Medicinal Flora of Poona College

Dr. Rafik U. Shaikh **Dr. Aafreen A. Ahmed**










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Dr. Rafik U. Shaikh
Assistant Professor
Department of Botany
AKI's Poona College of Arts, Science & Commerce
Camp, Pune – 411001

Dr. Aafreen A. Ahmed
Assistant Professor
Department of Botany
AKI's Poona College of Arts, Science & Commerce
Camp, Pune – 411001

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Preface

Medicinal plants have been the basis of many traditional medicine systems throughout the world for thousands of years and continue to provide mankind a resource for new remedies for a variety of human ailments. In recent years, the use of traditional medicine information on plant research has again received considerable interest. The renewed interest in medicinal plants has focused on herbal cures among indigenous populations around the world. In this time of increasing need for effective, affordable health promotion and treatment strategies for our aging populations and growing problems posed by new and antibiotic-resistant microbes, the history and reputation of herbal medicines must be examined rigorously and scientifically so that their biomolecular effects, if confirmed, can be translated into clinical benefit. In many developing countries traditional medicine is still the mainstay of health care, and most of the drugs and cures come from natural sources. Even in developed countries, more people are turning to herbal remedies, especially for treating minor ailments.

The principal aim of this book is to provide detailed information on locally important medicinal plants of AKI's Poona college of Arts, Science and Commerce, Camp, Pune and to preserve the traditional knowledge of herbal healers. The book describes 50 important plant species with their taxonomic description including scientific name, common name, family name, photographs, and medicinal properties. It also presents the list of plant species available in the college campus along with its approximate numbers in the year 2021. Moreover, it also highlights the amount of CO_2 intake and O_2 release of few plant species and a glossary of medical terminology. I believe that this book is one of the pioneering compilations in a local community of Pune district that can provide information of different medicinal plants to the reader, especially college students and researchers at a glance.

Pune **Dr. Rafik U. Shaikh**

February, 2021 **Dr. Aafreen A. Ahmed**

Anjuman Khairul Islam's
POONA COLLEGE OF ARTS, SCIENCE & COMMERCE
• Affiliated to Savitribai Phule Pune University: ID No PU/PN/ASC/023/1970
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1970 - 2020
K. B. Hidayatullah Road, Camp, Pune - 411001. (MS), India
+91-20-2645 4240 / 2644 6319.
www.poonacollege.edu.in
principal@poonacollege.edu.in
Professor (Dr.) Aftab Anwar Shaikh
M.Com, Ph.D (Busi. Admin.)
PRINCIPAL
+91 98226 21579
dranwarshaikh@gmail.com

Foreword

It is well-known that, the people of India have knowledge of medicinal plants. The medicinal properties and applications of numerous plants are documented in a very sophisticated way in traditional medical texts of Ayurveda, Siddha and Unani. The knowledge of these plants exists only in the oral traditions. In a very limited way, the oral traditions have been documented by ethnobotanists and medical anthropologists, but from the medical point of view the documentation is rather sketchy.

All the species of medicinal plants however represent a national heritage and they certainly are a national resource. It is necessary for us to ensure their conservation if future generations are to continue to have access to them. In order to protect the medicinal plants of India, it is necessary to first identify them, study their natural distribution, assess their population status and then to take scientific measures to ensure their conservation and cultivation. It is especially important to do this for those plants that have already become rare, endangered, threatened and meet the criteria for red listing.

This book entitled *"Medicinal Flora of Poona College"* is a botanical field guide of such tropical medicinal plants of AKI's Poona College of Arts, Science and Commerce, Camp, Pune. I am sure that it will inspire both students and researchers to contribute to the cause of saving medicinal plants from possible extinction.

Pune
February, 2021

POONA COLLEGE OF ARTS, SCIENCE & COMMERCE
CAMP
PUNE-411001
A & M AKI

Dr. Aftab Anwar Shaikh
Principal

Poona college campus, Google Earth view (18°30'22"N, 73°52'30"E)

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Common Name: Copperleaf, Jacob's coat

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Malpighiales**
Family	:	**Euphorbiaceae**
Genus	:	***Acalypha***
Species	:	***wilkesiana* Fosberg.**

Description:

It is an evergreen shrub growing to 6-9 ft high and 4-6 ft wide. It has a closely arranged crown, with an erect stem and many branches. Both the branches and the leaves are covered in fine hairs. The leaves, which may be flat or crinkled, are large and broad with teeth around the edge. They can be 10–20 cm long and 15 cm wide. The leaves are coppery green with red splashes, giving them a mottled appearance. Separate male and female flowers appear on the same plant. The male flowers are in long spikes which hang downwards while the female flowers are in short spikes. The flower stalks are 10–20 cm long.

Medicinal Properties and Uses:

The plant is abortifacient, antibacterial, antifungal and antinematodal. The leaves are squeezed into water and the resulting juice is drunk as a treatment for dysentery. The juice of fresh leaves is used in the treatment of laryngitis. They are chewed on as a first-aid treatment for a ruptured appendix. The leaves are boiled in water and used as a massage for patients with fevers. The fresh young leaves, combined with the leaves of *Ocimum basilicum*, *Hibiscus rosa-sinensis* and *Euodia hortensis*, are placed in a bowl of hot water and the vapour released is breathed in to bring relief from pneumonia, malaria, pain and fever. An infusion of the leaves and bark is drunk as a treatment for pleurisy.

Common Name: Bael

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Sapindales**
Family	:	**Rutaceae**
Genus	:	***Aegle***
Species	:	***marmelos* (L.) Correa**

Description:

It is a slow-growing, medium sized tree, up to 12-15 m tall thick, with soft, flaking bark. Young suckers bear many stiff, straight spines. A clear, gummy sap, resembling gum arabic, exudes from wounded branches and hangs down in long strands, becoming gradually solid. The deciduous, alternate leaves, borne singly or in 2's or 3's, are composed of 3 to 5 oval, pointed, shallowly toothed leaflets, the terminal one with a long petiole. New foliage is glossy and pinkish-maroon. Fragrant flowers, in clusters of 4 to 7 along the young branchlets, have 4 recurved, fleshy petals, green outside, yellowish inside, and 50 or more greenish-yellow stamens. The fruit, round, oval, or oblong, may have a thin, hard, woody shell. It is dotted with aromatic, minute oil glands. Embedded in the pulp are 10 to 15 seeds.

Medicinal properties and uses:

The plant contains coumarins, flavonoids, alkaloids, tannins and oil. The dried pulp is an astringent. It reduces irritation in the digestive tract and is an excellent remedy in cases of diarrhoea and dysentery. A decoction of the astringent unripe fruit, combined with fennel and ginger, is prescribed in cases of haemorrhoids. A decoction of the unripe fruit is highly valued as an aphrodisiac and has gained a reputation of being the viagra of the plant world. The ripe fruit is also laxative and demulcent. It eases stomach pain and supports healthy function of the stomach. It has been surmised that the psoralen in the pulp increases tolerance of sunlight and aids in the maintaining of normal skin colour. It is employed in the treatment of leucoderma. Marmelosin derived from the pulp is given as a laxative and diuretic. In large

doses, it lowers the rate of respiration, depresses heart action and causes sleepiness. For medicinal use, the young fruits, while still tender, are commonly sliced horizontally and sun-dried and sold in local markets. They are much exported to Malaysia and Europe. Because of the astringency, especially of the wild fruits, the unripe bael is most prized as a means of halting diarrhea and dysentery, which are prevalent in India in the summer months. The leaves are astringent and are used in the treatment of peptic ulcers. The dried root is used in the treatment of earache.

Common Name: Siris, Flea tree, Frywood, Koko, Woman's tongue

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Fabales**
Family	:	**Fabaceae**
Genus	:	***Albizzia***
Species	:	***lebbeck* (L.) Benth.**

Description:

It is a deciduous tree about 18-30m long with a trunk 50 cm to 1m in diameter, with gray colored bark, leaves bipinnate and the leaflets are in 5-9 pairs, flowers are stalked, white, fragrant, in globose umbellate heads 2-3.8 cm in diameter, stamens are longer than the corolla. The fruit is a pod, 15–30 cm long and 2.5-5.0 cm broad, containing six to twelve seeds.

Medicinal properties and uses:

The main phytoconstituents of plant are melacacidin, D-catechin, β-sitosterol, albiziahexoside, betulnic acid and echinocystic acid glycosides. Traditionally, the plant is used as astringent, anti-asthmatic, anti-inflammatory, anti-fertility, anti-diarrhoeal, antiseptic, anti-dysenteric, anti-tubercular. Used in leprosy, paralysis, helmenth infection, allergic rhinitis, to treat the eye, psychotropic, flu, lung problems, pectoral problems, cough, gingivitis, abdominal tumors. It is also used in the treatment of ringworms and wounds by washing the affected areas, gonorrhea, leucorrhoea and other genital diseases. Plant also shows cardio protective effects.

Common Name: Korphad

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Monocots**
Order	:	**Asperagales**
Family	:	**Asphodelaceae**
Genus	:	***Aloe***
Species	:	***vera* (L.) Burm.f.**

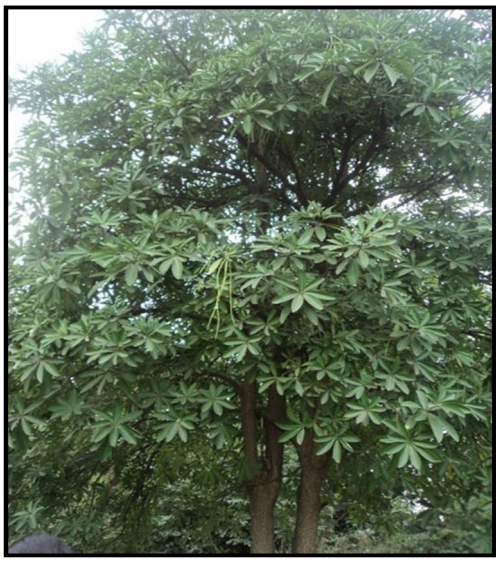
Description:

It is a stem less or very short-stemmed plant growing to 60–100 cm tall, spreading by offsets. The leaves are thick and fleshy, green to grey-green, with some varieties showing white flecks on their upper and lower stem surfaces. The margin of the leaf is serrated and has small white teeth. Flowers are produced in summer on a spike, each flower being pendulous, with a yellow tubular corolla. Like other species, it forms arbuscular mycorrhiza.

Medicinal properties and uses:

It works as an astringent and laxative. It works to seal off cuts or scrapes. The anthraquinones and barbaloin in aloe stimulate the bowel and increase its tone. They may also increase collagen production which is needed to help wounds to heal. It helps to heal minor burns and sunburns, , insect bites, or stings. It stimulates cell regeneration. It has astringent, emollient, anti-fungal, antibacterial, and antiviral effects. Moisturizes and softens the skin. Dried aloe latex taken from the leaf (98% to 99% pure) has laxative effects. It can be taken internally to help treat constipation, hemorrhoids, rectal itching, colitis, and other colon problems. Aloe juice is dried and used to make tincture of benzoin.

Common Name: Milkwood pine, Milk wood, Devil's tree, Saptaparna



Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Gentianales**
Family	:	**Apocynaceae**
Genus	:	***Alstonia***
Species	:	***scholaris* R. Br.**

Description:

It is a medium to large tree, about 40 m high with a somewhat tessellated corky grey to grey-white bark. The outer blaze is cream to yellowish in colour with abundant, milky latex that flows rapidly when cut. Leaves in whorls of 4-8 in the upper axils; the lamina obovate to elliptical or elliptical-lanceolate, glabrous or sparsely hairy, tapering towards the base. Upper surface is dark green, the lower green-white with 25-40 pairs of lateral veins on each side of the midrib. The tip of the leaf is rounded or shortly pointed, tapering towards the base. The inflorescence is a much-branched terminal panicle, flowers 7-10 mm long white, cream or green; the tube hairy; lobes sparsely or densely pubescent, the left margins overlapping; strongly perfumed. Fruit is a pendulous, two-lobed, dehiscent follicle, brown or green, dry or woody, spindle-shaped containing numerous flat, oblong, brown seeds.

Medicinal properties and uses:

The plant is rich in alkaloids, steroids, triterpenoids, and phenolic compounds which contribute to the toxicity of *A. scholaris*. Various alkaloids that have been reported in stem bark of includes alstonidine, O-methylmacralstonine, macralstonine O-acetylmacralstonine, alstonine, ditamine, echicaoutchin, corialstonidine, corialstonine chlorogenine, villalstonine, pleiocarpamine, macrocarpamine, and triterpenoids which have been reported are alpha-amyrin linoleate, lupeol palmitate, and lupeol linoleate.

The bark is bitter, astringent, digestive, laxative, anthelmintic, antipyretic, stomachic, cardiotonic, tonic and useful in malarial fevers, abdominal disorders, dyspepsia, and skin

diseases. Bark extract has been reported to possess antiplasmodial, immunostimulant, and anticancer effect and is also hepatoprotective. In Ayurveda, it is reported that the bark of the plant, when soaked in water overnight, can reduce the blood glucose level after oral administration. Bark is also used as, depurative and galactagogue. It is effective in leprosy, skin diseases, chronic and foul ulcers, asthma, bronchitis, and debility. In folklore medicine, milky juice is applied on wounds, ulcers, and rheumatic pains; mixed with oil and dropped into ear, it relieves earache. The leaves have been used traditionally as folk remedies for the treatment of many diseases including diarrhea, dysentery, malaria, and snake bites. Juice of the leaves acts in certain cases as a powerful galactagogue. Leaves are used in beriberi, dropsy, and congested liver. Latex is applied to sores, ulcers, tumors, and rheumatic swellings. The ripe fruits of the plant are used in syphilis and epilepsy.

Common Name: Sitaphal, Custard apple, Sharifa

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Magnoliids**
Order	:	**Magnoliales**
Family	:	**Annonaceae**
Genus	:	***Annona***
Species	:	***squamosa* L.**

Description:

A moderate sized, erect, deciduous tree with a rounded or spreading crown. Height ranges from 4.5-10 m. The ill-smelling leaves are deciduous, alternate, oblong or narrow-lanceolate, with conspicuous veins. Flowers, in drooping clusters, are fragrant, slender, with 3 outer fleshy, narrow petals; light-green externally and pale-yellow with a dark-red or purple spot on the inside at the base. The compound fruit may be symmetrically heart-shaped, or irregular; or nearly round, or oblate, with a deep or shallow depression at the base. The skin, thin but tough, may be yellow or brownish when ripe. There is a thick, cream-white layer of custard like, somewhat granular, flesh beneath the skin surrounding the concolorous moderately juicy segments, in many of which there is a single, hard, dark-brown or black seed.

Medicinal properties and uses:

The sweet and creamy fruits are highly regarded as a dessert fruit used to make sherbet, ice cream, jellies etc. The green fruits, seeds and leaves have effective vermicidal properties. The young shoots, combined with peppermint, are used in the West Indies to relieve colds and chills. The unripe fruit is astringent. The root is a drastic purgative. The bark and leaves are used in a sedative infusion. An infusion of the leaves and fruit is used to aid digestion and treat rheumatism. Oil distilled from the leaves is applied to the head for treating sleeplessness. The powdered seeds are an excellent vermifuge. Extracts of the plant have shown anticancer activity. Green fruits, seeds and leaves have effective vermicidal and insecticidal properties.

Common Name: Satavar, Shatavari, Shatamull, Shatawari

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Monocots**
Order	:	**Asperagales**
Family	:	**Asperagaceae**
Genus	:	***Asparagus***
Species	:	***racemosus* (Wild.)**

Description:

A small climber, about 1- 3 m tall. It is an extensively scandent spinous, much branched under-shrub. Roots are numerous and fusiform, succulent and tuberous with a diameter of about 0.5 to 1.5 cm, arising as a cluster from the basal end of the stem. The stem is woody, sparsely covered with recurve spines. Leaves are reduced to small scales called as cladode which are in tufts of 2-6 in a node, finely acuminate. Inflorescence is a branched raceme. Flowers are white, fragrant and solitary. Fruits are red berries globose or obscurely 3-lobed.

Medicinal properties and uses:

Shatavari (this is an Indian word meaning 'a woman who has a hundred husbands') is the most important herb in Ayurvedic medicine for dealing with problems connected to women's fertility. The rhizome is a soothing tonic that acts mainly on the circulatory, digestive, respiratory and female reproductive organs. The root is alterative, antispasmodic, aphrodisiac, demulcent, diuretic and galactagogue. It is taken internally in the treatment of infertility, loss of libido, threatened miscarriage, menopausal problems, hyperacidity, stomach ulcers and bronchial infections. Externally it is used to treat stiffness in the joints. The root is used fresh in the treatment of dysentery. It is harvested in the autumn and dried for use in treating other complaints. The whole plant is used in the treatment of diarrhoea, rheumatism, diabetes and brain complaints.

