

## 12 Vegetable Science ICAR SEPT 2022

Topic:- GEN KNOW COMMON PHD

1) Colour of the tag used on certified seed bags is[Question ID = 16958][Question Description = 101\_221\_GKD\_SEP22\_Q01]

1. Blue [Option ID = 37829]
2. Purple [Option ID = 37830]
3. White [Option ID = 37831]
4. Golden Yellow [Option ID = 37832]

2) Following are the statements regarding the Usar soil -

- A. It is reclaimed by adding lime.
- B. This soil has pH more than seven.
- C. Paddy crop can be grown in this soil.

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

[Question ID = 16959][Question Description = 102\_221\_GKD\_SEP22\_Q02]

1. A and B only [Option ID = 37833]
2. B and C only [Option ID = 37834]
3. C only [Option ID = 37835]
4. A only [Option ID = 37836]

3) When total utility of a commodity increases, marginal utility will be

[Question ID = 16960][Question Description = 103\_221\_GKD\_SEP22\_Q03]

1. Negative but increasing  
[Option ID = 37837]
2. Positive but decreasing  
[Option ID = 37838]
3. Constant  
[Option ID = 37839]
4. Either positive or negative  
[Option ID = 37840]

4) Where is the headquarter of International Fund for Agriculture Development located?

[Question ID = 16961][Question Description = 104\_221\_GKD\_SEP22\_Q04]

1. Vienna, Austria  
[Option ID = 37841]
2. Rome, Italy  
[Option ID = 37842]
3. New York, USA  
[Option ID = 37843]
4. Berlin, Germany  
[Option ID = 37844]

5) Mid-Oceanic Ridges are one of the important divisions of the ocean floor. In this respect, point out the incorrect statement regarding the 'Mid-Oceanic Ridges'. [Question ID = 16962][Question Description = 105\_221\_GKD\_SEP22\_Q05]

1. It is the largest mountain chain on the surface of the earth [Option ID = 37845]
2. It is a series of interconnected chain within the ocean. [Option ID = 37846]
3. It is characterised by a central rift system [Option ID = 37847]
4. The rift system at the crest is the zone of very low volcanic activity. [Option ID = 37848]

6) Consider the following facts about the union territory of India and point out the one which is incorrect in relation to union territory. [Question ID = 16963][Question Description = 106\_221\_GKD\_SEP22\_Q06]

1. These are the areas under the direct control of central government. [Option ID = 37849]
2. Also known as the 'centrally administered territories. [Option ID = 37850]

3. These territories constitute a conspicuous departure from the unitary feature of India. [Option ID = 37851]
4. There is no uniformity in their administrative systems. [Option ID = 37852]

**7) Variety of flora and fauna are found in the different types of forest in India. In this regard, species of trees like teak, *sal shisham*, *sandalwood*, etc. are found in which of the following type of forests in India?**[Question ID = 16964][Question Description = 107\_221\_GKD\_SEP22\_Q07]

1. Tropical evergreen forests [Option ID = 37853]
2. Tropical thorn forests [Option ID = 37854]
3. Tropical deciduous forests [Option ID = 37855]
4. Montane forests [Option ID = 37856]

**8) The Marginal Preference Theory of consumption behaviour was proposed by**

**[Question ID = 16965][Question Description = 108\_221\_GKD\_SEP22\_Q08]**

1. Armstrong  
[Option ID = 37857]
2. J.K.Hicks  
[Option ID = 37858]
3. Neumann  
[Option ID = 37859]
4. Edmund Cannon  
[Option ID = 37860]

**9) Point out the incorrect statements regarding the service sector in India.**[Question ID = 16966][Question Description = 109\_221\_GKD\_SEP22\_Q09]

1. It is the highest contributor to GDP [Option ID = 37861]
2. It requires skilled labour [Option ID = 37862]
3. It is the fastest growing sector [Option ID = 37863]
4. It is restricted to very few sectors. [Option ID = 37864]

**10) Consider the statements regarding the agriculture sector in India and point out the incorrect statement.**[Question ID = 16967][Question Description = 110\_221\_GKD\_SEP22\_Q10]

1. Agriculture sector is the largest employer of workforce [Option ID = 37865]
2. It has contributed to the Gross Value Added (GVA) [Option ID = 37866]
3. Growth in allied sectors is the major drivers of overall growth in the sector. [Option ID = 37867]
4. Minimum Support Price (MSP) policy is used as to promote crop uniformity. [Option ID = 37868]

**11) In case of related goods, the cross elasticity of demand is**[Question ID = 16968][Question Description = 111\_221\_GKD\_SEP22\_Q11]

1. Low [Option ID = 37869]
2. High [Option ID = 37870]
3. Zero [Option ID = 37871]
4. Unity [Option ID = 37872]

**12) With reference to organic farming in India, consider the following statements :**

- A. The National Programme for Organic Production' (NPOP) is operated under the guidelines and directions of the Union Ministry of Rural Development.
- B. The Agricultural and Processed Food Products Export Development Authority' (APEDA) functions as the Secretariat for the implementation of NPOP.
- C. Sikkim has become India's first fully organic state.

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

**[Question ID = 16969][Question Description = 112\_221\_GKD\_SEP22\_Q12]**

1. A and B only  
[Option ID = 37873]
2. B and C only  
[Option ID = 37874]
3. C only  
[Option ID = 37875]
4. A, B and C

[Option ID = 37876]

13) With reference to the circumstances in Indian agriculture, the concept of "Conservation Agriculture" assumes significance. Which of the following falls under the Conservation Agriculture ?

- A. Avoiding the monoculture practices.
- B. Adopting minimum tillage.
- C. Avoiding the cultivation of plantation crops.
- D. Using crop residues to cover soil surface.
- E. Adopting spatial and temporal crop sequencing/ crop rotations.

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

[Question ID = 16970][Question Description = 113\_221\_GKD\_SEP22\_Q13]

- 1. A, C and D only [Option ID = 37877]
- 2. B, C, D and E only [Option ID = 37878]
- 3. B, D and E only [Option ID = 37879]
- 4. A, B, C and E only [Option ID = 37880]

14) Consumers are likely to get a variety of goods in which kind of market competition[Question ID = 16971][Question Description = 114\_221\_GKD\_SEP22\_Q14]

- 1. Monopoly [Option ID = 37881]
- 2. Duopoly [Option ID = 37882]
- 3. Oligopoly [Option ID = 37883]
- 4. Monopolistic [Option ID = 37884]

15) What is the correct chronological order of the following laws enacted for the conservation and protection of environment ?

