

12th Science Lesson 3 Questions in English

3] Economically useful plants and entrepreneurial botany

1. Which of the following statement is incorrect?

- 1) Pre-historic humans lived on berries, tubers, herbage, and the wild game which they collected and hunted that occupied whole of their time
- 2) Domestication of plants and animals has led to the production of surplus food which formed the basis for civilizations
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) **None**

Explanation

The land and water of the earth sustain a vast assemblage of plants upon which all other living forms are directly or indirectly dependent. **Pre-historic humans lived on berries, tubers, herbage, and the wild game which they collected and hunted that occupied whole of their time.** Domestication of plants and animals has led to the production of surplus food which formed the basis for civilizations.

2. Which of the following type of plants are economically useful?

- 1) food plants
- 2) fodder plants
- 3) fibre plants
- 4) timber plants
 - a) 1, 2, 4
 - b) 1, 3, 4
 - c) 2, 3, 4
 - d) **All the above**

Explanation

Based on their utility, the economically useful plants are classified into **food plants, fodder plants, fibre plants, timber plants, medicinal plants, and plants used in paper industries, dyes and cosmetics.**

3. Which of the following are grass species?

- 1) Fig
- 2) Rice
- 3) Wheat
- 4) Maize
 - a) 1, 2, 4
 - b) **2, 3, 4**
 - c) 1, 2, 3

- d) All the above

Explanation

Currently about 10,000 food plants are being used of which only around 1,500 species were brought under cultivation. However, **food base of majority of the population depends only on three grass species namely rice, wheat and maize.**

4. Which of the following statement is correct?

- 1) The word cereal is derived from Ceres, which according to the Roman mythology denotes "Goddess of agriculture"
- 2) All cereals are members of grass family (Poaceae) that are grown for their edible starchy seeds.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

The word cereal is derived from Ceres, which according to the Roman mythology denotes "Goddess of agriculture". All cereals are members of grass family (Poaceae) that are grown for their edible starchy seeds.

5. Which of the following are the attributes of cereals?

- 1) Greater adaptability and successful colonisation on every type of habitat
- 2) High caloric value that provides energy
- 3) The relative ease of cultivation
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

The prominence of cereals as food plants is due to the following attributes:

- i. Greater adaptability and successful colonisation on every type of habitat.
- ii. The relative ease of cultivation
- iii. Tillering property that produce more branches which results in higher yield per unit area.
- iv. Compact and dry grains that they can be easily handled, transported and stored without undergoing spoilage.

v. High caloric value that provides energy

6. Which of the following nutrients does cereals include?

- 1) Carbohydrates
- 2) Minerals
- 3) Proteins
- 4) Fibres

- a) 1, 2, 4
- b) 2, 3, 4
- c) 1, 3, 4
- d) **All the above**

Explanation

The nutrients provided by cereals include carbohydrates, proteins, fibres and a wide range of vitamins and minerals. Cereals can be classified into two different types based on their size namely Major Cereals and Minor Cereals.

7. What is the common name of *Oryza sativa*?

- a) Wheat
- b) Maize
- c) **Paddy**
- d) None

Explanation**Rice / Paddy**

Botanical name: *Oryza sativa*

Paddy is a semi-aquatic crop and is grown in standing water.

8. Rice is the chief source of_____

- a) Protein
- b) Vitamin-c
- c) Minerals
- d) **Carbohydrate**

Explanation

Rice is an important food crop of the world, occupying the second position in terms of area under cultivation and production, next to wheat. **Rice is the chief source of carbohydrate.**

9. Earliest evidences of rice cultivation have been found in_____

- 1) Egypt
 - 2) India
 - 3) China
 - 4) Thailand
- a) 1, 2, 3
 - b) 1, 3, 4
 - c) **2, 3, 4**
 - d) All the above

Explanation

South East Asia is considered as the centre of origin of rice. **Earliest evidences of rice cultivation have been found in China, India and Thailand.** It is mainly cultivated in Delta and irrigated regions of Tamil Nadu.

10. Which of the following statement is correct?

- 1) Rice is the easily digestible calorie rich cereal food which is used as a staple food in Southern and North East India.
- 2) Various rice products such as Flaked rice (Aval), Puffed rice / parched rice (Pori) are used as breakfast cereal or as snack food in different parts of India
- 3) Rice bran oil obtained from the rice bran is used in culinary and industrial purposes
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Rice is the easily digestible calorie rich cereal food which is used as a staple food in Southern and North East India. Various rice products such as Flaked rice (Aval), Puffed rice / parched rice (Pori) are used as breakfast cereal or as snack food in different parts of India. Rice bran oil obtained from the rice bran is used in culinary and industrial purposes. Husks are used as fuel, and in the manufacture of packing material and fertilizer.

11. What is the common name of *Triticum aestivum*?

- a) Rice
- b) **Wheat**
- c) Maize
- d) Potato

Explanation**Wheat**

Botanical name: *Triticum aestivum*

Earliest evidence for wheat cultivation comes from Fertile Crescent region.

12. Which state/s of India cultivate wheat?

- a) Punjab
- b) Bihar
- c) Uttar Pradesh
- d) **All the above**

Explanation

The common cultivated wheat, *Triticum aestivum* is cultivated for about 7,500 years. **Wheat is mostly cultivated in the North Indian states such as Uttar Pradesh, Punjab, Haryana, Rajasthan, Madhya Pradesh and Bihar.**

13. Which of the following statement is correct?

- 1) Wheat is the staple food in India
- 2) Processed wheat flour, that has little fibre, is called Maida which is used extensively in making parota, naan and bakery products
- 3) Malted wheat is a major raw material for producing alcoholic beverages and nutritive drinks
 - a) 1, 2

- b) 1, 3
- c) 2, 3
- d) All the above

Explanation

Wheat is the staple food in Northern India. Wheat flour is suitable to make bread and other bakery products. Processed wheat flour, that has little fibre, is called Maida which is used extensively in making parota, naan and bakery products. Malted wheat is a major raw material for producing alcoholic beverages and nutritive drinks.

