"UDYANOTSAV-2019" AND MUGHAL GARDENS - A BACKGROUND NOTE

1. President's Estate

The President's Estate covers an area over 154 hectares (380 acres). Of these 139 hectares are covered with about 5000 trees (160 species), lawns and open spaces whereas 15 hectares are covered by buildings and roads. Credit for the Rashtrapati Bhavan, the Mughal Gardens in the heart of President's Estate and various other buildings on the Estate as well as its overall landscaping goes to Sir Edwin Lutyens, who was one of the foremost architects of his period. Work on the complex began in 1911 after the decision to shift the capital of British India from Kolkata to Delhi and was completed in 1929.

2. Mughal Gardens

The Mughal Gardens contiguous to the main building of Rashtrapati Bhavan is one of the most beautiful gardens of the world. If the Rashtrapati Bhavan is a masterpiece of architecture, the 15-acre Mughal Gardens is considered its soul. Its beauty lies in its design and its flora, trees, bushes, vines, lawn grass and seasonal flowers. The Gardens are inspired by the Mughal Gardens of Jammu and Kashmir, the garden around the Taj Mahal as well as Persian and Indian miniature paintings. The Mughal Gardens also includes many elements of British garden art. Mughal canals and terraces at different levels and flowering shrubs fuse with European flower beds, lawns and privet hedges. The geometrical decorum and the play with water which are the essence of Mughal Gardens have been combined with the organized caprice of a British garden. Indigenous trees and shrubs, fountains, water channels and ponds bring in a sense of coolness and purity. Due to its ecofriendly character, the Gardens attract large number of birds like parrots, mynas, doves and pigeons that bathe and bask with an ease of manner that evoke envy and admiration in all onlookers. In the evening, peacocks with their consorts can be seen moving around leisurely.

The Mughal Gardens is designed as three successive terraces, the first is Rectangular Garden adjacent to the main building of Rashtrapati Bhavan in which two parallel water channels running North to South and two running East to West divide this garden in a grid of squares. At the crossings of channels water spouts from fountains trickle down through three layered sandstone which is carved like lotus leaves. In the water channels at a particular time of the day one can see the reflection of the imposing building of the Rashtrapati Bhavan and the blooming flowers.

The Central lawn is covered by 'Doob' grass which was originally brought from the Belvedere Estate, Calcutta. Since the time it was laid, it has maintained its sheen and witnessed numerous receptions and "At Homes" hosted by the President. The garden derives its evergreen texture from Moulsari, Cypress, China Orange, gardenia and climbers. The Rectangular Garden has several winter seasonal bulbous and flowering beds with a variety of Roses being the centre of attraction.' Tulips', one of the most admired and exotic variety of flowering plants is now the pride of the Central Lawn and Circular Garden.

The central part or the Rectangular Garden is followed by the Long Garden or the 'Purdah' Garden which is located to the west of the main garden and runs along either side of the central pavement which leads to the Circular Garden. The Purdah Garden as its name indicates is enclosed by walls about 12 feet high and has 16 squares of attractive rose beds hemmed in low hedges. The walls are lined with resplendent China Oranges whose ornamental fruits outnumber the leaves and attract every visitor.

The third portion of the Mughal Garden is the Circular ('Pearl' or 'Butterfly or 'Sunken') Garden in the Western most portion- a jewel which is a delight to behold, being planted with fragrant varieties of flowers. Originally named as Butterfly Garden by the creator it has high walls all around and descending steps like in an amphitheatre. The fragrant variety of flowers in the lawns and water pool in the center with fountains give a sublime feel to the visitor.

All the three terraces of the Mughal Gardens along with other gardens of the estate are filled with splendid colours of winter seasonal flowers, roses, exotic bulbous plants, shrubs, variety of creepers and flowering trees from mid-February to mid-March.

3. Roses

Roses are the pride of Mughal Gardens and a permanent feature throughout the year. The Gardens have more than 138 celebrated varieties of roses. The prime bloom is in February-March. The special roses include the rare Green Rose, Black rose and Angelique. A 'fragrant rosery' which was established during the Presidency of Dr. A.P.J. Abdul Kalam on the southern central portion of the terrace garden is refurbished now with original and fragrant varieties include Belami, Black Lady, Double Delight, Eiffel Tower, Granada, Jadis, Mr. Lincoln, Sadabahar, Taj Mahal etc. Oklahoma (often called Black Rose) and Bonne Nuit are almost black in colour, Paradise, Blue Moon and Lady X are blue in colour.

The Gardens include roses named after national and international celebrities such as Mother Teresa, Arjun, Bhim, Jawahar, Dr. B.P. Pal, John F. Kennedy, Queen Elizabeth, Mr. Lincoln and Montezuma. Other rose varieties worth mentioning are Christian Dior, Granada, American Heritage, First Prize, Happiness, Century Two, Kiss of Fire, Iceberg and Double Delight.

Unlike other gardens which grow a limited variety of roses but in large masses, the Mughal Gardens feature a large range of roses including 'heritage' as well new varieties in one place.

