

Class: 12

Subject: Biology

Topic: Strategies For Enhancement In Food Production

No. of Questions: 20

Duration: 60 Min

Maximum Marks: 60

1. Cotyledons and testa are edible parts of

- A. groundnut and pomegranate
- B. walnut and tamarind
- C. french bean and coconut
- D. cashew nut and litchi

Detailed Answer: A

Cotyledons and testa are edible parts of groundnut and pomegranate respectively.

The edible part of walnut is cotyledon; tamarind-mesocarp; french bean-seeds, coconut-endosperm, testa, cotyledons and embryo, cashewnut-cotyledons and fleshy pedicels and of litchi is fleshy aril.

2. Which of the following plant species you would select for the production of bioethanol?

- A. Brassica
- B. Zea mays
- C. Pongamia
- D. Jatropha

Detailed Answer:

Biodiesel oil as well as bioethanol fuel, two new and clean fuels for environmental protection, have already been approved as substitutes for fuel or fuel additive. Four most promising alcohol crops are sweet potato, maize, sugarcane and sorghum.

Answer: B

3. Which is the major crop in Asia?

- A. Rice
- B. Sugarcane.
- C. Jowar
- D. Millet

Detailed Answer:

Rice (*Oryza sativa*) is a tropical crop grown in almost all parts of India. It is a major crop with 90% production in Asia. It is a staple food of 60% of world's population and more than 50% Indians. It is grown as kharif crop in north India.

Answer: A

4. 'Himgiri' developed by hybridization and selection for disease resistance against rust pathogens is a variety of

- A. maize
- B. sugarcane
- C. wheat
- D. chilli

Detailed Answer:

'Himgiri' is a wheat variety resistant to leaf and stripe rust, hill bunt etc.

Answer: C

5. Match the following columns and choose the correct option.

Column I		Column II	
A	Laxative	1	Neem
B	Anti-corrosion	2	Groundnut
C	Lubricants	3	Cotton
D	Nitrocellulose	4	Mango
		5	Rice

- A.

A	B	C	D
2	3	5	1

B.

A	B	C	D
4	5	2	3

C.

A	B	C	D
5	4	3	2

D.

A	B	C	D
1	2	4	5

Detailed Answer:

Column I	Column II
Laxative	Mango
Anti-corrosion	Rice
Lubricants	Groundnut
Nitrocellulose	Cotton

Answer: B

6. The scientific name of zebu is

- A. *Bos indicus*
- B. *Bombyx mori*
- C. *Bubalus bubalus*
- D. *Gallus domesticus*

Detailed Answer:

The scientific name of zebu cattle is *Bos indicus*, buffalo is *Bubalus bubalus*, silk worm is *Bombyx mori* and domestic fowl is *Gallus domesticus*.

Answer: A

7. *Triticum vulgare* has been found to be presently evolved as

- A. diploid
- B. tetraploid
- C. pentaploid
- D. hexaploid

Detailed Answer:

The common bread wheat (*Triticum aestivum* = *T. vulgare*) is an allohexaploid. It has two copies of each of the genomes A, B and D. Its somatic complement is represented as AA BB DD.

Answer: D

8. *Atropa belladonna* yields medicine used for

- A. gastric ulcers
- B. checking the eyes
- C. leprosy
- D. constipation

Detailed Answer:

Atropa belladonna (Solanaceae) is the source of drug atropine. Atropine is an alkaloid obtained from leaves and is used in eye testing by dilating pupil of eye.

Answer: B

9. **Assertion** Clonal selection is a method of breeding in sugarcane.

Reason Sugarcane is propagated through suckers.

- A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion
- B. Both Assertion and Reason are true but Reason is not the correct explanation of Assertion
- C. Assertion is true but Reason is false
- D. Assertion is false but Reason is true

Detailed Answer:

Clonal selection is a method of improving vegetatively propagated crops like-sugarcane, banana, potato, citrus, mango, etc. All the plants of a clone are similar, phenotypically as well as genotypically. Mint and *Chrysanthemum* bear suckers at the base of aerial shoots. After growing for some distance, the suckers grow out and produce new crowns. The suckers may form independent plant.

