

# ICAR AIEEA PG Horticulture 2024 Question Paper

Time Allowed :2 hours	Maximum Marks :120	Total Questions :120
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**1. The following statements are given for Brinjal:**

- (A) Pigmented purple coloured brinjal contains more vitamin C than green**
- (B) Copper and polyphenol oxidase activity are highest in purple colour fruits**
- (C) Fe and Catalase are lowest in green Brinjal**
- (D) Bitterness of fruits is due to presence of solasodin**

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (C) only.
  - (2) (A), (B) and (D) only.
  - (3) (A), (B), (C) and (D).
  - (4) (B), (C) and (D) only.
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**2. In case of epicotyl grafting in mango, healing union stage extends from**

- (1) 30-60 days
  - (2) 60-120 days
  - (3) 120-180 days
  - (4) 180-200 days
- 

**3. Given below are two statements:**

**Statement (I): The non deep type is the most common primary dormancy**

**Statement (II): In this type of dormancy species require light or darkness to germinate or chilling stratification**

**In light of the above statements, choose the most appropriate answer from the options given below**

- (1) Both Statement (I) and Statement (II) are true.
- (2) Both Statement (I) and Statement (II) are false.

(3) Statement (I) is true but Statement (II) is false.

(4) Statement (I) is false but Statement (II) is true.

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**4. Carbohydrates that produce two to ten monosaccharides units during the hydrolysis are called**

(1) Oligosaccharides

(2) Aldoses

(3) Ketoses

(4) Polyhydroxy aldehyde

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**5. Deciduous and extremely freeze hardy true citrus species is**

(1) Poncirus

(2) Eremocitrus

(3) Microcitrus

(4) Clymenia

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**6. The moisture content of dried cashew nut should be around**

(1) 1 %

(2) 5 %

(3) 10 %

(4) 12 %

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**7. Which one of reluctances following is not true for varieties developed through mutation?**

(1) Mango – Rosica from Peruvian variety Rosadodelca

(2) Papaya- Pusa Majesty from local type

(3) Grape-Marvel Seedless from Delight

(4) Banana- High gate from Gros Michel, Motta Poovan from Poovan

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**8. Institution Village Linkage Programme (IVLP) was launched during**

- (1) 1987
  - (2) 1995
  - (3) 2000
  - (4) 2005
- 

**9. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A):** The diploid wild species of potato are self-incompatible due to gametophytic self-incompatibility system.

**Reason (R):** A dominant self-incompatibility inhibitor gene (Sli) has been identified in the wild species of *Solanum chacoense*.

**In light of the above statements, choose the correct answer from the options given below.**

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
  - (2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
  - (3) (A) is true but (R) is false.
  - (4) (A) is false but (R) is true.
- 

**10. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) :** Combining all desirable character in a single cultivar of mango is difficult

**Reason (R) :** Mango is a homogeneous crop of suspected diploid origin

**In light of the above statements, choose the correct answer from the options given below.**

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
- (3) (A) is true but (R) is false.
- (4) (A) is false but (R) is true.

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**11. Which is world first semi dwarf, photoperiod insensitive and high yielding rice variety?**

- (1) Pusa RH-10
  - (2) Pusa Basmati-1637
  - (3) Pusa Basmati-1
  - (4) Pusa Basmati-1121
- 

**12. Match List-I with List-II Choose the correct answer from the options given below:**

List-I Common name	List-II Scientific name
(A) Sword bean	(I) <i>Trichosanthes anguina</i>
(B) Ivy gourd	(II) <i>Vigna unguiculata</i>
(C) Cowpea	(III) <i>Coccinia indica</i>
(D) Snake gourd	(IV) <i>Canavalia gladiata</i>

- (1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
  - (2) (A) - (II), (B) - (I), (C) - (III), (D) - (IV)
  - (3) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
  - (4) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- 

**13. The formula for calculating Gross ratio is?**

- (1) Total expenses/Gross income
  - (2) Fixed expenses/Gross income
  - (3) Operating expenses/Gross income
  - (4)  $\text{Gross income/Total asset} \times 100$
- 

**14. Which *Mangifera* species can be a good parent for breeding freestone mangoes?**

- (1) *Mangifera sylvatica*
- (2) *Mangifera similis*

- (3) *Mangifera nicobarica*
  - (4) *Mangifera caesia*
- 

**15. The pungency of onion is due to**

- (1) Allyl propyl disulphide
  - (2) Quercetin
  - (3) Sinigrin
  - (4) Khudioxidase
- 

