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| **Curriculum Requirements** | **Even Test Paper** | **Odd Test Paper** |
| year 11 vectors and motion (prior knowledge) | Q3(3), Q7(4) |  |
| the movement of free‐falling bodies in Earth’s gravitational field is predictable | Q2(3), Q4(3) |  |
| the vector nature of the gravitational force can be used to analyse motion on inclined planes by considering the components of the gravitational force (that is, weight) parallel and perpendicular to the plane | Q10(5) |  |
| when an object experiences a net force of constant magnitude perpendicular to its velocity, it will undergo uniform circular motion, including circular motion on a **horizontal plane**  *This includes applying the relationships*  , ,  Fresultant = m ac = | Q9(5) |  |
| when an object experiences a net force of constant magnitude perpendicular to its velocity, it will undergo uniform circular motion, including circular motion on a **banked track**;  *This includes applying the relationships*  , ,  Fresultant = m ac = | Q1(6), Q5(6) |  |
| when an object experiences a net force of constant magnitude perpendicular to its velocity, it will undergo uniform circular motion, including circular motion on a **vertical circular plane**  *This includes applying the relationships*  , ,  Fresultant = m ac = | Q6(5), Q12(4) |  |
| projectile motion can be analysed quantitatively by treating the horizontal and vertical components of the motion independently  *This includes applying the relationships*  , , s = u t + ½ a t2 ,  v2 = u2 + 2 a s , Ek = ½ m v2 | Q8(9), Q11(10) |  |
| **TOTAL** | 12 questions  63 marks |  |