

- c)** Taxol works by disrupting spindle activity.
Explain how Taxol affects cancer cells.

[3 marks]

- d)** A more targeted drug needs to be developed.
Aurora A is an enzyme that phosphorylates the protein TACC3. TACC3 then binds to microtubules which hold spindle fibres together. Aurora A is found to be amplified in tumour cells.
Suggest how scientists could develop a cancer drug which targets Aurora A.

[2 marks]

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END OF QUESTIONS

SECTION B: General Essay Mark Scheme Guide

Marks	Description	Assessment Guidance
High 24-25 Medium 23 Low 21-22	Extended abstract Generalised beyond specific context	• Whole essay flows/is interlinked with points all contributing to the theme • Clear links between at least four different topics (these can be different whole specification points, but do not all have to be from different units). • All topics relate to the theme of the question. • Biology is detailed and comprehensive A-level content (not GCSE level) • Essay uses appropriate terminology from the specification, is very well written and always clearly explained. • No significant errors in fundamental biological knowledge that make any explanation incorrect • No irrelevant material (several lines that do not link to the title) in any paragraph. • For 24+ marks in the band, the answer shows evidence of wider reading by adding information that is relevant to the question but not required by the specification. Must be at least 3-4 lines not just single sentence facts.
High 19-20 Medium 18 Low 16-17	Relational Integrated into a whole	• Essay links at least four topics to the main theme of the question • Points are related to each other/linked and clearly explained • Biology is fundamentally correct A-level content (not GCSE) • Contains some points which are detailed, though there may be some which are less well developed • Appropriate use of terminology from the specification • Maybe one significant error (fundamental incorrect biological knowledge) and, or one irrelevant topic which detracts from the overall quality of the answer.
High 14-15 Medium 13 Low 11-12	Multistructural Several aspects covered but they are unrelated	• Essay contains more than two suitable topics • Topics are not related to each other, and links are not made to the theme of the question. • Biology is usually correct A-level content, though it lacks detail. • Mostly clearly explained and generally uses appropriate terminology from the specification • More than one significant error (fundamental incorrect biological knowledge) and, or more than one irrelevant topic.