

ICAR NET – 2023 vegetable science

Memory based questions

Compiled by –

**Jitendra Rajak, Ph.D. Research Scholar GBPUA&T, Pantnagar,
Prakash Raj – IIHR Bangalore , Sreelekshmi – KAU, Trissur,
Neha Kumari – IARI New Delhi, Mallikarjun – IARI New Delhi**

- 1) Family of Rhubarb -Polygonaceae
- 2) Chromosome number of oriental Pickling Melon -24
- 3) Which among the following is the member of monocotyledonaceae – Asparagus
- 4) Vegetables comes under which among the following - Angiospermae
- 5) Match the following Botanical name of Greater yam, yam bean, pacific yam, white yam – *D. alata*, *Pachyrizhus erosus*, *D. nummularia*, *D. esculenta*
- 6) Botanical name of Rat tail radish – *Raphanus sativus* var caudatus
- 7) Storage period of onion seeds is – 1 year
- 8) Ty-4 is present in which chromosome number of tomato -3
- 9) Arka Abhed is resistant to which among the following diseases – Early blight, late blighy, Bacterial wilt, ToLCV
- 10) Arka rakshak and arka samrat are resistant to which among the following diseases – Early blight, Bacterial blight ToLCV
- 11) Seed recovery percentage of tomato -1%
- 12) PH and citric acid content of processing tomato – 4.5,0.35
- 13) Blotchy ripening in tomato is due – K deficiency
- 14) Hybrid seed rate of Tomato – 100-150

- 15) Highest seed yield in tomato is obtained from – Acid/Alkali?
- 16) Black colour seeds are present in which among the following capsicum species – *C. pubescens*
- 17) Red colour and pungency in chilli is due to – Capsorubin and Capsaicin
- 18) Fruit drop in chilli can be overcome by spraying – NAA
- 19) Capsicum hybrid Pusa deepati is a cross between- Yellow wonder × Russian yellow
- 20) PAU Ludhiana and IIHR Bangalore released chilli hybrids by using – GMS , CGMS
- 21) Which among the following is the seed rate of Karif season okra – 8-10 kg/ha
- 22) What is the export size of okra fruits – 6-8 cm
- 23) Common ancestor of Cole crops is – *Brassica oleracea* var *sylvestris*
- 24) Cole crops highly Self Incompatible and Protogynous in nature which results in – Highly Heterogeneous and Highly Heterozygous
- 25) Bud pollination is done in- Cabbage
- 26) Monogenic species of Cole crop is - *Brassica Oleracea*
- 27) Palan Kanchan and Palam Vichitra are the varieties of – Sprouting Broccoli
- 28) *Raphanus* and *Brassica Oleracea* 2n after chromosome doubling – 12
- 29) Seed production of cabbage cannot be successfully done in – Bangalore (Option given – Shrinagar, Shimla, Kinnaur)
- 30) Trap crop for cabbage to control the incidence of diamond back moth -Mustard
- 31) Arka Nikita, a variety of Okra is released by which method – GMS
- 32) Pre-harvest application dose of N- Benzyl adenine for prolong the shelf life of leafy vegetable is – 10-20 ppm
- 33) Peeling term for carrot – Scraping
- 34) Main heat transfer mechanism used for cooling produce – Conduction and convection
- 35) Oxygen absorber in Modified atmospheric storage- Ferrous Oxide
- 36) Storage temperature of Okra – 40 – 50 F° with 90-95 Rh
- 37) Ratio of Complementary gene action – 9:7

- 38) In Modified Atmospheric system oxygen level reduced from 27% upto – 3 %
- 39) components present in controlled atmospheric storage are – $\text{CO}_2 + \text{O}_2 + \text{N}_2$
- 40) Vacuum cooling is used for – Leafy Vegetables
- 41) Isolation distance for foundation seed production of chilli – 400M
- 42) Purity % of breeder seed is – 100
- 43) Progeny of seeds – Nucleus – Breeder – Foundation – Certified
- 44) Cross pollination percentage in Often cross pollinating crops- 5-12 %
- 45) In Brinjal which type flowers set fruits – long style and medium style
- 46) Pseudo and short style flowers in brinjal act like – Male flower
- 47) Triple response PGR – Ethylene
- 48) Auto-catalytic hormone during storage – Ethylene
- 49) NSC established in which year – 1963
- 50) Maximum year for protection of plant variety under PPV- FR act (2001) – 15 years
- 51) Gynoeious lines are used for the production of – Cucumber
- 52) Progenitor of bitter melon – *Momordica charantia* var *Muricata*
- 52) *Basella* is propagated by – Stem cutting
- 53) sterile line of onion – Ssms
- 54) fertile line of onion- Nsms
- 55) sugar present in Jerusalem artichoke – Levulose
- 56) BN of Sward bean, Winged bean – *Canvalia gladiata*, *Psophocarpus tetragonolobus*
- 57) Cole crop have toxic compound – Sinigrin
- 58) correct order of maturity stages of tomato fruits
Green – Breaker – Turning – Pink – Red – Red ripe
- 59) Brinjal rootstock which resistant to bacterial wilt is – *Solanum torvum*
- 60) Hybrid seed production technique of bottle gourd is- Pinching of Male flowers

61) Which among the mechanisms allow self pollination – Cleistogamy (chasmogamy was one of the option)

62) Grow out test is done to find out – Genetic Purity of seed

63) Pre- emergence herbicide for onion – Oxyfluorfen

64) Brinjal Shoot and fruit bore resistant gene – Cry-1 AC

65) Root development is induced by – Auxin

66) Role of abscisic acid in plants – reduce transpiration, dormancy

67) Statement (A) – In Pumpkin hill we sow 4-5 seed

Statement (B)- After 2-4 leaf stage we retain two plants per hill

Answer – Both Statements correct

68) Match the following Kashi Lalima – Okra, Pusa Gulabi – Radish, Pusa Asita – Carrot

69) Hybrid seed rate of (Tomato – 100-150 gm, Chilli – 150-200 gm, Bottle gourd – 4-5 kg, Okra – 3-4 kg)

70) Blossom end rot (BER) symptoms appearance stages – A. Start from small yellow spot

B. Spots coalesce to form water-soaked area

C. Large black area

D. Secondary infection by fungus

70. High temperature, long day and low temperature, short day produce which type of flowers in cucurbits

Ans. Male and female

71. Statement A. High carbohydrate is associated with male flower.

Statement B. High temperature increases male flower production.