**16. Sequence the International Banana breeding institutes according to their place**

- (A) IITA
- (B) EMBRAPA
- (C) CARBAP
- (D) TBRI

- (1) Brazil - Taiwan - Nigeria and Uganda - Cameroon
  - (2) Nigeria and Uganda - Taiwan - Brazil - Cameroon
  - (3) Cameroon - Nigeria and Uganda - Taiwan - Brazil
  - (4) Nigeria and Uganda - Brazil - Cameroon - Taiwan
- 

**17. Which of the following vine cutting method is widely followed in pointed gourd propagation?**

- (1) Lachhi method
  - (2) Moist lump method
  - (3) Ring method
  - (4) Straight vine method
- 

**18. Which of the following factor is NOT favourable for induction of staminate flowers in Watermelon ?**

- (1) Excessive nitrogen application
- (2) High temperature condition

- (3) Long day length
  - (4) Application of ethrel@150 ppm
- 

**19. Given below are two statements:**

**Statement (I):** Sucking mango cultivars such as Gaurjit and Safeda can be sliced easily

**Statement (II):** These cultivars are small fruited and have high fibre content

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**20. Given below are two statements:**

**Statement (I):** The typical vegetable cowpea has higher polysaccharides : monosaccharide ratio.

**Statement (II):** Amino acid profile particularly lycin, leucin and phenylalanine contents are relatively high in cowpea.

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**21. Which of the following researcher has first described gametophytic system of self-incompatibility?**

- (1) East and Mangelsdorf (1925)
- (2) Hughes and Babcock (1950)
- (3) Lewis (1954)

(4) Gerstel (1950)

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**22. Polyploidy level of cultivated strawberry**

- (1) Diploid
  - (2) Triploid
  - (3) Octoploid
  - (4) Hexaploid
- 

**23. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) : In mango for obtaining good flowering one must stop irrigation at least 2-3 months before the flowering period**

**Reason (R) : Water stress is not a mechanism encouraging the formation of mango flowering but it does affect vegetative growth**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A).
  - (2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
  - (3) (A) is correct but (R) is not correct.
  - (4) (A) is not correct but (R) is correct.
- 

**24. Which of the following creeper occupied a prominent place in the play 'Sakuntala' written by Kalidasa during the rule of Chandragupta II?**

- (1) Hiptage madablota
  - (2) Adenocalymma alliaceum
  - (3) Clerodendrum splendens
  - (4) Quisqualis indica
- 

**25. The peg formation in groundnut are positively**

- (1) Chemotropic

- (2) Thigmotropic
  - (3) Geotropic
  - (4) Hydrotropic
- 

**26. The bitterness in colocasia corms is due to**

- (1) Calcium chloride
  - (2) Calcium oxalate
  - (3) Calcium carbonate
  - (4) Potassium oxalate
- 

**27. Which of the following varieties belong to standard carnation?**

- (A) Lavender Lace
- (B) Cherry Bag
- (C) White Giant
- (D) Pink Beam

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (C) only.
  - (2) (A) and (C) only.
  - (3) (B) and (D) only.
  - (4) (A) and (D) only.
- 

**28. Given below are two statements:**

**Statement (I): The growth of guava fruits follow a single sigmoid curve**

**Statement (II): The fruits undergo extensive cell division during the first few week immediately following fertilization**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
- (2) Both Statement (I) and Statement (II) are false.
- (3) Statement (I) is true but Statement (II) is false.



(4) Statement (I) is false but Statement (II) is true.

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**29. Which of the following vegetable crop has brown anther type and petaloid type male sterility?**

- (1) Onion
  - (2) Cabbage
  - (3) Carrot
  - (4) Radish
- 

**30. Which of the following is NOT a true indicator of fruit ripening stage of watermelon?**

- (1) Withering of the tendril near the place of fruit attachment
  - (2) Change of ground spot colour of the fruit
  - (3) Dull-thud sound on thumping the fruit
  - (4) Changing in fruit shape
- 

**31. Which one of the following is not a Spanish bunch variety of ground nut?**

- (1) GJG 9
  - (2) TG 37 A
  - (3) Girnar 3
  - (4) Girnar 2
- 

**32. The following statements about onion are given below**

- (A) Temperature is comparatively more important for bulb formation**
- (B) Photoperiod is more important for flowering**
- (C) Long day onion varieties do not bulb under short day conditions**
- (D) Genetic constitution of the male sterility maintainer is Nmsms**

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (D) only.
- (2) (A) and (D) only.

