Conclusions:

1. Chronic restraint stress has shown anxiety like behaviour in rats which was reversed by resveratrol treatment.
2. Chronic restraint stress resulted in declined learning abilities and memory retention in rats which was reversed by resveratrol.
3. The stress induced cognitive decline is associated with a damage to inbuilt antioxidant defence system in rat brain and resveratrol has reversed this toxic effect by exerting its antioxidant potential.
4. Chronic restraint stress has suppressed the expression of BDNF in rat brain and this effect was reversed by resveratrol.
5. Chronic restraint stress has selectively affected CA2, CA3 and DG regions of the hippocampus and also MPFC.
6. Resveratrol has minimized neuronal loss by enhancing BDNF expression and also through its antioxidant potential in stressed conditions.
7. Vitamin C acted as pro-oxidant under normal circumstances but exerted its antioxidant potential in stressed conditions.
8. The dose of resveratrol used in the present study showed a diverse effect in different parameters. Hence it can be concluded that between 10 to 20mg/kg dose is useful in animal model.
9. The neuronal loss observed in the present study is linked to oxidative damage and declined BDNF expression in rat brain.