14. Which of the following statement is correct?

- 1) The term pseudo-cereal is used to describe foods that are prepared and eaten as a whole grain, but are botanical outlier
 - 2) Quinoa is actually a seed from the Chenopodium quinoa plant belongs to the family Amaranthaceae
 - 3) It is a gluten-free, whole-grain carbohydrate, as well as a whole protein (meaning it contains all nine essential amino acids) and have been eaten for 6,000 years in Andes hill region
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

The term pseudo-cereal is used to describe foods that are prepared and eaten as a whole grain, but are botanical outliers from grasses. Example: **quinoa. It is actually a seed from the Chenopodium quinoa plant belongs to the family Amaranthaceae.** It is a gluten-free, whole-grain carbohydrate, as well as a whole protein (meaning it contains all nine essential amino acids) and have been eaten for 6,000 years in Andes hill region.

15. Which of the following statement is correct?

- 1) Most of the corn produced is used as food than fodder
 - 2) Corn syrup is used in the manufacture of infant foods
 - 3) Corn is a raw material in the industrial production of alcohol and alcoholic beverages
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Most of the corn produced is used as fodder than food. Corn syrup is used in the manufacture of infant foods. Corn is a raw material in the industrial production of alcohol and alcoholic beverages.

16. Which of the following statement is correct?

- 1) The term millet is applied to a variety of very small seeds originally cultivated by ancient people in Africa and Asia

2) They are gluten free and have less glycemic index

- a) 1 alone
- b) 2 alone
- c) 1, 2
- d) None

Explanation

The term millet is applied to a variety of very small seeds originally cultivated by ancient people in Africa and Asia. **They are gluten free and have less glycemic index.**

17. Ragi is rich in_____

- a) Protein
- b) Carbohydrate
- c) **Calcium**
- d) Minerals

Explanation

Botanical name: Eleusine coracana

Finger millet is the crop of early introduction from East Africa into India. **Ragi is rich in calcium.**

18. Which of the following statement about ragi correct?

- 1) It is used as a staple food in many southern hilly regions of India
 - 2) Ragi grains are made into porridge and gruel
 - 3) It is used as a source of fermented beverages.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Ragi is used as a staple food in many southern hilly regions of India. Ragi grains are made into porridge and gruel. **Ragi malt is the popular nutrient drink. It is used as a source of fermented beverages.**

19. Sorghum is native to_____

- a) Asia
- b) USA
- c) Europe
- d) **Africa**

Explanation

Botanical name: Sorghum vulgare

Sorghum is native to Africa. It is one of the major millets in the world and is rich in calcium and iron.

20. Which of the following statement about Foxtail Millet is correct?

- 1) This is one of the oldest millets used traditionally in India.

- 2) Rich in protein, carbohydrate, vitamin B and C, Potassium and Calcium.
- 3) It is domesticated first in China about 3000 years.
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Foxtail Millet

Botanical name: *Setaria italica*

This is one of the oldest millets used traditionally in India. **Which is domesticated first in China about 6000 years.** Rich in protein, carbohydrate, vitamin B and C, Potassium and Calcium.

21. Which of the following statement about foxtail millet is correct?

- 1) It supports in strengthening of heart and improves eye sight
- 2) Thinai porridge is given to lactating mother.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Uses of foxtail millet:

It supports in strengthening of heart and improves eye sight. Thinai porridge is given to lactating mother.

22. Which of the following statement is correct?

- 1) Kodo millet is originated from Asia, which is rich in fibre, protein and minerals
- 2) Kodo millet is ground into flour and used to make pudding
- 3) It is Good diuretic and cures constipation
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Kodo Millet

Botanical name: *Paspalum scrobiculatum*

Kodo millet is originated from West Africa, which is rich in fibre, protein and minerals. Uses Kodo millet is ground into flour and used to make pudding. Good diuretic and cures constipation. Helps to reduce obesity, blood sugar and blood pressure.

23. Which of the following statement is correct?

- 1) The word Pulse is derived from the Latin words 'puls' or 'pultis' meaning "thick soup".
- 2) Pulses are the edible seeds that are harvested from the fruits of Fabaceae

- 3) They provide vital source of plant-based protein, vitamins and minerals for people around the globe
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

The word Pulse is derived from the Latin words 'puls' or 'pultis' meaning "thick soup". Pulses are the edible seeds that are harvested from the fruits of Fabaceae. They provide vital source of plant-based protein, vitamins and minerals for people around the globe

24. What is the common name of *Vigna mungo*?

- a) Mango
- b) **Black gram**
- c) Sorghum
- d) Red gram

Explanation

Botanical name of black gram is *Vigna mungo*. Important states growing black gram in India are Uttar Pradesh, Chattisgarh and Karnataka.

25. Black gram is native to_____

- a) China
- b) Thailand
- c) **India**
- d) Burma

Explanation

Black gram is native to India. Earliest archeo-botanical evidences record the presence of black gram about 3,500 years ago. It is cultivated as a rain fed crop in drier parts of India. India contributes to 80% of the global production of black gram.

26. Which of the following statement about black gram is incorrect?

- 1) Black gram is eaten whole or split, boiled or roasted or ground into flour
 - 2) Black gram batter is a major ingredient for the preparation of popular Southern Indian breakfast dishes.
- a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) **None**

Explanation

Black gram is eaten whole or split, boiled or roasted or ground into flour. Black gram batter is a major ingredient for the preparation of popular Southern Indian breakfast dishes. Split pulse is used in seasoning Indian curries.

27. _____ is the only pulse native to Southern India

- a) White gram
- b) Black gram
- c) **Red gram**
- d) Blue gram

Explanation

Red gram / Pigeon pea is the only pulse native to Southern India. It is mainly grown in the states of Maharashtra, Andhra Pradesh, Madhya Pradesh, Karnataka and Gujarat.

28. Which of the following statement is correct?

- 1) Red gram is a major ingredient of sambar, a characteristic dish of Southern India
 - 2) Roasted seeds are consumed either salted or unsalted as a popular snack.
- a) 1 alone
 - b) 2 alone
 - c) **1, 2**
 - d) None

Explanation

Red gram is a major ingredient of sambar, a characteristic dish of Southern India. Roasted seeds are consumed either salted or unsalted as a popular snack. Young pods are cooked and consumed.