- A. Environment (Protection) Act.
- B. Water (Prevention & Control of Pollution) Act.
- C. Air (Prevention & Control of pollution) Act.
- D. National Green Tribunal Act.

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

[Question ID = 16972][Question Description = 115\_221\_GKD\_SEP22\_Q15]

- 1. B, C, A, D [Option ID = 37885]
- 2. A, B, C, D [Option ID = 37886]
- 3. C, B, A, D [Option ID = 37887]
- 4. D, C, B, A [Option ID = 37888]

16) The scientific study of soil is[Question ID = 16973][Question Description = 116\_221\_GKD\_SEP22\_Q16]

- 1. Earth Study [Option ID = 37889]
- 2. Soil Science [Option ID = 37890]
- 3. Pedology [Option ID = 37891]
- 4. Soil Chemistry [Option ID = 37892]

17) *Triticum aestivum*, the common bread wheat is -

[Question ID = 16974][Question Description = 117\_221\_GKD\_SEP22\_Q17]

- 1. Tetraploid  
[Option ID = 37893]
- 2. Hexaploid  
[Option ID = 37894]
- 3. Haploid  
[Option ID = 37895]
- 4. Diploid  
[Option ID = 37896]

18) Sectoral inflation refers to[Question ID = 16975][Question Description = 118\_221\_GKD\_SEP22\_Q18]

- 1. Running inflation [Option ID = 37897]

2. Comprehensive inflation [Option ID = 37898]
3. Sporadic inflation [Option ID = 37899]
4. Creeping inflation [Option ID = 37900]

**19) Keynes Liquidity trap refers to[Question ID = 16976][Question Description = 119\_221\_GKD\_SEP22\_Q19]**

1. Speculative demand for money [Option ID = 37901]
2. Transactions motive of money is inelastic [Option ID = 37902]
3. Precautionary motive of money is inelastic [Option ID = 37903]
4. Transactions motive of money is constant [Option ID = 37904]

**20) A business is solvent if[Question ID = 16977][Question Description = 120\_221\_GKD\_SEP22\_Q20]**

1. Total receipts exceed total expenditures [Option ID = 37905]
2. Total debt exceeds total equity [Option ID = 37906]
3. Total sales exceed total cash expense [Option ID = 37907]
4. Total assets exceed total liabilities [Option ID = 37908]

Topic:- Horticulture\_PHD

**1) Which of the following is a potassium loving crop and also consider as high K and S foraging crop?[Question ID = 3101][Question Description = 101\_160\_HOR\_SEP22\_Q01]**

1. Cauliflower [Option ID = 12401]
2. Cucumber [Option ID = 12402]
3. Potato [Option ID = 12403]
4. Okra [Option ID = 12404]

**2) Which among the following vegetable has extremely high respiration rate?**

**[Question ID = 3102][Question Description = 102\_160\_HOR\_SEP22\_Q02]**

1. Carrot [Option ID = 12405]
2. Asparagus [Option ID = 12406]
3. French bean [Option ID = 12407]
4. Cabbage [Option ID = 12408]

**3) Based on plant spread and fruit shape which of the botanical variety of brinjal (*Solanum melongena*) is reported to have round and egg-shaped fruits?**

**[Question ID = 3103][Question Description = 103\_160\_HOR\_SEP22\_Q03]**

1. *Solanum melongena* var. *esculenta*  
[Option ID = 12409]
2. *Solanum melongena* var. *serpentinum*  
[Option ID = 12410]
3. *Solanum melongena* var. *depressum*  
[Option ID = 12411]
4. *Solanum melongena* var. *incanum*  
[Option ID = 12412]

**4) Which of the following tomato hybrid carries multiple disease resistance with respect to leaf curl virus, bacterial wilt and early blight?[Question ID = 3104][Question Description = 104\_160\_HOR\_SEP22\_Q04]**

1. Arka Abha [Option ID = 12413]
2. Arka Ananya [Option ID = 12414]
3. Arka Samrat [Option ID = 12415]
4. Kashi Vishesh [Option ID = 12416]

**5) Nutritional value of which group of vegetable in general is reduced due to the presence of trypsin inhibitors?**

**[Question ID = 3105][Question Description = 105\_160\_HOR\_SEP22\_Q05]**

1. Cucurbits [Option ID = 12417]
2. Solanaceous [Option ID = 12418]
3. Leafy [Option ID = 12419]
4. Legume [Option ID = 12420]

**6) Which of the following is drought tolerant potato variety?[Question ID = 3106][Question Description = 106\_160\_HOR\_SEP22\_Q06]**

1. Kufri Mohan [Option ID = 12421]
2. Kufri Thar-2 [Option ID = 12422]

3. Kufri Karan [Option ID = 12423]
4. Kufri Kheda-1 [Option ID = 12424]

**7) High value functional foods obtained from certain crop species and harvested at first true leaves stage (7-21 days old seedlings) are called as**[Question ID = 3107][Question Description = 107\_160\_HOR\_SEP22\_Q07]

1. Macrogreens [Option ID = 12425]
2. Microgreens [Option ID = 12426]
3. Pre-cut greens [Option ID = 12427]
4. Herbal greens [Option ID = 12428]

**8) What is the scientific name of Curry leaf?**[Question ID = 3108][Question Description = 108\_160\_HOR\_SEP22\_Q08]

1. *Murraya koengii* [Option ID = 12429]
2. *Moringa oleifera* [Option ID = 12430]
3. *Celosia argentea* [Option ID = 12431]
4. *Pastinaca sativa* [Option ID = 12432]

**9) According to APEDA, What is the India's share (approximately in percent) of export of fruits & vegetables in the global market ?**

[Question ID = 3109][Question Description = 109\_160\_HOR\_SEP22\_Q09]

1. 5  
[Option ID = 12433]
2. 3  
[Option ID = 12434]
3. 1  
[Option ID = 12435]
4. 7  
[Option ID = 12436]

**10) What is the seed rate (kg/ha) of Pole type Dolichos bean ?**[Question ID = 3110][Question Description = 110\_160\_HOR\_SEP22\_Q10]

1. 45-50 [Option ID = 12437]
2. 35-40 [Option ID = 12438]
3. 10-15 [Option ID = 12439]
4. 20-30 [Option ID = 12440]

**11) Which is the best index tissue for nutrient analysis in papaya?**

[Question ID = 3111][Question Description = 111\_160\_HOR\_SEP22\_Q11]

1. Leaf [Option ID = 12441]
2. Petiole [Option ID = 12442]
3. Stem [Option ID = 12443]
4. Root [Option ID = 12444]

**12) Which of the following pair of fruits has the tendency of climacteric fruit ripening?**

[Question ID = 3112][Question Description = 112\_160\_HOR\_SEP22\_Q12]