Common Name: Neem, Indian lilac

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Sapindales**
Family	:	**Meliaceae**
Genus	:	***Azadirachta***
Species	:	***indica* Juss.**

Description:

It is a small to medium-sized tree, usually evergreen, up to 15-30m tall, with a round, large crown up to 10-20m in diameter; branches spreading; trunk branchless for up to 7.5 m, up to 90 cm in diameter, sometimes fluted at base; bark moderately thick, with small, scattered tubercles, deeply fissured and flaking in old trees, dark grey outside and reddish inside, with colourless, sticky foetid sap. Leaves alternate, crowded near the end of branches, simply pinnate, 20- 40 cm long, exstipulate, light green, with 2 pairs of glands at the base, otherwise glabrous; petiole 2-7 cm long, subglabrous; rachis channelled above; leaflets 8-19, very short petiolled, alternate proximally and more or less opposite distally, ovate to lanceolate, sometimes falcate 3.5-10 x 1.2-4 cm, glossy, serrate; apex acuminate; base unequal. Inflorescence an axillary, many-flowered, up to 30 cm long; bracts minute and caducous; flowers bisexual or male on same tree, actinomorphic, small, pentamerous, white or pale yellow, slightly sweet scented; calyx lobes imbricate, broadly ovate and thin, petals free, imbricate, spathulate, spreading, ciliolate inside. Fruit 1 (max. 2)-seeded drupe, ellipsoidal, 1-2 cm long, greenish, greenish-yellow to yellow or purple when ripe; exocarp thin, mesocarp pulpy, endocarp cartilaginous; seeds ovoid or spherical; apex pointed; testa thin, composed of a shell and a kernel (sometimes 2 or 3 kernels), each about half of the seed's weight.

Medicinal properties and uses:

Whole plant: Bitter in taste, hot and sharp when digested, with cooling properties; the flowers, sap, oil, bark, leaves, fruits, stems, and twigs are known to dispel gas, phlegm, and bile.

Sap: Used in making tonics and digestives. The oil, which is applied topically for itching and rashes, is ingested for deworming.

Gum: Used as a demulcent and tonic.

Bark: Used as a tonic. Also, made into a paste and taken with salt to reduce fever. The inner bark is also made into a paste but applied topically to alleviate joint aches and pains. A decoction of the bark reduced to one-third its starting volume is used as a mouthwash to relieve toothaches. Leaf bark and oil used in the treatment of skin diseases; also, as a tonic, anthelmintic, and insecticide.

Leaf: Crushed leaves are made into a poultice applied as a remedy for scabies and boils. A decoction of the leaves is used as a wash to alleviate rashes, itching, and bumps on the skin. Their juice is used as eyewash, and to relieve itching and heat. Powdered after roasting until charred, the leaves are mixed with salt and used daily as toothpaste to prevent toothaches, as well as to whiten and strengthen teeth; the bare twigs are used as toothpicks to help keep the teeth clean. Pulped leaves are applied to pustular eruptions.

Flower: Used as a stomachic; also, inhaled to alleviate dizziness.

Fruit: Eaten daily as a remedy for urinary infections. Utilized as a local stimulant and as an insecticide.

Common Name: Boganvel; Boganvilla; Kagaj-phul

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Order	:	**Caryophyllales**
Family	:	**Nyctaginaceae**
Genus	:	***Bougainvillea***
Species	:	***spectabilis* Willd**

Description:

Woody perennial vine or shrub (or small tree), erect or clambering, attaining a height of up to 12 m. Branches pilose, with straight, axillary, pilose spines. Leaves alternate, ovate, the apex acute, obtuse, or acuminate, the base obtuse, rounded, or attenuate, slightly asymmetrical, the margins sinuate; lower surface tomentulose, with prominent pilose venation; petioles slender, pilose. Flowers in axillary clusters of threes; each flower with a purple, red, pink, or orange bract beneath, corolla absent; stamens 5-10. Fruit an achene, elongate, containing 1 seed.

Medicinal properties and uses:

The extract and decoction of this plant have been used as fertility control among the tribal people in many countries. It is also believed to have anticancer, antihepatotoxic, anti-inflammatory, antimicrobial, antioxidant, and antiulcer properties. *Bougainvillea spectabilis* contains pinitol, which has an insulin-like effect and has the potential for development as a treatment for diabetes.

Common Name: Paanphuti, Parnaphuti

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Order	:	**Saxifragales**
Family	:	**Crassulaceae**
Genus	:	***Bryophyllum***
Species	:	***pinnatum* (Lam.) Oken**

Description:

Herbs, 40-150 cm tall, glabrous. Stems usually branched. Leaf blade pinnately compound with 3-5 leaflets; leaflet blades oblong to elliptic, margin crenate, apex obtuse. Inflorescences terminal, paniculate, many flowered. Flowers pendulous. Calyx is tubular. Corolla reddish to purple, base sparsely ciliate, lobes ovate-lanceolate. Stamens inserted basally on corolla. Nectar scales oblong. Follicles included in calyx and corolla tube. Seeds striate.

Medicinal properties and uses:

Leaf juice is applied to areas affected by impetigo, erysipelas and boils and sores. Leaves are roasted and stuck on the wound to stop the flow of blood and promote healing. Crushing one or two leaves together with a bit of pepper and taking the mixture orally will treat retention of urine and other symptoms caused by hemorrhoids and venereal diseases. Crushing the leaf and taking the resulting juice will help treat cholera. Applying the juice of the leaf will heal dislocations, knotted muscles, and burns. Crushed leaves are placed over eyes to treat eye ailments. Juice from the leaf together with rock sugar is used to treat blood in the urine and dysentery. Juice from the leaf can be ground together with salt and pressed into a scorpion bite to neutralize the poison.

Common Name: Bottle Brush

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Myrtaceae**
Genus	:	***Callistemon***
Species	:	***lanceolatus* (Sm.) Sweet.**

Description:

Shrub or small tree up to 7 m. in height, leaves are lanceolate, long, with prominent veins, midrib and oil glands. Flowers are crimson red with dark red anthers. Long spikes, capsules are depressed globose. The obvious parts of the flower masses are stamens, with the pollen at the tip of the filament, the petals are inconspicuous. Flower heads vary in colour with species, most are red, but some are yellow, green, orange or white. Each flower head produces a profusion of triple-celled seed capsules around a stem which remains on the plant with the seeds enclosed.

Medicinal properties and uses:

Phytochemical screening showed the presence of saponins, tannins, carbohydrates, steroids, proteins, phenolic compounds and anthraquinone glycosides. *Callistemon* species are used in forestry, essential oil production, farm tree/windbreak plantings, degraded-land reclamation and ornamental horticulture, among other applications. It is used in traditional Chinese medicine for treating hemorrhoids. *Callistemon* is also used as weed control and as bioindicator for environmental management.

Common Name: Papaya

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Brassicales**
Family	:	**Caricaceae**
Genus	:	***Carica***
Species	:	***papaya* L.**

Description:

The papaya is a small, sparsely branched tree, usually with a single stem growing up to 10 m tall and spirally arranged leaves confined to the top of the trunk. The lower trunk is conspicuously scarred where leaves and fruit were borne. The leaves are large in diameter, deeply palmately lobed, with seven lobes. All parts of the plant contain latex in articulated laticifers. Papayas are dioecious. . Male and female flowers are borne in the leaf axils. The males are multiflowered dichasia, and the female flowers are in few-flowered dichasia. The flowers are five-parted and highly dimorphic; the male flowers have the stamens fused to the petals. The female flowers have a superior ovary and five contorted petals loosely connected at the base. The fruit is a large berry that is generally spherical or cylinder in form with numerous black seeds.

Medicinal properties and uses:

It is used for cancer, diabetes, a viral infection called human papilloma virus (HPV), dengue fever, and other conditions. It contains a chemical called Papain, which is commonly used as a meat tenderizer. It also contains a chemical called Carpain, seems to be able to kill certain parasites, and it might affect the CNS. Papaya also seems to have antibacterial, antifungal, anti-viral, anti-inflammatory, antioxidant, and immune-stimulating effects.

Common Name: Raatrani

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Solanales**
Family	:	**Solanaceae**
Genus	:	***Cestrum***
Species	:	***nocturnum* L.**

Description:

Shrubs or small trees 2- 4 m tall; branches somewhat flexuous, sparsely pubescent with crisped, simple hairs and a few minute glandular hairs. Leaves lanceolate, apex acuminate, base rounded with long petiole. Flowers in spicate, often congested racemes, forming terminal leafy panicles; calyx campanulate, upper 1/3 divided into triangular lobes; corolla strongly sweet-scented by night, greenish yellow, tubular, slender, slightly enlarged toward apex; stamens 5, inserted high in corolla tube; filaments with an erect process projecting below point of insertion; ovary with an annular disk; style 1; stigma shortly bifid, exceeding anthers. Fruits are berries, white, hard or juicy.

Medicinal properties and uses:

An extract of the plant is used as antispasmodic and as a treatment for epilepsy. Decoctions of the dried leaves were not effective against pharmacologically induced convulsions, but repeated administration reduced the amplitude of epileptic spikes in both primary and secondary foci. The plant possesses analgesic activity. Both aqueous and methanol extracts of the plant have bactericidal activity. The plant is grown as an ornamental hedge.

Common Name: Hadjod, Pirandai.

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Vitales**
Family	:	**Vitaceae**
Genus	:	***Cissus***
Species	:	***quadrangularis* L.**

Description:

It is a succulent shrubby climber with 4-winged internodes and a tendril at the nodes; reaches a height of 1.5 m approximately. Stem jointed at nodes, internodes are 8 to 10 cm long and 1.2 to 1.5 cm wide. Flowering is very rare and flowers are small, greenish white, bisexual, tetramerous and opposite to the leaves. Fruit are globose fleshy berries.

Medicinal properties and uses:

The plant contains calcium oxalate, β-carotene, ascorbic acid, β-sitosterol and 3-ketosteroids, also flavonoids such as quercetin, and kaempferol. The stem contains two unsymmetrical tetracyclic triterpenoids, onocer7-ene-3α, 21β-diol and onocer- 7-ene-3β, 21 α – diol, two steroidal principles I and II, δ-amyrin, δamyrone. The roots and stems are most useful for healing of fracture of the bones. It has been documented in Ayurveda and Siddha systems of medicine for the treatment of various ailments like syphilis, gouts, piles, leucorrhoea, veneral diseases, diarrhoea and dysentery. The entire plant is of medicinal properties like bone healing, anti-inflammatory, analgesic, antimicrobial, antiulcer, antiosteoporosis, antioxidant and antiobestity properties. The stem juice is used to treat scurvy, menstrual disorders, otorrhoea, and epistaxis.

Common Name: Ranjai, Churanhar, Morvel

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Order	:	**Ranunculales**
Family	:	**Ranunculaceae**
Genus	:	***Clematis***
Species	:	***gouriana* L.**

Description:

Climbing herb with young pubescent branches. Leaflets ovate, acute at apex, rounded at base, nerves tomentose below. Panicles drooping, terminal and axillary, tomentose. Flowers white, sepals oblong, obtuse, pubescent; stamens many, filaments long, glabrous; carpels 10-15, pubescent, style hairy and persistent. Fruits are achene.

Medicinal properties and uses:

Whole plant juice applied on forehead for cold, headache, wound healing, and as antimicrobial. Leaf extract applied externally for eczema, boils, itches; leaf paste applied to scabies and cuts; powdered leaves taken like snuff for sinusitis. Leaves of *Clematis* and *Dioscorea* crushed together and juice dropped in the nose for epilepsy. Flowers keep off insects. Root decoction given in stomachache.

Common Name: Insulin plant

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Monocots**
Clade	:	**Commelinids**
Order	:	**Zingiberales**
Family	:	**Costaceae**
Genus	:	***Costus***
Species	:	***igneus* Nak**

Description:

It is a perennial, upright, spreading plant reaching about two feet, with the tallest stems falling over and lying on the ground. Leaves are simple, alternate, entire, oblong, evergreen, 4-8 inches in length with parallel venation. The large, smooth, dark green leaves of this tropical evergreen have light purple undersides and are spirally arranged around stems, forming attractive, arching clumps arising from underground rootstocks. Beautiful, orange flowers are produced in the warm months, appearing on cone-like heads at the tips of branches. Fruits are inconspicuous, not showy, and green-colored

Medicinal properties and uses:

It is popularly used as an antidiabetic herbal medicine. In Siddha medicine, used for diabetes; leaves chewed twice daily or dried powder of leaves taken 1/2 to 1 gram twice daily for diabetes. In west Sikkim, India, leaves used for treatment skin diseases, asthma, bronchitis, fever, and intestinal worm disease. In Mexico, infusion of aerial parts is used for treatment of renal disorders.

Common Name: Lemon, Limbu

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Sapindales**
Family	:	**Rutaceae**
Genus	:	***Citrus***
Species	:	***limon* (L.) Osbeck**

Description:

A small tree or shrub, reaches a height of 2-5 m with spiny shoots and alternately arranged evergreen leaves. It has irregular straggling branches and stiff twigs and long spines at the leaf axils. The leaves are green and lemon scented with slightly serrate edges, ovate-lanceolate. Flowers are solitary or in small corymbs, with five white petals and numerous stamens, often very strongly scented. Fruit is usually globose to elongated, with a leathery rind or peel.

Medicinal properties and uses:

The fruit is rich in vitamin C which helps the body to fight off infections and also to prevent or treat scurvy. The juice is a good astringent and is used as a gargle for sore throats. Lemon juice is also a very effective bactericide. It is also a good antiperiodic and has been used as a substitute for quinine in treating malaria and other fevers. The skin of the ripe fruit is carminative and stomachic. The essential oil from the skin of the fruit is strongly rubefacient and when taken internally in small doses has stimulating and carminative properties. The stem bark is bitter, stomachic and tonic. An essential oil from the fruit rind is used in aromatherapy. Its keyword is 'Refreshing'. It contains coumarins such as Bergapten which sensitizes the skin to sunlight. The bioflavonoid in the fruit helps to strengthen the inner lining of blood vessels, especially veins and capillaries.

Common Name: Sago palm, King Sago, Japanese sago palm, Pahadi Supari

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Division	:	**Cycadophyta**
Class	:	**Cycadopsida**
Order	:	**Cycadales**
Family	:	**Cycadaceae**
Genus	:	***Cycas***
Species	:	***circinalis* L.**

Description:

The feathery leaves of this species arranged in a rosette pattern add a sense of the tropics to the landscape. The leaves are bright green, semi glossy, 150-250 cm long, flat (not keeled) in section (opposing leaflets inserted at 180° on rachis), with 170 leaflets, tomentum shedding as leaf expands. The plant does not bear branch. Male plants develop a cone approximately 30 cm tall coming from the center of the top. The cone is white or yellow, rounded and produces abundant pollen. The seeds are quite large and are brown or yellow; displayed on the feather-like seed-bearing leaves. The seeds have a spongy layer that allows them to float on water.

Medicinal properties and uses:

The heart or pith of the trunk is sliced and eaten baked or powdered. A toxic principal must first be removed. Starch can be extracted from this pith which is used for making dumplings. It is very sustaining. The leaves are used in the treatment of cancer and hepatoma. The terminal shoot is astringent and diuretic. The seed is emmenagogue, expectorant and tonic. It is used in the treatment of rheumatism. Substances extracted from the seeds are used to inhibit the growth of malignant tumors.

Common Name: Gawati chaha, Lemongrass

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Monocots**
Order	:	**Asperagales**
Family	:	**Poaceae**
Genus	:	***Cymbopogon***
Species	:	***citratus* (DC.) Stapf**

Description:

A tall perennial grass with dense fascicles of leaves arising from a short, oblique annulated rhizome. Leaves with an aromatic (lemony) odor when crushed; blades linear, long-attenuated towards the base and tapering upwards to a long point, glaucous green; midrib whitish on upper side, ligules very short, rounded or truncate; sheaths 10-30 cm long, glabrous and smooth, cinnamon colored or russet on the inside, those of the culms shorter than internodes, finely pubescent or velvety at the nodes. Flowers reddish, borne in loose panicles, sometimes larger, internodes, decreasing in length from base to apex.

Medicinal properties and uses:

Lemon grass is a bitter, aromatic, cooling herb that increases perspiration and relieves spasms. The essential oil obtained from the plant is an effective antifungal and antibacterial. The essential oil contains about 70% citral, plus citronellal - both of these are markedly sedative. Internally, the plant is used principally as a tea in the treatment of digestive problems, where it relaxes the muscles of the stomach and gut, relieving cramping pains and flatulence. It is particularly useful for children, for whom it is also used to treat minor feverish illnesses. Externally, especially in the form of the extracted essential oil, the plant is a very effective treatment for a range of skin conditions including athlete's foot, ringworm, lice and scabies. It is also applied to ease the pain of arthritic joints. An essential oil obtained from the plant is used in perfumery, scenting soaps, hair oils, cosmetics and as an insect repellent.

Common Name: Gulmohar, Firetree, Royal Poinciana, Flame Tree, Peacock Flower

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Fabales**
Family	:	**Fabaceae**
Genus	:	***Delonix***
Species	:	***regia* Hook.**

Description:

Tree with branches finely tomentose; Leaves compound, alternate, spiral; slender, stipules large, petioles long; leaflets 25-50 pairs, overlapping; truncate, obliquely acute at base, mucronate at apex, entire, membranous, sessile. Inflorescences in axillary racemes, bracts 1 pair, bracteoles 2, minute. Flowers solitary or in pairs, yellow; sepals lanceolate-ovate, acuminate, finely pilose externally; petals elliptic-orbicular. Pods are strap-shaped, flat, covered with fine bristles, dehiscent. Seeds compressed, obliquely oblong.

