Claims

1. A synergistic herbal composition comprising combination of a first ingredient selected from the extracts, fractions, phytochemicals and mixtures thereof derived from a seed of *Theobroma cacao* and a second ingredient selected from the extracts, fractions, phytochemicals and mixtures thereof derived from a fruit peel of *Citrus aurantifolia* for obtaining at least one health benefit selected from preventing, controlling or treating obesity and/or overweight; improving lean body mass, improving browning of White Adipose Tissue (WAT)/improving formation of brown adipose tissue (BAT), increasing basal metabolic rate (BMR)/resting energy expenditure, increasing thermogenesis, improving thyroid function, maintaining healthy body weight, increasing satiety, supporting weight loss, improving fat loss and maintaining a slim body, wherein

a) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using water and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using water or aqueous 50 wt% ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:3 to 3:1;

b) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using water and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 2:1;

c) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using water and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% methanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 1:1;

d) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using water and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using n-butanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 1:1;

e) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using aqueous 50 wt% ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:3 to 3:1;

f) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using aqueous 50 wt% ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 2:1;

g) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using aqueous 50 wt% ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using water, wherein the first ingredient and the second ingredient are combined in a ratio of 1:2 or 2:1;

h) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using aqueous 50 wt% ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% methanol or n-butanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 2:1;

i) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 2:1;

j) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel

of *Citrus aurantifolia* is produced using ethanol, wherein the first ingredient and the second ingredient are combined in a ratio of 1:1;

k) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using water, wherein the first ingredient and the second ingredient are combined in a ratio of 1:2 or 2:1;

l) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% methanol, wherein the first ingredient and the second ingredient are combined in a ratio of 1:1;

m) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using ethanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using n-butanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:2 to 1:1;

n) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using aqueous 50 wt% methanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% ethanol, wherein the first ingredient and the second ingredient are combined in a ratio from 1:1 to 2:1;

o) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using n-butanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using water, wherein the first ingredient and the second ingredient are combined in a ratio of 1:2; or

p) the extracts, fractions, phytochemicals and mixtures thereof derived from the seed of *Theobroma cacao* is produced using n-butanol and the extracts, fractions, phytochemicals and mixtures thereof derived from the fruit peel of *Citrus aurantifolia* is produced using aqueous 50 wt% ethanol, wherein the first ingredient and the second ingredient are combined in a ratio of 1:1.

2. The synergistic herbal composition as claimed in claim 1, wherein the extracts or fractions are standardized to at least one phytochemical reference marker compound or biological active marker in the extract or fraction; wherein the phytochemical reference marker compound or group of phytochemical reference marker compounds is in the concentration range of 0.1% to 99% by weight of the extract.

3. The synergistic herbal composition as claimed in claim 2, wherein the weight of the first ingredient varies in the range of 10% - 90% and the weight of the second ingredient varies in the range of 90% - 10%.

4. The synergistic herbal composition as claimed in claim 2, wherein said extract or fraction derived from a seed of *Theobroma cacao* is standardized to theobromine; wherein theobromine is in the concentration range of 0.1% to 20% by weight of the composition.

5. The synergistic herbal composition as claimed in claim 2, wherein said extract or fraction derived from a fruit peel of *Citrus aurantifolia* is standardized to Limonin; wherein Limonin is in the concentration range of 0.1% to 10% by weight of the composition.

6. The synergistic herbal composition as claimed in claim 1, further comprising at least one component selected from pharmaceutically or nutraceutically or dietically acceptable excipients, carriers and diluents.

7. The synergistic herbal composition as claimed in claim 6, wherein the pharmaceutically or nutraceutically or dietically acceptable excipients, carriers and diluents are selected from monosaccharide's such as glucose, dextrose, fructose, galactose etc.; Disaccharides such as but not limited to sucrose, maltose, lactose, lactulose, trehalose, cellobiose, chitobiose etc.; Polycarbohydrates such as Starch and modified starch such as Sodium starch glycolate, pre gelatinized starch, soluble starch, and other modified starches; Dextrins that are produced by hydrolysis of starch or glycogen such as yellow dextrin, white dextrin, Maltodextrin, alginates etc.; Polyhydric alcohols or sugar alcohols such as but not limited to Sorbitol, mannitol, inositol, xylitol, isomalt etc.; cellulose based derivatives such as but not limited to microcrystalline cellulose, hydroxy propyl methyl cellulose, hydroxy ethyl cellulose etc.; silicates such as but not limited to neusilin, veegum, Talc, colloidal silicon dioxide etc.; metallic stearates such as but not limited to calcium stearate, magnesium stearate, zinc Stearate

etc.; Organic acids such as citric acid, tartaric acid, malic acid, succinic acid, lactic acid, L-ascorbic acid etc.; Fatty acid esters and esters of poly sorbate, natural gums such as but not limited to acacia, carrageenan, Guar gum, Xanthan gum etc.; vitamin B group, nicotinamide, calcium pantothenate, amino acids, proteins such as but not limited to casein, gelatin, pectin, agar; inorganic metal salts such as but not limited to sodium chloride, calcium chloride, sodium hydroxide, potassium chloride, potassium hydroxide, dicalcium phosphate, zinc Sulphate, zinc chloride etc.; Natural pigments, flavors, Class I & Class II preservatives and aqueous, alcoholic, hydro-alcoholic, organic solutions of above listed ingredients alone or in combination.

8. The synergistic herbal composition as claimed in any one of claims 1 to 7 that is formulated into a dosage form selected from dry powder form, liquid form, beverage, water dispersible formulation, food product, dietary supplement or any suitable form such as a tablet, a capsule, a soft chewable or gummy bear.

9. The synergistic herbal composition as claimed in any one of claims 1 to 7 that is formulated into nutritional/dietary supplements that can be contemplated/made into the dosage form of healthy foods, or food for specified health uses such as solid food like chocolate or nutritional bars, water dispersible beverage, semisolid food like cream, jam, or gel or beverage such as refreshing beverage, lactic acid bacteria beverage, drop, candy, chewing gum, gummy candy, yoghurt, ice cream, pudding, soft adzuki bean jelly, jelly, cookie, tea, soft drink, juice, milk, coffee, cereal, snack bar and the like.

10. The synergistic herbal composition as claimed in any one of claims 1 to 5, wherein said health benefit selected from preventing, controlling or treating obesity and/or overweight; improving lean body mass, improving browning of the White Adipose Tissue (WAT)/improving formation of brown adipose tissue (BAT), increasing basal metabolic rate (BMR)/resting energy expenditure, increasing thermogenesis, improving thyroid function, maintaining healthy body weight, increasing satiety, supporting weight loss, improving fat loss and maintaining a slim body is achieved by at least one of; promoting lipolysis, inhibiting adipogenesis, lipid accumulation, Increase of Fibroblast growth factor-21 (FGF-21), increase of uncoupling protein (UCP-1) and increase of β3-adrenoceptors (β3-ARs).

11. Use of a synergistic herbal composition as claimed in any one of claims 1 to 5 in the manufacture of a medicament for the prevention, control or treatment of obesity and/or overweight in a human or animal, wherein the medicament is to be administered to the subject with a suitable dose.

12. The use as claimed in claim 11, wherein the suitable dose is in the form of tablets, capsules, controlled release tablets or using controlled release polymer-based coatings by the techniques including nanotechnology, microencapsulation, colloidal carrier systems and other drug delivery systems for obtaining the desired therapeutic benefit.