1. Litchi and Grape [Option ID = 12445]
2. Pineapple and Citrus [Option ID = 12446]
3. Avocado and Apricot [Option ID = 12447]
4. Pomegranate and Cherry [Option ID = 12448]

**13) Which of the following species played a seminal role in the origin of cultivated apples?**[Question ID = 3113][Question Description = 113\_160\_HOR\_SEP22\_Q13]

1. *Malus sieversii* [Option ID = 12449]
2. *Malus sylvestris* [Option ID = 12450]
3. *Malus baccata* [Option ID = 12451]
4. *Malus prunifolia* [Option ID = 12452]

**14) The term " chicken-tongue" is associated with .....**[Question ID = 3114][Question Description = 114\_160\_HOR\_SEP22\_Q14]

1. Grape [Option ID = 12453]
2. *Garcinia* [Option ID = 12454]
3. Papaya [Option ID = 12455]
4. Litchi [Option ID = 12456]

15) What is the family of jackfruit (*Artocarpus heterophyllus* Lamrk)?

[Question ID = 3115][Question Description = 115\_160\_HOR\_SEP22\_Q15]

1. Myrtaceae [Option ID = 12457]
2. Moraceae [Option ID = 12458]
3. Bombaceae [Option ID = 12459]
4. Bromeliaceae [Option ID = 12460]

16) What are the permissible limits of somaclonal variation in tissue cultured plants?

[Question ID = 3116][Question Description = 116\_160\_HOR\_SEP22\_Q16]

1. 3 to 5 % [Option ID = 12461]
2. 5 to 8% [Option ID = 12462]
3. 8 to 12% [Option ID = 12463]
4. 12 to 15 % [Option ID = 12464]

17) What is the estimated genome size of the mango?[Question ID = 3117][Question Description = 117\_160\_HOR\_SEP22\_Q17]

1. ~275 MB [Option ID = 12465]
2. ~375 MB [Option ID = 12466]
3. ~439 MB [Option ID = 12467]
4. ~539 MB [Option ID = 12468]

18) The most commercial grape rootstock "Dog Ridge" is selected from[Question ID = 3118][Question Description = 118\_160\_HOR\_SEP22\_Q18]

1. *Vitis vinifera* [Option ID = 12469]
2. *Vitis parviflora* [Option ID = 12470]
3. *Vitis labrusca* [Option ID = 12471]
4. *Vitis champini* [Option ID = 12472]

19) The quality and grade of papain are measured by .....[Question ID = 3119][Question Description = 119\_160\_HOR\_SEP22\_Q19]

1. Refractor unit [Option ID = 12473]
2. Tyrosine unit [Option ID = 12474]
3. Spectro unit [Option ID = 12475]
4. Defacto unit [Option ID = 12476]

20) What is the genomic group of Grande Naine banana?[Question ID = 3120][Question Description = 120\_160\_HOR\_SEP22\_Q20]

1. AA [Option ID = 12477]
2. AB [Option ID = 12478]
3. AAA [Option ID = 12479]
4. AAB [Option ID = 12480]

21) What is the ideal temperature for cold storage of mature mangoes?

[Question ID = 3121][Question Description = 121\_160\_HOR\_SEP22\_Q21]

1. 5-6 °C  
[Option ID = 12481]
2. 9-10 °C  
[Option ID = 12482]
3. 12-13 °C  
[Option ID = 12483]
4. 15-16 °C  
[Option ID = 12484]

22) Which part of the oil palm fruit is used for palm oil extraction?[Question ID = 3122][Question Description = 122\_160\_HOR\_SEP22\_Q22]

1. Seed [Option ID = 12485]
2. Epicarp [Option ID = 12486]
3. Mesocarp [Option ID = 12487]
4. Endocarp [Option ID = 12488]

23) What is the desired dry matter content in potato tubers meant for chips making ?[Question ID = 3123][Question Description = 123\_160\_HOR\_SEP22\_Q23]

1. 18 per cent [Option ID = 12489]
2. 20 per cent [Option ID = 12490]
3. 15 per cent [Option ID = 12491]
4. 10 per cent [Option ID = 12492]

24) Which part of Safed Musli (*Chlorophytum borivillianum*) has higher commercial value and used for postharvest processing ?

[Question ID = 3124][Question Description = 124\_160\_HOR\_SEP22\_Q24]

1. Seeds [Option ID = 12493]
2. Leaves [Option ID = 12494]
3. Stem [Option ID = 12495]
4. Roots [Option ID = 12496]

25) Which fruit/vegetable crop has problem of soft nose and jelly seed disorder ?[Question ID = 3125][Question Description = 125\_160\_HOR\_SEP22\_Q25]

1. Mango [Option ID = 12497]
2. Tomato [Option ID = 12498]
3. Sapota [Option ID = 12499]
4. Pointed gourd [Option ID = 12500]

26) Which of the following is NOT used as desiccant for drying of ornamentals?

[Question ID = 3126][Question Description = 126\_160\_HOR\_SEP22\_Q26]

1. Silica gel [Option ID = 12501]
2. Boric acid [Option ID = 12502]
3. Potassium permanganate [Option ID = 12503]
4. Alum powder [Option ID = 12504]

27) Which among the following causes superficial scald in apple?

[Question ID = 3127][Question Description = 127\_160\_HOR\_SEP22\_Q27]

1. Pre-harvest calcium deficiency [Option ID = 12505]
2. Low temperature storage [Option ID = 12506]
3. Low oxygen level in storage [Option ID = 12507]
4. Infection by *Botrytis cinerea* [Option ID = 12508]

28) Which of the following is used as ethylene absorber in the packaging system?

[Question ID = 3128][Question Description = 128\_160\_HOR\_SEP22\_Q28]

1. Ferrous oxide [Option ID = 12509]
2. Hydrated lime [Option ID = 12510]
3. Silica gel [Option ID = 12511]
4. Potassium permanganate [Option ID = 12512]

29) Which among the following is a postharvest quarantine treatment of fresh horticultural produce?

[Question ID = 3129][Question Description = 129\_160\_HOR\_SEP22\_Q29]

1. Hot water treatment [Option ID = 12513]
2. De-greening treatment [Option ID = 12514]
3. Curing [Option ID = 12515]
4. Tinting [Option ID = 12516]

30) 'Kanji' is a beverage prepared from black carrot by[Question ID = 3130][Question Description = 130\_160\_HOR\_SEP22\_Q30]

1. Alcoholic fermentation [Option ID = 12517]
2. Acetic acid fermentation [Option ID = 12518]
3. Lactic acid fermentation [Option ID = 12519]
4. Enzymatic juice extraction [Option ID = 12520]

31) Which of the following foliage plant is used to make edge in the garden?