(3) (A), (B), (C) and (D).

(4) (C) and (D) only.

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**33. Which salt absorbs ethylene effectively during storage of apple?**

(1)  $\text{KMnO}_4$

(2)  $\text{K}_2\text{SO}_4$

(3)  $\text{KCl}$

(4)  $\text{KNO}_3$

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**34. Which of the following genera belong to warm orchids?**

(A) *Cymbidium*

(B) *Phalaenopsis*

(C) *Miltonia*

(D) *Dendrobium*

**Choose the correct answer from the options given below:**

(1) (A) and (B) only.

(2) (A), (C) and (D) only.

(3) (B) and (C) only.

(4) (B) and (D) only.

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**35. Match List-I with List-II Choose the correct answer from the options given below:**

<b>List-I</b> <b>Flower crop</b>	<b>List-II</b> <b>Basic chromosome No.</b>
(A) Carnation	(I) $X=9$
(B) Chrysanthemum	(II) $X=15$
(C) Tuberose	(III) $X=19$
(D) Dendrobium	(IV) $X=30$

(1) (A)- (IV), (B) -(III), (C)- (II), (D)- (I)

(2) (A)- (II), (B) -(I), (C)- (IV), (D)- (III)

(3) (A)- (I), (B) -(II), (C)- (IV), (D)- (III)

(4) (A)- (III), (B) -(I), (C)- (IV), (D)- (II)

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**36. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) : Over watering is very harmful to chrysanthemum plants, hence proper drainage in the field and pots should be maintained for commercial cultivation.**

**Reason (R) : Over watering causes yellowing of leaves and mortality of chrysanthemum plants due to insufficient supply of oxygen for root respiration resulting in rotting of roots.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

(1) Both (A) and (R) are correct and (R) is the correct explanation of (A).

(2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).

(3) (A) is correct but (R) is not correct.

(4) (A) is not correct but (R) is correct.

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**37. Which of the following is a cool season lawn/turfgrass?**

(1) *Lolium perenne*

(2) *Zoysia japonica*

(3) *Paspalum vaginatum*

(4) *Buchloe dactyloides*

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**38. Red colour of beet root is due to**

(1) Carotene

(2) Xanthophyll

(3) Anthocyanin

(4) Chlorophyll-b

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**39. In vegetatively propagated material somatic mutations of spontaneous origin are commonly referred to as**

- (1) Cultivar
  - (2) Variety
  - (3) Bud sports
  - (4) Chimera
- 

**40. Given below are two statements:**

**Statement (I): Rootstock 110 R restricted uptake of sodium and chloride.**

**Statement (II): While Dog ridge and Salt creek were know to restrict the uptake of chloride only.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**41. What is the family of Rhubarb ?**

- (1) Apiaceae
  - (2) Euphorbiaceae
  - (3) Convolvulaceae
  - (4) Polygonaceae
- 

**42. Match List-I with List-II Choose the correct answer from the options given below:**

- (1) (A) - (II), (B) - (III), (C) - (IV), (D) - (I)
  - (2) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
  - (3) (A) - (II), (B) - (III), (C) - (I), (D) - (IV)
  - (4) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
-

<b>List-I Vegetables</b>	<b>List-II Disorder</b>
(A) Bean	(I) Tip burn
(B) Cabbage	(II) Hypocotyl necrosis
(C) Celery	(III) Internal tip burn
(D) Lettuce	(IV) Black heart

**43. Which of the following is a C4 plant?**

- (1) Rice
  - (2) Wheat
  - (3) Cotton
  - (4) Sugarcane
- 

**44. What is the somatic chromosome number of Elephant foot yam?**

- (1)  $2n = 2x = 26$
  - (2)  $2n = 2x = 36$
  - (3)  $2n = 4x = 26$
  - (4)  $2n = 4x = 36$
- 