Medicinal properties and uses:

The plant is reported to have antibacterial, antidiabetic, antidiarrhoeal, antifungal, anti-inflammatory, antimalarial, antimicrobial, antioxidant, cardio-protective, gastro-protective, hepatoprotective and wound healing activity. It is used in folk medicine to treat a range of disorders, including constipation, inflammation, rheumatoid arthritis, diabetes, pneumonia, and malaria. The active compounds include flavonoids, alkaloids, saponins, sterols, beta-sitosterol, lupeol, tannins, carotenoids, and phenolic acids. Flavonoids and triterpenes have been shown to have analgesic activities and the flavonoids are also powerful antioxidants. An aqueous extract of the flowers is active against roundworm. The aqueous extracts of the plant can be used as natural herbicides and pesticides to increase the productivity of agricultural crops.

Common Name: Snake plant, Mother in law's tongue

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Monocots**
Order	:	**Asperagales**
Family	:	**Poaceae**
Genus	:	***Dracaena***
Species	:	***trifaciata* (Prain) Mabb.**

Description:

It forms dense stands, spreading by way of its creeping rhizome, which is sometimes above ground, sometimes underground. Its stiff leaves grow vertically from a basal rosette. Mature leaves are dark green with light gray-green cross-banding and usually range between 70-90 cm in length and 5-6 cm in width. Snake Plant is native to Africa. It has stiff sword-shaped leaves, 4 feet long by 2.75 inches wide. Leaves are banded yellow on either side with a deep green, lightly banded center. The flowers are greenish-white and are on 18-inch spikes in spring.

Medicinal properties and uses:

The plant is used to treat ringworm and fungal diseases. The leaf sap is applied directly on infected sores, cuts and bruises, it is also used to treat fungal and scabies infections. Fibre obtained from the leaves is used to make strings, mats etc. The leaf pulp is used for cosmetics. The NASA Clean Air Study found it has air purification qualities, removing 4 of the 5 main toxins. Widely used as an ornamental, in both the tropics outdoors in both pots and garden beds and as an indoor plant in temperate areas. It is popular as a houseplant because it is tolerant of low light levels and irregular watering; during winter it needs only one watering every couple of months. It will rot easily if overwatered.

Common Name: Baad, Neelkanta, Piwalimendi

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Lamiales**
Family	:	**Verbenaceae**
Genus	:	***Duranta***
Species	:	***plumieri* Jacq.**

Description:

Shrub, erect or scandent 5-15 ft. Bark dark brown. Leaves opposite, ovate-elliptic, obovate-oblong, base cuneate to acute, margin entire to dentate-serrate, apex acute to acuminate, green colored and sometimes with yellow and white patches near the margins, reticulate, petiolate.. Inflorescence racemose- panicles, axillary, terminal and on branchlets. Flowers zygomorphic, slender, pedicellate. Calyx tubular, 5 toothed with acute teeth, sparsely pubescent and light green colored. Corolla hypocrateriform, unequal 5 lobed, blue, purple and yellowish purple, apex truncate. Stamens 4, didynamous, inserted in the corolla tube, filaments filiform, hairy, green colored. Ovary globose. Fruit drupe, shining yellow.

Medicinal properties and uses:

Flowers are believed to be stimulant. Infusion of leaves and juice of fruit are diuretic. Leaves used for treatment of abscesses. In Bangladesh, tribals and mainstream use it in treatment of malaria. Also used as insect repellent, treatment of itches, infertility, fever, and pneumonia. In India, leaves and stems are used for treatment of cataracts. In the southeastern part of Nigeria, fruits are used for treatment of malaria, abscesses, and parasitism. Its fruits are used as febrifuge and are a treatment for malaria and intestinal worms. It is cultivated as an ornamental and as a plant used in hedges and windbreaks. Fruit juice is also known to be used against mosquitoes.

Common Name: Nilgiri, Tasmanian blue gum

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Myrtaceae**
Genus	:	***Eucalyptus***
Species	:	***globulus* Labill.**

Description:

Trees, up to 30 m high; bark smooth, peeling off in long stripes. Leaves of the seedlings opposite, sessile, bluish-green, glaucous, strongly discolourous; juvenile leaves opposite, sessile, elliptic-ovate, glaucous; intermediate leaves alternate, petiolate, glabrous, broadly lanceolate; adult leaves alternate; petiolate, glabrous; falcate or lanceolate, base acute or obtuse, apex acute or acuminate, margin entire, glabrous, coriaceous; lateral nerves many, pinnate, prominent, intercostae reticulate, pellucid-punctate. Flowers bisexual, axillary, solitary; buds sessile, turbinate, warty, glaucous; hypanthium ribbed; operculum long, flat, with a central knob; stamens many, free, anthers obovoid, versatile; ovary inferior, adnate to the hypanthium, 3-5-celled, ovules many; style simple; stigma capitate. Fruit a capsule, seeds many.

Medicinal properties and uses:

Leaves contain 70–80% eucalyptol (cineol). Also includes terpineol, sesquiterpene alcohols, aliphatic aldehydes, isoamyl alcohol, ethanol, and terpenes. Tannin is not so copious in the leaves as of many other *Eucalyptus* species. . Fresh leaves contain caffeic and gallic acids, dry leaves, ferulic and gentisic, and quercetol, quercitrine, rutin, and a mixture of quercetol hyperoside and glaucoside. It is reported to be antiperiodic, antiseptic, astringent, deodorant, diaphoretic, expectorant, febrifuge, hemostat, inhalant, insect repellant, rubefacient, sedative yet stimulant and vermifuge; the blue gum eucalyptus is a folk remedy for abscess, arthritis, asthma, boils, bronchitis, burns, cancer, cold, cough, cystitis, diabetes, diphtheria, dysentery,

dyspepsia, fever, flu, inflammation, laryngitis, leprosy, malaria, miasma, rhinitis, sores, sore throat, spasms, tuberculosis, tumors, vaginitis, wounds, and worms. Venezuelans take leaf decoction for chest ailments or colds, inhaling the vapors or drinking the decoction. Guatemalans use the leafy shoots for coughs. Jamaicans put the leaves in the bed, the bath, or the teapot for colds and fever. Cubans use the essential oil for bronchitis, bladder and liver infections, lung ailments, malaria, and stomach trouble. Mexicans chew the fresh leaves to strengthen the gums. Mexicans also use the leaf decoction as a vaginal douche. They argue that daily drinking of the leaf infusion can reverse diabetes in 8 days. Leaves are placed in the bath for rheumatism. Homeopaths use the plant for bronchitis, colds, flu, laryngitis, and rheumatism.

In Asia, the leaf oil, clearly poisonous in large quantities, is regarded as anesthetic, antibiotic, antiperiodic, expectorant, febrifuge, and vermifuge, and it is used for asthma, bronchitis, influenza, and tuberculosis. In Australila, the leaves of the bluegum are still widely used as a household remedy in the treatment of many diseases and minor complaints. In Britain and Europe the essential oil, which is powerfully antiseptic, is given for fevers and febrile conditions, for pulmonary tuberculosis, and is applied or inhaled for relieving asthma, bronchitis, sore throat, croup, whooping-cough, scarlet fever, and even diphtheria and typhoid. The dried leaves are also smoked like cigarettes for asthma. Europeans in Africa and Africans themselves may wear the leaf in the hat or place it around the residence as a flu preventative. It is also regarded as a malaria preventative. African herbalists believe the root is purgative.

Common Name: Pukar, Nandarukh, Mandara, Golden fig, Benjamin's fig

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Rosales**
Family	:	**Moraceae**
Genus	:	***Ficus***
Species	:	***benjamina* L.**

Description:

Large tree about 30 m tall, bark smooth with drooping branches producing aerial roots. Leaves simple, alternate, elliptical, thick and 3-4 inches long; petiole 1 cm long, stipules lanceolate. Inflorescence is hypanthodium. Figs axillary on leafy branches, solitary or paired, red or yellow when mature, globose, or pubescent, sessile; involucral bracts inconspicuous, glabrous, persistent. In gall figs, male and female flowers are present within the same fig. Male flowers shortly pedicellate, stamens 1, filament rather long. Ovary ovoid, smooth, short. Female flowers sessile, calyx lobes 3, shortly spatulate, stigma enlarged. Syconus fruit.

Medicinal properties and uses:

The bark of the root and the leaves are boiled in oil and applied on wounds and bruises. The juice of the bark has a reputation in the Philippines for curing liver diseases. The pounded leaves and bark are applied as a poultice in the treatment of rheumatic headaches. The strips of bast of this species are salmon-buff; some are soft and pliable, others hard and stiff. Rope made from the bast possesses a fair degree of tenacity. The wood is of low quality, but is used for temporary constructions, interior work, small domestic articles, fruit crates etc.

Common Name: Anjir, Fig

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Rosales**
Family	:	**Moraceae**
Genus	:	***Ficus***
Species	:	***carica* L.**

Description:

It is commonly called common fig. A deciduous shrub or small tree (to 15-30' tall). It is noted for its spreading habit, attractive foliage and edible fruit. Old trees with smooth silver-gray bark (sometime gnarled with age) are ornamentally attractive. Large, palmate, hairy, 3-5 lobed leaves are rough dark green above and smooth light green beneath. Non-showy greenish flowers form in spring inside hollow receptacles near the branch growing tips. The fruit develops within each receptacle.

Medicinal properties and uses:

It has been traditionally used for its medicinal benefits as metabolic, cardiovascular, respiratory, antispasmodic, and anti-inflammatory remedy. Leaves, fruits, and roots are used in native medicinal system in different disorders such as gastrointestinal (colic, indigestion, loss of appetite, and diarrhea), respiratory (sore throats, cough, and bronchial problems), inflammatory, and cardiovascular. Fruits can be eaten fresh or dried or used as jam. Figs are used as an excellent source of minerals, vitamins, carbohydrates, and dietary fibre because it is fat and cholesterol free and contain high number of amino acids. It is also reported that figs have been conventionally used for their therapeutic benefits as laxative, cardiovascular, respiratory, antispasmodic, and anti-inflammatory remedies.

Common Name: Dhaman

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Malvales**
Family	:	**Malvaceae**
Genus	:	***Grewia***
Species	:	***tilifolia* Vahl.**

Description:

Large trees, bark dark brown or greyish-brown, rough, branchlets stellate-tomentose. Leaves simple, alternate; stipules lateral, petiole 8-35 mm, stout, pubescent; lamina broadly ovate or obliquely ovate to round, base obliquely cordate or subcordate, apex acute, margin double serrate or crenate-serrate, glabrescent above and hoary pubescent beneath, coriaceous. Flowers bisexual, yellow, in axillary umbels; sepals 5, pubescent; petals 5, yellow, half the length of sepals, entire or notched, densely tomentose outside; stamens many, free, inserted on a glandular torus; ovary superior, ovules 2-many; style subulate; stigma obscurely lobed. Fruit a drupe, globose to subglobose, reddish-purple, 2-lobed, sparsely hairy.

Medicinal properties and uses:

The fruit is a good source of micronutrients such as anthocyanins, phenols, flavonoids and vitamin C. They have a moderate antioxidant activity and make an excellent, healthful addition to the diet. The fruit is antioxidant. Fibre from the inner bark is used to make cordage. The brown heartwood is in a thin layer; the sapwood is white. The wood is close-grained, hard. It is used for shafts, shoulder poles, masts, golf clubs, tool handles, oars and all purposes for which elasticity, strength and toughness are required

Common Name: Scarlet Bush, Firebush

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Gentianales**
Family	:	**Rubiaceae**
Genus	:	***Hamelia***
Species	:	***patens* Jacq.**

Description:

It is a showy, fast-growing, semi-woody evergreen shrub that can get up to 15 ft tall. It has whorled leaves, usually with three but occasionally as many as seven at each node. Leaves are elliptic to oval and gray-velvet-hairy underneath with reddish veins and leaf-stalks. Throughout the year, firebush produces showy clusters of bright reddish-orange or scarlet tubular flowers at branch ends. Even the flower stalks are red. The clusters of fruit also are showy. Each fruit is a juicy berry with many small seeds, ripening from green to yellow to red and finally to black.

Medicinal properties and uses:

Indigenous people in Belize use the plant to prepare a natural remedy to treat all types of skin problems including, sores, rashes, wounds, burns, itching, cuts, skin fungus, insect stings and bites. The Choco Indians in Panama drink a leaf infusion for fever and bloody diarrhoea; the Ingano Indians of northwest Amazonia prepare a leaf infusion for intestinal parasites. Indigenous tribes in Venezuela chew on the leaves to lower body temperature to prevent a sun or heat stroke. In the Peruvian Amazon, the leaves are used by the indigenous people for dysentery, fevers, rheumatism and scurvy. Leaves are also warmed or prepared into a poultice and applied externally as a pain reliever for bruises, strains, sprains, and other painful or inflamed conditions.

In Peruvian herbal medicine systems, it is used to reduce inflammation, relieve pain, and to expel intestinal worms.

Common Name: China rose, Jaswand

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Malvales**
Family	:	**Malvaceae**
Genus	:	***Hibiscus***
Species	:	***rosa-sinensis* L.**

Description:

Evergreen, erect shrubs, 1-5m tall, glabrate. Stems woody. Leaves simple, alternate, spiral; Stipules filiform, hairy; petiole long; lamina ovate or elliptic-ovate, tapering at base, acuminate at apex, serrate-dentate along margins. Flowers solitary axillary; Pedicellate. Epicalyx lobes 5-8, filiform, connate at base, sparsely stellate, apex obtuse or acute, Calyx campanulate, stellate puberulent, lobes 5, ovate to lanceolate. Corolla pinkish to red, with or without dark centre; petals 5, twisted, obovate, pilose abaxially, apex rounded; staminal column long, exserted, anthers monothecous, reniform. Capsules long, glabrous, apex beaked.

Medicinal properties and uses:

It is a sweet, astringent, cooling herb that checks bleeding, soothes irritated tissues and relaxes spasms. The flowers are aphrodisiac, demulcent, emmenagogue, emollient and refrigerant. They are used internally in the treatment of excessive and painful menstruation, cystitis, venereal diseases, feverish illnesses, bronchial catarrh, coughs and to promote hair growth. An infusion of the flowers is given as a cooling drink to ill people. The leaves are aperient, emollient and laxative. The leaves and flowers are beaten into a paste and poultice onto cancerous swellings and mumps. The flowers are used in the treatment of mumps, fever and sores. The root is a good source of mucilage.

Common Name: Mogra

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Oleaceae**
Genus	:	***Jasminum***
Species	:	***sambac* (L.) Aiton**

Description:

It is an evergreen vine or shrub reaching up to 0.5 to 3 m. The leaves are ovate. The phyllotaxy is opposite or in whorls of three, simple, smooth except for a few hairs at the venation on the base of the leaf. The flowers bloom all throughout the year and are produced in clusters of 3 to 12 together at the ends of branches. They are strongly scented, with a white 5 to 9 lobed corolla. The flowers open at night and close in the morning. The fruit is a purple to black berry.

Medicinal properties and uses:

Leaves are antiamoebic, astringent, febrifuge. A decoction is used internally as a treatment for fever. An infusion is employed in the treatment of pulmonary catarrh, bronchitis, and also asthma. A poultice of the leaves is applied externally to treat skin complaints and wounds. The bruised leaves or flowers are applied as a poultice to the breasts of lactating women to discourage the production of breast milk. An infusion of the flowers is applied to the eyelids as a decongestant. The stems are employed as an antipyretic and in the treatment of abscesses. A tincture made from the root is said to have very strong sedative, anaesthetic and vulnerary properties. The root is given fresh to treat fevers and venereal diseases. A decoction is employed in the treatment of pulmonary catarrh, bronchitis, and also asthma. The roots are used externally as poultices for sprains and fractures.

Common Name: Mehendi, Henna

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Lythraceae**
Genus	:	***Lawsonia***
Species	:	***inermis* L.**

Description:

It is a much-branched glabrous shrub or small tree 2-6 m in height, which may be spiny. Young branches quadrangular green but turn red with age. Leaves opposite, entire, subsessile, elliptic to broadly lanceolate, glabrous, acuminate. Flowers small, white, numerous; in large pyramidal terminal cymes, fragrant, 4 petals crumpled in the bud. Petals orbicular to obovate, white or red; stamens 8, inserted in pairs on the rim of the calyx tube; ovary 4 celled, style long, erect. Fruits small, brown, globose capsules, many-seeded, opening irregularly, with a persistent style.