[Question ID = 3131][Question Description = 131\_160\_HOR\_SEP22\_Q31]

1. *Mathiola incana* [Option ID = 12521]
2. *Alyssum maritimum* [Option ID = 12522]
3. *Alternanthera amabilis* [Option ID = 12523]

4. *Zephyranthes rosea* [Option ID = 12524]

**32) Which of the following is the first cultivar of rose developed by Dr. B. P. Pal for loose flower purpose?**

[Question ID = 3132][Question Description = 132\_160\_HOR\_SEP22\_Q32]

1. Delhi White Pearl [Option ID = 12525]
2. Rose Sherbet [Option ID = 12526]
3. Pusa Alpana [Option ID = 12527]
4. Madhura [Option ID = 12528]

**33) Who has given the concept of wild gardening?**

[Question ID = 3133][Question Description = 133\_160\_HOR\_SEP22\_Q33]

1. Edwin Lutyens [Option ID = 12529]
2. G S Randhawa [Option ID = 12530]
3. Le Notre [Option ID = 12531]
4. William Robinson [Option ID = 12532]

**34) Process of removing field heat from cut flowers in which temperature is brought down from 25-30° C to 1-2 ° C in less than an hour either through hydro-cooling or mechanical refrigeration is known as**

[Question ID = 3134][Question Description = 134\_160\_HOR\_SEP22\_Q34]

1. Staking [Option ID = 12533]
2. Pre-cooling [Option ID = 12534]
3. Pulsing [Option ID = 12535]
4. Hardening [Option ID = 12536]

**35) What is the chromosome number of Mohini, an aneuploid variety of rose?**

[Question ID = 3135][Question Description = 135\_160\_HOR\_SEP22\_Q35]

1.  $2n = 23$  [Option ID = 12537]
2.  $2n = 21$  [Option ID = 12538]
3.  $2n = 22$  [Option ID = 12539]
4.  $2n = 24$  [Option ID = 12540]

**36) Which of the following is a major loose flower crop grown in India?[Question ID = 3136][Question Description = 136\_160\_HOR\_SEP22\_Q36]**

1. Gaillardia [Option ID = 12541]
2. Marigold [Option ID = 12542]
3. Ixora [Option ID = 12543]
4. Gomphrena [Option ID = 12544]

**37) Which of the following is a warm season turf grass?[Question ID = 3137][Question Description = 137\_160\_HOR\_SEP22\_Q37]**

1. *Agrostis palustris* [Option ID = 12545]
2. *Lolium multiflorum* [Option ID = 12546]
3. *Poa pratensis* [Option ID = 12547]
4. *Stenotaphrum secundatum* [Option ID = 12548]

**38) Who has designed 'Mughal Garden' which is located at Pinjore, Haryana ?**

[Question ID = 3138][Question Description = 138\_160\_HOR\_SEP22\_Q38]

1. Sher Shah Suri [Option ID = 12549]
2. Ibrahim Lodhi [Option ID = 12550]
3. Fidai Khan [Option ID = 12551]
4. Hyder Ali [Option ID = 12552]

**39) 'Noorjahan' is an essential oil bearing variety of which flower crop?[Question ID = 3139][Question Description = 139\_160\_HOR\_SEP22\_Q39]**

1. Tuberose [Option ID = 12553]
2. Rose [Option ID = 12554]
3. Carnation [Option ID = 12555]
4. Dahlia [Option ID = 12556]

**40) Which of the following international organization is associated with protection of asexually reproduced ornamental plant varieties?**

**[Question ID = 3140][Question Description = 140\_160\_HOR\_SEP22\_Q40]**

1. IAEA, Vienna [Option ID = 12557]
2. PPV&FRA, New Delhi [Option ID = 12558]
3. ISHS, Belgium [Option ID = 12559]
4. CIOPORA, Geneva [Option ID = 12560]

**41) Which of the following is a hybrid variety of black pepper?**

**[Question ID = 3141][Question Description = 141\_160\_HOR\_SEP22\_Q41]**

1. Panniyur-1 [Option ID = 12561]
2. Panniyur-2 [Option ID = 12562]
3. Panniyur-5 [Option ID = 12563]
4. Sreekara [Option ID = 12564]

**42) Allspice is known for containing the flavour of which of the following combination?**

**[Question ID = 3142][Question Description = 142\_160\_HOR\_SEP22\_Q42]**

1. Cinnamon, clove and bay leaf. [Option ID = 12565]
2. Cinnamon, clove and curry leaf. [Option ID = 12566]
3. Cinnamon, clove and nutmeg. [Option ID = 12567]
4. Cinnamon, clove and coriander. [Option ID = 12568]

**43) Which of the following is NOT related to large cardamom?**

**[Question ID = 3143][Question Description = 143\_160\_HOR\_SEP22\_Q43]**

1. Chirke and Foorkey [Option ID = 12569]
2. Ramsey and Golsey [Option ID = 12570]
3. Seeds and Suckers [Option ID = 12571]
4. Seeds and rhizome [Option ID = 12572]

**44) Which of the following is a shrub?[Question ID = 3144][Question Description = 144\_160\_HOR\_SEP22\_Q44]**

1. Rosemary [Option ID = 12573]
2. Fennel [Option ID = 12574]
3. Fenugreek [Option ID = 12575]
4. Parsley [Option ID = 12576]

**45) Which is the useful part of cinnamon?[Question ID = 3145][Question Description = 145\_160\_HOR\_SEP22\_Q45]**

1. Leaves [Option ID = 12577]
2. Flower [Option ID = 12578]
3. Root [Option ID = 12579]
4. Bark [Option ID = 12580]

**46) Isabgol crop generally sown during which month?**

**[Question ID = 3146][Question Description = 146\_160\_HOR\_SEP22\_Q46]**

1. July to mid- August [Option ID = 12581]
2. November to mid- December [Option ID = 12582]
3. January to mid- February [Option ID = 12583]
4. April to mid- May [Option ID = 12584]

**47) 'Coppicing' is related to which of the following crop?**

**[Question ID = 3147][Question Description = 147\_160\_HOR\_SEP22\_Q47]**

1. Dioscorea [Option ID = 12585]
2. Cinchona [Option ID = 12586]
3. Shatavari [Option ID = 12587]
4. Belladonna [Option ID = 12588]

**48) Heroin drug is prepared from which medicinal plant?[Question ID = 3148][Question Description = 148\_160\_HOR\_SEP22\_Q48]**

