Abstract: The global health community is extremely concerned about the evolution of antibiotic resistance, its emergence, and dissemination, as well as the development of pathogenic novel bacterial species. The production of innovative drugs or some other possible sources of innovative medications is necessary for the effective treatment of infections. Commonly used herbs for medicine in the vicinity could be a great initiator of medications to combat this issue. The antibacterial effects of the plants that are frequently used as traditional remedies are the primary focus of this study.In the current study, the antibacterial activity of *Moringa oleifera* and *Zingiber officinale* conjugated silver nanoparticles was performed against Gram-positive bacteria (*Staphylococcus aureus, Bacillus subtilis*) and Gram-negative bacteria (*Escherichiacoli, Pseudomonas aeruginosa, Klebsiella pneumoniae, Aeromonas veronii*) by the well diffusion method. Silver nanoparticles from both plants were synthesized at different concentrations (2, 4, and 8 mg/ml). The formation of silver nanoparticles was confirmed by characterization techniques such as UV-vis spectroscopy and Fourier transform infrared spectroscopy. *Moringa oleifera* and *Zingiber officinale* conjugated silver nanoparticles showed significantly highest zones of growth inhibition (21.0±0.3 mm) against *B. subtilis and K. pneumoniae* respectively, at the concentration of 8 mg/ml. The biogenic silver nanoparticles were synthesized at different temperatures(4°C, 25°C, 37°C, and 75°C) and pH values (4, 7, and 11) for the evaluation of antibacterial activity. At 37°C, *Moringa oleifera* conjugated silver nanoparticles gave significantly highest zone of growth inhibition (69.0±0.5 mm) against *E. coli.* While,*Zingiber officinale* conjugated silver nanoparticles showed significantly highest zone of growth inhibition (36.0±0.5 mm) against *S. aureus* at 25°C. In the case of *Moringa oleifera* conjugated silver nanoparticles, the significantly highest zone of growth inhibition (12.0±7.5 mm, 12.0±6.3 mm, and 12.0±9.8 mm) was measured against *P. aeruginosa, K. pneumoniae,* and *A. veronii* respectively at pH 4. *Zingiber officinale* conjugated silver nanoparticles showed significantly highest bactericidal activity(12.0±0.5 mm) against *K. pneumoniae* at pH 4 and (12.0±0.5 mm) against *A. veronii* atpH 11. Hence, *Moringa oleifera* and *Zingiber officinale* conjugated silver nanoparticleswere practically stable at different temperatures and pH values. It was established that*Moringa oleifera* and *Zingiber officinale* conjugated silver nanoparticles showedoutstanding antibacterial efficacy against all the tested strains of bacteria.*In vitro,* the antioxidant activity of *Moringa oleifera* and *Zingiber officinale*conjugated silver nanoparticles was measured at the concentrations of 2 and 4 mg/ml.By using free radical DPPH, it was concluded that *Moringa oleifera* conjugated silver nanoparticles showed significantly the highest percentage of inhibition (82±0.5%) at 4mg/ml.*Moringaoleifera* conjugated silver nanoparticles showed excellent radical scavenging properties as compared to *Zingiber officinale* conjugated silver nanoparticles.