29. Which of the following state cultivate green gram?

- a) Tamil Nadu
- b) Karnataka
- c) Madhya Pradesh
- d) **All the above**

Explanation

Green gram is a native of India and the earliest archaeological evidences are found in the state of Maharashtra. **It is cultivated in the states of Madhya Pradesh, Karnataka and Tamil Nadu**

30. _____ is one of the ingredients of pongal, a popular breakfast dish in Tamil Nadu

- a) Black gram
- b) Red gram
- c) **Green gram**
- d) Blue gram

Explanation

Green gram is one of the ingredients of pongal, a popular breakfast dish in Tamil Nadu. Fried dehulled and broken or whole green gram is used as popular snack. The flour is traditionally used as a cosmetic, especially for the skin

31. Lady's finger is a native of the Tropical_____

- a) Asia
- b) **Africa**
- c) Australia

d) South America

Explanation

Lady's finger is a native of the Tropical Africa. Assam, Maharashtra and Gujarat are the important states where Lady's finger is grown in abundance. Coimbatore, Dharmapuri and Vellore are the major cultivating regions of Tamil Nadu.

32. Which of the following are present in fruits?

- 1) Potassium
- 2) Fibre
- 3) Folic acid
- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) **All the above**

Explanation

Edible fruits are fleshy structures with a pleasant aroma and flavours. Fruits are sources of many **nutrients including potassium, dietary fibre, folic acid and vitamins.**

33. Which of the following are temperate fruits?

- 1) Banana
- 2) Apple
- 3) Plum
- a) 1, 2
- b) 1, 3
- c) **2, 3**
- d) All the above

Explanation

Depending on the climatic region in which fruit crops grow, they can be classified into temperate (apple, pear, plum) and tropical fruits (mango, jack, banana).

34. _____ is the national fruit of India?

- a) Banana
- b) **Mango**
- c) Apple
- d) Plum

Explanation

Mango (National fruit of India)

Botanical name: *Mangifera indica*

Family: Anacardiaceae

35. Which of the following statement about mango is correct?

- 1) The mango is the native to Southern Asia, especially Burma and Eastern India
- 2) It is the National fruit of India.

- 3) Some of the major cultivars of mango in India are Alphonso, Banganapalli, neelam and malgova
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

The mango is the native to Southern Asia, especially Burma and Eastern India. It is the National fruit of India. Major mango producing States are Andhra Pradesh, Bihar, Gujarat and Karnataka. Salem, Krishnagiri, Dharmapuri are the major mango producing districts of Tamil Nadu. **Some of the major cultivars of mango in India are Alphonso, Banganapalli, neelam and malgova**

36. _____ is the major table fruit of India, which is rich in beta carotenes

- a) Banana
- b) **Mango**
- c) Apple
- d) Plum

Explanation

Mango is the major table fruit of India, which is rich in beta carotenes. It is utilized in many ways, as dessert, canned, dried and preserves in Indian cuisine. Sour, unripe mangoes are used in chutneys, pickles, side dishes, or may be eaten raw with salt and chili. Mango pulp is made into jelly. Aerated and non-aerated fruit juice is a popular soft drink.

37. Which of the following statement is incorrect?

- 1) Nuts are simple dry fruits composed of a hard shell and an edible kernel
 - 2) They are packed with a good source of healthy fats, fibre, protein, vitamins, minerals and antioxidants.
- a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) **None**

Explanation

Nuts are simple dry fruits composed of a hard shell and an edible kernel. They are packed with a good source of healthy fats, fibre, protein, vitamins, minerals and antioxidants.

38. Cashew has originated in_____

- a) Burma
- b) **Brazil**
- c) England
- d) India

Explanation

Cashew has originated in Brazil and made its way to India in the 16th century through Portuguese sailors. Cashew is grown in Kerala, Karnataka, Goa, Maharashtra, Tamil Nadu, and Orissa.

39. What is the common name of *Anacardium occidentale*?

- a) Fig nut
- b) Cashew nut**
- c) Walnut
- d) All the above

Explanation

Cashew nut

Botanical name: ***Anacardium occidentale***

Family: Anacardiaceae

Uses:

Cashews are commonly used for garnishing sweets or curries, or ground into a paste that forms a base of sauces for curries or some sweets. Roasted and raw kernels are used as snacks.

40. Which of the following statement is correct?

- 1) We can experience sweetness while eating the stems of sugarcane, roots of sugar beet, fruits of apple and while drinking palmyra sap
 - 2) Sugar is the generic name for sweet tasting soluble carbohydrate, which are used in foods and beverages.
 - 3) Sugars found in sugarcane and palmyra make them ideal for efficient extraction to make commercial sugar.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above**

Explanation

We can experience sweetness while eating the stems of sugarcane, roots of sugar beet, fruits of apple and while drinking palmyra sap. This is due to the different proportions of sugars found in it. **Sugar is the generic name for sweet tasting soluble carbohydrate, which are used in foods and beverages.** Sugars found in sugarcane and palmyra make them ideal for efficient extraction to make commercial sugar.

41. _____ is the raw material for extracting white sugar

- a) Sugar cane**
- b) Palmyra tree
- c) Gingelly
- d) All the above

Explanation

Sugar cane is the raw material for extracting white sugar. Sugarcane supports large number of industries like sugar mills producing refined sugars, distilleries producing liquor grade ethanol and millions of jaggery manufacturing units.

42. Molasses is the raw material for the production of_____

- a) Methyl alcohol
- b) Ethyl alcohol**
- c) Propyl alcohol
- d) Butyl alcohol

Explanation

Fresh sugarcane juice is a refreshing drink. **Molasses is the raw material for the production of ethyl alcohol.**

43. Which of the following districts of Tamil Nadu does not cultivate sugar cane?

- 1) Dharmapuri
- 2) Nilgiris
- 3) Kanyakumari
- a) 1, 2
- b) 1, 3
- c) 2, 3**
- d) All the above

Explanation

The cultivated *Saccharum officinarum* has evolved by repeated back crossing of *S.officinarum* of New Guinea with wild *S.spontaneum* of India to improve the quality. **All districts except Kanyakumari and Nilgiris of Tamil Nadu cultivate Sugarcane.**

44. Which of the following statement is correct?

- 1) Palmyra is native to tropical regions of Africa, Asia and New Guinea
- 2) Palmyra grows all over Tamil Nadu, especially in coastal districts
- 3) It is the state tree of Tamil Nadu
- a) 1, 2
- b) 1, 3
- c) 2, 3
- d) All the above**

Explanation

Palmyra (State tree of Tamil Nadu): Palmyra is native to tropical regions of Africa, Asia and New Guinea. Palmyra grows all over Tamil Nadu, especially in coastal districts.