1. Datura [Option ID = 12589]
2. Safed musli [Option ID = 12590]
3. Cannabis (marijuana) [Option ID = 12591]
4. Opium poppy [Option ID = 12592]

**49) Central Drug Research Institute is located at[Question ID = 3149][Question Description = 149\_160\_HOR\_SEP22\_Q49]**

1. New Delhi [Option ID = 12593]

2. Bengaluru [Option ID = 12594]
3. Palampur [Option ID = 12595]
4. Lucknow [Option ID = 12596]

**50) Which is the economic part of long pepper?**[Question ID = 3150][Question Description = 150\_160\_HOR\_SEP22\_Q50]

1. Leaves [Option ID = 12597]
2. Seed [Option ID = 12598]
3. Spike [Option ID = 12599]
4. Berry [Option ID = 12600]

Topic:- 12 Vegetable Science\_PHD

**1) Which of the followings are dioecious vegetable crops?**

- A. *Asparagus officinalis*
- B. *Trichosanthes dioica*
- C. *Benincasa hispida*
- D. *Cucumis melo*
- E. *Coccinia grandis*

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

[Question ID = 3151][Question Description = 101\_166\_VSO\_SEP22\_Q01]

1. A, B and D only  
[Option ID = 12601]
2. A, C, D and E only  
[Option ID = 12602]
3. A and D only  
[Option ID = 12603]
4. A, B and E only  
[Option ID = 12604]

**2) Match List I with List II (Crop with planting ratio for hybrid seed production in continuous/regular planting)**

| List I         | List II             |
|----------------|---------------------|
| Crop           | Planting ratio(M:F) |
| A. Brinjal     | I. 1:4 or 1:8       |
| B. Onion       | II. 1:1 or 1:2      |
| C. Cauliflower | III. 1:2 or 1:4     |
| D. Carrot      | IV. 1:5             |
|                | V. 1:2 or 1:3       |

Choose the correct answer from the options given below:

[Question ID = 3152][Question Description = 102\_166\_VSO\_SEP22\_Q02]

1. A - IV, B - V, C - II, D - I [Option ID = 12605]
2. A - IV, B - I, C - II, D - III [Option ID = 12606]
3. A - V, B - II, C - I, D - III [Option ID = 12607]
4. A - IV, B - V, C - II, D - III [Option ID = 12608]

**3) What is the isolation distance (m) for certified seed production of tomato hybrid?**[Question ID = 3153][Question Description = 103\_166\_VSO\_SEP22\_Q03]

1. 25 [Option ID = 12609]
2. 50 [Option ID = 12610]
3. 100 [Option ID = 12611]
4. 200 [Option ID = 12612]

**4) Match List I with List II**

| List I          | List II         |
|-----------------|-----------------|
| Variety         | Crop            |
| A. Kashi Surbhi | I. Bitter gourd |
| B. Arka Arunima | II. Ash gourd   |

|                |                |
|----------------|----------------|
| C. Pusa Sumeet | III. Amaranth  |
| D. Pusa Rasdar | IV. Broad bean |
|                | V. Ridge gourd |

Choose the correct answer from the options given below:

[Question ID = 3154][Question Description = 104\_166\_VSO\_SEP22\_Q04]

1. A - II, B - III, C - IV, D - I [Option ID = 12613]
2. A - II, B - V, C - IV, D - I [Option ID = 12614]
3. A - III, B - I, C - IV, D - V [Option ID = 12615]
4. A - IV, B - I, C - II, D - III [Option ID = 12616]

5) What is TRUE with respect to brinjal cultivation?

- A. Short and cool growing season.
- B. Average temperature of 21-27°C.
- C. Cool nights and short summers.
- D. Most ideal pH 5.5-6.6.
- E. Punjab Barsati is susceptible to shoot and fruit borer.
- F. Pusa Ankur is a small round fruited variety.

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

[Question ID = 3155][Question Description = 105\_166\_VSO\_SEP22\_Q05]

1. A, B, D and E only [Option ID = 12617]
2. A, C, D and E only [Option ID = 12618]
3. B, C, D and F only [Option ID = 12619]
4. A, B, C and E only [Option ID = 12620]

6) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Vegetable grafting pave way to resolve serious issue of soil borne diseases only while it has least impact on abiotic stress management.

Reason R : *Cucumis metuliferus* and hybrids of *Cucumis melo* × *Cucumis metuliferus* have proven to be good candidates for root knot nematode resistant root stock suitable for grafting onto commercial muskmelon cultivar.

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

[Question ID = 3156][Question Description = 106\_166\_VSO\_SEP22\_Q06]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12621]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12622]
3. A is true but R is false [Option ID = 12623]
4. A is false but R is true [Option ID = 12624]

7) Which of the following crops are highly tolerant to soil salinity?

- A. Bitter gourd
- B. Potato
- C. Asparagus
- D. Beans
- E. Ash gourd
- F. Cabbage

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

[Question ID = 3157][Question Description = 107\_166\_VSO\_SEP22\_Q07]

1. A, B and D only [Option ID = 12625]
2. A, C and E only [Option ID = 12626]
3. B, D and F only [Option ID = 12627]
4. A, C, D and F only [Option ID = 12628]

8) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Drought may cause blossom end rot in tomato.

Reason R : In tomato, leaves under high transpiration captures water from fruits and resulting in decreased volume of fruit and ultimately comes out with blossom end rot.

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

[Question ID = 3158][Question Description = 108\_166\_VSO\_SEP22\_Q08]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12629]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12630]
3. A is true but R is false [Option ID = 12631]
4. A is false but R is true [Option ID = 12632]

9) What is TRUE with respect to quality requirements for potato processing?

- A. Tuber shape and size are important for flakes, granules and dice/cubes, but not for Chips and French fries
- B. High dry matter content (>20%) in potato tubers
- C. High reducing sugars (>0.1% on Fresh wt basis) for lighter and better colour of processed products.
- D. Enzymatic browning
- E. The glycoalkaloid content should be <20 mg/100 g fresh weight>

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

[Question ID = 3159][Question Description = 109\_166\_VSO\_SEP22\_Q09]

1. A, B and D only [Option ID = 12633]
2. A, B, C and E only [Option ID = 12634]
3. B, C and E only [Option ID = 12635]
4. B and E only [Option ID = 12636]

10) Given below are two statements

Statement I: Close relationship among A, B and C genomes of *Brassica* species, partially homologous, represent the secondary gene pool.

Statement II: The B and C genome exhibit highest homology as compared to A and C genome of *Brassica* species.