4. Bulbous Flowering Plants

10,000 Tulip Flowers are in blooms other exotic flowering plants, Oriental Lily, Asiatic Lily, Daffodil, Gladiulis, Rannuculs, Anemone, Fresia, Muscury, Allium, Iris, Narcissus, Orinthogallum, Hycinth in the Mughal Gardens.

5. Autumn Flowers

A large number of flowers -'Tulips', Cyclamens and varieties of lilium valued for their splendid colors are an important attraction of the Mughal Gardens this year. About 10,000 Tulips blooming in magnificent colours are exclusively grown in the Central Lawn, Long garden and Circular Garden. 'Calceolaria herbeohyrida' or 'Lady's Purse' is another interesting variety consisting of amazing flowers which are spotted with contrasting colours and shaped like a Lady's purse.

There are more than 70 varieties of seasonal flowers and winter flowering plants in the Mughal Gardens. The garden is replete with a number of annuals that have to compete with each other to find a place. Dwarf annuals like Calendula, Antirrhinum, Alyssum, Dimorphotheca, (Californian Poppy), Gaznia, Eschscholzia Larkspur, Gerbera, Godetia, Mesembryanthemum, Portulaca, Brachycome, Metrucaria, Verbena, Viola, Pansy and Stock grow well in flower beds. Other annuals that are grown include Dahlia, Aster, Carnation, Chrysanthemum, Clarkia, Lupin, Marigold, Nemesia, Poppy, Stock, Salvia, Cosmos, Linum, Sweet Pea, Cineraria, Sweet William etc. They are used in pure beds and in combinations of varying heights to create a pyramid of colours. Various herbaceous annuals and bi-annuals are grown in beds and informal borders. The beds are sited at the edge of lawns or along the pavements. Also, the flowers are massed irregularly with respect to their height and grouped in colour combinations to produce a harmonious, natural and pleasing effect.

Edging and bordering of flower beds is done with Alyssum, Daisy, Pansy, etc. Under the Roses are also grown Alyssum, Pansies and Viola. A spectacular visual display is created by bulbous flowering plants like Narcissus, Fressia, Gladiola, Oriental Lily, Asiatic Lily, Ranunculus, Hycianth, Anemone, Iris, Oxalis, Daffodil, Dahlia, Sparaxis, Ixia etc.

6. Trees of Rashtrapati Bhavan

The Mughal Gardens were landscaped and planted in 1929 by filling fertile soil in the space created by blasting of rocks. Sir Edwin Lutyens was assisted by Mr. W.R. Mustoe, Director of Horticulture, in planning and planting of trees in the estate. A few species were selected after several meetings, the major ones being Maulsiri, Cypress, Kadamba, Ficus varieties, Putranjiva, Junipers, Jamun, Pine, Fig, Neem Sausage Tree, Saptaparni and Barna. Since, 1929, many more species have become part of the Rashtrapati Bhavan. Today, the green cover includes more than 5000 trees belonging to 160 species including mango, neem, jamun, peepal and banyan. In the Mughal Gardens, the Moulsri or Bakul trees have been pruned to look like mushrooms and are planted in square patches of lawns along the channels and on the periphery of the two main lawns. They provide character and depth to the Garden. Providing a welcome break from monotony are China Oranges alternating with Cypresses.

Putranjiva roxburgi are planted around the two gazebos located at the western ends of the two terrace gardens.

7. Central Lawn and Long Garden

The President hosts two grand receptions in the Central Lawns every year, one to mark Republic Day on 26 January and the other on 15 August, India's Independence Day. A row of nearly 2500 Dahlias can be seen in between the seasonal flowers on both sides of the Central lawn and Long garden. Two pergolas with stone beams which culminate in overhangs that suggest the trunks of elephants can be seen in the Long Garden where Roses are planted on two sides of a long path way. The sandstone pergola in the center over the central pavement is covered with vines, Rose ramblers and Petrea. Beside popular and heritage varieties of Roses, the beds are margined with Dahalia, Marigold, Salvia, Gazania, Oxalis, Ranunculus and Tulips to welcome every visitor. The 12 feet high walls on both side of Long Garden are covered with creepers like Bignonia vanista, Tecoma grandiflora, Adenocalma and Jasmin that add fragrance to the Garden.

8. Circular Garden

The Circular ('Pearl' or 'Butter Fly' or 'Sunken') Garden in the western most portion of the Mughal Gardens is planted with fragrant varieties like Phlox of different colours, Marigold, Stock, Viola and Pansies in different colours, Sweet Willium, Clarkia, Ring of Orange Marigold and Alyssum. A bubble fountain in the middle of this bowl, surrounded with greens enhances the grandeur of the place.

The Circular Garden contains more than 30 varieties of seasonal flowers including tall Dahlias, around 10 feet high, which go along the circular wall of the Garden. It is worth watching butterflies fluttering on these flowers. Tulips in magnificent colors have been added in rings to enhance the beauty of the Garden.