45. Which of the following statement is correct?

- 1) Exudate from inflorescence axis is collected for preparing palm sugar
- 2) Inflorescence is tapped for its sap which is used as health drink.
- 3) Endosperm is used as a refreshing summer food.
- a) 1, 2
- b) 1, 3

- c) 2, 3
- d) **All the above**

Explanation

Exudate from inflorescence axis is collected for preparing palm sugar. Inflorescence is tapped for its sap which is used as health drink. Sap is processed to get palm jaggery or fermented to give toddy. Endosperm is used as a refreshing summer food. Germinated seeds have an elongated embryo surrounded by fleshy scale leaf which is edible.

46. Which of the following statement is correct?

- 1) The essential oils or volatile oils which possess aroma evaporate or volatilize in contact with air
 - 2) Any organ of a plant may be the source of essential oil
 - 3) Examples are flowers of Jasmine, fruits of orange and roots of ginger.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

There are two kinds of oils namely, essential oils and vegetable oils or fatty oils. The essential oils or **volatile oils which possess aroma evaporate or volatilize in contact with air. Any organ of a plant may be the source of essential oil.** For example, flowers of Jasmine, fruits of orange and roots of ginger. The vegetable oils or non-volatile oils or fixed oils that do not evaporate. Whole seeds or endosperm form the sources of vegetable oils.

47. Groundnut is native of_____

- a) India
- b) **Brazil**
- c) Africa
- d) Indonesia

Explanation

Groundnut is native of Brazil. Portuguese introduced groundnut into Africa. The Spanish took it to the South East Asia and India via Philippines. In India Gujarat, Andhra Pradesh and Rajasthan are top producers.

48. Ground Nuts contain about___ % oil

- a) 60
- b) **45**
- c) 35
- d) 70

Explanation

Nuts contain about 45% oil. The kernels are also rich sources of phosphorous and vitamins, particularly thiamine, riboflavin and niacin. It is premium cooking oil because it does not smoke. Lower grade oil is used in manufacture of soaps and lubricants.

49. *Sesamum indicum* has originated from_____

- a) India
- b) Brazil
- c) **Africa**
- d) Indonesia

Explanation

Sesamum indicum has originated from Africa. Sesame is cultivated as a dry land crop. West Bengal and Madhya Pradesh are the top producers in India during 2017-18. It is considered as a healthy oil in Southern Indian culture.

50. Which of the following statement is correct?

- 1) Sesame oil is used for mostly culinary purposes in India
 - 2) Lower grades are used in manufacture of soaps, in paint industries, as a lubricant and as an illuminant
 - 3) Sesame seed snacks are popular throughout India.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Sesame oil is used for mostly culinary purposes in India. Lower grades are used in manufacture of soaps, in paint industries, as a lubricant and as an illuminant. In India, the oil is the basis of most of the scented oils used in perfumes. Sesame seed snacks are popular throughout India.

51. _____ is the largest coffee producing state in India

- a) **Karnataka**
- b) Tamil Nadu
- c) Assam
- d) Kerala

Explanation

Coffea arabica is the prime source of commercial coffee which is native to the tropical Ethiopia. An Indian Muslim saint, Baba Budan introduced coffee from Yemen to Mysore. **Karnataka is the largest coffee producing state in India followed by Tamil Nadu and Kerala.** Tamil Nadu is the largest consumer of coffee in India.

52. Which of the following statement is correct?

- 1) Caffeine enhances release of acetylcholine in brain, which in turn enhances efficiency
- 2) It may reduce the risk of type 1 diabetes

- a) 1 alone
- b) 2 alone
- c) 1, 2
- d) None

Explanation

Caffeine enhances release of acetylcholine in brain, which in turn enhances efficiency. It can lower the incidence of fatty liver diseases, cirrhosis and cancer. **It may reduce the risk of type 2 diabetes.**

53. Which of the following statement is correct?

- 1) Spices were used extensively throughout the world for several thousands of years.
 - 2) Majority of the spices are native to Mediterranean region, India and South East Asian countries.
 - 3) Records of use of garlic and onion dates back 500 years.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Spices were used extensively throughout the world for several thousands of years. Records of use of garlic and onion dates back 2500 years. Majority of the spices are native to Mediterranean region, India and South East Asian countries. Spices, especially pepper triggered the search for sea route to India and paved way for the exploratory voyages by Spanish and Portuguese.

54. Which of the following statement is correct?

- 1) Spices are accessory foods mainly used for flavouring during food preparation to improve their palatability
 - 2) Spices are aromatic plant products and are characterized by bitter taste only
- a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

Spices are accessory foods mainly used for flavouring during food preparation to improve their palatability. **Spices are aromatic plant products and are characterized by sweet or bitter taste.** Spices are added in minimal quantities during the cooking process. For example black pepper.

55. _____ is called as "Queen of Spices"

- a) Black pepper
- b) **Cardamom**
- c) Turmeric
- d) Tamarind

Explanation

Cardamom is indigenous to Southern India and Sri Lanka. **Cardamom is called as “Queen of Spices”.** In India it is one of the main cash crops cultivated in the Western Ghats, and North Eastern India.

56. Which of the following statement about cardamom is correct?

- 1) The seeds have a pleasing aroma and a characteristic warm, slightly pungent taste
 - 2) The seeds are used in the preparation of curry powder, pickles and cakes.
 - 3) Medicinally, it is employed as a stimulant and carminative
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

The cardamom seeds have a pleasing aroma and a characteristic warm, slightly pungent taste. It is used for flavouring confectionaries, bakery products and beverages. **The seeds are used in the preparation of curry powder, pickles and cakes.** Medicinally, it is employed as a stimulant and carminative. It is also chewed as a mouth freshener.