Medicinal properties and uses:

Roots are regarded as a potent medicine for gonorrhea and to enhance fertility in women; a decoction of them is considered to be diuretic or for treating blenorrhoea and bronchitis. A reported constituent of the leaves is an oxynaphthoquinone called lawsone, which has antibiotic properties. Leaf and flower infusions are applied externally for ulcers and rheumatism or are taken orally for tetanus, epilepsy and stomach pains; leaves are used in treatment of leprosy, jaundice and scurvy. Astringent roots are ground and rubbed on the heads of children to treat boils and eye diseases. Fresh bruised leaves are used as poultices to relieve a burning sensation of the feet; to treat beriberi, skin diseases, boils, circumcision wounds and distension of the stomach; a decoction can also be gargled to treat gum boils, or prescribed to relieve abdominal pains after childbirth.

Common Name: River tamarind, Subabhul

Classification: (APG)

Kingdom	**:**	**Plantae**
Clade	**:**	**Angiosperms**
Clade	**:**	**Eudicots**
Clade	**:**	**Asterids**
Order	**:**	**Gentianales**
Family	**:**	**Fabaceae**
Genus	**:**	***Leucaena***
Species	**:**	***leucocephala* (Lam.) de Wit**

Description:

Deciduous trees up to 20 m tall; branchlets terete. Leaves compound; pinnate, with a pair of large sessile leaflets at apex and an odd one much smaller below on outside, all with a gland on rachis at base; stipules spine like; petiolate, glabrous; oblong to elliptic, cuneate at base, often oblique, acuminate at apex, entire, subleathery. Heads axillary or on old branches; peduncles long. Flowers homogeneous, tetramerous; calyx campanulate, slightly 4-toothed; corolla funnel-shaped; stamens numerous; filaments white; ovary glabrous. Legume strap-shaped, flat, margin thickened, base attenuate, apex rounded, oblique, mucronate, and dehiscent from apex to base.

Medicinal properties and uses:

Medicinally, the bark is eaten for internal pain. A decoction of the root and bark is taken as a contraceptive, ecbolic, depilatory, or emmenagogue in Latin America. However, in experiments with cattle, *Leucaena* had no effect on conception. Leadtree is valued as an excellent protein source for cattle fodder, consumed browsed or harvested, mature or immature, green or dry. The nutritive value is equal to or superior to alfalfa. The tree has gained a favorable reputation in land reclamation, erosion control, water conservation, reforestation and soil improvement programs, and is a good cover and green manure crop. The leaves, used as mulch around other crops, are said to significantly increase their yields.

Common Name: Mango, Amba, Aaam

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Sapindales**
Family	:	**Anacardiaceae**
Genus	:	***Mangifera***
Species	:	***indica* L.**

Description:

Evergreen trees, up to 30 m high, bark dark grey, rough with vertical fissures. Leaves simple, alternate, clustered at the tips of branchlets, estipulate; petiolate, glabrous, pulvinate; elliptic, elliptic-lanceolate, linear-oblong, base acute, apex acuminate, acute or obtusely acute, margin entire, glabrous, shiny, coriaceous. Flowers polygamous, yellowish-green, in terminal panicles; pedicels jointed; bract deciduous; calyx 4-5, ovate, imbricate, cauducous; petals 4-5, oblong-obovate, free or adnate to the disc; disc fleshy; stamens 4-5, inserted inside or on the disc, fertile stamens 1 or 2; filaments free, glabrous; ovary sessile, superior, oblique, ovule pendulous; style lateral; stigma simple. Fruit a drupe.

Medicinal properties and uses:

An infusion is taken to reduce blood pressure and as a treatment for conditions such as angina, asthma, coughs and diabetes. A mouthwash made from the leaves is effective in hardening the gums and helping to treat dental problems. The leaves are used to treat skin irritations. The charred and pulverized leaves are used to make a plaster for removing warts and also act as a styptic. The seed is astringent, antidiarrhoeal; anthelmintic when roasted. It is used to treat stubborn colds and coughs, obstinate diarrhoea and bleeding piles. The pulverized seed is made into a sweetened tea and drunk, or taken as powders, for treating dysentery. The seeds are ground up and used to treat scorpion stings. The bark is astringent and homeostatic.

Common Name: Chiku

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Ericales**
Family	:	**Sapotaceae**
Genus	:	***Manilkara***
Species	:	***zapota* (L.) P.Royen**

Description:

It is an evergreen, slow-growing tree, 5-20 m in cultivation but reaching up to 40 m in height in the forest. Branches are horizontal or drooping. Leaves are long with pointed ends, stiff and alternate, clustering at ends of shoots, pinkish upon emergence, turning light green, then darkening with age. Flowers are inconspicuous, bell-shaped, and white, borne singly or in clusters in leaf axils near the tips of branches. The fruit is a berry, round to oval or conical, covered with a hairy, brown peel and have very sweet, light-brown to reddish-brown pulpy flesh, gritty to smooth in texture. Each fruit has 0-12 flattened, shiny, black seeds.

Medicinal properties and uses:

A leaf decoction is taken for fever, haemorrhage, wounds and ulcers. For neuralgia, leaf with tallow is applied as a compress on the temples. The flowers are used as one of the ingredients of a powder that is rubbed on the body of a woman after childbirth. The bark is astringent, febrifuge and tonic. Tannin from the bark is used to cure diarrhoea and fever. The fruit is eaten as a remedy for indigestion and diarrhoea. Seeds are antipyretic, and when ground with water they act as a diuretic. They are used to expel urinary and gall bladder stones. The pulverized roots are used to treat thrush in babies. The plant is a source of sapotin, a glucoside used in medicine as a febrifuge.

Common Name: Neem Chameli, Kawal Nimb

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Lamiales**
Family	:	**Bignoniaceae**
Genus	:	***Millingtonia***
Species	:	***hortensis* L.**

Description:

Trees 8-25 m tall. Leaves petiolate; leaflets elliptic, ovate, or ovate-oblong, glabrous, base rounded, oblique, margin entire, apex acuminate; lateral veins on each side of midrib. Inflorescence cymose-paniculate, peduncle and pedicels pale yellow pubescent; bracts and bractlets deciduous. Pedicel slender. Calyx small, cupular, lobes slightly reflexed. Corolla white, tubular; lobes globose in bud, densely pubescent along margin adaxially. Ovary glabrous; ovules numerous. Capsule linear, compressed. Seeds discoid, compressed, including wing, surrounded by membranous transparent wings.

Medicinal properties and uses:

Leaf is boiled in water and eaten, or made into a stir-fry, for menstruation and hypertension. A soup made with the flowers or eating the shoots cures hypertension and heart palpitations. Taking the paste of the root after adding salt or sugar cures heart palpitations and dizziness; drawing circles around the eyes with a paste made from the root and bark will cure sore eyes; applying a paste made from the root will cure gas disorders; drinking the liquid in which the fresh root has been boiled with jaggery will cure vitiligo; rubbing a paste of the root or bark onto the tongue will cure alcoholic intoxication. Stem also has great medicinal value, used as lung tonic and in cough disease.

Common Name: Touch me not, Lajwanti

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Fabales**
Family	:	**Fabaceae**
Genus	:	***Mimosa***
Species	:	***pudica* L.**

Description:

It has prickly stems and small, fluffy, ball shaped pink flowers in summer. It grows to a height of 50 cm with a spread of 30 cm. The stem is erect, slender and branching. The leaves are bipinnate, fern like and pale green- closing when disturbed. Stalked pale pink or purple flower-heads arise from the leaf axils. The floret petals are red in their upper part and the filaments are pink to lavender. The fruit consists of clusters of 2-8 pods. The pods break into 2-5 segments and contain pale brown seeds.

Medicinal properties and uses:

The leaves together with leaves from other medicinal plants are used in treating hemorrhoids and urinary infections. The juice is used in sinus, sores, piles, and fistula; paste is applied to glandular swellings, and hydrocele. Root decoction treats dysentery, fever, syphilis, leprosy, stomach worms, veneral diseases, insect bite, insomnia, nervousness, and piles. Leaves are used for increasing the sexual potency in men in Kurukshetra District (Haryana). The paste of root fried in castor oil is applied on deep cut wounds to stop bleeding and for healing. The warmed leaf paste is applied around furuncle, abscess, and boils to burst and release of pus. The leaf paste is applied on the burst boils and itches for quick healing. The paste of root fried in ghee is applied on caries teeth for relief from toothache. The leaf paste is applied on forehead to get relief from headache and migraine.

Common Name: Tulsi

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Lamiales**
Family	:	**Lamiaceae**
Genus	:	***Ocimum***
Species	:	***sanctum* L.**

Description:

Herb or sub-shrub upto 1 m high, much-branched, with a pungent aromatic odour; the branchlets and new growth is pubescent with soft white hairs. Leaves with blades elliptic to elliptic, cuneate to attenuate at base, obtuse to acute at apex, entire to remotely serrate at margins, pubescent on both surfaces; petioles long, softly pubescent. Flowers terminal, slender racemes or panicles, the bracteoles long, ovate, acuminate, ciliate; flowers in verticils; calyx long, glabrous within, the upper lip suborbicular, reflexed, short-apiculate, the lower lip longer than the upper lip, lanceolate; corolla pale pink, pale lavender or white; filaments of stamens exserted, slender, the upper pair of each with a small, bearded basal appendage. Fruit with nutlets.

Medicinal properties and uses:

A pungently aromatic, warming, antiseptic herb; it induces perspiration; lowers fevers; relaxes spasms; eases pain; clears bacterial infections; strengthens the immune and nervous systems; reduces inflammations; and benefits the digestive system. The essential oils from the leaf have shown antibacterial and antifungal activity. The plant is used internally in the treatment of feverish illnesses (especially in children), colds, influenza, sinusitis, headaches, rheumatism, arthritis, digestive disorders, including abdominal distension and cramps; low libido and negativity. It has been found helpful in some types of diabetes. The herb is used externally as an antiseptic to treat skin infections, spots etc.

Common Name: Naag Champa

Classification: (APG)

Kingdom	**:**	**Plantae**
Clade	**:**	**Tracheophytes**
Clade	**:**	**Angiosperms**
Clade	**:**	**Eudicots**
Clade	**:**	**Asterids**
Order	**:**	**Gentianales**
Family	**:**	**Apocynaceae**
Genus	**:**	***Plumeria***
Species	**:**	***pudica* Jacq**

Description:

It is a shrub which usually has one or two slender trunks that branch close to the ground forming a dense slightly spreading crown. Leaves are dark green and unique fiddle-shaped, or spoon-shaped. Large clusters of bright white 3 inch flowers with small yellow centers cover this tree as a beautiful bouquet, hence the common name. The flowers are not fragrant. The plant looks attractive even when it is not flowering, because of its beautiful leaves.

Medicinal properties and uses:

The root bark is depurative and purgative, causing thirst. It is used in the treatment of blennorrhagia, herpes and syphilis. The root bark is used externally as a lotion on syphilitic ulcers, administered as powder macerated in sugar-water, wine or beer. The latex from the stem is caustic. It is used for treating ulcers, dartre (skin diseases) and scabies. The flowers are bitter and caustic. They are an ingredient in complex pectoral syrup for treating chest coughs and grippe. The seeds are used in the treatment of dysentery (bloody flux). The light brown wood is hard, heavy, and tough. It is used in carpentry where the tree grows to sufficient size. The wood is used for fuel.

Common Name: Ashok, Devdar

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Magnoliids**
Order	:	**Magnoliales**
Family	:	**Annonaceae**
Genus	:	***Polyalthia***
Species	:	***longifolia* Sonn.**

Description:

The plant grows throughout the tropical and subtropical parts of India. Tall, evergreen, pyramid-like, columnar, tree: main stem straight, undivided, growing up to 12 m or more. Branches slender, short, glabrous, and pendulous. Leaves alternate, exstipulate, distichous, mildly aromatic, shining, glabrous, narrowly lanceolate, tapering to a fine acuminate apex; margin markedly undulate, pinnately veined, leathery or subcoriaceous, shortly petiolate. Flowers arise from branches below the leaves, nonfragrant, yellowish to green, in fascicles or shortly pendunculate umbels; petals 6, flat, from a broad base, lanceolate, long accumulate, spreading; sepals 3, broad, short, triangular, the tips reflexed. Stamens many, cuneate. Ovaries indefinite; ovules 1-2; style oblong. Ripe fruits ovoid, long, numerous, stalked, glabrous. Seeds smooth, shining.

Medicinal properties and uses:

The bark of the tree used in treatment of fever and to prevent abortion. The juice extracted from the fresh bark is used to treat indigestion. For gonorrhea, the stem bark is powdered and mixed with butter to apply in the genital region. The stem bark is given in malignant treatment. The bark is used in treatment of diabetes and high blood pressure. The leaves possess antifungal and anti bacterial properties. Decoction of bark is used for curing mouth ulcers. The stem bark extract is given orally for indigestion.

Common Name: Guava, Amrood

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Myrtaceae**
Genus	:	***Psidium***
Species	:	***guajava* L.**

Description:

Shallow-rooted shrub or small tree, up to 10 m tall, branching from the base and often producing suckers. Bark smooth, green to red-brown, peeling off in thin flakes. Young twigs four-angled and ridged, pubescent. Leaves opposite, petioles long; blade elliptic to oblong, glabrous above, finely pubescent beneath. Flowers solitary or in 2-3 flowered axillary cymes, four to six calyx lobes, irregular; petals four to five, white; stamens numerous; ovary 4-5-locular; stigma capitate. Fruit a berry, globose, ovoid or pyriform, surmounted by the persistent calyx lobes; exocarp green to yellow; mesocarp fleshy, white, yellow, pink or red, sour to sweet and aromatic. Seeds numerous, yellowish embedded in a pink or white pulp.

Medicinal properties and uses:

Root of plant is used in the treatment of diarrhoea, coughs, stomach-ache, dysentery, toothaches, indigestion, and constipation. The roots of the plant have been reported for their astringent property. The decoction and poultice of the root are used as astringent, in ulcers, wounds and diarrhoea. The bark has been reported for their astringent, febrifuge, antiseptic properties. The decoction form of the bark is used in the treatment of ulcer. The decoction and poultice form of plant is used to expel the placenta after child birth and in infection of the skin, caries, vaginal haemorrhage wounds and respiratory disturbances. The leaves of the plant have been implicated in management of diarrhoea, wounds, ulcer, toothache, and stomach-ache and in the diabetes.

Common Name: Dalimb, Anar

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Lythraceae**
Genus	:	***Punica***
Species	:	***granatum* L.**

Description:

A shrub or small tree growing 5 to 10 m high, the pomegranate has multiple spiny branches and is extremely long-lived, with some specimens in France surviving for 200 years. Leaves are opposite or sub opposite, glossy, narrow oblong, entire, 3–7 cm long and 2 cm broad. The flowers are bright red with three to seven petals. Some fruitless varieties are grown for the flowers alone.

Medicinal properties and uses:

All parts of the plant contain unusual alkaloids, known as 'pelletierines', which paralyse tapeworms so that they are easily expelled from the body by using a laxative. The plant is also rich in tannin, which makes it an effective astringent. It is used externally in the treatment of vaginal discharges, mouth sores and throat infections. The whole plant, but in particular the bark, is antibacterial, antiviral and astringent. The flowers are used in the treatment of dysentery, stomach ache and cough. Along with the leaves and seeds, they have been used to remove worms. The juice of the flowers is used to treat nose bleeds. A decoction of the seed is used to treat syphilis. The juice of the fruit is used to treat jaundice and diarrhoea. The dried rind of the fruit is used in the treatment of amoebic dysentery, diarrhoea etc. It is a specific remedy for tapeworm infestation. The rind of the fruit is ground in water and drunk every morning by diabetics.

Common Name: Gulab, Rose

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Rosales**
Family	:	**Rosaceae**
Genus	:	***Rosa***
Species	:	***sp.***

Description:

A small prickly or spiny shrub up to 1 m tall. Stem erect, branched, woody, and prickly. Leaves compound with 3-5 leaflets, toothed, opposite, petiolate. Flower hermaphrodite, actinomorphic, hypo or perigynous. Calyx 5 united, corolla 5 to many, stamen numerous, ovary is with single to many carpels. Fruit subglobose, fleshy, and bright red.

Medicinal properties and uses:

The roots are useful in intestinal ulcers, rickets, hemorrhages and diarrhoea and also astringent in nature. The leaves are used in treating wounds, opthalmia, hepatopathy and hemorrhoids. The flowers have cooling, emollient, aromatic, cardio tonic, antiinflammatory, expectorant, digestive, carminative, rejuvenating and tonic properties. It is also useful in asthma, high blood pressure, bronchitis, diarrhoea, dysmenorrhea, cough, fever, fluid retention, insomnia, palpitation, stress and urinary tract infections. Rose petals are rejuvenating & prove to be a tonic. Due to small and pleasant fragrance, rose petals are used for making essential oils and perfumes. Rosehip tincture is an effective astringent for treating diarrhoea or in relieving colic or as a component in cough remedies. The paste of the rose petals or the powder of the dried petals is applied over the wounds for quicker healing. The extract of the rose petals is used as drops or eye wash in burning sensation of the eyes. Rose essential oil is used along with carrier oils such as almond or grape fruit to treat various illnesses like hemorrhage, liver problems and nausea.