**45. Flame peeling is generally used for**

- (1) Onion and garlic
  - (2) Pea and grains
  - (3) Carrot
  - (4) Pineapple
- 

**46. Given below are two statements:**

**Statement (I):** Bringing together two or more genes governing a single trait, especially resistance to disease is known as gene pyramiding

**Statement (II) :** The use of molecular markers greatly facilitates gene pyramiding as it minimises the need for disease tests and progeny test

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**47. Which of the following is NOT a round fruited variety of Brinjal?**

- (1) Arka Shirish
  - (2) Pusa Bhairav
  - (3) Punjab Sadabahar
  - (4) Pant Rituraj
- 

**48. Given below are two statements:**

**Statement (I): Papaya is a polygamous plant with various sex forms (pistillate, hermaphrodite and staminate)**

**Statement (II): Pistillate form is stable and sex reversal is not affected by environmental factors**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
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**49. Geographical indication tag (GI tag) in India was enacted during the year?**

- (1) 1990
- (2) 1993
- (3) 1996
- (4) 1999

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**50. Which of the following architect has given the concept of bio-aesthetic planning?**

- (1) Le Corbusier
- (2) Pierre Jeanneret
- (3) Pro. Lancelot Hogben
- (4) Dr. G S Randhawa

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**51. Which of the following annuals require the isolation distance of 50-100 meters for seed production?**

- (A) Antirrhinum**
- (B) Marigold**
- (C) Larkspur**
- (D) Nasturtium**

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (C) only.
- (2) (A) and (C) only.
- (3) (B), (C) and (D) only.
- (4) (A) and (D) only.

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**52. Front line demonstration is an example of which extension teaching method?**

- (1) Individual contact
- (2) Mass contact
- (3) Group contact
- (4) Visual contact

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**53. Mango malformation was reported for the first time in the year**

- (1) 1891
- (2) 1910
- (3) 1935
- (4) 1948

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**54. Which of the following genera belong to marginal plants and suitable for planting in water gardens?**

- (A) *Azolla caroliniana*
- (B) *Acorus calamus*
- (C) *Cyperus alternifolius*
- (D) *Elodea canadensis*

**Choose the correct answer from the options given below:**

- (1) (A) and (C) only.
- (2) (A) and (D) only.
- (3) (B) and (C) only.
- (4) (C) and (D) only.

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**55. Which of the following variety of chilli is suitable for colour extraction ?**

- (1) Arka Abir
- (2) KTPL- 91
- (3) CH-3
- (4) Punjab Lal

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**56. Who has completed the garden at Amber fort, Jaipur, Rajasthan?**

- (1) Nawab Wajid Ali Shah
- (2) Raja Jai Singh II
- (3) Raja Abhai Singh
- (4) Sher Shah Suri

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**57. Given below are two statements:**

**Statement (I):** Lawn grass, *Cynodon dactylon* L. is most widely used on lawn, roadsides, parks, school ground, playgrounds, golf courses and other areas where a close mown dense turf is required.



**Statement (II): *Cynodon dactylon* L., *Stenotaphrum secundatum* and *Paspalum notatum* are cool season grasses and highly suitable for lawn making in cool areas.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**58. Best training method in high density peach planting**

- (1) Y trellis
  - (2) Tatura Trellis
  - (3) Head
  - (4) Spindle Bush
- 

**59. As per FPO which of the following is not true for canning of fruits?**

- (1) No preservative shall be added
  - (2) Drained weight not less than 50%
  - (3) The can shall not show any positive pressure at sea level
  - (4) Head space in can should be more than 1.6 cm
- 

**60. Which of the following is true for essentiality of germination?**

- (A) Viability of seed**
- (B) Proper environment**
- (C) Seed free from dormancy**
- (D) Thin seed coat**

- (1) (A), (B) and (D) only
- (2) (A) and (C) only
- (3) (A), (B) and (C) only
- (4) (A), (C) and (D) only

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**61. Man made hybrid Tangelos is an interspecific hybrid of**

- (1) *Citrus deliciosa* × *Citrus nobilis*
  - (2) *Citrus sinensis* × *Citrus deliciosa*
  - (3) *Citrus reticulata* × *Citrus paradisi*
  - (4) *Citrus grandis* × *Citrus unshiu*
- 

**62. Superficial rind pitting**

- (A) It is a physiological disorder causing serious damage to Shamouti orange
- (B) The majority of the symptoms develop 3-5 weeks after harvest
- (C) Ethylene increases the incidence
- (D) Storage at 5°C increase the incidence