57. Black Pepper is indigenous to_____ of India

- a) Eastern ghats
- b) **Western ghats**
- c) Himalayas
- d) Deccan plateau

Explanation

Black Pepper is indigenous to Western Ghats of India. Botanical name of pepper is *Piper nigrum*. The characteristic pungency of the pepper is due to the presence of alkaloid Piperine.

58. _____ is one of the most important Indian spices referred to as the “King of Spices”

- a) Cardamom
- b) **Black pepper**
- c) Red pepper
- d) Bark leaves

Explanation

Pepper is one of the most important Indian spices referred to as the “King of Spices” and also termed as “Black Gold of India”. Kerala, Karnataka and Tamil Nadu are the top producers in India.

59. Which of the following statement is correct?

- 1) Pepper is used for flavouring in the preparation of sauces, soups, curry powder and pickles
 - 2) It is used in medicine as an aromatic stimulant for enhancing salivary and gastric secretions and also as a stomachic.
 - 3) Pepper also enhances the bio-absorption of medicines.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Pepper is used for flavouring in the preparation of sauces, soups, curry powder and pickles. It is used in **medicine as an aromatic stimulant for enhancing salivary and gastric secretions** and also as a stomachic. Pepper also enhances the bio-absorption of medicines.

60. _____ in Tamil Nadu is the World's largest wholesale turmeric market.

- a) Salem
- b) Coimbatore
- c) **Erode**
- d) Villupuram

Explanation

Turmeric is indigenous to Southern Asia India is the largest producer, consumer and exporter of turmeric. **Erode in Tamil Nadu is the World's largest wholesale turmeric market.**

61. Which of the following statement is correct?

- 1) Turmeric is one of the most important and ancient Indian spices and used traditionally over thousands of years for culinary, cosmetic, dyeing and for medicinal purposes
 - 2) It is an important constituent of curry powders
 - 3) It is also used for dyeing leather, fibre, paper and toys.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Turmeric is one of the most important and ancient Indian spices and used traditionally over thousands of years for culinary, cosmetic, dyeing and for medicinal purposes. It is an important constituent of curry powders. Turmeric is used as a colouring agent in pharmacy, confectionery and food industry. Rice coloured with turmeric (yellow) is considered sacred and auspicious which is used in ceremonies. It is also used for dyeing leather, fibre, paper and toys.

62. _____ extracted from turmeric is responsible for the yellow colour.

- a) Indica
- b) **Curcumin**
- c) Cinchona
- d) None

Explanation

Curcumin extracted from turmeric is responsible for the yellow colour. Curcumin is a very good anti-oxidant which may help fight various kinds of cancer. It has anti-inflammatory, anti-diabetic, anti-bacterial, anti-fungal and antiviral activities. It stops platelets from clotting in arteries, which leads to heart attack

63. Capsicum is native to_____

- a) China

- b) **South America**
- c) Africa
- d) Europe

Explanation

Capsicum is native to South America and is popularly known as chillies or red pepper in English. India is leading producer and exporter. *C. annum* and *C. frutescens* are important cultivated species of chillies.

64. Chillies are a good source of Vitamin___

- a) A, D, E
- b) B, C
- c) **A, C, E**
- d) A, D, K

Explanation

Capsaicin is an active component of chillies. It has pain relieving properties and used in pain relieving balms. **Chillies are a good source of Vitamin C, A and E.**

65. Which of the following statement is correct?

- 1) Capsaicin is responsible for the pungency or spicy taste of chillies
 - 2) Pungency of Chillies is measured in Scoville Heat Units
 - 3) World's hottest chilli, Carolina reaper pepper measures 220000 SHU
- a) **1, 2**
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Capsaicin is responsible for the pungency or spicy taste of chillies. Pungency of Chillies is measured in Scoville Heat Units (SHU). **World's hottest chilli, Carolina reaper pepper measures 2,200,000 SHU.** Naga viper chilli is the hottest in India that measures 1,349,000 SHU. Commonly used cayenne pepper measures 30,000 to 50,000 SHU.

66. Tamarind is native of tropical_____ region

- a) South American
- b) **Africa**
- c) Asia
- d) Australian

Explanation

Tamarind is native of tropical African region and was introduced into India several thousand years before. It is cultivated in India, Myanmar, south asian countries and several African and Central American countries. Tamarind has long been used in Africa and in Southern Asia. The name tamarindus is of Arabian origin, which means "dates of India". (tamar – dates; Indus – India).

67. Which of the following statement about tamarind is incorrect?

- 1) It is used in flavouring sauces in the United States and Mexico.
- 2) Sweet tamarinds are sold as table fruits in India imported from Thailand and Malaysia
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) **None**

Explanation

Tamarind is used in flavouring sauces in the United States and Mexico. In India, the fruit pulp is major ingredients for many culinary preparations. **Sweet tamarinds are sold as table fruits in India imported from Thailand and Malaysia.**

68. In India cotton is cultivated in_____

- a) Gujarat
- b) Tamil Nadu
- c) Maharashtra
- d) **All the above**

Explanation

Commercial cotton comes from four cotton species: two from the new world and two from the old world. (1) *G. hirsutum* (2) *G. barbadense* are the New world species and (3) *G. arboreum* (4) *G. herbaceum* are the old world species. **In India cotton is cultivated in Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu.**

69. Jute is an important cultivated commercial crop in Gangetic plains of_____

- 1) India
- 2) China
- 3) Bangladesh
- 4) Burma
 - a) 1, 2
 - b) 1, 3
 - c) **2, 3**
 - d) 2, 4

Explanation

Jute is derived from the two cultivated species (1) *Corchorus capsularis* and (2) *C. olitorius* is of African origin whereas *C. capsularis*, is believed to be Indo-Burmese origin. **It is an important cultivated commercial crop in Gangetic plains of India and Bangladesh**

70. About___ % of the jute produced is used for manufacturing sacks and bags

- a) 90
- b) **75**
- c) 50
- d) 60

Explanation

About 75% of the jute produced is used for manufacturing sacks and bags. It is also used in manufacture of blankets, rags, curtains etc. It is also being used as a textile fibre in recent years.