Common Name: Satap

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Sapindales**
Family	:	**Rutaceae**
Genus	:	***Ruta***
Species	:	***graveolens* L.**

Description:

This is a hardy, evergreen subshrub/herb of up to 1 m tall, with a characteristic greyish color and a sharp unpleasant odour. The leaves are small, oblong, deeply divided, pinnate, glandular dotted (when looked at against the light they have translucid little points). The stems are much ramified. The flowers are small, yellow and in clusters during spring and summer. They have 4 petals, except for the central flower, which has 5 petals. The fruits are round, small and 4- or 5- lobulated.

Medicinal properties and uses:

The plant contains flavonoids (notably rutin) that reduce capillary fragility, which might explain the plants reputation as an eye strengthener. The whole herb is abortifacient, anthelmintic, antidote, antispasmodic, carminative, emetic, emmenagogue, expectorant, haemostatic, ophthalmic, rubefacient, strongly stimulant, mildly stomachic and uterotonic. An infusion is used in the treatment of hysterical affections, coughs, flatulence etc. The juice of the plant has been used in treating earaches and chewing a leaf or two is said to quickly bring relief from giddiness, nervous headaches, palpitations etc. An alkaloid found in the plant is abortifacient, anti-inflammatory and antispasmodic. A homeopathic remedy is obtained from the fresh herb, harvested in early summer shortly before flowering begins, used in the treatment of a variety of complaints including eye strain, headache and sprains

Common Name: Chandan, Sandal wood

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Order	:	**Santalales**
Family	:	**Santalaceae**
Genus	:	***Santalum***
Species	:	***album* L.**

Description:

Evergreen tree; bark surface dark grey to nearly black, rough with short vertical cracks. Leaves simple, opposite, exstipulate, glabrous, grooved above; elliptic, base acute or round, apex acute, margin entire, glabrous, shiny above and glaucous beneath, coriaceous; pinnate, intercostal reticulate, obscure. Flowers bisexual, reddish-purple, in axillary and terminal paniculate cymes, much shorter than leaves; tepals 5, basally connate into a campanulate tube of 2 mm long, shortly connate to the basal part of the ovary; disc concave, adhering to the bottom of perianth, its lobes alternate with tepals; stamens 5, alternate with disc; anthers ovoid, ovary superior, later half inferior at the time of flowering, globose, ovules 2-3, pendulous from below the long, acuminate, central column; stigma 3 lobed. Fruit a drupe, blackish-purple; seed one.

Medicinal properties and uses:

A mixture of the oil and lime juice is applied topically to relieve itching. Wood is used in the treatment of gonorrhea. A paste made from the inner wood- mixed with menthol is applied topically to the head for high fevers and hot water burns on the body, as well as to the limbs to ease fatigue, aches, and pains; mixed with rice washing water, honey, and sugar the paste is given to alleviate pain during urination and diarrhea.; made with water or rosewater, and mixed with coriander seeds, it is used for flaky scalp conditions and for impetigo; and made with rice washing water mixed with rock candy, it is given to relieve hiccups.

Common Name: Jangli Badam, Java Olive

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Malvales**
Family	:	**Malvaceae**
Genus	:	***Sterculia***
Species	:	***foetida* L.**

Description:

Deciduous trees, upto 25 m high, bark grey; branches horizontal, whorled. Leaves palmately compound, alternate, clustered at the end of branchlets; stipules free; leaflets 3-9; petiolate; lamina elliptic, base cuneate, apex acuminate, margin entire, glabrous, coriaceous. Flowers unisexual or polygamous, dull-orange red, in axillary or terminal racemes, foetid smell; calyx dull orange to red, deeply 5-partite, glabrous outside, woolly inside; petals absent; in male flowers the staminal column is curved, hairy at base, bearing 10-15 anthers at its tip; female flowers with 5 ovaries, free, superior, each with 20 ovules, gynophore stout; staminodes subsessile in a ring beneath the carpels. Fruit an aggregate of follicle of 1-5, boat shaped, 5-lobed, woody, seeds black, numerous, ellipsoid, smooth, with a small yellow aril.

Medicinal properties and uses:

The seeds can be eaten raw, roasted or fried. It is oily and has a pleasant, cacao-like flavor, but is not bitter. When roasted, it tastes like peanuts. If eaten in too large a quantity, however, it can have a laxative to purgative effect. The rootstock of young plants can be eaten raw. It is a rich source of starch, with a flavor. The bark is aperient, diaphoretic and diuretic. It is used in the treatment of dropsy and rheumatism. The leaves are aperient. The fruit is astringent and mucilaginous. It is used in the treatment of gonorrhea.

Common Name: Jambhul, Jamun

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Myrtaceae**
Genus	:	***Syzygium***
Species	:	***cumini* L.**

Description:

The plant may reach up to 30 m high. Leaves have a turpentine smell, and are opposite, oblong-oval or elliptic, blunt or tapering to a point at the apex; pinkish when young, becoming leathery, glossy, dark-green above, lighter beneath, with a conspicuous, yellowish midrib when mature. Flowers are fragrant and appear in clusters with a funnel-shaped calyx and 4–5 united petals, white at first, becoming rose-pink, shedding rapidly to leave only the numerous stamens. Fruits appear in clusters of just a few or 10–40, are round or oblong, often curved, turning from green to light-magenta, then dark-purple or nearly black. The pulp is purple or white, very juicy, and normally encloses a single, oblong, green or brown seed.

Medicinal properties and uses:

Both the seeds and the fruit are diuretic and have important carminative and astringent properties. The seeds also reduce blood sugar levels and are useful in the treatment of diabetes. The seeds and bark are well known in the Far East for the treatment of dysentery and in the control of hyperglycemia and glycosuria in diabetic patients. The bark is astringent. An infusion is used to treat irregular menstruation, diarrhoea, dysentery. The bark is used as a gargle to strengthen gums, treat mouth ulcers. Fruits are used as a relief for colic and to treat diarrhoea. The roots are sometimes used as a treatment for epilepsy.

Common Name: Badam, Almond

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Rosids**
Order	:	**Myrtales**
Family	:	**Combretaceae**
Genus	:	***Terminalia***
Species	:	***catappa* L.**

Description:

Trees upto 20 m tall. Bark brownish black, longitudinally peeling. Branches spreading, forming tiers. Branchlets densely brownish yellow, tomentose near apex, densely covered with conspicuous leaf scars. Leaves alternate, crowded into pseudo-whorls at apices of branchlets, petiolate; leaf blade obovate to oblanceolate, both surfaces glabrous or abaxially sparsely softly hairy when young; apex obtuse or mucronate. Inflorescences axillary, simple, slender spikes, numerous flowered; axis shortly white, tomentose. Flowers fragrant. Calyx tube distally cupular; lobes- 5. Stamens 10, exerted. Fruit not stipitate; red or blackish green when ripe.

Medicinal properties and uses:

Various parts of the tree, such as the leaves and fruit, contain tannins and are astringent. The red leaves act as a vermifuge, while the sap of young leaves, cooked with oil from the kernel, is used to treat leprosy. The juice of the leaves is ingested for coughs. An infusion of the leaves is used to treat jaundice. The leaves are used to treat indigestion. The young leaves are used to cure headaches and colic. Externally, the leaves may be rubbed on breasts to cure pain or, when heated, may be applied to numb parts of the body. They may be used as a dressing for swollen rheumatic joints. The stem root barks are useful for bilious fever and diarrhoea. The fluid from the bark is used to treat diabetes and as a tonic.

Common Name: Peeli Kaner, Bitti

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Gentianales**
Family	:	**Apocynaceae**
Genus	:	***Thevettia***
Species	:	***peruviana* (Pers.) K Shum.**

Description:

It is a small ornamental tree which grows to about 10 to 15 feet high. The leaves are spirally arranged, linear and about 13 to 15 cm in length. Flowers are bright yellow and funnel-shaped with 5 petals spirally twisted. The fruits are somewhat globular, slightly fleshy, green in colour, become black on ripening. Each fruit contains a nut which is longitudinally and transversely divided. All parts of the plant contain a milky juice.

Medicinal properties and uses:

The latex is applied to decayed teeth to relieve toothache; it is used to treat chronic sores and ulcers, and is applied to soften corns and calluses. The bark is a powerful antiperiodic and febrifuge. A tincture of the bark has been used as a febrifuge. In large doses, it is said to be a violent purgative and emetic. It is used in the treatment of malarial fever and snake-bites. Applied externally, the juice of the macerated bark is used for treating sores. A decoction prepared from the bark or leaves is applied in regulated doses to loosen the bowels, as an emetic, and is said to be an effective cure for intermittent fevers. The seeds may be used as a purgative when treating rheumatism and dropsy and as an abortifacient. A decoction of the seeds acts as a violent emetic, hinders respiration, and may cause paralysis of the heart. The pulverized seeds are sometimes an ingredient of suppositories to alleviate haemorrhoids. An infusion of the roots is taken to treat snakebites.

Common Name: Giloy, Gulvel, Guduchi

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Order	:	**Ranunculales**
Family	:	**Menispermaceae**
Genus	:	***Tinospora***
Species	:	***cordifolia* (Thunb.) Miers**

Description:

Large, climbing shrub. Bark grayish brown, corky, stem striate, scattered with lenticels, generally sending down long aerial roots from the host trees, where they spread. Leaves simple, alternate, broadly ovate, cordate; margin entire, green. Inflorescence axillary or on old leafless stems; slender, pseudo-racemose cymes. Flowers unisexual, fascicled, yellow, pedicellate. Male flowers with slender pedicels, glabrous; sepals 6, in 2 series, free, imbricate; petals 6, free, fleshy; stamens 6, free. Female flowers with sepals and petals similar as in male flowers, staminodes 6, carpels 3, style short, stigma capitate. Fruits drupes.

Medicinal properties and uses:

The stem, root and whole plant are alterative, antidote, aphrodisiac, diuretic, febrifuge and tonic. The starch obtained from the stem and root of the plant is nutrient and is useful in the treatment of diarrhoea and dysentery. The fresh plant is more effective than the dried. The plant is also commonly used in a variety of other complaints including rheumatism, urinary disease, general debility, bronchitis and infertility. The prepared tincture has received official recognition in the Indian Pharmacopoeia. It has been used to treat general weakness, fever, dyspepsia, dysentery, gonorrhea, secondary syphilis, urinary diseases, impotency, gout, viral hepatitis, skin diseases, and anemia. In compound formulations, guduchi is used clinically to treat jaundice, rheumatoid arthritis, and diabetes.

Common Name: Nirgudi, Sindwar, Nishida, Mewari

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Clade	:	**Angiosperms**
Clade	:	**Eudicots**
Clade	:	**Asterids**
Order	:	**Lamiales**
Family	:	**Verbenaceae**
Genus	:	***Vitex***
Species	:	***negundo* L.**

Description:

Shrubs or small trees; purple, pubescent all over, aromatic, bark pale. Leaves 3-5-foliolate; narrowly oblong or elliptic to lanceolate, base acute, apex acuminate. Panicles terminal. Calyx 5 toothed, teeth triangular. Corolla deep purple to violet in colour, hypocrateriform; upper lip 2 lobed, lower 3 lobed with the middle lobe larger, obovate, other lobes shorter, sub equal, obtuse. Stamens 4, filaments purple. Ovary bicarpellary, stigma 2-fid. Drupe purple or black.

Medicinal properties and uses:

The aromatic leaves are astringent, febrifuge, sedative, tonic and vermifuge. They are useful in dispersing swellings of the joints from acute rheumatism, and of the testes from suppressed gonorrhea. The juice of the leaves is used for removing foetid discharges and worms from ulcers, whilst oil prepared with the leaf juice is applied to sinuses and scrofulous sores. The leaves are stuffed into pillows, which are then used to relieve headache. A decoction of the stems is used in the treatment of burns and scalds. The dried fruit is vermifuge. The fruit is also used in the treatment of angina, colds, coughs, rheumatic difficulties etc. The fresh berries are pounded to a pulp and used in the form of a tincture for the relief of paralysis, pains in the limbs, weakness etc. The plant is said to be a malarial preventative and is also used in the treatment of bacterial dysentery. Extracts of the leaves have shown bactericidal and antitumor activity.

Common Name: Cardboard palm, Zamia

Classification: (APG)

Kingdom	:	**Plantae**
Clade	:	**Tracheophytes**
Division	:	**Cycadophyta**
Class	:	**Cycadopsida**
Order	:	**Cycadales**
Family	:	**Zamiaceae**
Genus	:	***Zamia***
Species	:	***furfuracea* L.f.**

Description:

The plant has a short, sometimes subterranean trunk up to 20 cm broad and high, usually marked with scars from old leaf bases. It grows very slowly when young, but its growth accelerates after the trunk matures. Including the leaves, the whole plant typically grows to 1.3 m tall with a width of about 2 cm. The leaves radiate from the center of the trunk; each leaf is long with a petiole and 6-12 pairs of extremely stiff, pubescent (fuzzy) green leaflets. Occasionally, the leaflets are toothed toward the tips. The circular crowns of leaves resemble fern or palm fronds. They are erect in full sun, horizontal in shade. This plant produces a rusty-brown cone in the center of the female plant. The egg-shaped female (seed-producing) cones and smaller male (pollen-producing) cone clusters are produced on separate plants.

Medicinal properties and uses:

The starchy stems, after treatment to remove the poisonous principle, are a significant part of aboriginal diets. Washed roots contain 38% starch and 6% protein, used to make "sofkee," a staple of the traditional Seminole Indian diet and a component in the diet of many indigenous peoples. In folk medicine elsewhere, fruits are used in therapeutic shampoos. Gum from the stem is used for skin ulcers. Roots are chewed for cough and believed to improve the singing voice. Dried powder is placed inside socks and shoes to prevent athlete's foot by reducing moisture. Extracted starch from root is marketed as "arrowroot" as ingredients to biscuits, baby food, chocolate, spaghetti. Also used in cooking as a thickener.

Table 1: Plant species of college campus and their total CO_2 consumption and O_2 production per year: at a glance

Sr. No.	Name of the Plant	CO_2 Consumption (kg)	O_2 Production (kg)
1	*Aegle marmelos*	3912.54	2843.54
2	*Alstonia scholaris*	124480.99	90469.79
3	*Annona squamosa*	886.8546	644.54
4	*Azadirachta indica*	1580869.30	1148937.80
5	*Callistemon lanceolatus*	12689.03	9222.08
6	*Casuarina equisetifolia*	35283.86	25643.46
7	*Citrus limon*	8300.00	---
8	*Citrus sinensis*	5600.00	---
9	*Delonix regia*	429762.69	312341.19
10	*Eucalyptus globulus*	272184.98	197817.50
11	*Ficus benjamina*	1550.00	4130.00
12	*Leucaena leucocephala*	46950.48	34122.48
13	*Mangifera indica*	174627.82	126915.30
14	*Millingtonia hortensis*	53066.34	38567.34
15	*Polyalthia longifolia*	403102.81	292965.43
16	*Psidium guajava*	14036.24	10201.20
17	*Syzygium cumini*	76988.86	55953.65
18	*Terminalia catappa*	14290.00	38150.00

(Sharma et al. Research & Reviews: A Journal of Life Sciences, 2019)

Table 2: List of plant species available in Poona college campus (Year-2021)

Sr. No.	Name of the Plant	Family	Common Name	Number of plant Species
1	*Acalypha wilkesiana* Fosberg.	Euphorbiaceae	Copperleaf, Jacob's coat	25
2	*Aegle marmelos* (L.) Correa	Rutaceae	Bel	02
3	*Albizzia lebbeck* (L.) Benth.	Mimosaceae	Siris, Woman's tongue	04
4	*Albizzia saman* (Jacq.) F.Muell.	Mimosaceae	Gulabi Siris, Monkey Pod	02
5	*Aloe vera* (L.) Burm.f.	Asphodelaceae	Korphad	02
6	*Alstonia scholaris* R.Br.	Apocynaceae	Milkwood pine, Saptaparna	03
7	*Annona squamosa* L.	Annonaceae	Sitaphal, Custard apple	01
8	*Araucaria heterophylla* Salisb.	Araucariaceae	Christmas tree	05
9	*Archontophoenix alexandrae* (F.Muell.) H.Wendl.	Arecaceae	Alexandra palm	04
10	*Asparagus racemosus* (Wild.) Oberm	Asparagaceae	Satavar, Shatavari	02
11	*Asplenium trichomanes* L.	Aspleniaceae	Fern	05
12	*Azadirachta indica* Juss.	Meliaceae	Neem	01
13	*Bougainvillea spectabilis* Willd	Nyctaginaceae	Kagdi Phool	25
14	*Bryophyllum pinnatum* (Lam.) Oken	Crassulaceae	Panfuti, Parnaphuti	02
15	*Callistemon lanceolatus* (Sm.) Sweet.	Myrtaceae	Bottle Brush	02
16	*Carica papaya* L.	Caricaceae	Papaya	06
17	*Cestrum nocturnum* L.	Solanaceae	Raatrani	01
18	*Cissus quadrangularis* L.	Vitaceae	Hadjod, Pirandai	01
19	*Citrus limon* (L.) Osbeck	Rutaceae	Lemon, Limbu	01
20	*Citrus sinensis* (L.) Osbeck	Rutaceae	Mosambi	03
21	*Clematis gouriana* L.	Ranunculaceae	Ranjai, Churanhar, Morvel	01

