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| **Curriculum Requirements** | **Even Test Paper** | **Odd Test Paper** |
| year 11 electricity (prior knowledge) | Q9 (4) |  |
| a positively charged body placed in an electric field will experience a force in the direction of the field; the strength of the electric field is defined as the force per unit charge  *This includes applying the relationship*  E = | Q10 (7) |  |
| point charges and charged objects produce an electric field in the space that surrounds them; field theory attributes the electrostatic force on a point charge or charged body to the presence of an electric field | Q2 (3) |  |
| electrostatically charged objects exert a force upon one another; the magnitude of this force can be calculated using Coulomb’s Law  *This includes applying the relationship*  F = | Q1 (2) |  |
| when a charged body moves or is moved from one point to another in an electric field and its potential energy changes, work is done on the charge by the field  *This includes applying the relationship*  V = | Q4 (8) |  |
| the direction of conventional current is that in which the flow of positive charges takes place, while the electron flow is in the opposite direction | Q6 (3) |  |
| current‐carrying wires are surrounded by magnetic fields; these fields are utilised in solenoids and electromagnets | Q7 (4) |  |
| magnets, magnetic materials, moving charges and current‐carrying wires experience a force in a magnetic field when they cut flux lines; this force is utilised in DC electric motors and particle accelerators  *This includes applying the relationships*  F = q v B where v perpendicular B,  F = I l B where l perpendicular B | Q11 (6) |  |
| the strength of the magnetic field produced by a current is a measure of the magnetic flux density  *This includes applying the relationship* | Q8 (14)  **TEST PAPER NEEDS FIXING** |  |
| Question from prior topics | Q5 (5) |  |
| **TOTAL** | 11 questions  65 marks |  |