71. Latex Rubber is a native of_____

- a) Argentina
- b) Brazil**
- c) India
- d) Myanmar

Explanation

Latex Rubber is a native of Brazil and was introduced outside its native range during the colonial period and has become an important cash crop.

72. Asia contributed_____ % of the world rubber production.

- a) 30
- b) 90**
- c) 70
- d) 40

Explanation

Asia contributed 90% of the world rubber production. Kerala is the largest producer in India followed by Tamil Nadu.

73. Which of the following statement is correct?

- 1) Tyre and other automobile parts manufacturing industries consume 50% of the rubber production
 - 2) Foamed latex is used in the manufacture of cushions, pillows and lifebelts
- a) 1 alone
 - b) 2 alone**
 - c) 1, 2
 - d) None

Explanation

Tyre and other automobile parts manufacturing industries consume 70% of the rubber production. Rubber is used in manufacturing footwear, wire and cable insulations, raincoats, household and hospital goods, shock absorbers, belts, sports goods, erasers, adhesives, and rubber-bands Hard rubber is used in the electrical and radio engineering industries Concentrated latex is used for making gloves, balloons and condoms. Foamed latex is used in the manufacture of cushions, pillows and lifebelts.

74. Charles Goodyear invented vulcanization in_____

- a) 1880
- b) 1839**
- c) 1870
- d) 1779

Explanation

Charles Goodyear invented vulcanization in 1839. He found that the defects in rubber articles could be overcome by heating rubber with sulphur under pressure at 150° C. The process was called vulcanization. The name was given from the Roman God of Fire, Vulcan. Because of this, solid rubber tyres were used for first time in 1867. That is why we smoothly travel on road.

75. Paper production is a_____ invention

- a) Indian
- b) African
- c) European
- d) **Chinese**

Explanation

The term paper is derived from the word 'papyrus' a plant (Cyperus papyrus) that was used by Egyptians to make paper-like materials. **Paper production is a Chinese invention.** The Chinese discovered the paper that was prepared from the inner bark of paper mulberry in 105 A.D.

76. When did Arabs learned the technique of paper making and improved it?

- a) **750 A.D.**
- b) 750 B.C.
- c) 300 B.C.
- d) 600 B.C.

Explanation

For a long time, the art of paper making remained a monopoly of the Chinese until **Arabs learned the technique and improved it around 750 A.D.** Invention of printing increased the demand for paper.

77. Which of the following statement is correct?

- 1) The ability to perceive colour is a wonderful aspect of human eyes and dyes add colour to the goods we use
 - 2) The earliest authentic records of dyeing were found in the tomb painting of ancient Egypt.
 - 3) Colourings on mummy cements (wrapping) included saffron and indigo.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

The ability to perceive colour is a wonderful aspect of human eyes and dyes add colour to the goods we use. They have been in use since the ancient times. The earliest authentic records of dyeing were found in the tomb painting of ancient Egypt. **Colourings on mummy cements (wrapping) included saffron and indigo.** They can also be seen in rock paintings in India.

78. Henna is indigenous to_____

- 1) North America
- 2) North Africa

- 3) South west Asia
- a) 1, 2
 - b) 1, 3
 - c) **2, 3**
 - d) All the above

Explanation

Henna is indigenous to North Africa and South-west Asia. It is grown mostly throughout India, especially in Gujarat, Madhya Pradesh and Rajasthan.

79. Which of the following statement is correct?

- 1) An orange dye 'Henna' is obtained from the leaves and young shoots of *Lawsonia inermis*
 - 2) It is used for colouring leather, for the tails of horses and in hair-dyes.
- a) 1 alone
 - b) 2 alone
 - c) **1, 2**
 - d) None

Explanation

An orange dye 'Henna' is obtained from the leaves and young shoots of *Lawsonia inermis*. The principal colouring matter of leaves 'lacosone' is harmless and causes no irritation to the skin. This dye has long been used to dye skin, hair and finger nails. It is used for colouring leather, for the tails of horses and in hair-dyes.

80. Aloe is native to _____

- a) **Sudan**
- b) Egypt
- c) India
- d) Brazil

Explanation

Aloe Vera is a native of Sudan. It is cultivated on a large scale in Rajasthan, Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu.

81. Which of the following statement is correct?

- 1) 'Aloin' (a mixture of glucosides) and its gel are used as skin tonic
 - 2) It has a cooling effect and moisturizing characteristics
 - 3) Products prepared from aloe leaves have multiple properties such as emollient, antibacterial, antioxidant, antifungal and antiseptic
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

'Aloin' (a mixture of glucosides) and its gel are used as skin tonic. It has a cooling effect and moisturizing characteristics and hence used in preparation of creams, lotions, shampoos, shaving

creams, after shave lotions and allied products. **It is used in gerontological applications for rejuvenation of aging skin.** Products prepared from aloe leaves have multiple properties such as emollient, antibacterial, antioxidant, antifungal and antiseptic. Aloe vera gel is used in skin care cosmetics.

82. Which of the following statement is correct?

- 1) The word perfume is derived from the Latin word Per (through) and fumus (to smoke), meaning through smoke
 - 2) Perfumes are added to baths and used for anointing the body
 - 3) Perfumes are manufactured from essential oil which are volatile and aromatic
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

The word perfume is derived from the Latin word Per (through) and fumus (to smoke), meaning through smoke. It refers to the age-old tradition of burning scented woods at religious ceremonies. Perfumes are manufactured from essential oil which are volatile and aromatic. Essential oils are found at different parts of the plant such as leaves, (curry leaf, mint), flowers (rose, jasmine), fruits (citrus, straw berry) and wood (sandal, eucalyptus).

83. Which of the following statement is correct?

- 1) 'Madurai Malli' is the pride of Madurai has a distinct reputation universally because of its uniqueness and has been given the Geographical Indications (GI)
 - 2) This is the third GI tag for Jasmine after 'Mysore Malli'.
 - 3) Madurai malli has thick petals with long stalk equal to that of petals and the distinct fragrance is due to the presence of chemicals such as jasmine and alpha terpineol
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

'Madurai Malli' is the pride of Madurai has a distinct reputation universally because of its uniqueness and has been given the Geographical Indications (GI) mark by the Geographical indication Registry of India. Madurai malli has thick petals with long stalk equal to that of petals and the distinct fragrance is due to the presence of chemicals such as jasmine and alpha terpineol. This makes it easy to distinguish Madurai Malli from other places. This is the second GI tag for Jasmine after 'Mysore Malli'.