22	*Codiaeum variegatum* A. Juss	Euphorbiaceae	Gold dust croton	05
23	*Coleus Sp.*	Lamiaceae	Coleus	15
24	*Costus igneus* Nak	Costaceae	Insulin plant	04
25	*Crinum asiaticum* L.	Amaryllidaceae	Spider lily	01
26	*Cycas circinalis* L.	Cycadaceae	Pahadi Supari, Sago Palm	01
27	*Cymbopogon citratus* (DC.) Stapf	Poaceae	Gawati chaha, Lemongrass	01
28	*Delonix regia* Hook.	Fabaceae	Gulmohar	01
29	*Dieffenbachia sps.* Schott	Araceae	Dumb cane	04
30	*Dracaena marginata Lam.*	Asperagaceae	Dragon Plant	15
31	*Dracaena trifaciata* (Prain) Mabb.	Asperagaceae	Snake plant	20
32	*Duranta plumieri* Jacq.	Verbenaceae	Baad	30
33	*Dypsis lutescens* (H.Wendl.) Beentje & J.D ransf.	Arecaceae	Butterfly Palm	30
34	*Eucalyptus globulus* Labill.	Myrtaceae	Nilgiri	01
35	*Ficus benjamina* L.	Moraceae	Pukar, Nandarukh	14
36	*Ficus carica L.*	Moraceae	Anjir	02
37	*Gomphrena globosa* L.	Amaranthaceae	Globe amaranth	02
38	*Grewia tilifolia* Vahl.	Malvaceae	Dhaman	02
39	*Hamelia patens* Jacq.	Rubiaceae	Scarlet Bush, Firebush	02
40	*Hibiscus rosa-sinensis* L.	Malvaceae	China rose, Jaswand	04
41	*Jacaranda cuspidifolia* Mart.	Bignoniaceae	Jacaranda	01
42	*Jasminum sambac* (L.) Aiton	Oleaceae	Mogra	02
43	*Lawsonia inermis* L.	Lythraceae	Mehendi, Henna	04
44	*Leucaena leucocephala* (Lam.) de Wit	Fabaceae	River tamarind, Subabhul	03
45	*Mangifera indica* L.	Anacardiaceae	Mango, Amba	04
46	*Manilkara zapota (L.) P.Royen*	Sapotaceae	Chiku	05
47	*Millingtonia hortensis* L.	Bignoniaceae	Neem Chameli, Kawal Nimb	09
48	*Mimosa pudica* L.	Fabaceae	Touch me not, Lajwanti	01

49	*Musa paradisiaca* L.	Musaceae	Banana	02
50	*Nephrolepis exaltata* L.	Lomariopsidaceae	Nephrolepis	08
51	*Ocimum sanctum* L.	Lamiaceae	Tulsi	04
52	*Plumeria pudica* Jacq	Apocynaceae	Naag Champa	02
53	*Polyalthia longifolia* Sonn.	Annonaceae	Ashok	33
54	*Psidium guajava L.*	Myrtaceae	Guava, Amrood	06
55	*Punica granatum* L.	Lythraceae	Dalimb, Anar	02
56	*Quisqualis indica* L.	Combretaceae	Rangoon creeper	01
57	*Rosa sp.*	Rosaceae	Gulab, Rose	06
58	*Ruta graveolens* L.	Rutaceae	Satap	01
59	*Santalum album* L.	Santalaceae	Chandan	01
60	*Spathiphyllum cochlearispathum* (Liebm.) Engl.	Araceae	Peace lily	10
61	*Sterculia foetida* L.	Malvaceae	Jangli Badam, Java Olive	01
62	*Syzygium cumini* L.	Myrtaceae	Jambhul, Jamun	01
63	*Terminalia catappa* L.	Combretaceae	Badam	05
64	*Thevetia peruviana* (Pers.) K Shum.	Apocynaceae	Peeli Kaner, Bitti	03
65	*Thrinax radiata* L.	Arecaceae	Fan palm	04
66	*Thuja standishii* (Gordon) Carr.	Cupressaceae	Morpankhi, Mayurpankhi	04
67	*Tinospora cordifolia* (Thunb.) Miers	Menispermaceae	Giloy	03
68	*Tradescantia spathacea* Sw	Commelinaceae	Boat lily	05
69	*Vitex nigundo* L.	Verbenaceae	Nirgudi, Mewari, Nisinda	01
70	*Zamia furfuracea* L.f.	Zamiaceae	Cardboard palm, Zamia	01
			Total	385

Glossary of medical terminology

Abortifacient	drug causing an abortion
Abortion	termination of a pregnancy; can occur because of natural causes (called a miscarriage) or be a medical intervention
Acne	a skin condition characterized by inflamed, pus-filled areas that occur on the skin's surface, most commonly occurring during adolescence
AIDS	Acquired immunodeficiency syndrome
Alimentary canal	another term for the digestive tract
Alkalosis	dangerously decreased acidity of the blood, which can be caused by high altitudes, hyperventilation, and excessive vomiting
Allergic rhinitis	irritation of the nasal passages and the whites of the eyes, causing sneezing, runny nose, and sore eyes
Allergy	a negative reaction to a substance that in most people causes no reaction
Alopecia	baldness or loss of hair, mainly on the head, either in defined patches or completely; the cause is unknown
Alzheimer disease	a condition that occurs late in life and worsens with time in which brain cells degenerate; it is accompanied by memory loss, physical decline, and confusion
Amenorrhea	an absence of menstrual periods, occurring either after or before menstruation has begun
Anaemia	a condition in which the blood does not contain enough hemoglobin, the compound that carries oxygen from the lungs to other parts of the body
Analgesic	a drug that relieves pain, such as aspirin or acetaminophen
Anencephaly	a fatal birth defect, in which the brain and spinal cord have failed to develop, resulting in the absence of a portion of the skull and brain
Anesthesia	a loss of sensation in a certain part of the body or throughout the body
Angina	a type of chest pain caused by reduced blood flow to the heart
Anti emetics	drugs used to treat nausea and vomiting
Antibiotics	bacteria-killing substances that are used to fight infection

Anticoagulants	drugs used to stop abnormal blood clotting, such as to prevent stroke
Antihypertensive	drugs used to relieve the symptoms and prevent the damage that can occur from high blood pressure
Antioxidants	substances that protect against cell damage by guarding the cell against oxygen free radicals
Antipsychotics	drugs used to treat severe mental disorders
Antipyretic	a drug used to reduce the fever
Antiseptics	chemicals applied to the skin that prevent infection by killing bacteria and other harmful organisms
Antispasmodic	used to relieve spasm of involuntary muscle
Aperient	a drug used to relieve constipation
Aphrodisiac	it is the substance that increases sexual desire, sexual pleasure, or sexual behavior
Apnea	a possibly life-threatening condition in which breathing stops, for either a short or long period
Appendix	a short, tubelike structure that branches off the large intestine; does not have any known function
Arteriosclerosis	a disorder causing thickening and hardening of artery walls
Arthritis	a disease of the joints characterized by inflammation, pain, stiffness, and redness
Asphyxia	the medical term for suffocation; can be caused by choking on an object, by lack of oxygen in the air, or by chemicals such as carbon monoxide, which reduce the amount of oxygen in the blood
Asthma	a disorder characterized by inflamed airways and difficulty breathing
Astringent	agent that causes contraction of skin cells and other body tissues
Atherosclerosis	narrowing of the lining of the arteries due to the accumulation of fat and other materials; leads to coronary heart disease, stroke, and other disorders
Atresia	a birth defect in which a normal body opening or canal is absent; usually requires surgical repair soon after birth
Atria	the two upper chambers of the heart; the singular form is the atrium
Atrophy	the shrinkage or near disappearance of a tissue or organ
Autopsy	the examination of a body following death, possibly to determine the cause of death or for research

Bacteriostatic	a term used to describe a substance that stops the growth of bacteria (such as an antibiotic)
Benign tumor	a tumor that is not cancerous, which means it does not spread through the body but may grow and become dangerous
Beriberi	a disease caused due to vitamin B1 deficiency
Bilateral	a term describing a condition that affects both sides of the body and two paired organs, such as bilateral deafness (deafness in both ears)
Bile	a yellow-green liquid produced in the liver whose function is to remove waste from the liver and break down fats as food is digested
Bile duct	a tube that carries bile from the liver to the gallbladder and then to the small intestine
Bilirubin	the orange-yellow pigment in bile, causing jaundice if it builds up in the blood and skin; the levels of bilirubin in the blood are used to diagnose liver disease
Blepharitis	inflammation of the eyelids
Blood pressure	the tension in the main arteries that are created by the beating of the heart and the resistance to flow and elasticity of the blood vessels
Boil	an inflamed, raised area of skin that is pus-filled; usually an infected hair follicle
Bone marrow	the fatty yellow or red tissue inside bones that is responsible for producing blood cells
Bradycardia	a slow heart rate, usually below 60 beats per minute in adults
Bronchiolitis	an infection caused by a virus in the bronchioles (the smallest airways in the lungs), mainly affecting young children
Bronchitis	inflammation of the bronchial tubes, which connect the trachea to the lungs
Bronchoconstrictor	a substance that causes the lung airways to tighten up and become more narrow
Bronchodilator	a drug that widens the airways in the lungs to improve breathing; works by relieving muscle contraction or buildup of mucus
Bronchospasm	the temporary narrowing of the airways in the lungs, either as a result of muscle contraction or inflammation; may be caused by asthma, infection, lung disease, or an allergic reaction
Bursitis	inflammation of a bursa due to excessive pressure or friction, or from

	injury
Caecum	the beginning of the large intestine, which is connected to the appendix at its lower end
Calcification	the depositing of calcium salts in the body, which occurs normally in teeth and bones but abnormally in injured muscles and narrowed arteries
Cancer	a group of diseases in which cells grow unrestrained in an organ or tissue in the body; can spread to tissues around it and destroy them or be transported through blood or lymph pathways to other parts of the body
Candidiasis	a yeast infection caused by the fungus *Candida albicans*; occurs most often in the vagina, but also the mouth, on moist skin, or on the penis
Capillary	a tiny blood vessel that connects the smallest arteries to the smallest veins and allows the exchange of oxygen and other materials between blood cells and body tissue cells
Carbohydrate	a substance, mainly sugar and starch, that is a main source of energy for the body and is found in sources such as cereals, bread, pasta, grains, and vegetables
Carcinoma	cancer that occurs on the surface or lining of an organ
Cardiac arrest	the sudden cessation of the heart's pumping action, possibly due to a heart attack, respiratory arrest, electrical shock, extreme cold, blood loss, drug overdose, or a severe allergic reaction
Carditis	inflammation of the heart
Carminative	a drug that relieves flatulence
Carotene	an orange pigment present in colored plants such as carrots that are converted by the body to the essential nutrient vitamin A
Cartilage	a connective tissue (softer than bone) that is part of the skeletal system, including the joints
Cataract	a disorder in which the lens of the eye becomes less transparent and in some cases a milky white, making vision less clear
Cerebellum	a region of the brain located at the back; responsible for the coordination of movement and maintaining balance
Cerebrospinal fluid	a clear, watery fluid circulating in and around the brain and spinal

	column, which contains glucose, proteins, and salts for nutrition
Cerebrum	the largest part of the brain and the site of most of its activity, including sensory and motor functions
Cervix	a small, round organ making up the neck of the uterus and separating it from the vagina
Chemotherapy	the treatment of infections or cancer with drugs that act on disease-producing organisms or cancerous tissue; may also affect normal cells
Chickenpox	a contagious disease that causes a rash and a fever; most commonly occurs during childhood
Cholera	a bacterial infection of the small intestine that causes severe watery diarrhea, dehydration, and possibly death
Cholesterol	a substance in body cells that plays a role in the production of hormones and bile salts and the transport of fats in the bloodstream
Chondritis	inflammation of the cartilage
Choroiditis	inflammation of the blood vessels behind the retina that line the back of the eye
Chronic	describes a disorder that continues for a long period
CNS	**The central nervous system** - the brain and spinal cord
Coagulation	a process that plays a large role in the hardening and thickening of blood to form a clot
Colic	waves of pain in the abdomen that increase in strength, disappear, and return; usually caused by a stone blocking a bile or urine passageway or an intestinal infection
Colitis	Inflammation of the large intestine (the colon), which usually leads to abdominal pain, fever, and diarrhea with blood and mucus
Colon	the main part of the large intestine, between the cecum and the rectum
Color blindness	any vision disorder in which the person sees colors abnormally, has trouble distinguishing between them, or cannot see them at all
Common cold	an infection caused by a virus, which results in an inflamed lining of the nose and throat; characterized by a stuffy and runny nose and, sometimes, a sore throat
Congenital	present or existing at the time of birth

Conjunctiva	the clear membrane covering the white of the eye and the inside of the eyelid that produces a fluid that lubricates the cornea and eyelid
Conjunctivitis	inflammation of the conjunctiva; commonly called pinkeye
Constipation	difficult or infrequent bowel movements of hard, dry feces
Cornea	the clear, dome-shaped front portion of the eye's outer covering
Coronary	describes structures that encircle another structure (such as the coronary arteries, which circle the heart); commonly used to refer to a coronary thrombosis or a heart attack
Corticosteroids	synthetic drugs that are used to replace natural hormones or to suppress the immune system and help prevent inflammation
Cystic fibrosis	an inherited disorder in which the lungs are prone to infection, and fats and other nutrients cannot be absorbed into the body
Debility	physical weakness especially due to illness
Defecation	the passing of feces out of the body through the anus; a bowel movement
Degenerative arthritis	the breakdown of the cartilage lining the bones in joints, usually weight-bearing joints (such as the knee); causes stiffness and pain (also called osteoarthritis)
Dehydration	excessive, dangerous loss of water from the body
Dementia	a gradual decline in mental ability usually caused by a brain disease, such as Alzheimer disease
Demulcent	substance relieving inflammation or irritation
Depression	feelings of hopelessness, sadness, and a general disinterest in life, which for the most part have no cause and maybe the result of a psychiatric illness
Dermatitis	inflammation of the skin
Dermis	the inner skin layer
Detoxification	treatment is given either to fight a person's dependence on alcohol or other drugs or to rid the body of a poisonous substance and its effects
Dextrose	another name for the sugar glucose
Diabetes mellitus	a common form of diabetes in which the body cannot properly store or use glucose (sugar), the body's main source of energy
Diaphoretic	a drug used for excessive or abnormal sweating
Diaphragm	the large, dome-shaped muscle separating the abdomen and chest that

	contracts and relaxes to make breathing possible; also, a thin, rubber dome that is used as a method of female contraception
Diarrhea	it is a passing of loose or watery bowel movement
Diuretic	a drug that increases the amount of water in the urine, removing excess water from the body; used in treating high blood pressure and fluid retention
Dopamine	a chemical that transmits messages in the brain and plays a role in the movement
Dropsy	swelling of soft tissues due to accumulation of excess water
Duodenal ulcer	erosion in the inner lining of the wall of the first part of the small intestine (called the duodenum)
Duodenum	first part of the small intestine, immediately following the stomach
Dysentery	a severe intestinal infection, causing abdominal pain and diarrhea with blood or mucus
Dyspepsia	also known as indigestion, pain in the upper abdomen
Dystrophy	any disorder in which cells become damaged or do not develop properly because they do not receive adequate nutrition
Eardrum	a thin, oval-shaped membrane that separates the inner ear from the outer ear and is responsible for transmitting sound waves
Eczema	inflammation of the skin, usually causing itchiness and sometimes blisters and scaling; may be caused by allergies, but often occurs for no apparent reason
Edema	an abnormal buildup of fluid in the body, which may cause visible swelling
Emollient	having the quality of softening and smoothing the skin
Encephalitis	inflammation of the brain, usually caused by a virus; may be very mild and barely noticeable, but is usually serious and can progress from headache and fever to hallucinations, paralysis, and sometimes coma
Endemic	describes a disease that is always present in a certain population of people
Endocarditis	inflammation of the inner lining of the heart, usually the heart valves; typically caused by an infection
Endocardium	the inner lining of the heart

