tissues / replacement of cells / eq ; 4. idea of control of cell { growth / division / mitosis } ;	<b>(2)</b>

Question Number	Answer	Mark
<b>8 (b) (i)</b>	{ carcinogens / cigarettes / tobacco / eq } / { ionising radiation / X-rays } / asbestos ;	<b>(1)</b>

Question Number	Answer	Mark
<b>8 (b) (ii)</b>	1. shorter growth or G phase / shorter interphase ; 2. { shorter / faster } cycle; 3. idea of usual { controls/ 'stops' } not { working/effective } / cell divides uncontrollably ; 4. cells do not become specialised ;	<b>(2)</b>

Question Number	Answer	Mark
<b>8 (c) (i)</b>	30 ;	<b>(1)</b>

Question Number	Answer	Mark
<b>8(c) (ii)</b>	<ol style="list-style-type: none"> <li>1. idea of positive correlation ;</li> <li>2. non-linear increase described / exponential increase / eq ;</li> <li>3. credit manipulation of data ;</li> </ol>	<b>(3)</b>

Question Number	Answer	Mark
<b>8(c) (iii)</b>	Mitosis ;	<b>(1)</b>

Question Number	Answer	Mark
<b>8(d)</b>	<ol style="list-style-type: none"> <li>1. idea of correct stimulus e.g. chemical ;</li> <li>2. some genes active / some genes inactive / eq ;</li> <li>3. only the active genes are transcribed / eq ;</li> <li>4. mRNA made (only at active genes) / eq ;</li> <li>5. protein made / eq ;</li> <li>6. cell {structure / function} determined / cell permanently modified / eq ;</li> </ol>	<b>(3)</b>