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

[Question ID = 3160][Question Description = 110\_166\_VSO\_SEP22\_Q10]

1. Both Statement I and Statement II are true [Option ID = 12637]
2. Both Statement I and Statement II are false [Option ID = 12638]
3. Statement I is true but Statement II is false [Option ID = 12639]
4. Statement I is false but Statement II is true [Option ID = 12640]

11) Match List I with List II

| List I   | List II                                       |
|----------|-----------------------------------------------|
| Nutrient | Deficiency symptoms                           |
| A. N     | I. Young leaves (sever interveinal chlorosis) |
| B. Ca    | II. Rosetted coloration of petioles           |
| C. Fe    | III. Overall chlorosis                        |
| D. Zn    | IV. Stem tips die                             |

Choose the correct answer from the options given below:

[Question ID = 3161][Question Description = 111\_166\_VSO\_SEP22\_Q11]

1. A - II, B - I, C - IV, D - III [Option ID = 12641]
2. A - IV, B - III, C - I, D - II [Option ID = 12642]
3. A - III, B - IV, C - I, D - II [Option ID = 12643]
4. A - III, B - I, C - IV, D - II [Option ID = 12644]

12) Which one of the following is a purple heading type variety of broccoli?

[Question ID = 3162][Question Description = 112\_166\_VSO\_SEP22\_Q12]

1. Palam Samridhi [Option ID = 12645]
2. Palam Kanchan [Option ID = 12646]
3. Palam Hritika [Option ID = 12647]
4. Palam Vichitra [Option ID = 12648]

13) What is the seed rate (g/ha) for hybrid of chilli?

[Question ID = 3163][Question Description = 113\_166\_VSO\_SEP22\_Q13]

1. 100-120 [Option ID = 12649]
2. 120-150 [Option ID = 12650]
3. 180-200 [Option ID = 12651]
4. 200-300 [Option ID = 12652]

14) Given below are two statements

**Statement I:** Seed production of temperate crops in general require chilling of 3-5°C for 6-8 weeks after development of their economic part, hence quality and economic seed production should be organized in hills.

**Statement II:** Seed production of snowfall cauliflower does not require chilling for bolting but flowering coincides with high temperature during mid March onward that results in poor seed set and seed yield.

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

[Question ID = 3164][Question Description = 114\_166\_VSO\_SEP22\_Q14]

1. Both Statement I and Statement II are true [Option ID = 12653]
2. Both Statement I and Statement II are false [Option ID = 12654]
3. Statement I is true but Statement II is false [Option ID = 12655]
4. Statement I is false but Statement II is true [Option ID = 12656]

15) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

**Assertion A :** The elevated CO<sub>2</sub> is reported to enhance the crop productivity as well as physiological water use efficiency of vegetable crops.

**Reason R :** This is the consequence of increased transpiration, reduced rooting and colonization of mycorrhizae that have significant implication on nutrient uptake.

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

[Question ID = 3165][Question Description = 115\_166\_VSO\_SEP22\_Q15]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12657]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12658]
3. A is true but R is false [Option ID = 12659]
4. A is false but R is true [Option ID = 12660]

16) Mature wrinkled seed types of garden pea are associated with

[Question ID = 3166][Question Description = 116\_166\_VSO\_SEP22\_Q16]

1. Higher starch accumulation and low sugar content [Option ID = 12661]
2. High starch accumulation and high sugar content [Option ID = 12662]
3. High sugar content and low starch accumulation [Option ID = 12663]
4. Low starch accumulation and low sugar content [Option ID = 12664]

17) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

**Assertion A :** The 'Flavr Savr' GMO tomato has a longer shelf life by delayed ripening process.

**Reason R :** The fruit softening is delayed by adding an antisense gene which interferes with the production of the enzyme transacetylase.

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

[Question ID = 3167][Question Description = 117\_166\_VSO\_SEP22\_Q17]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12665]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12666]
3. A is true but R is false [Option ID = 12667]
4. A is false but R is true [Option ID = 12668]

18) Which one of the following grafting can be used in tomato if scion and rootstocks are of different thickness?

[Question ID = 3168][Question Description = 118\_166\_VSO\_SEP22\_Q18]

1. Cleft grafting [Option ID = 12669]
2. Splice grafting [Option ID = 12670]
3. Tube grafting [Option ID = 12671]
4. Tongue approach grafting [Option ID = 12672]

19) Lenape potato cultivars used in improvement of chip quality, have been developed from which of the following wild species?[Question ID = 3169][Question Description = 119\_166\_VSO\_SEP22\_Q19]

1. *Solanum tarijense* [Option ID = 12673]
2. *Solanum phureja* [Option ID = 12674]
3. *Solanum chacoense* [Option ID = 12675]
4. *Solanum verni* [Option ID = 12676]

20) Which is the principal difference used by taxonomist to separate the two species viz., *Raphanus sativus* and *Raphanus raphanistrum*? [Question ID = 3170][Question Description = 120\_166\_VSO\_SEP22\_Q20]

1. Leaf Morphology [Option ID = 12677]
2. Pod Morphology [Option ID = 12678]
3. Flower Morphology [Option ID = 12679]
4. Root Morphology [Option ID = 12680]

21) Which of the following UNDESIRABLE parameter(s) would be REJECTED by a cabbage breeder during selection process for its improvement?

- A. The wrapper leaves surrounding the terminal buds should be loose.
- B. A narrow core is desirable.
- C. A tough core is preferred over soft one.
- D. Axillary heading is preferred.
- E. A short stem plant is desirable.

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

[Question ID = 3171][Question Description = 121\_166\_VSO\_SEP22\_Q21]

1. B, C and D only [Option ID = 12681]
2. A, C and D only [Option ID = 12682]
3. B and E only [Option ID = 12683]
4. A and D only [Option ID = 12684]

22) Green manuring crop is ploughed back in field at what stage of growth? [Question ID = 3172][Question Description = 122\_166\_VSO\_SEP22\_Q22]

1. Post maturity stage [Option ID = 12685]
2. Flowering stage [Option ID = 12686]
3. Early vegetative growth stage [Option ID = 12687]
4. Immediately after complete germination [Option ID = 12688]

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

Assertion A : Abortion of reproductive organs is common in sweet pepper, even when grown in greenhouses under carefully controlled environments.

Reason R : High temperatures increased indole-3-acetic acid levels and particularly auxin transport capacity in pepper reproductive organs.

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

[Question ID = 3173][Question Description = 123\_166\_VSO\_SEP22\_Q23]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12689]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12690]
3. A is true but R is false [Option ID = 12691]
4. A is false but R is true [Option ID = 12692]

24) Given below are two statements

Statement I: Lycopene is self-oxidizing isomer of carotene.