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (D) only.
  - (2) (A) and (D) only.
  - (3) (A), (B) and (C). only
  - (4) (B), (C) and (D) only.
- 

**63. Which of the following shows very high inbreeding depression on selfing?**

- (1) Spine gourd
  - (2) Lettuce
  - (3) Carrot
  - (4) Pea
- 

**64. A kitchen garden is having 20 varieties of vegetables and out of these 4 are leafy vegetables. Calculate the probability of getting a leafy vegetable**

- (1) 0.5
- (2) 0.4
- (3) 0.2
- (4) 0.1

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**65. Match List-I with List-II Choose the correct answer from the options given below:**

<b>List-I variety</b>	<b>List-II Fruit Crop</b>
(A) Gulabi	(I) Mango
(B) Phule Arketa	(II) Guava
(C) Chittidar	(III) Pomegranate
(D) Haden	(IV) Grapes

- (1) (A) - (IV), (B) - (III), (C) - (II), (D) - (I)  
(2) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)  
(3) (A) - (I), (B) - (II), (C) - (IV), (D) - (III)  
(4) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

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**66. Various forms of gibberellins are abundant during which stage of fruit development?**

- (1) Stage I  
(2) Stage II  
(3) Stage I & Stage II  
(4) Through out seed development

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**67. Which of the following is NOT a frost tolerant species of potato ?**

- (1) *Solanum acaule*  
(2) *Solanum vernei*  
(3) *Solanum commersonii*  
(4) *Solanum tuberosum*

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**68. King of North is the variety of ?**

- (1) Broccoli  
(2) Knol Khol

- (3) Celery  
(4) Parsley

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**69. Match List-I with List-II Choose the correct answer from the options given below:**

<b>List-I</b> <b>Plant Nutrient</b>	<b>List-II</b> <b>Mobility in soil/ function in plant</b>
(A) Mn	(I) Highly mobile
(B) Mg	(II) Less mobile
(C) Zn	(III) Immobile
(D) C	(IV) Basic structure

- (1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)  
(2) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)  
(3) (A) - (II), (B) - (I), (C) - (II), (D) - (IV)  
(4) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

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**70. Which of the following rose cultivars were developed through induced mutation?**

- (A) Abhisarika  
(B) Pusa Alpana  
(C) Madhosh  
(D) Rose Sherbet

**Choose the correct answer from the options given below:**

- (1) (A) and (B) only.  
(2) (B) and (C) only.  
(3) (A) and (C) only.  
(4) (A) and (D) only.

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**71. Mango hybrid Arka Suprabhath is a cross between**

- (1) Amrapali and Arka Anmol  
(2) Arka Anmol and Amrapali

- (3) Malika and Langra  
(4) Kesar and Neelam
- 

**72. Match List-I with List-II Choose the correct answer from the options given below:**

<b>List-I</b> <b>Disease</b>	<b>List-II</b> <b>Vegetable crop</b>
(A) Purple blotch	(I) Garlic
(B) Black rot	(II) Cauliflower
(C) Anthracnose	(III) Chilli
(D) Powdery mildew	(IV) Pea

- (1) (A) - (I), (B) - (II), (C) - (III), (D) - (IV)  
(2) (A) - (II), (B) - (III), (C) - (I), (D) - (IV)  
(3) (A) - (III), (B) - (II), (C) - (I), (D) - (IV)  
(4) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- 

**73. Citrus rootstock which is tolerant to gummosis, root rot, tristeza and drought**

- (1) Karna khatta  
(2) Cleopatra mandarin  
(3) Sweet orange  
(4) Carizzo citrange
- 

**74. Which method of grafting is used for reworking old fruit tree?**

- (1) Whip and tongue  
(2) Cleft grafting  
(3) Splice  
(4) Wedge grafting
- 

**75. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) : Tuberization in sweet potato is almost absent at 75 % shade and severely affected at 55 % and not much affected at 25 % shade.**

**Reason (R) : Warm sunny days and cool nights are favourable for better tuber development in sweet potato.**

**In light of the above statements, choose the correct answer from the options given below.**

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
  - (2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
  - (3) (A) is true but (R) is false.
  - (4) (A) is false but (R) is true.
- 

