

What is the value of acceleration due to gravity for scientific calculations at Jhansi city of Uttar Pradesh state

The Jhansi city is situated between North $24^{\circ}11'$ and $25^{\circ}57'$ and East $78^{\circ}10'$ and $79^{\circ}25'$. It has an average altitude of 284 meters.

Acceleration due to gravity can be found as:

$$g_{\phi,h} = 9.780327 \left(1 + 0.0053024 \sin^2 \phi - 0.0000058 \sin^2 2\phi \right) - 3.086 \times 10^{-6} h$$

at latitude ϕ and altitude h in metres

$$g = 9.780984474 \frac{m}{s^2}$$

Answer: $g = 9.780984474 \frac{m}{s^2}$