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Date: 20/10/2022

Subject: BOTANY

Topic : Strategies for Enhancement
in Food Production L5

Class: Standard XII

1. Assertion: A diverse germplasm collection is a very important prerequisite for plant breeding.

Reason: Genetic variability is the root of plant breeding programme.

- A.** Both assertion and reason are correct and the reason correctly explains assertion
 - B.** Both assertion and reason are correct but the reason is not the correct explanation for assertion
 - C.** Assertion is correct but reason is incorrect
 - D.** Both the assertion and reason are incorrect
2. Pest resistance in crop plants may be due to:
- I. Physiological characteristics
 - II. Biochemical characteristics
 - III. Morphological characteristics
- A.** I only
 - B.** I and II only
 - C.** I and III only
 - D.** I, II and III

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3. Read the following statements (A -D) regarding testing, release and commercialisation of cultivars during a plant breeding programme?
Select the correct option stating true (T) and false (F).

A. The new cultivars are evaluated for their traits by growing them in the research fields.
B. Performance of new cultivars is recorded under ideal fertiliser application, irrigation and other crop management practices.
C. In farmer's fields, testing of cultivars is done for one growing season.
D. The new cultivar is compared with the reference cultivars.

A. A - T, B - T, C - F, D - T

B. A - T, B - F, C - F, D - T

C. A - F, B - T, C - F, D - F

D. A - T, B - T, C - T, D - F

4. Complete the given analogy.

Pusa Shubhra: cauliflower :: Parbhani kranti: _____

A. wheat

B. cowpea

C. okra

D. chilli

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5. Match column I with column II and select the correct option.

Column I		Column II	
A	Black rot	1	Wheat
B	Brown rust	2	Sugarcane
C	Red rot	3	Crucifers

- A.** A - 3, B - 1, C - 2
- B.** A - 2, B - 1, C - 3
- C.** A - 3, B - 2, C - 1
- D.** A - 2, B - 3, C - 1
6. Pusa Sadabahar is a disease resistant variety of the plant belonging to the family ____ (A) _____ and Pusa Sadabahar is resistant to ____ (B) _____.
- A.** (A)-Poaceae, (B)-virus
- B.** (A)-Solanaceae, (B)-virus
- C.** (A)-Fabaceae, (B)-bacteria
- D.** (A)-Brassicaceae, (B)-bacteria
7. Pusa Sem 2 is a variety of ____ A ____ which is developed by ____ B ____.
- A.** A: okra, B: CDRI
- B.** A: mustard, B: IARI
- C.** A: flat bean, B: NDRI
- D.** A: flat bean, B: IARI

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8. In _____, resistance to yellow mosaic virus was developed by mutation breeding.

- A. cauliflower
- B. cowpea
- C. mung bean
- D. chilli

9. Study the given table and choose the correct option.

Crop	Variety	Insect pest
A	Pusa Gaurav	Aphids
Flat bean	B	Jassids

- A. A: Okra, B: Pusa Sawani
- B. A: *Brassica*, B: Pusa Sem 3
- C. A: *Brassica*, B: Pusa A-4
- D. A: Wheat, B: Pusa Sem 2

10. Plant variety Himgiri is resistant to which disease?

- A. Hill bunt
- B. White rust
- C. Black rot
- D. Bacterial blight