Statement II: During processing, tomato products turn brown when it comes into contact of iron.

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

[Question ID = 3174][Question Description = 124\_166\_VSO\_SEP22\_Q24]

1. Both Statement I and Statement II are true [Option ID = 12693]
2. Both Statement I and Statement II are false [Option ID = 12694]
3. Statement I is true but Statement II is false [Option ID = 12695]
4. Statement I is false but Statement II is true [Option ID = 12696]

25) Which of the following is NOT a photo insensitive variety of cowpea?

[Question ID = 3175][Question Description = 125\_166\_VSO\_SEP22\_Q25]

1. Arka Suman [Option ID = 12697]
2. Kashi Kanchan [Option ID = 12698]
3. Pusa Rituraj [Option ID = 12699]
4. Pusa Sukomal [Option ID = 12700]

26) The first record of brinjal grafting is available on[Question ID = 3176][Question Description = 126\_166\_VSO\_SEP22\_Q26]

1. *Solanum integrifolium* [Option ID = 12701]
2. *Solanum melongena* var. *depressum* [Option ID = 12702]
3. *Solanum incanum* [Option ID = 12703]
4. *Solanum insanum* [Option ID = 12704]

27) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Pea show strong apical dominance, so that the loss of the shoot tip results in the growth of the axillary buds into lateral branches.

Reason R : Growing shoot tips produce the hormone auxin that moves downwards within the stem and inhibits the outgrowth of axillary buds on the stem.

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

[Question ID = 3177][Question Description = 127\_166\_VSO\_SEP22\_Q27]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12705]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12706]
3. A is true but R is false [Option ID = 12707]
4. A is false but R is true [Option ID = 12708]

28) True Potato Seed (TPS) concept was first realized to raise commercial potato crop in India by

[Question ID = 3178][Question Description = 128\_166\_VSO\_SEP22\_Q28]

1. Dr. S. Ramanujam [Option ID = 12709]
2. Dr. Puskarnath [Option ID = 12710]
3. Dr. Mukhtar Singh [Option ID = 12711]
4. Dr. B. B. Nagaich [Option ID = 12712]

29) Match List I with List II

| List I                | List II             |
|-----------------------|---------------------|
| Carrot Variety/Hybrid | Pigments            |
| A. Pusa Kulfi         | I. Lycopene         |
| B. Pusa Rudhira       | II. Anthocyanin     |
| C. Pusa Asita         | III. Beta- carotene |
| D. Pusa Nayanjyoti    | IV. Lutein          |

Choose the correct answer from the options given below:

[Question ID = 3179][Question Description = 129\_166\_VSO\_SEP22\_Q29]

1. A -II, B -III, C -I, D -IV [Option ID = 12713]
2. A -IV, B -I, C -III, D -II [Option ID = 12714]
3. A -III, B -IV, C -II, D -I [Option ID = 12715]
4. A -IV, B -I, C -II, D -III [Option ID = 12716]

30) What is the seed rate (Kg/ha) of early varieties of garden pea ?

[Question ID = 3180][Question Description = 130\_166\_VSO\_SEP22\_Q30]

1. 80-90 [Option ID = 12717]
2. 60-70 [Option ID = 12718]
3. 50-60 [Option ID = 12719]
4. 100-120 [Option ID = 12720]

31) Match List I with List II

| List I         | List II                                                   |
|----------------|-----------------------------------------------------------|
| Vegetable Crop | Minimum isolation distance for foundation seed production |
| A. Brinjal     | I. 1600 m                                                 |

|                |            |
|----------------|------------|
| B. Onion       | II. 400 m  |
| C. Okra        | III. 200 m |
| D. Cauliflower | IV. 50 m   |
|                | V. 1000 m  |

Choose the correct answer from the options given below:

[Question ID = 3181][Question Description = 131\_166\_VSO\_SEP22\_Q31]

1. A - III, B - I, C - II, D - V [Option ID = 12721]
2. A - II, B - V, C - III, D - I [Option ID = 12722]
3. A - IV, B - I, C - II, D - V [Option ID = 12723]
4. A - III, B - V, C - II, D - I [Option ID = 12724]

32) Given below are two statements

Statement I: Whiptail is caused due to deficiency of Boron in turnip.

Statement II: Boron deficiency is more common in calcareous soils.

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

[Question ID = 3182][Question Description = 132\_166\_VSO\_SEP22\_Q32]

1. Both Statement I and Statement II are correct [Option ID = 12725]
2. Both Statement I and Statement II are incorrect [Option ID = 12726]
3. Statement I is correct but Statement II is incorrect [Option ID = 12727]
4. Statement I is incorrect but Statement II is correct [Option ID = 12728]

33) Choose the correct seed rate (Kg/ha ) of carrot

[Question ID = 3183][Question Description = 133\_166\_VSO\_SEP22\_Q33]

1. 18-20 [Option ID = 12729]
2. 10-12 [Option ID = 12730]
3. 4-5 [Option ID = 12731]
4. 2-3 [Option ID = 12732]

34) What is the chromosome number of *Asparagus officinalis*?

[Question ID = 3184][Question Description = 134\_166\_VSO\_SEP22\_Q34]

1.  $2n = 12$  [Option ID = 12733]
2.  $2n = 24$  [Option ID = 12734]
3.  $2n = 10$  [Option ID = 12735]
4.  $2n = 20$  [Option ID = 12736]

35) Soaking seeds in inorganic salt solutions as NaCl, KCl etc. is called as [Question ID = 3185][Question Description = 135\_166\_VSO\_SEP22\_Q35]

1. Matricconditioning [Option ID = 12737]
2. Hydropriming [Option ID = 12738]
3. Halopriming [Option ID = 12739]
4. Matrixpriming [Option ID = 12740]

36) Which one of the following is NOT a  $F_1$  hybrid of Chilli ?

[Question ID = 3186][Question Description = 136\_166\_VSO\_SEP22\_Q36]

1. Arka Meghna [Option ID = 12741]
2. Arka Suphal [Option ID = 12742]
3. Arka Sweta [Option ID = 12743]
4. Arka Harita [Option ID = 12744]

37) What is the family of Cassava ? [Question ID = 3187][Question Description = 137\_166\_VSO\_SEP22\_Q37]

1. Euphorbiaceae [Option ID = 12745]
2. Convolvulaceae [Option ID = 12746]
3. Araceae [Option ID = 12747]
4. Dioscoreaceae [Option ID = 12748]

38) Given below are two statements

Statement I: *Abelmoschus esculentus* is among the most heat and drought tolerant vegetable species in the world.