Endogenous	arising from inside of the body
Endophthalmitis	inflammation of the inside of the eye
Enteritis	inflammation of the small intestine, usually causing diarrhea
Epilepsy	a disorder of the nervous system in which abnormal electrical activity in the brain causes seizures
Episcleritis	a patch of inflammation on the outer layer of the white of the eye
Epistaxis	bleeding from the nose
Erythema	redness of the skin
Euthanasia	painlessly ending the life of a patient with an incurable disease who requests to die
Excretion	the process by which the body rids itself of waste
Expectorant	a medication used to promote the coughing up of phlegm from the respiratory tract
Febrifuge	a medicine used to reduce fever
Fibrosis	abnormal formation of connective or scar tissue
Fissure	a groove or slit on the body or in an organ
Fistula	an abnormal passageway from one organ to another or from an organ to the body surface
Flatulence	excessive air or gas in the intestines, which is expelled through the anus
Folliculitis	the inflammation of hair follicles due to a bacterial infection, causing boils or tiny blisters containing pus
Food poisoning	stomach pain, diarrhea, and/or vomiting caused by eating contaminated food
Fracture	a bone break
Galactagogue	a drug that increases the flow of mother's milk
Galactorrhea	breast milk production by a woman who is not pregnant and has not just given birth
Gallbladder	a small, pear-shaped sac positioned under the liver, which concentrates and stores bile
Gallstone	a round, hard mass of cholesterol, bile, or calcium salts that are found in the gallbladder or a bile duct
Gangrene	the death of tissue because of a lack of blood supply
Gastric juice	digestive fluids produced by the lining of the stomach that break

	down proteins and destroy harmful organisms
Gastric ulcer	a peptic ulcer
Gastrinoma	a tumor that produces gastrin, making the stomach and duodenum more acidic
Gastritis	inflammation of the mucous membrane lining of the stomach; can have several causes, including viruses, bacteria, and use of alcohol and other drugs
Gastroenteritis	inflammation of the stomach and intestines
Gastrointestinal tract	the part of the digestive system that includes the mouth, esophagus, stomach, and intestines
General anesthesia	a method of preventing pain in which the patient is induced to lose consciousness
Genital tract	the organs that make up the reproductive system
Gestation	the period between fertilization of an egg by a sperm and birth of a baby
Gingivitis	inflammation of the gums, typically caused by a buildup of plaque due to poor hygiene
Gland	a group of cells or an organ that produces substances (such as hormones and enzyme) that are used by the body
Glaucoma	a disease in which eye damage is caused by an increase in the pressure of the fluid within the eye
Glucagon	a hormone produced by the pancreas that converts stored carbohydrates (glycogen) into glucose, the body's energy source
Glucose	a sugar that is the main source of energy for the body
Glycogen	the main form that glucose, the body's energy source, takes when it is stored
Glycosuria	glucose in the urine
Goiter	enlargement of the thyroid gland, which produces a swelling on the neck
Gonorrhea	a common sexually transmitted disease, characterized by painful urination or a discharge from the penis or vagina
Gout	a disorder marked by high levels of uric acid in the blood; usually experienced as arthritis in one joint
Hair follicle	a tiny opening in the skin from which a hair grows

Hay fever	the common name for allergic rhinitis
HDL	High-density lipoprotein
Heart attack	Myocardial infarction
Heart failure	the inability of the heart to pump blood effectively
Heatstroke	a life-threatening condition resulting from extreme overexposure to heat, which disrupts the body's system of regulating temperature
Hematoma	an accumulation of blood from a broken blood vessel
Hematuria	blood in the urine, which can be caused by urinary tract disorders (such as cysts, tumor, or stones) or by an infection
Hemochromatosis	a genetic disorder in which too much iron is absorbed from food
Hemoglobin	the pigment in red blood cells that is responsible for carrying oxygen; hemoglobin bound to oxygen gives blood its red color
Hemolysis	the breakdown of red blood cells in the spleen, which is normal but can cause jaundice and anemia when the red blood cells are broken down too quickly
Hemophilia	an inherited disorder in which a person's blood lacks a certain protein important in forming blood clots, leading to excessive bleeding
Hemorrhage	the medical term for bleeding
Hemorrhoid	a bulging vein either at the opening of the anus or just inside the anus, often caused by childbirth or straining during bowel movements
Hemorrhoids	is also known as piles, it is the swellings containing enlarged blood vessels that are found inside or around the rectum or anus
Hemostasis	the stopping of bleeding by the body’s mechanisms
Hemothorax	an accumulation of blood between the chest wall and the lungs
Hepatic	a term used to describe something related to the liver
Hepatitis	inflammation of the liver, which may be caused by a viral infection, poisons, or the use of alcohol or other drugs
Hepatitis A	a form of hepatitis caused by the hepatitis A virus, usually transmitted by contact with contaminated food or water
Hepatitis B	a form of hepatitis (generally more serious than hepatitis A) caused by the hepatitis B virus, which is transmitted through sexual contact or contact with infected blood or body fluids
Hepatitis C	a form of hepatitis caused by the hepatitis C virus, which is

	transmitted through sexual contact or contact with infected blood or body fluids
Hepatitis D	a form of hepatitis that only causes symptoms when the individual is already infected with hepatitis B
Hepatoprotective	a drug used to prevent the damage of the liver
Hernia	the bulging of an organ or tissue through a weakened area in the muscle wall
Hiccups	it is a sudden or involuntary contraction of diaphragm muscles
HIV	Human Immunodeficiency Virus
Homeostasis	the body's coordinated maintenance of the stable, internal environment by regulating blood pressure, blood sugar, body temperature, etc
Hookworm	infestation by a small, round, blood-sucking parasite; commonly causes a rash on the foot, but can also cause cough, pneumonia, and anemia
Hormone	a chemical produced by a gland or tissue that is released into the bloodstream; controls body functions such as growth and sexual development
Hygiene	the practice, maintenance, and study of health; commonly refers to cleanliness
Hymen	a thin fold of membrane partly closing the opening of the vagina; usually torn during first sexual intercourse or insertion of a tampon
Hyperactivity	a type of behavior characterized by excessive physical activity, sometimes associated with neurological or psychological causes
Hypercalcemia	a condition marked by abnormally high levels of calcium in the blood; can lead to disturbance of cell function in the nerves and muscles and, if not treated, can be fatal
Hyperglycemia	a condition characterized by abnormally high levels of glucose in the blood, usually as a result of untreated or improperly controlled diabetes mellitus
Hyperlipidemia	a general term for a group of disorders in which lipid levels in the blood are abnormally high, including hypercholesterolemia
Hypersensitivity	an excessive response of the body’s immune system to a foreign protein

Hypertension	abnormally high blood pressure, even when at rest
Hypoglycemia	abnormally low levels of glucose in the blood
Hypotension	the medical term for abnormally low blood pressure, which results in reduced blood flow to the brain, causing dizziness and fainting
Hypothermia	an abnormally low body temperature
Hypothyroidism	under activity of the thyroid gland, causing tiredness, cramps, a slowed heart rate, and possibly weight gain
Hypoxemia	a reduced level of oxygen in the blood
Hypoxia	a reduced level of oxygen in tissues
Immunity	resistance to a specific disease because of the responses of the immune system
Immunization	the process of causing immunity by injecting antibodies or provoking the body to make its own antibodies against a certain microorganism
Immunodeficiency	failure of the body's immune system to fight disease
Immunoglobin	proteins in blood and tissue fluids that help destroy microorganisms such as bacteria and viruses
Immunostimulant	a drug that increases the ability of the body's immune system to fight disease
Impotence	the inability to acquire or maintain an erection of the penis
Incontinence	inability to hold urine or feces inside of the body
Indigestion	uncomfortable symptoms brought on by overeating or eating spicy, rich, or fatty foods; characterized by heartburn, pain in the abdomen, nausea, and gas, and can be more serious if recurrent
Infarction	tissue death due to lack of blood supply
Infection	disease-causing microorganisms that enter the body, multiply, and damage cells or release toxins
Infertility	the inability to have children as a result of sexual intercourse
Inflammation	redness, pain, and swelling in an injured or infected tissue produced as a result of the body's healing response
Inflammatory bowel disease	the general term for two inflammatory disorders affecting the intestines; also known as Crohn's disease and ulcerative colitis
Influenza	a viral infection characterized by headaches, muscle aches, fever, weakness, and cough; commonly called the "flu"
Infusion	the introduction of a substance, such as a drug or nutrient, into the

	bloodstream or a body cavity
Ingestion	taking something into the body through the mouth
Injection	the use of a syringe and needle to insert a drug into a vein, muscle, or joint or under the skin
Insemination	the placement of semen into a woman's uterus, cervix, or vagina
Insomnia	difficulty falling or remaining asleep
Insulin	a hormone made in the pancreas that plays an important role in the absorption of glucose (the body's main source of energy) into muscle cells
Intestine	a long, tube-shaped organ that extends from the stomach to the anus; absorbs food and water and passes the waste products of digestion as feces
Intravenous	inside of or into a vein
Involuntary	occurring without a person's control or participation
Ischemia	a condition in which a tissue or organ does not receive a sufficient supply of blood
Jaundice	yellowing of the skin and whites of the eyes because of the presence of excess bilirubin in the blood; usually a sign of a disorder of the liver
Keratosis	a growth on the skin that is the result of overproduction of the protein keratin
Kidney	one of two organs that are part of the urinary tract; responsible for filtering the blood and removing waste products and excess water as urine
Kidney stone	a hard mass composed of substances from the urine that form in the kidneys
Lactation	the production of breast milk after giving birth
Lactic acid	an acid produced by glucose-burning cells when these cells have an insufficient supply of oxygen
Lactose	the sugar found in dairy products
Large intestine	the part of the digestive tract that is located between the small intestine and the anus
Laryngitis	inflammation of the voice box, usually caused by a viral infection; characterized by a hoarse voice

Larynx	the medical term for the voice box, the organ in the throat that produces voice and also prevents food from entering the airway
Laxatives	drugs used to clear feces from the intestines; commonly used to treat constipation
LDL	Low-density lipoprotein
Learning disability	any of a variety of disorders, including hyperactivity, dyslexia, and hearing problems, that can interfere with a person's ability to learn
Leishmaniasis	a group of parasitic diseases affecting the skin, mucous membranes, and internal organs; transmitted by the bite of a sandfly
Leprosy	a disease that causes severe disfiguring skin sores and nerve damage in the arms, legs, and skin areas around the body
Lesion	an abnormality of structure or function in the body
Leucoderma	white patches on the skin
Leucorrhoea	the flow of whitish or yellowish or greenish discharge from the vagina of the female
Leukemia	a group of bone marrow cancers in which white blood cells divide uncontrollably, affecting the production of normal white blood cells, red blood cells, and platelets
Leukocyte	another name for white blood cells
Libido	sex desire
Ligament	a tough, elastic band of tissue that connects bones and supports organs
Lipids	a group of fats stored in the body and used for energy
Liver	the largest organ in the body, producing many essential chemicals and regulating the levels of most vital substances in the blood
Local anesthesia	a method of preventing pain by inducing the loss of sensation in a certain area of the body while the patient remains awake
Lungs	two organs in the chest that take in oxygen from the air and release carbon dioxide
Lymph	a milky fluid containing white blood cells, proteins, and fats; plays an important role in absorbing fats from the intestine and in the functioning of the immune system
Lymphatic system	a network of vessels that drain the lymph back into the blood
Malaria	a parasitic disease spread by mosquitos that cause chills and fever;

	potentially fatal complications in the liver, kidneys, blood, and brain are possible
Malignant	a word used to describe a condition that is characterized by uncontrolled growth
Measles	an illness caused by a viral infection, causing a characteristic rash and a fever; primarily affects children
Melanin	the pigment that gives skin, hair, and eyes their coloring
Melanocytes	cells that produce the pigment melanin
Melanoma	a skin tumor composed of cells called melanocytes
Meninges	the three membranes that surround and protect the spinal cord and brain
Meningitis	inflammation of the meninges; usually caused by infection by a microorganism (meningitis caused by bacteria is life-threatening; viral meningitis is milder)
Menopause	the period in a woman's life when menstruation stops, resulting in reduced production of estrogen and cessation of egg production
Menstrual cycle	the periodic discharge of blood and mucosal tissue from the uterus, occurring from puberty to menopause in a woman who is not pregnant
Menstruation	the shedding of the lining of the uterus during the menstrual cycle
Metabolism	a general term for all of the chemical processes that occur in the body
Microbe	another term for a microorganism, especially one that causes disease
Migraine	a severe headache, usually accompanied by vision problems and/or nausea and vomiting, and that typically recurs
Miscarriage	the expulsion of a fetus before it has developed sufficiently to survive on its own
Mites	small eight-legged animals, many of which burrow and feed on blood
Mucolytic	a drug that lessens the sticky quality of phlegm and makes it easier to cough up
Mucous membrane	the soft, pink layer of cells that produce mucus to keep body structures lubricated; found in structures such as the eyelids, respiratory tract, and urinary tract

Mucus	a slippery fluid produced by mucous membranes that lubricate and protects the internal surfaces of the body
Mumps	a viral infection that causes inflammation of salivary glands; primarily affects children
Muscle fibers	specialized, contracting cells that are bundled together to form muscles
Muscle relaxants	a group of drugs used to relieve muscle spasm and to treat conditions such as arthritis, back pain, and nervous system disorders such as stroke and cerebral palsy
Muscular dystrophy	a rare genetic disorder in which muscles degenerate gradually and strength is lost
Myalgia	the medical term for muscle pain
Mycobacterium	a type of slow-growing bacterium; resistant to the body's defense mechanisms and are responsible for diseases such as tuberculosis and leprosy
Mycoplasma	the smallest free-living microorganisms
Mycosis	any disease caused by a fungus
Myopia	the medical term for nearsightedness
Narcosis	a drug (or another chemical)-induced drowsiness or stupor
Narcotic	an addictive substance that blunts the senses; can cause confusion, stupor, coma, and death with increased dosages
Nausea	feeling the need to vomit
Nephritis	inflammation of one or both kidneys because of an infection, an abnormal immune system response, or a disorder of metabolism
Nephroblastoma	a fast-growing cancer of the kidneys that occurs most commonly in children under 4 years of age
Nerve	a bundle of fibers that transmit electrical messages between the brain and areas of the body; these messages convey sensory or motor function information
Nerve cell	the basic unit of the nervous system; transmits chemical messages throughout the body
Neuralgia	pain along the course of a nerve caused by irritation or damage to the nerve
Neuroleptic	an antipsychotic drug

Neuron	another term for a nerve cell
Neurotransmitters	chemicals that transfer messages from one nerve cell to another or from a nerve cell to a muscle cell
Neutrophil	a type of white blood cell
NSAID	Nonsteroidal anti-inflammatory drugs- a group of drugs that relieve pain and reduce inflammation
Nutrient	any substance that the body can use to maintain its health
Obesity	a condition in which there is an excess of body fat; used to describe those who weigh at least 20 percent more than the maximum amount considered normal for their age, sex, and height
Occlusion	the blocking of an opening or passageway in the body
Ophthalmoplegia	partial or total loss of the ability to move the eyes
Opthalmia	a severe inflammation of the eyes
Oral contraceptives	drugs taken in pill form to prevent pregnancy; contain synthetic progesterone and estrogen hormones
Orchitis	inflammation of a testicle, which can be caused by infection with the mumps virus
Orgasm	involuntary contraction of genital muscles experienced at the peak of sexual excitement
Orthotic	a device used to correct or control deformed bones, muscles, or joints
Osteitis	inflammation of the bone
Osteoarthritis	degenerative arthritis
Osteoporosis	a condition in which bones become less dense, more brittle, and fracture easily
Osteosclerosis	an abnormal increase in density and hardness of bone
Otalgia	the medical term for an earache
Otorrhoea	discharge from the ear, may originate from the ear canal or middle ear
Ovulation	the development and release of the egg from the ovary, which usually occurs halfway through a woman's menstrual cycle
Oxidation	a chemical reaction involving active sources of oxygen (called oxygen free radicals) that damages cells
Oxygen	a gas that is colorless, odorless, and tasteless; essential to almost all

	forms of life
Palate	the roof of the mouth
Palpitation	an abnormally rapid and strong heartbeat
Pancreas	a long gland located behind the stomach that produces enzymes that help to break down food and hormones (insulin and glucagon) that help to regulate glucose levels in the blood
Pancreatitis	inflammation of the pancreas, which is often caused by alcohol abuse
Pandemic	a widespread epidemic
Papilloma	a tumor occurring on the skin or mucous membranes; usually not cancerous
Paralysis	the inability to use a muscle because of injury to or disease of the nerves leading to the muscle
Parasite	an organism that lives on or in other organisms, from which it obtains nutrients
Parkinson's disease	a brain disorder in which there is a lack of the chemical messenger dopamine, which helps control muscle movement; leads to muscle stiffness, weakness, and trembling
Pathogen	any substance capable of causing disease; usually refers to a disease-causing microorganism
Pathogenesis	the production and development of a disease or disorder
Pathology	the study of disease
Pellagra	a deficiency of the vitamin niacin; causes dermatitis, diarrhea, and mental disorders
Pelvis	the group of bones in the lower part of the trunk that supports the upper body and protects the abdominal organs
Penis	the external male reproductive organ, which passes urine and semen out of the body
Pepsin	the enzyme found in gastric juice that helps digest protein
Peptic ulcer	an erosion in the lining of the esophagus, stomach, or small intestine, usually caused in part by the corrosive action of gastric acid
Pertussis	a bacterial infection of the respiratory tract characterized by short, convulsive coughs that end in a whooping sound when the breath is inhaled (commonly called whooping cough); mainly affects children