9. Spiritual Garden

The Spiritual Garden conveys the message of co-existence despite differences in religion and culture. This garden has about 40 different plants of importance to different religions. The garden makes visitors wonder why different plants can grow harmoniously when different communities find it difficult to do so. Important species in the garden are - Rudraksh, Chandan, Kadamba, Banyan tree, Paras peepal, Fig, Date palm, Krishna Burgad, etc. A Pond with varieties of Lotus and water lilies can be seen with a cascading water fall.

10. Herbal Garden

Variety of important medicinal and aromatic plants depicting their use are showcased in the Herbal Garden where around 33 medicinal and aromatic plants are planted in particular design. The benefits of each plant variety is indicated next to the bed in the Garden. Stevia which provides safe sugar for diabetics, Isabgul (plantago), Damask Rose, Ashwagandha, Kalmegh, Brahmi, Mints,

Tulsi, Geranium, Artemesia etc. are available here. With the setup of 'Ayush Wellness Clinic' in Rashtrapati Bhavan recently, some of the herbs are being made available for use in different Ayurveda and Unani therapies.

11. Bonsai Garden

The Bonsai Garden was set up in 2010 with about 300 Plants. The varieties include those in upright, slanting, cascade and semi cascade forms. The collection includes Bonsai of Ficus Infactoria, Ficus Panda, China Orange, Malpigia, Casuarina, Bougainvilleas, Pinus, Mimusops guggle, paras peepal etc.

12. Cactus Garden

The Cactus Garden was added to the President's Estate in 2003. The collection has about 60 varieties, most of which are grafted.

The Collection includes specimens such as *Gymnocalycium- a* species known for globular form with ribs, *Cleistocactus Strauaij-* which grows erect upto a height of 3 meters; *Mammiliaria* species - having spherical stems and feathery look; *Pygmaeocerus denudatus -* a rare small finger sized sprawling Cactus spreading from its base; *Hildwintera aureispina -* commonly known as 'golden rat tail', *Coryphantha baurnamma-* which is wooly and globular shaped; *Rebutia aureiflora -* characterized by green and tinged bodies and *Astrophylum -* which is short, cylindrical shaped like a star or octopus.

13. Nakshatra Garden

The Nakshatra Garden was set up in President's Estate during the year 2006 with planting of 27 different varieties of trees which are associated with Zodiac sign. According to Hindu Astrology, every person is born under any of the 27 stars (Nakshtra) i.e. 27 or 28 divisions of the sky that the moon passes through in its monthly cycle. It is believed that each constellation is associated with a tree. These trees are believed to have healthy mental, physiological and spiritual effect on people meditating near them. They are also of high medicinal, social, aesthetic and economic value.

14. Musical Garden

The Musical Garden was established in 2006 with 12 water fountains which perfectly synchronize with classical tunes and scintillating lights. They play to the tune of the Shehnai and Vandemataram on a pre-recorded digital device during "Udyanotsav".

15. Biodiversity Park

The Biodiversity Park has several avian and animal species such as peacocks, ducks, turkeys, guinea fowls, turtles, parakeets, rabbits and migratory birds. The park also has a small waterfall, rabbit house, duck house habitats for birds.

16. Tactile Garden

The Tactile Garden was established in 2004 near Gate 12 of Rashtrapati Bhavan. It comprises various plants having specific texture and fragrance which can be easily identified through touch and feel by visually challenged persons. It is an elliptical shaped garden with a fountain, thirty four beds of aromatic plants, herb, spices and ornamental flowers. Every year, the garden opens exclusively for visually challenged persons on a specific day during "Udyanotsav".

17. Bamboo Nursery

A Bamboo Nursery was developed in 2018. It has 23 varieties of Bamboo including Dendrocalamus, Bambusa, Guadua angustifolia (South American Bamboo), Gigantochloa manggong, Oxylenanthera abbysinica (African Bamboo) and Black Bamboo.

18. Aromatic Plant Garden

The Aromatic Plant Garden was established in 2018. About 25 varieties of Aromatic plants have been planted in this Garden which includes Geranium, Palmarosa, Citronella, Lemongrass, Chamomile, Shyama Tulsi, Jasmine, Lemon Tulsi, Kapoor Tulsi, Van Tulsi, French Basil, All spices, Menthol Mint, Spearmint, Peppermint, Golden Mint, Tuberose, Raat ki Rani, Harsingar.

The annual "Udyanotsav" attracts a large number of visitors every year. Details of the number of visitors are as below:-

Visitors to Mughal Gardens

2006	3.25 Lakhs
2007	3.15 Lakhs
2008	4.5 Lakhs
2009	5.71 Lakhs
2010	3.79 Lakhs
2011	5.32 Lakhs
2012	6.57 Lakhs
2013	4.80 Lakhs
2014	5.84 Lakhs
2015	4.68 Lakhs
2016	6.72 Lakhs
2017	6.95 Lakhs
2018	5.54 Lakhs