**76. Given below are two statements:**

**Statement (I): In vegetable crops, luxury consumption of potassium is a very common feature.**

**Statement (II): Potassium is more mobile than nitrogen fertilizers.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**77. What is the approximately average protein content (on dry weight basis ) in potato ?**

- (1) 5 %
  - (2) 10 %
  - (3) 15 %
  - (4) 20 %
- 

**78. Which plant bio regulator blocks the synthesis of gibberellin?**

- (1) Absciscic acid

- (2) Ethylene
  - (3) Benzothiadiazole
  - (4) Prohexadione-calcium
- 

**79. To reduce the incidence of fruit fly in mango, bagging of fruits using brown paper is done**

- (1) 30 Days before harvesting
  - (2) 60 Days before harvesting
  - (3) 90 Days before harvesting
  - (4) 120 Days before harvesting
- 

**80. Which district has been granted GI tag in cashew nut for nut quality?**

- (1) Kasargod, Kerala
  - (2) Puttur, Karnataka
  - (3) Vengurla, Maharashtra
  - (4) Bapatla, Andhra Pradesh
- 

**81. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) : Veneer grafting and stone grafting are by far the best method of vegetative propagation in mango**

**Reason (R) : Scion stick can be carried to long distances and can keep well for 5-6 days**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A).
  - (2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
  - (3) (A) is correct but (R) is not correct.
  - (4) (A) is not correct but (R) is correct.
- 

**82. Given below are two statements:**

**Statement (I): Kashi Bhairav is a F<sub>1</sub> hybrid of Brinjal.**

**Statement (II): Shitla Jyoti is a F<sub>1</sub> hybrid of watermelon.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**83. Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R).**

**Assertion (A) : Sweet potato is highly heterozygous with out-breeding habit.**

**Reason (R) : Self-incompatibility is evident in different sweet potato cultivars.**

**In light of the above statements, choose the correct answer from the options given below.**

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
  - (2) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).
  - (3) (A) is true but (R) is false.
  - (4) (A) is false but (R) is true.
- 

**84. Which of the following mechanism favours self-pollination ?**

- (1) Protandry
  - (2) Cleistogamy
  - (3) Protogyny
  - (4) Dioecy
- 

**85. The superiority of an F<sub>1</sub> hybrid over both of its parents in terms of yield or some other characters is known as**

- (1) Mutation
- (2) Polyploidy



- (3) Luxuriance
  - (4) Heterosis
- 

**87. Which of the following fruit have highest TSS?**

- (1) Bael
  - (2) Mango
  - (3) Grapes
  - (4) Sapota
- 

**88. The UN has designated 2024 as the International Year of**

- (1) Camelids
  - (2) Cooperatives
  - (3) Rangelands and Pastoralists
  - (4) Millets
- 

**89. Mutation which occurs in one layer or more layers at the top of apex is known as**

- (1) Mericlinal chimera
  - (2) Periclinal chimera
  - (3) Sectorial chimera
  - (4) Segmented chimera
- 

**90. Which of the following is high temperature tolerant variety of cabbage?**

- (1) Pusa Shree
  - (2) Pusa Agrim
  - (3) Pusa Ageti
  - (4) Pusa Drum Head
- 

**91. Which of the following chrysanthemum varieties are suitable for growing as pot mums?**

- (A) Pusa Sona
- (B) Tata Century
- (C) Snow Ball
- (D) Sadbhavana

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (C) only.
  - (2) (A) and (C) only.
  - (3) (B ) and (D) only.
  - (4) (A) and (D) only.
- 

**92. Which of the following is characterized by non functional pollen grains, while female gametes function normally?**

- (1) Self-incompatibility
  - (2) Male sterility
  - (3) Pure line
  - (4) Pedigree
- 

**93. Which banana variety is slightly larger than human finger with sweet fragrance and honey like taste?**

- (1) Saba
  - (2) Matti Banana
  - (3) Pacovan
  - (4) Nanicalo
- 

**94. Utkal Mayuri is the variety of**

- (1) Vegetable Pea
  - (2) Vegetable Amaranth
  - (3) Vegetable Soybean
  - (4) Vegetable pigeon pea
-

