**Total No. of Pages: 2 Program**

 **HVSC0502**

**2nd Semester Examination: May 2023**

**PRODUCTION OF WARM SEASON VEGETABLE CROPS**

**Full Marks: 50 Time: 3 Hrs.**

***Answer Part-A, Part-B & Part-C as per the instructions there in.
The figure in the right hand margin indicates marks.***

**PART – A [10]**

1. Fill in the blanks: [10x0.5=5]

a) ‘Parbhani Revolution’ is associated with \_\_\_\_\_\_\_\_\_\_\_ vegetable crop.

1. Perennial type of Drumstick is propagated by\_\_\_\_\_\_\_\_\_\_.
2. ‘Arka Suguna’ and ‘Arka Arunima’ are varieties of \_\_\_\_\_\_\_\_\_\_ vegetable crop.
3. ‘Bhu Sona’ and ‘Bhu Krishna’ are bio-fortified varieties of \_\_\_\_\_\_\_\_\_\_ vegetable crop.
4. ‘Blossom End Rot (BER)’ is a major disorder of tomato due to \_\_\_\_\_\_\_\_\_ deficiency.
5. Ancestor of cluster bean is botanically known as\_\_\_\_\_\_\_\_\_\_\_.
6. ‘3 g cutting’ of pruning method is associated with vegetable crop family \_\_\_\_\_\_\_\_\_\_\_.
7. Processed product ‘Sago’ is made from\_\_\_\_\_\_\_\_ vegetable crop.
8. ‘Pusa Komal’ and ‘Arka Komal’ are varieties of \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_crop respectively.
9. Cucumber is having chromosome number of (2n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Matching Table: [10x0.5=5]

a) YVMV i. Triple Disease Resistant variety of tomato

b) White Rust (*Albugo candida*) ii. Disorder of tomato

c) Arka Rakshak iii. Viral disease of okra

d) *Cylas formicarius* iv. Maleness inducers

e) Sunscalding v. Pointed gourd and Spine gourd

f) Sree Nandini and Sree Vardhini vi. French bean

g) Sree Subhra and Sree Priya vii. Major pest of sweet potato

h) Dioecious cucurbits viii. Major disease of Amaranthus

i) Silver Nitrate and Silver thiosulfate ix. Varieties of sweet potato

j) *Rhizobium phaseoli* x. Varieties of White yam

**PART – B [20]**

1. Choose the correct answer or True/ False statement: [10x1=10]
2. C.M Rick is known as ‘Father of Tomato’.
3. ‘Pusa Jwala’ is a variety of Sweet Pepper.

c) ‘Diara’ cultivation is followed in Brinjal.

d) Guar gum is extracted from seeds of cluster bean.

e) ‘Ben oil’/ ‘Behen oil’ is associated with Chekurmanis.

f) Dolichos bean is originated from India.

g) Yardlong bean (YLB) is pole type of French bean.

h) ‘Satputia’ is a hermaphrodite variety of Ridge gourd.

i) ‘Calyx withering’ in brinjal is occurred due to excess of calcium.

j) Hairy and black seeded chilli species is *Capsicum baccatum*.

1. Differentiation or define or abbreviations or statement: [10x1=10]

a) Abbreviate CTCRI, IIVR, IIHR and IARI.

b) Differentiate between Determinate and Indeterminate tomato varieties.

c) Differentiate between Bush and Pole type French bean.

d) Define ‘Trimonoecious’ sex form in cucurbits.

e) Fruit cracking disorder in tomato.

f) Pollarding in Drumstick.

g) Abbreviate YVMV and ELCV of Okra.

h) Abbreviate TOLCV.

i) Differentiate between *Blitopsis* and *Amaranthus*.

j) Mention 3 important grain type *Amaranthus* species.

**PART – C (Answer any Four) [4x5=20]**

1. What are the major 3 botanical varieties of brinjal? Describe briefly. What is heterostyly in brinjal? Enumerate briefly. (2.5 +2.5) [5]
2. Differentiate between pulse type (agronomic) and vegetable type (horticultural) Dolichos bean with their botanical names. Mention some important bush and pole type varieties of dolichos bean and cowpea. (3 +2) [5]
3. How successful nursery in tomato can be raised? What are the different harvesting stages of tomato? Discuss in details. (2+3) [5]
4. Discuss in details about seed rate, spacing and yield of summer season and rainy season okra. How YVMV can be controlled in okra? (2+3)
5. Write short notes on any **One**:- [5]

a) Transverse cotyledon cracking (TCC) and Hypocotyl Necrosis disorder in French bean (2.5+2.5)

b) Soil, climate, seed rate, nutrient and water requirement in cowpea (1+1+1+1+1)