Ans. Only B is right

72. Kakrol is common name of .Spine Gourd

73. Maturity colour of ivy Gourd. Scarlet red

74) Which among the following is highly cross pollinated

Ans. Options are (french bean, cowpea, winged bean)

- 76) Phytochrome is involved in - Photoperiodism
- 77) High root growth occur in Behind the apex
- 78) Partial self compatible cross of gametophyte self incompatibility is S1S2x S2S3
- 79) PMA is responsible for. Reduce transpiration
- 80) Glossy type wax O type
- 81) Waxing is responsible for Reduce transpiration and respiration
- *82)* Cabbage seed purity percentage for foundation seed and certified seed 98%
- 83) Gamma irradiation dose of onion and potato.0.06-0.01 and 0.1
- 84) Best pH for pea cultivation 6.5 – 7
- 85) White fungus growth in pickle Rhizopus
- 86) Lime is used for acid soil reclamation. Which among the following is true
Because solubility is decreased as the ph increases
- 87) Solanum malongena is highly fertile with *S. Incanum*
- 88) Non bulb forming member of alliaceae family – Leek
- 89) The family having capsular fruits and palmately dissected leaves with Apex fall down after fertilization Malavace
- *90*) Bridging spp. Of cucurbita *C. Lundelliana* or *C.moshata*?
- 91) Musk melon is harvested for long distance transportation at Full slip mature stage
- 92) Tropical perennial vegetable crop Moringa and curry leaf
- 93) Crop suitable for partial shade condition Elephant foot yam
- 94) Black and brown colour seed marker is used in Onion
- 95) Advantages of marker assisted selection
Not transfer of transfer and identification of ressesive alleles
- 96) Beet root gametophyte self incompatibility Monoallelic
- *97.* Which one is not an inhibitor for seed dormancy

Options are (ABA,GA₃,vitamins)

98) Potato ploidy level and chromosome number Auto tetraploid($2n=4x=48$)

99). Which among the following is a mismatch - variety of beetroot Sugar baby

100. Export purpose contract farming done in Cucumber

101) which among the following is used for Modified atmospheric packaging

Low density polyethylene

102) optimum temperature for tuberisation of potato 18-20

103) First genetic improved variety of elephant foot yam Sree athira

104) first intervarietal hybrid variety of grater yam Sree Shilpa

105) Allicin is a Amino acid

106) Self pollination in cross pollinated crops results in the development of Inbred line

107) Inbred line is crossed with open pollinated crops is known as Top cross

108) Cross between cytoplasmic male sterile line and a male fertile line is done. The F₁ plants produced will be? F₁ sterile

109) In CMS system which line is absent R line

110) Which among the following are Water soluble carotenoids Xanthin and lutein

111) Sweet gourd is Dioecious

112) Size of Sweet potato cutting used for propagation Young cutting with 3 4 nodes and middle top portion

113) Pithiness in radish

114) Toughing of canned beans is due to Ca

115) Horse bean is the common name of Broad bean

116) Pencil strip is due to Excess phosphorus

117) Post harvest treatment of onion to reduce sprouting CIPC

118) Cavity spot of carrot is due to High K and low Ca

119) Chilling injury in Tomato develops due to long storage at a temperature of 0-10 degree Celsius

120) synthesis of auxin occurs in which part of the plant? Meristem tissue

121) Glucose in tissue culture acts as a Carbon source

122) Maximum production of cells on commercial purpose is observed in which system
Bioreactor

123) A. Stackling is used in radish for seed production.

B. Stackling produce high seed yield Only A is right

124) Stackling is left in winter season and then lifted in autumn season is used for
Root to seed method

125) Propagation of chow is done by Sprouted fruit

126) Cross pollination in chekrumanis is due to Protogyny

127) Solanin in potato is reduced by which operation Earthing up

128) Which crop having Edible tuberous roots Winged bean

129) Acridity in elephant foot yam is due to Calcium oxalate

130) Which among the following is a Grain type amaranthus spp. *A. Hypocondricus*

131) Which of the following crop is belong to monocotyledon family Asparagus

132) Spear is the edible part of Asparagus

133) French bean seed rate 60-65 days bush, 25-30 pole type

134) in mutation breeding, which generation shows recessive

135) curing temperature for potato 25 degree Celsius

136) Parthenocarpic seeds are developed from Egg cell

137) Parthenocarpy is induced by Auxin

138) Seed viability is tested by Tetrazolium test

139) Asian carrot character Anthocyanin rich with distinct core

140) High profile crop under protected cultivation Bell pepper

141) Vernalisation temperature for flowering of cole crops 4-10 and 40-60 days

142) immature seed having high GA3

143) Tip burn in lettuce is due to Ca deficiency

144) Pencil strips and cracked stem are the physiological disorder of Celery

Note – This is a drafted answer key; final answer key by ASRB may have changes. Get in touch with Horti Medium if you have queries or suggestions about the key.