**95. Calculate the quantity of fertilizer required for making a 100 ppm solution of 20-10-20 in a 500 litre tank ?**

- (1) 150 g
  - (2) 250 g
  - (3) 350 g
  - (4) 500 g
- 

**96. Terrace and running water are the main features of which of the following garden?**

- (1) English garden
  - (2) Japanese garden
  - (3) Mughal garden
  - (4) Persian garden
- 

**97. Santa Rosa is a variety of**

- (1) American plum
  - (2) European plum
  - (3) Japanese plum
  - (4) Damson plum
- 

**98. Sequence the guava species according to their Synonyms**

- (A) *Psidium cattleianum* var. *longipes*
- (B) *Psidium cattleianum* var. *lucidum*
- (C) *Psidium montanum*
- (D) *Psidium molle*

**Choose the correct answer from the options given below:**

- (1) Brazilian guava - Strawberry guava - Mountain guava - Lemon guava
  - (2) Lemon guava - Strawberry guava - Brazilian guava - Mountain guava
  - (3) Strawberry guava - Lemon guava - Mountain guava - Brazilian guava
  - (4) Lemon guava - Mountain guava - Brazilian guava - Strawberry guava
-

**99. Given below are two statements:**

**Statement (I): A soft or cool harmony can be achieved by using blue colours available in sweet pea, China asters and petunias.**

**Statement (II): A warm harmony can be achieved by using yellow antirrhinum with orange dimorphotheca or yellow marigold with orange antirrhinum.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**100. Which of the following tree is mentioned in Atharva Veda?**

- (1) Terminalia arjuna
  - (2) Ficus religiosa
  - (3) Cassia fistula
  - (4) Shorea robusta
- 

**101. Best orientation in single hedge row is?**

- (1) North-South
  - (2) East-West
  - (3) North-East
  - (4) South-East
- 

**102. What is the ideal seed rate for okra for rainy season crop?**

- (1) 18-22 kg/ha
  - (2) 8-10 kg/ha
  - (3) 4-6 kg/ha
  - (4) 16-18 kg/ha
-

**104. Membrane filtration refers to**

- (A) Separation of soils from liquids**
- (B) A separator is used which could be porous medium or membrane**
- (C) Helps in clarification of juices and separation of microbes**
- (D) Not commonly used in fruit juices, wine and beer**

**Choose the correct answer from the options given below:**

- (1) (A), (B) and (D) only.**
  - (2) (A), (B) and (C) only.**
  - (3) (A), (B), (C) and (D).**
  - (4) (B), (C) and (D) only.**
- 

**105. For which state Pineapple variety Queen has been declared as a "state fruit"?**

- (1) Manipur**
  - (2) Meghalaya**
  - (3) Tripura**
  - (4) Arunachal Pradesh**
- 

**106. Arrange the following steps of mass selection method of flower crop improvement in correct sequence?**

- (A) Selection of plants with similar but desirable traits from variable population.**
- (B) Planting of composite seeds in preliminary yield trials and evaluation of phenotype of selected population.**
- (C) Evaluation of promising selections in coordinated yield trials at multi-locations.**
- (D) Compositing of seeds from selected plants.**
- (E) Seed multiplication of outstanding selection for distribution.**

**Choose the correct answer from the options given below:**

- (1) (C), (D), (E), (B), (A)**
- (2) (A), (D), (C), (B), (E)**
- (3) (A), (D), (B), (C), (E)**
- (4) (C), (B), (E), (A), (D)**

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**107. Nutritional quality of rice**

**(A) Rice alone accounts for 40 % of the protein in Asian diet**

**(B) In India rice provide 25 % of our protein requirement**

**(C) It is a poor source of protein (6-8%)**

**(D) Among cereal protein, rice protein is biologically the richest**

**Choose the correct answer from the options given below:**

(1) (A), (B) and (D) only.

(2) (A), (B) and (C) only.

(3) (A), (B), (C) and (D).

(4) (B), (C) and (D) only.