Pharmacology	the study of medications, including drug development
Pharyngitis	inflammation of the throat (the pharynx), causing sore throat, fever, earache, and swollen glands
Pharynx	the throat; the tube connecting the back of the mouth and nose to the esophagus and windpipe
Phimosis	tightness of the foreskin, which prevents it from being moved back over the head of the penis
Phlebitis	inflammation of a vein
Phobia	a persisting fear of and desire to avoid something
Phosphorus	a mineral that is an important part of structures such as bones, teeth, and membranes in the body; also involved in numerous other chemical reactions
Photophobia	an abnormal sensitivity of the eyes to light
Photosensitivity	an abnormal reaction to sunlight, which usually occurs as a rash
Phototherapy	treatment with some form of light
Physiology	the study of the body's functions
Phytochemicals	chemicals in plants that might help protect against disorders such as cancer
Pigmentation	the coloration of the skin, hair, and eyes by the pigment melanin
Pituitary gland	a small, round gland located at the base of the brain that releases hormones that control other glands and body processes
Placebo	a chemically inactive substance given in place of a drug to test how much of a drug's effectiveness can be attributed to a patient's expectations that the drug will have a positive effect
Placenta	an organ formed in the uterus during pregnancy that links the blood of the mother to the blood of the fetus; provides the fetus with nutrients and removes waste
Plague	a serious infectious disease transmitted to humans through bites of rodent fleas
Plasma	the liquid part of the blood, containing substances such as nutrients, salts, and proteins
Plasma cell	a white blood cell that makes antibodies
Platelet	the smallest particle found in the blood, which plays a major role in forming blood clots

Pleurisy	inflammation of the lining of the lungs and chest cavity, usually caused by a lung infection; characterized by sharp chest pain
Pneumoconiosis	a respiratory disease caused by dust inhalation
Pneumonia	inflammation of the lungs due to a bacterial or viral infection, which causes fever, shortness of breath, and the coughing up of phlegm
Polyarthritis	arthritis occurring in more than one joint
Polymyositis	an autoimmune disease of connective tissue in which muscles weaken and become inflamed
Polysaccharide	a complex carbohydrate composed of three or more simple carbohydrate molecules joined together
Polyuria	the excessive production of urine; can be a symptom of various diseases, most notably diabetes mellitus
Postnatal	describes something that occurs after birth, usually to the baby
Postpartum	a term that describes something that occurs after childbirth, usually to the mother
Potassium	a mineral that plays an important role in the body, helping to maintain water balance, normal heart rhythm, conduction of nerve impulses, and muscle contraction
Premenopausal	a term that describes the period of a few years in a woman's life just before menopause
Proctalgia	pain in the rectum
Proctitis	inflammation of the rectum, which causes soreness and sometimes mucus and/or pus in the stool
Progeria	an extremely rare condition in which the body ages prematurely
Progesterone	a female sex hormone that plays many important roles in reproduction, including the thickening of the lining of the uterus during the menstrual cycle; and during pregnancy, the functioning of the placenta, and the initiation of labor
Prognosis	a doctor's probable forecast of the effects and outcome of a disease
Prolactin	a hormone released by the pituitary gland that is responsible for the development of breasts and milk production in females
Prostate gland	an organ located under the bladder that produces a large part of the semen
Proteins	large molecules made up of amino acids that play many major roles

	in the body, including forming the basis of body structures such as skin and hair, and important chemicals such as enzymes and hormones
Protozoan	a simple, single-celled organism
Proximal	located nearer to a central point of reference on the body, such as the trunk
Pruritus	the medical term for itching
Psoriasis	a skin disorder characterized by patches of thick, red skin often covered by silvery scales
Psychogenic	resulting from psychological or emotional disorders
Psychosis	a mental disorder in which a serious inability to think, perceive, and judge clearly causes loss of touch with reality
Psychotherapy	the treatment of mental and emotional disorders using psychological methods, such as counseling, instead of physical means
Psychotropic drug	a drug that has a psychological effect
Puberty	the period of time (usually between the ages of 10 and 15) during which sexual development occurs, allowing reproduction to become possible
Pulse	the expansion and contraction of a blood vessel due to the blood pumped through it; determined as the number of expansions per minute
Pus	a thick, yellowish, or greenish fluid that contains dead white blood cells, tissues, and bacteria; occurs at the site of a bacterial infection
Pyrexia	a body temperature of above 98.6°F in the mouth or 99.8°F in the rectum
Pyuria	the presence of white blood cells in the urine; usually an indication of kidney or urinary tract infection
Rabies	an infectious viral disease primarily affecting animals; can be transmitted to humans through an infected animal's bite; if untreated, can result in paralysis and death
Rash	an area of inflammation or a group of spots on the skin
Rectal prolapse	bulging of the lining of the rectum through the anus, usually due to straining during a bowel movement
Rectum	a short tube located at the end of the large intestine, which connects

	the intestine to the anus
Red blood cell	a doughnut-shaped blood cell that carries oxygen from the lungs to body tissues
Rehabilitation	treatment for an injury or illness aimed at restoring physical abilities
Respiratory system	the organs that carry out the process of respiration
Retina	a membrane lining the inside of the back of the eye that contains light-sensitive nerve cells that converts focused light into nerve impulses, making vision possible
Retinoblastoma	a hereditary, cancerous tumor of the retina affecting infants and children
Retinoid	a substance resembling vitamin A that is used to treat skin conditions such as acne and has been reported to reduce skin wrinkling
Rheumatic fever	a disorder that follows a throat infection by the streptococcus bacteria and causes inflammation in body tissues
Rheumatoid arthritis	a condition in which joints in the body become inflamed, stiff, painful, and sometimes deformed because of the body's own immune system attacking the tissues
Rhinitis	inflammation of the mucous membrane lining the nose, which can cause sneezing, runny nose, congestion, and pain; when caused by substances in the air, it is called allergic rhinitis or hay fever
Rickets	a childhood disease in which bones lack calcium and are deformed as a result of vitamin D deficiency (vitamin D helps the body absorb calcium)
Ringworm	a skin infection caused by a fungus that spreads out in an even circle, characterized by ring-like, scaly patches of red skin
Rubefacient	a substance that produces redness of skin when applied topically
Sacroiliitis	inflammation of the sacroiliac joints, which causes pain in the lower body
Sacrum	the triangular bone located at the bottom of the spine that is connected to the tailbone, the hipbones near the sacroilial joints, and the rest of the spine
Saline	a salt solution or any substance that contains salt
Salivary glands	a group of glands that secrete saliva into the mouth
Salpingitis	inflammation of a fallopian tube

Scabies	a highly contagious skin disorder caused by a mite that burrows into the skin and produces an intense, itchy rash
Schizophrenia	a group of mental disorders characterized by abnormal thoughts, moods, and actions; sufferers have a distorted sense of reality, and a split personality (thoughts do not logically fit together)
Sclera	the tough, white coating that covers and protects the inner structures of the eye
Scleroderma	an immune system disorder of varying degree that can affect many areas of the body
Scoliosis	a condition in which the spine curves to one side and usually curves toward the opposite side in another section to compensate, producing a characteristic S shape
Scurvy	a disease caused by a lack of vitamin C, characterized by weakness, bleeding and pain in joints and muscles, bleeding gums, and abnormal bone and tooth growth
Seborrhea	excessive oiliness of the face and scalp
Sebum	the oily, lubricating substance that is secreted by glands in the skin
Sedatives	a group of drugs that have a calming effect; used to treat anxiety and pain, bring on sleep, and help relax a person before surgery
Semen	fluid released during ejaculation that contains sperm along with fluids produced by the prostate gland and the seminal vesicles
Sepsis	the infection of a wound or tissue with bacteria, causing the spread of the bacteria into the bloodstream; now also known as systemic inflammatory response syndrome caused by a microbe
Serotonin	a chemical that transmits nerve impulses in the brain, causes blood vessels to constrict (narrow) at sites of bleeding and stimulates smooth muscle movement in the intestines
Serum	the clear, watery fluid that separates from clotted blood
Sexually transmitted disease	infections that are most commonly spread through sexual intercourse or genital contact
Shock	a reduced flow of blood throughout the body, usually caused by severe bleeding or a weak heart; without treatment, can lead to a collapse, coma, and death
Sickle cell anemia	a genetic disorder in which the red blood cells are abnormal and

	deformed, causing anemia (reduced ability to transport oxygen in the blood) and clogging of blood vessels; bouts of fever, headache, and weakness result
Sinus	a cavity within a bone or a channel that contains blood; also refers to an abnormal tract in the body
Sinusitis	inflammation of the lining of the cavities in the bone surrounding the nose (the sinuses), usually as a result of a bacterial infection spreading from the nose
Sleeping sickness	an infectious disease in Africa spread by the bite of a tsetse fly that causes a fever and weakness
Slipped disk	the common term for disk prolapse
Smallpox	a highly contagious and often fatal viral infection that has been completely eradicated by immunization
Spasm	an involuntary muscle contraction; can sometimes be powerful and painful
Sperm	the male sex cell produced in the testicles
Spinal cord	a long tube of nerve tissue inside the spinal column, running from the brain down the length of the back inside of the spine
Spine	the column of bones and cartilage running along the midline of the back that surrounds and protects the spinal cord and supports the head
Spleen	an organ located in the upper left abdomen behind the ribs that removes and destroys old red blood cells and helps fight infection
Spondylitis	inflammation of the joints between the bones of the spine
Sputum	mucus and other material produced by the lining of the respiratory tract; also called phlegm
Steroids	a group of drugs that includes corticosteroids, which resemble hormones produced by the adrenal glands, and anabolic steroids, which are similar to the hormones produced by the male sex organs
Stillbirth	a baby that is born dead after the 28th week of pregnancy; also called late fetal death
Stomachic	promoting the appetite or assisting digestion
Stool	another term for feces
Strain	muscle damage resulting from excessive stretching or forceful

	contraction
Stroke	damage to part of the brain because of a lack of blood supply (due to a blockage in an artery) or the rupturing of a blood vessel; leads to complete or partial loss of function in the area of the body that is controlled by the damaged part of the brain
Surfactant	a mixture of substances secreted by the air sacs of the lungs that prevents the air sacs from collapsing during exhalation
Synovial fluid	a lubricating fluid secreted by the synovial membrane
Synovial membrane	the thin membrane that lines the inside of a joint capsule
Synovitis	inflammation of the membrane lining a joint capsule as a result of injury or infection or due to a chronic illness such as rheumatoid arthritis; characterized by redness, swelling, stiffness, and pain
Syphilis	a sexually transmitted disease; initially causes only painless sores on the genitals but can be life-threatening if untreated
Systemic	affecting the whole body
Systolic pressure	the blood pressure measured while the heart is contracting
Tapeworm	a parasitic worm that lives in the intestines; causes diarrhea and abdominal discomfort
Tendon	strong connective tissue cords that attach muscle to bone or muscle to muscle
Tetanus	a sometimes fatal disease affecting the brain and spinal cord; caused by infection with bacterium present in soil and manure
Thalassemia	a group of genetic blood disorders characterized by a defect in the ability to produce hemoglobin, leading to the rupturing of red blood cells (called hemolytic anemia)
Thyroid gland	a gland located in the front of the neck below the voice box that plays an important role in metabolism (the chemical processes in the body) and growth; the gland produces thyroid hormone
Thyroxin	a hormone produced by the thyroid gland that helps regulate energy production in the body
Ticks	small, eight-legged animals that can attach to humans and animals and feed on blood; sometimes spread infectious organisms via their bites

Tinea	a group of common infections occurring on the skin, hair, and nails that are caused by a fungus; commonly referred to as ringworm
Tinnitus	a persistent ringing or buzzing sound in the ear
Tonsillitis	infection, and inflammation of the tonsils
Tonsils	masses of lymphoid tissue located at either side of the back of the throat
Toxicity	the extent to which a substance is poisonous
Toxin	a poisonous substance
Trachea	the tube running from the larynx (the voice box) down the neck and into the upper part of the chest, where it divides to form the two bronchi of the lungs; commonly called the windpipe
Trauma	physical injury or emotional shock
Tuberculosis	an infectious bacterial disease transmitted through the air that mainly affects the lungs
Tumor	an abnormal mass that occurs when cells in a certain area reproduce unchecked; can be cancerous (malignant) or noncancerous (benign)
Typhoid fever	an acute bacterial infection causing fever, headache, abdominal discomfort, and enlargement of the liver and spleen
Typhus	a group of diseases caused by the microorganism Rickettsia, spread by the bites of fleas, mites, or ticks; symptoms include headache, fever, rash, and a series of complications if untreated
Ulcer	an open sore that occurs on the skin or on a mucous membrane because of the destruction of surface tissue
Unconsciousness	a temporary or prolonged loss of awareness of self and of surroundings
Urea	a waste product of the metabolism of proteins that are formed by the liver and secreted by the kidneys
Uremia	abnormally high levels of waste products such as urea in the blood
Ureters	two tubes that carry urine from the kidneys to the bladder
Urethra	the tube by which urine is released from the bladder
Urinary tract	the structures in the body that are responsible for the production and release of urine, including the kidneys, ureters, bladder, and urethra
Urticaria	an allergic reaction in which itchy white lumps surrounded by areas of inflammation appear on the skin; commonly called "hives"

Uterus	the hollow female reproductive organ in which a fertilized egg is implanted and a fetus develops
Vaccination	a form of immunization in which killed or weakened microorganisms are placed into the body, where antibodies against them are developed; if the same types of microorganisms enter the body again, they will be destroyed by the antibodies
Vaccine	a preparation of weakened microorganisms given to create resistance to a certain disease
Vagina	the muscular passage connecting the uterus with the outside genitals; a component of the female reproductive system
Vaginitis	inflammation of the vagina, which can be the result of infection, aging, a hormone deficiency, or a foreign object (such as a tampon)
Venereal disease	any disease that is usually spread through sexual intercourse or genital contact
Venom	a poisonous substance produced by certain animals
Ventilator	a machine used to take over breathing when a person cannot breathe on his or her own
Vertebra	any one of the 33 bones that make up the spine
Vertigo	the feeling that one or one's surroundings are spinning
Vesicle	a small skin blister, or any sac in the body, that contains fluid
Viral	a term describing something related to or caused by a virus
Virulence	the relative ability of an organism to cause disease
Virus	the smallest known disease-causing microorganism; viruses are very simple in structure and can only multiply when they are inside the cell of another organism
Vitamin A	a vitamin essential for normal growth and development of the body (most notably the bones and teeth), protection of mucous membranes from infection, normal vision, and healthy skin and hair
Vitamin B complex	a group of vitamins including thiamine, niacin, riboflavin, pantothenic acid, pyridoxine, biotin, and folic acid; plays a variety of important roles in the body, including in hormone production, metabolism, and functioning of the nerves, muscle, heart, and digestive system
Vitamin B12	a vitamin that is essential to the production of DNA (the genetic

	material in cells) and red blood cells and in the functioning of the nervous system
Vitamin B6	a vitamin that plays an important role in the breakdown and use of energy sources, production of red blood cells and antibodies, and normal functioning of the nervous system
Vitamin C	a vitamin with many essential roles, including in maintaining healthy bones, teeth, gums, ligaments, and blood vessels and in the immune system's response to infection
Vitamin D	a vitamin that plays a role in the absorption of calcium by the intestines and is essential for healthy bones and teeth
Vitamin E	a vitamin that protects tissues from damage by oxygen free radicals, helps to form red blood cells, maintains the function of enzymes, and maintains cell structure
Vitamin K	a vitamin that is essential for normal blood clotting and the body's absorption of calcium
Vitamins	complex substances that are necessary for small amounts to maintain health and ensure proper development and functioning of the body
VLDL	Very low-density lipoprotein
Vulva	the outer, visible portion of the female genitals
Wart	a contagious, harmless growth caused by a virus that occurs on the skin or a mucous membrane
Whipworm	a small, parasitic worm that can live in the intestines of a human and may cause diarrhea, abdominal pain, and anemia
White blood cell	a group of colorless blood cells that are part of the immune system, helping prevent and fight infection
Yellow fever	a life-threatening viral infection transmitted by mosquitoes that cause jaundice, fever, headache, and vomiting

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ABOUT THE AUTHORS

Dr. Rafik U. Shaikh (M.Sc., Ph.D.)

He is an Assistant Professor, Department of Botany, AKI's Poona College of Arts, Science & Commerce, Pune, with an experience of 08 years in teaching and research. He is a recognized Guide of M. Phil. & Ph.D. of Savitribai Phule Pune University. As a researcher, he has published over 22 research papers in reputed national and international journals published by Elsevier, Springer, Wiley, Taylor & Francis, etc.

He is an active member of the International Society for Research and Development (London, UK) and International Natural Product Science Taskforce (Poland). He has attended many national/international conferences and presented the research papers. He is an active reviewer of over 17 international journals published by reputed publishers.

He has been awarded as an outstanding reviewer for the Journal of Traditional and Complementary Medicine (Elsevier, Taiwan) and as a Young Scientist by International Research and Developed Organization, India. His research interests include Angiosperms Taxonomy, Ethnobotany, Ethanopharmacology, and Medical/Pharmaceutical Pharmacology.

Dr. Aafreen A. Ahmed (M.Sc., B.Ed., Ph.D.)

She is an Assistant Professor at Department of Botany, AKI'S Poona College of Arts, Science & Commerce, Pune. She is in the field of teaching since seventeen years with a keen interest in Pharmacognosy. She has participated in several national and international conferences, workshops and symposia; also published papers in UGC approved journals. Her expertise lies in taxonomy of angiosperms. With academics, she also serves as programme officer, NSS unit of Poona College.

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