







Table no.1 and figure no.3 shows both combine carbon sequestration of saplings and trees. In this graph, it is shown that Neem *Azadirachta indica*, Gulmohar *Delonix regia*, Bidi leaf tree *Bauhinia racemosa* have maximum carbon sequestration i.e. 44004.35 tons, 32664.85 tons, 22702.192 tons respectively. Tree with minimum carbon sequestration were Oleander *Nerium indicum*, Jackfruit *Artocarpus heterophyllus*, Prajakta *Nyctanthes arbortristis* with 63.101 tons, 133.007 tons, 425.862 tons respectively.

## 5. Conclusion

Carbon sequestration could play an important role in reducing greenhouse gas emissions. Forest areas and plantations in urban areas can play a significant role in carbon storage and sequestration. Vegetation in properly managed conditions such as university campuses and other built environments are likely to have a greater impact per area of tree canopy cover in comparison to non-urban forests due to faster growth rates and increased proportions of large trees. However, urban tree maintenance emissions can offset some of the carbon gained by urban forest systems [16]. The Carbon sequestration capacity of tree increases as the age of the tree increases. Therefore, it can be concluded that the older have higher carbon content than younger trees. However, it is also observed that saplings have more capacity of absorbing carbon than old trees as they are growing and require more carbon to grow. Moreover, old trees are the reservoirs of carbon. It is noticed that Neem (*Azadirachta indica*) tree act as the best carbon absorbing agent in the present study area. The challenges of climate change can be efficiently overcome by the storage of carbon in terrestrial carbon sinks viz. plants, plant products and soils for longer periods of time. The plantation programme of Solapur University strives to achieve zero carbon emission and to reduce its carbon footprint.

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