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**108. Match List-I with List-II Choose the correct answer from the options given below:**

List-I	List-II
(A) Banana-Grand Naine	(I) USA
(B) Sweet Orange-Blood red	(II) France
(C) Guava-Beaumont G-35	(III) Philippines
(D) Mango-Carabao	(IV) Australia

(1) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)

(2) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

(3) (A) - (IV), (B) - (II), (C) - (III), (D) - (I)

(4) (A) - (II), (B) - (I), (C) - (IV), (D) - (III)

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**109. Match List-I with List-II Choose the correct answer from the options given below:**

(1) (A)- (IV), (B) -(III), (C)- (II), (D)- (I)

(2) (A)- (II), (B) -(I), (C)- (IV), (D)- (III)

(3) (A)- (I), (B) -(II), (C)- (IV), (D)- (III)

(4) (A)- (III), (B) -(IV), (C)- (I), (D)- (II)

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List-I Tree	List-II Scientific name
(A) Geranium tree	(I) <i>Butea monosperma</i>
(B) Flame of the forest	(II) <i>Bauhinia purpurea</i>
(C) Bottle Brush	(III) <i>Lagerstroemia flosreginae</i>
(D) Pride of India	(IV) <i>Callistemon lanceolatus</i>

**110. New National Education Policy (NEP) was launched on**

- (1) 29 July 2020
- (2) 15 August 2020
- (3) 26 January 2020
- (4) 15 August 2021

**111. Match List-I with List-II Choose the correct answer from the options given below:**

List-I	List-II
(A) Alphonso	(I) Pulping and Canning
(B) Ramkela	(II) Processing
(C) Mallika	(III) Pickling
(D) Kesar	(IV) Pulping and juice concentrate

- (1) (A) - (I), (B) - (III), (C) - (II), (D) - (IV)
- (2) (A) - (III), (B) - (IV), (C) - (I), (D) - (II)
- (3) (A) - (IV), (B) - (II), (C) - (III), (D) - (I)
- (4) (A) - (II), (B) - (I), (C) - (IV), (D) - (III)

**112. Given below are two statements:**

**Statement (I):** Heat tolerant tropical cauliflowers show significantly high level of self-incompatibility.

**Statement (II):** The European annual or snowball types are basically self-compatible in nature.

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**113. Given below are two statements:**

**Statement (I): Garden suburbs are nothing but satellite townships developed among parks and avenues.**

**Statement (II): In the old congested cities, bio-aesthetic planning can be achieved by developing garden suburbs on the outskirts of the city easily approachable by vehicles.**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**114. Papaya Variety Surya is an offspring of?**

- (1) Washington  $\times$  CO.1
  - (2) CO.1  $\times$  Washington
  - (3) CO-2  $\times$  Sunrise Solo
  - (4) Sunrise Solo  $\times$  Pink Flesh Sweet
- 

**115. Which phytohormone is regarded as an anti-stress promoter and growth bio-stimulator?**

- (1) Jasmonic acid
- (2) 1-MCP
- (3) Melatonin



(4) Prohexadione – Ca

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**116. Statement I: Mandarins are commonly known as loose skin orange.**

**Statement II: Hodgson classified mandarins into three groups- Satsuma, King and Willow leaf**

**In light of the above statements, choose the most appropriate answer from the options given below.**

- (1) Both Statement (I) and Statement (II) are true.
  - (2) Both Statement (I) and Statement (II) are false.
  - (3) Statement (I) is true but Statement (II) is false.
  - (4) Statement (I) is false but Statement (II) is true.
- 

**117. Arrange the following steps involved in hybridization of rose flower crop in correct orders?**

- (A) Emasculation of flowers of female parents.**
- (B) Pollination**
- (C) Harvesting and storing of  $F_1$  seeds**
- (D) Bagging and tagging**
- (E) Choice and evaluation of pollen and female parents.**

**Choose the correct answer from the options given below:**

- (1) (C), (D), (E), (B), (A)
  - (2) (E), (A), (D), (B), (C)
  - (3) (A), (D), (E), (C), (B)
  - (4) (C), (B), (E), (A), (D)
- 

**118. What is the edible portion of cauliflower ?**

- (1) Modified leaves
- (2) Modified flowers
- (3) Modified inflorescence
- (4) Modified stem

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**119. Which of the following annuals can grow luxuriantly and produce flowers under high temperature?**

- (A) Zinnia**
- (B) Gaillardia**
- (C) Gomphrena**
- (D) Sweet william**

**Choose the correct answer from the options given below:**

- (1) (A) and (B) only.
- (2) (B) and (D) only.
- (3) (A), (B) and (C) only.
- (4) (A) and (D) only.

---

**120. Shrubs or trees planted at regular intervals to form a continuous screen is called as**

- (1) Edge
  - (2) Hedge
  - (3) Arches
  - (4) Pergola
-