Answer: C

10. Genetic diversity in agricultural crops is threatened by

- A. introduction of high yielding varieties
- B. intensive use of fertilizers
- C. extensive intercropping
- D. intensive use of biopesticides

Detailed Answer:

Genetic diversity in agricultural crops is threatened by introduction of high yielding varieties.

Answer: A

11. 'Nagkesar' is obtained from the flowers of

- A. Mesua ferrea
- B. Crocus sativus
- C. Viola odorata
- D. Centella asiatica

Detailed Answer:

Nagkesar is obtained from the flower of *Viola odorata*. Leaves are used in flavouring and perfumeries. The drug is used medicinally as expectorant, anti-pyretic, anti-bacterial and anti-fungal, etc.

Answer: C

12. Cocaine alkaloid is obtained from

- A. *Erythroxyton coca*
- B. *Thea chinensis*
- C. *Coffea arabica*
- D. *Theobroma cacao*

Detailed Answer:

Cocaine alkaloid is obtained from *Erythroxyton coca*.

Answer: A

13. Which of the following is wrongly matched?

- A. *Indigofera* - Dye
- B. *Sesbania* - Fodder
- C. *Petunia* - Fumigatory
- D. *Aloe* - Medicine

Detailed Answer:

Petunia, family-Solanaceae is an ornamental plant.

Answer: C

14. Chicken pox, small pox, etc., can be cure by

- A. neem
- B. tulsi
- C. shatavari
- D. None of these

Detailed Answer:

The roots of shatavari (*Asparagus ramosus*) are used externally to cure chicken pox, small pox, measles etc.

Answer: C

15. Asafoetida is obtained from

- A. roots and stem
- B. leaves
- C. fruit
- D. flower

Detailed Answer:

Asafoetida (Heeng) is obtained from the secretion of roots or rhizomes of *Ferula asafoetida* (family-Umbelliferae). It is a resin plant.

Answer: A

16. The timber yielding plant *Shorea robusta* belongs to the which family?

- A. Fabaceae
- B. Rubiaceae
- C. Dipterocarpaceae
- D. Verbenaceae

Detailed Answer:

The timber yielding plant *Shorea robusta* belongs to the family-Dipterocarpaceae. It is used for construction work and eminently suited for railway sleeper.

Answer: C

17. Powdery mildew of wheat is caused by a species of

- A. Puccinia
- B. Erysiphe
- C. Ustilago
- D. Albugo

Detailed Answer:

Powdery mildew of wheat-Erysiphe graminis. Loose smut of wheat-Ustilago tritici.

Answer: B

18. Chicory powder, which is mixed with coffee powder is obtained from

- A. root
- B. leaf
- C. stem
- D. seeds

Detailed Answer:

Chicory is the chief substitute of coffee, which is obtained from the roots of *Cichorium intybus*, which is a member of family-**Asteraceae**. The dried roots of this plant are roasted, pulverised and mixed with coffee powder.

Answer: A

19. Para rubber is obtained from the latex of

- A. *Ficus elastica*
- B. *Hevea brasiliensis*
- C. *Carica papaya*
- D. *Musa paradisiaca*

Detailed Answer:

Para rubber is obtained from the latex of *Hevea brasiliensis*.

Answer: B

20. Wonder wheat is new wheat variety developed by

- A. Mexico's international Wheat and Maize Improvement Centre
- B. Indian National Botanical Research Institute
- C. Australian Crop Improvement Centre
- D. African Crop Improvement Centre

Detailed Answer:

Wonder wheat is a new wheat variety with a yield of 18 tonnes per hectare. It has some 200 grains per stalk and has developed by Mexico's International wheat and maize improvement centre.

Answer: A