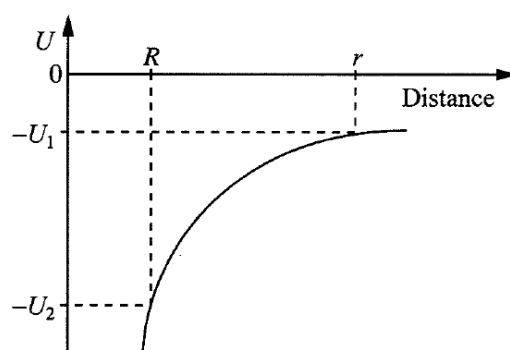


- 11 The graph below shows the variation of the gravitational potential energy U with the distance from the Earth's centre for a spacecraft. The radius of the earth is R .



If the spacecraft is orbiting the earth in an orbit of radius r , the total energy of the spacecraft is

- A** $-\frac{1}{2}U_1$ **B** $-\frac{1}{2}U_2$ **C** $-2U_1$ **D** $-2U_2$