Statement II: Carbohydrates are present in okra mainly in the form of mucilage.

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

[Question ID = 3188][Question Description = 138\_166\_VSO\_SEP22\_Q38]

1. Both Statement I and Statement II are correct [Option ID = 12749]
2. Both Statement I and Statement II are incorrect [Option ID = 12750]
3. Statement I is correct but Statement II is incorrect [Option ID = 12751]
4. Statement I is incorrect but Statement II is correct [Option ID = 12752]

39) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

**Assertion A :** The alternating circular bands of conducting and storage tissues in beetroot becomes more distinct during cold weather.

**Reason R :** Betalain production is increased at low temperature.

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

[Question ID = 3189][Question Description = 139\_166\_VSO\_SEP22\_Q39]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12753]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12754]
3. A is true but R is false [Option ID = 12755]
4. A is false but R is true [Option ID = 12756]

40) Which one of the following process is involved chemical attack and thermal shock to loosen and soften the skin, eyes and blemishes of potatoes ?

[Question ID = 3190][Question Description = 140\_166\_VSO\_SEP22\_Q40]

1. Abrasion Peeling [Option ID = 12757]
2. Lye Peeling [Option ID = 12758]
3. Flame Peeling [Option ID = 12759]
4. Steam Peeling [Option ID = 12760]

41) Given below are two statements

**Statement I:** Cassava is highly heterozygous and this heterozygosity is perpetuated through years of asexual propagation.

**Statement II:** In Cassava, induced tetraploids by colchine treatment have been found to be higher yielding and wider adapted to normal field conditions.

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

[Question ID = 3191][Question Description = 141\_166\_VSO\_SEP22\_Q41]

1. Both Statement I and Statement II are correct [Option ID = 12761]
2. Both Statement I and Statement II are incorrect [Option ID = 12762]
3. Statement I is correct but Statement II is incorrect [Option ID = 12763]
4. Statement I is incorrect but Statement II is correct [Option ID = 12764]

42) Which among the following statements are important characteristics/requirement for developing processing tomato hybrids/varieties

- A. Acidity - pH below 4.35 and titrable acidity (0.4-0.5)
- B. Viscosity of juice should be high
- C. Solids/Acid ratio of 8.5
- D. Sugar/ Acid ratio of 15
- E. Total soluble solids, preferably 5.5 or higher degree Brix

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

[Question ID = 3192][Question Description = 142\_166\_VSO\_SEP22\_Q42]

1. A, B and E only [Option ID = 12765]
2. A, B and D only [Option ID = 12766]
3. B, D and E only [Option ID = 12767]
4. A, B, C and E only [Option ID = 12768]

43) Which one of the following is first gynocious based bitter melon hybrid developed at IARI, New Delhi ?

[Question ID = 3193][Question Description = 143\_166\_VSO\_SEP22\_Q43]

1. Pusa Vishesh [Option ID = 12769]
2. Pusa Hybrid-4 [Option ID = 12770]
3. Pusa Rasdar [Option ID = 12771]

4. Pusa Hybrid -1 [Option ID = 12772]

44) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : The time of flowering of the cucurbit vegetables is primarily determined by photoperiod.

Reason R : Temperature is the principal factor determining the duration of opening of individual flowers of cucurbits.

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

[Question ID = 3194][Question Description = 144\_166\_VSO\_SEP22\_Q44]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12773]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12774]
3. A is true but R is false [Option ID = 12775]
4. A is false but R is true [Option ID = 12776]

45) The basic chromosome number of onion is

[Question ID = 3195][Question Description = 145\_166\_VSO\_SEP22\_Q45]

1. 16 [Option ID = 12777]
2. 8 [Option ID = 12778]
3. 12 [Option ID = 12779]
4. 24 [Option ID = 12780]

46) Which of the following is dominant larval parasitoids of diamondback moth insect of cabbage ?

[Question ID = 3196][Question Description = 146\_166\_VSO\_SEP22\_Q46]

1. *Diadegma semiclausum* [Option ID = 12781]
2. *Campoletis chloridae* [Option ID = 12782]
3. *Chilomenus sexmaculatus* [Option ID = 12783]
4. *Amblyseius longispinosus* [Option ID = 12784]

47) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Inbreeding is severely limited by a gametophytic self-incompatibility (GSI) system in most of the diploid potato genotypes.

Reason R : Neofunctionalisation of the *Sli* gene leads to self-incompatibility in Potato.

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

[Question ID = 3197][Question Description = 147\_166\_VSO\_SEP22\_Q47]

1. Both A and R are true and R is the correct explanation of A [Option ID = 12785]
2. Both A and R are true but R is NOT the correct explanation of A [Option ID = 12786]
3. A is true but R is false [Option ID = 12787]
4. A is false but R is true [Option ID = 12788]

48) Tendercrop and Cascade are popular processing cultivars of [Question ID = 3198][Question Description = 148\_166\_VSO\_SEP22\_Q48]

1. European carrot [Option ID = 12789]
2. French bean [Option ID = 12790]
3. Garden pea [Option ID = 12791]
4. Beet root [Option ID = 12792]

49) Which one of the following is probable ancestor of watermelon ?

[Question ID = 3199][Question Description = 149\_166\_VSO\_SEP22\_Q49]

1. *C. vulgaris* [Option ID = 12793]
2. *C. naudinianus* [Option ID = 12794]
3. *C. colocynthis* [Option ID = 12795]
4. *C. ecirrhosus* [Option ID = 12796]

50) Match List I with List II

| List I            | List II                                  |
|-------------------|------------------------------------------|
| Melons group      | Scientific name                          |
| A. Honeydew melon | I. <i>C. melo</i> var. <i>chito</i>      |
| B. Pickling melon | II. <i>C. melo</i> var. <i>flexuosus</i> |
| C. Orange melon   | III. <i>C. melo</i> var. <i>inodorus</i> |

|                  |                                             |
|------------------|---------------------------------------------|
| D. Serpent melon | IV. <i>C. melo</i> var. <i>conomon</i>      |
|                  | V. <i>C. melo</i> var. <i>cantalupensis</i> |

Choose the correct answer from the options given below:

[Question ID = 3200][Question Description = 150\_166\_VSO\_SEP22\_Q50]

1. A - V, B - IV, C - II, D - III

[Option ID = 12797]

2. A - IV, B - II, C - I, D - III

[Option ID = 12798]

3. A - III, B - IV, C - I, D - II

[Option ID = 12799]

4. A - III, B - I, C - II, D - V

[Option ID = 12800]