84. Which of the following statement is correct?

- 1) Jasmine, as a floral perfume, ranks next to the rose oil.
- 2) Major species cultivated on the commercial scale is Jasminum grandiflorum, a native of the north-western Himalayas

- 3) One ton of Jasmine blossom yields about 2.5 to 3 kg of essential oil, comprising 0.25 to 3% of the weight of the fresh flower.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Jasmine, as a floral perfume, ranks next to the rose oil. Major species cultivated on the commercial scale is *Jasminum grandiflorum*, a native of the north-western Himalayas. **In Tamil Nadu, the major jasmine cultivation centres are Madurai and Thovalai of Kanyakumari District.** The essential oil is present in the epidermal cells of the inner and outer surfaces of both the sepals and petals. One ton of Jasmine blossom yields about 2.5 to 3 kg of essential oil, comprising 0.25 to 3% of the weight of the fresh flower.

85. Which of the following statement is correct?

- 1) India has a rich medicinal heritage.
 - 2) TSM in India can be broadly classified into institutionalized or documented and non-institutionalized or oral traditions.
 - 3) Institutionalized Indian systems include Siddha and Ayurveda which are practiced for about two thousand years.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

India has a rich medicinal heritage. **A number of Traditional Systems of Medicine (TSM) are practiced in India some of which come from outside India.** TSM in India can be broadly classified into institutionalized or documented and non-institutionalized or oral traditions. Institutionalized Indian systems include Siddha and Ayurveda which are practiced for about two thousand years. These systems have prescribed texts in which the symptoms, disease diagnosis, drugs to cure, preparation of drugs, dosage and diet regimes, daily and seasonal regimens.

86. Which of the following statement is correct?

- 1) Siddha is the most popular, widely practiced and culturally accepted system in Tamil Nadu
 - 2) It is based on the texts written by 22 Siddhars
 - 3) The Siddhars are not only from Tamil Nadu, but have also come from other countries
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation Siddha is the most popular, widely practiced and culturally accepted system in Tamil Nadu. **It is based on the texts written by 18 Siddhars.** There are different opinions on the

constitution of 18 Siddhars. The Siddhars are not only from Tamil Nadu, but have also come from other countries. The entire knowledge is documented in the form of poems in Tamil.

87. Which of the following statement is correct about Ayurveda is correct?

- 1) Ayurveda supposed to have originated from Brahma.
- 2) The core knowledge is documented by Charaka, Sushruta and Vagbhata in compendiums written by them
- 3) The Ayurvedic Pharmacopoeia of India lists about 500 plants used as source of drugs
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

Ayurveda supposed to have originated from Brahma. The core knowledge is documented by Charaka, Sushruta and Vagbhata in compendiums written by them. This system is also based on three humor principles namely, Vatha, Pitha and Kapha which would exist in equilibrium for a healthy living. This system Uses more of herbs and few animal parts as drug sources. Plant sources include a good proportion of Himalayan plants. The Ayurvedic Pharmacopoeia of India lists about 500 plants used as source of drugs.

88. Which of the following statement is correct?

- 1) India is a treasure house of medicinal plants
- 2) All institutional systems in India primarily use medicinal plants as drug sources
- 3) Growing demand for herbal products has led to quantum jump in volume of plant materials traded within and across the countries
 - a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) All the above

Explanation

India is a treasure house of medicinal plants. They are linked to local heritage as well as to global-trade. **All institutional systems in India primarily use medicinal plants as drug sources.** At present, 90% collection of medicinal plants is from the non-cultivated sources. Growing demand for herbal products has led to quantum jump in volume of plant materials traded within and across the countries. Increasing demand exerts a heavy strain on the existing resources

89. Keezhanelli is a native of Tropical_____ region

- a) African
- b) **American**
- c) Asian
- d) Australian

Explanation

The plant is a native of Tropical American region and is naturalised in India and other tropical countries. It is not cultivated and is collected from moist places in plains. *Phyllanthus maderaspatensis* is also commonly sold in the medicinal plant markets collected from non-forest are as **keezhanelli**.

90. Which of the following can be treated with *Phyllanthus*?

- a) Malaria
- b) Jaundice**
- c) Yellow fever
- d) Dengue

Explanation

Phyllanthus is a well-known hepato-protective plant generally used in Tamil Nadu for the treatment of Jaundice. Research carried out by Dr. S P Thyagarajan and his team from University of Madras has scientifically proved that the extract of *P. amarus* is effective against hepatitis B virus.

91. ____ known as the King of Bitters is traditionally used in Indian systems of medicines

- a) Andrographis paniculate**
- b) *Phyllanthus amarus*
- c) *Jasminum grandiflorum*
- d) None

Explanation

Andrographis paniculata, known as the King of Bitters is traditionally used in Indian systems of medicines. *Andrographis* is a potent hepatoprotective and is widely used to treat liver disorders.

92. Which of the following statement is incorrect?

- 1) Phytochemicals / drugs from some of the plants alter an individual's perceptions of mind by producing hallucination are known as psychoactive drugs.
 - 2) These drugs are used in all ancient culture especially by Shamans and by traditional healers
- a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None**

Explanation

Phytochemicals / drugs from some of the plants alter an individual's perceptions of mind by producing **hallucination** are known as psychoactive drugs. These drugs are used in all ancient culture especially by Shamans and by traditional healers. Here we focus on two such plants namely Poppy and Marijuana.

93. Which of the following states are licenced to cultivate opium?

- 1) Rajasthan
- 2) Madhya Pradesh

- 3) Uttar Pradesh
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Opium poppy is native to South Eastern Europe and Western Asia. **Madhya Pradesh, Rajasthan and Uttar Pradesh are the licenced states to cultivate opium poppy.**

94. Which of the following statement is correct?

- 1) Opium is derived from the exudates of fruits of poppy plants
 - 2) It was traditionally used to induce sleep and for relieving pain.
 - 3) Opium yields Morphine, a strong analgesic which is used in surgery.
- a) 1, 2
 - b) 1, 3
 - c) 2, 3
 - d) **All the above**

Explanation

Opium is derived from the exudates of fruits of poppy plants. It was traditionally used to induce sleep and for relieving pain. Opium yields Morphine, a strong analgesic which is used in surgery. However, opium is an addiction forming drug.

95. Marijuana is native to_____

- a) India
- b) **China**
- c) Ghana
- d) Brazil

Explanation

Marijuana is native to China. States such as Gujarat, Himachal Pradesh, Uttarkand, Uttarpradesh and Madhaya Pradesh have legally permitted to cultivate industrial hemp/Marijuana.

96. The active principle in Marijuana is_____

- a) **Trans-tetra-hydrocanabinal**
- b) Trans-penta-hydrocanabinal
- c) Tetrahydrocanabinal
- d) None

Explanation

The active principle in Marijuana is trans-tetra hydro-canabinal (THC). It possesses a number of medicinal properties. It is an effective pain reliever and reduces hypertension. THC is used in treating Glaucoma a condition in which pressure develops in the eyes.

97. Which of the following statement is incorrect?

- 1) THC is also used in reducing nausea of cancer patients undergoing radiation and chemotherapy.
- 2) THC provides relief to bronchial disorders, especially asthma as it dilates bronchial vessels.
 - a) 1 alone
 - b) 2 alone
 - c) 1, 2
 - d) None

Explanation

THC is used in treating Glaucoma a condition in which pressure develops in the eyes. THC is also used in reducing nausea of cancer patients undergoing radiation and chemotherapy. THC provides relief to bronchial disorders, especially asthma as it dilates bronchial vessels. Because of these medicinal properties, cultivation of cannabis is legalized in some countries.

98. Match the following

- | | |
|-----------------------|-------------------|
| I. Holy basil | 1. Vitaceae |
| II. Indian gooseberry | 2. Phyllanthaceae |
| III. Vilvam | 3. Lamiaceae |
| IV. Veldt grape | 4. Rutaceae |
- a) 2, 1, 3, 4
 - b) 4, 2, 1, 3
 - c) 3, 2, 4, 1
 - d) 3, 4, 2, 1

Explanation

Table 1: Other commo Medicinal plants						
S. No	Common Name	Tamil Name	Botanical Name	Family	Plant part used	Medicinal Uses
1	Holy basil	துளசி	<i>Ocimum sanctum</i>	Lamiaceae	Leaves and Roots	The leaves are stimulant, antiseptic, anti-hypertensive and anti-bacterial and expectorant used in bronchitis. Decoction of roots is given as a diaphoretic in malarial fever.
2	Indian gooseberry	நெல்லி	<i>Phyllanthus emblica</i>	Phyllanthaceae	Fruit	It is a potent rejuvenator and immune modulator. It has anti-ageing properties. It helps to promote longevity, enhance digestion, treat constipation and reduce fever and cough.
3	Indian Acalypha	குப்பைமேனி	<i>Acalypha indica</i>	Euphorbiaceae	Leaves	Used to cure skin diseases caused by ringworms. Powdered leaves are used to cure bedsores and infected wounds.
4	Vilvam	வில்வம்	<i>Aegle marmelos</i>	Rutaceae	Fruit	The unripe fruit is used to treat problems of stomach indigestion. It kills intestinal parasites.
5	Veldt grape	பிரண்டை	<i>Cissus quadrangularis</i>	Vitaceae	Stem and root	Paste obtained from the powdered stem and root of this plant is used in bone fractures. Whole plant is useful to treat asthma and stomach troubles.

99. Which of the following statement is correct?

- 1) Drug abuse and misuse can cause numerous health problems and in serious cases death can occur.

- 2) The Narcotics Control Bureau (NCB) is the nodal drug law enforcement and intelligence agency of India and is responsible for fighting drug trafficking and the abuse of illegal substances
- 1 alone
 - 2 alone
 - 1, 2
 - None

Explanation



Narcotics Control Bureau (NCB)

Drugs come in various forms and can be taken in numerous ways. Some are legal and others are not. Drug abuse and misuse can cause numerous health problems and in serious cases death can occur.

The Narcotics Control Bureau (NCB) is the nodal drug law enforcement and intelligence agency of India and is responsible for fighting drug trafficking and the abuse of illegal substances.



100. Which of the following statement is incorrect?

- 1) Entrepreneurial Botany is the study of how new businesses are created using plant resources as well as the actual process of starting a new business
 - 2) Entrepreneurship is now a popular topic for higher secondary students, with a focus on developing ideas to create new ventures among the young people.
- 1 alone
 - 2 alone
 - 1, 2
 - None**

Explanation

Entrepreneurial Botany is the study of how new businesses are created using plant resources as well as the actual process of starting a new business. An entrepreneur is someone who has an idea and who works to create a product or service that people will buy, by building an organization to support the sales. Entrepreneurship is now a popular topic for higher secondary students, with a focus on developing ideas to create new ventures among the young people.

101. Which of the following statement is correct?

- 1) Organic farming is an alternative agricultural system in which plants/crops are cultivated in natural ways by using biological inputs to maintain soil fertility and ecological balance thereby minimizing pollution and wastage.
- 2) Indians were organic farmers by default until the green revolution came into practice.

- 3) Use of biofertilizers is one of the important components of integrated organic farm management, as they are cost effective and renewable source of plant nutrients to supplement the chemical fertilizers for sustainable agriculture
- a) 1, 2
 - b) 2, 3
 - c) 1, 3
 - d) All the above

Explanation

Organic farming is an alternative agricultural system in which plants/crops are cultivated in natural ways by using biological inputs to maintain soil fertility and ecological balance thereby minimizing pollution and wastage. Indians were organic farmers by default until the green revolution came into practice. **Use of biofertilizers is one of the important components of integrated organic farm management, as they are cost effective and renewable source of plant nutrients to supplement the chemical fertilizers for sustainable agriculture.** Several microorganisms and their association with crop plants are being exploited in the production of biofertilizers. Organic farming is thus considered as the movement directed towards the philosophy of Back to Nature.