GPB-366

Multiple choice question

1. Sum total of gene in a species is called……..
   a) Genetic diversity
   b) Genetic variability
   c) Gene pool
   d) Gene bank
2. The germplasm which are collected in foreign countries is referred to as……..
   a) Indigenous collection
   b) Exotic collection
   c) Direct introduction
   d) Indirect introduction
3. Plant material which are meant for long term storage is known as……
   a) Active collection
   b) Base collection
   c) Working collection
   d) None of these
4. In medium term storage, material can be stored upto:
   a) 100 years
   b) 10 to 15 years
   c) 3 to 5 years
   d) None of the above
5. Primary gene pool refers to
   a) GP1
   b) GP2
   c) GP3
   d) GP4
6. Land race refers to
   a) Primitive cultivar
   b) Obsolete cultivar
   c) Modern cultivar
   d) None of the above
7. Gene pool consist of
   a) Land races and Obsolete cultivar
   b) Modern cultivar and advance breeding material
   c) Wild species and relatives
   d) All of the above
8. refer to tapping of genetic diversity from various sources and assembling the same at one place.
   a) Exploration
   b) Collection
   c) Conservation
   d) Evaluation
9. refers to protection of genetic diversity of crop plants from genetic erosion.

a) Exploration
b) Collection
c) Conservation d) Evaluation

10. Conservation of germplasm under natural habitat is referred to as…….
    a) in situ conservation
    b) Ex situ conservation
    c) Gene bank
    d) Preservation
11. Conservation of germplasm away from its natural habitat is called ……
    a) In situ germplasm conservation
    b) Ex situ germplasm conservation
    c) Natural habitat conservation
    d) None of the above
12. Seeds can be dried to low moisture content of 5% and stored at a low temperature without losing their viability are known as ……
    a) orthodox seeds
    b) Recalcitrant seed
    c) Indigenous seed
    d) None of the above
13. Once popular varieties now replaced by superior varieties.
    a) Land races
    b) Obsolete varieties
    c) Modern varieties
    d) None of these
14. The viability of this group of seeds drops drastically if their moisture content is reduced below 12-30% is known as
    a) orthodox seeds
    b) Recalcitrant seed
    c) Indigenous seed
    d) None of the above
15. refers to screening of germplasm in respect of morphological, genetically, economic, biochemical, physiological, pathological and entomological attributes.
    a) Exploration
    b) Collection
    c) Conservation
    d) Evaluation
16. refers to compilation, analysis, classification storage and dissemination of information.
    a) Documentation
    b) Collection
    c) Conservation
    d) Evaluation
17. Recalcitrant seeds are produced by which of the following plants?
    a) Mango and rubber
    b) Cocoa and coconut
    c) Coffee and oilpalm

d) All of the above

18. Germplasm that is readily used in breeding programmes.
    a) Primary gene pool
    b) Secondary gene pool
    c) Tertiary gene pool
    d) None of these
19. Seed collection that are disturbed only for regeneration are called which of the following
    a) Base collection
    b) Active collection
    c) Working collection
    d) Field collection
20. The term ideotype was coined by:
    a) Jennings
    b) Donald
    c) Rasmusson
    d) Hsu and Watson
21. Seeds of most of the pant species can be stored for 10 years at…… ^{0}C and ……. Seed moisture.
    a) ~5 and ~5%
    b) ~6 and ~6%
    c) ~7 and ~7%
    d) None of these
22. Concept of crop ideotype was developed in:
    a) Maize
    b) Wheat
    c) Rice
    d) Barley
23. Crop ideotype refers to :
    a) Ideal plant type
    b) Model plant type
    c) Both
    d) Neither
24. Ideotype breeding has been more successful for yield improvement in:
    a) Pearl millet
    b) Wheat
    c) Rice
    d) Sorghum
    e) All of the above
25. Which of the following is the ‘central’ feature of crop ideotypes?
    a) Location specific
    b) Species specific
    c) Population density
    d) Weak competitor
26. Ideotype is moving goal which change with change in:
    a) Knowledge

b) Market requirements
c) National police
d) All of the above

27. Which of the following ideotypes will be favoured in the segregating generation of crosses
    a) Competition
    b) Communal
    c) Crop
    d) Isolation

28. In wheat ideal plant type consist of :
    a) Short and stiff straw
    b) Photo insensitivity
    c) High response to nitrogen application
    d) All of the above
29. Origin of wheat crop is…..
    a) Asia minor
    b) Abyssinia
    c) Central Asia
    d) All of the above
30. *Triticum aestivum* has which of the following genomes
    a) AABBCC
    b) BBCCDD
    c) AABBDD
    d) AACCDD
31. *Triticum durum* has which of the following genome
    a) AABB
    b) BBCC
    c) AACC
    d) BBDD
32. Wheat is ..... Pollinated crop.
    a) Self-pollinated
    b) Cross-pollinated
    c) Often cross pollinated
    d) None of the above
33. Bread wheat has which of the following genomic constitution.
    a) AABBCC
    b) AABBDD
    c) BBDDRR
    d) AABBRR
34. Sonalika and kalyan sona high yielding varieties of
    a) Rice
    b) Wheat
    c) Sorghum
    d) Sugarcane
35. Which of the following is correct about semidwarf wheat varieties ?

a) They are high yielding
b) The are resistant to lodging
c) They are fertilizer responsive
d) All above

36. Botanical name of oat crop is …..
a) Avena sativa
b) Avena lesuma
c) Avena sativum
d) Avena solanum

37. Triticum durum has 2n= ……. Chromosome number.
a) 14
b) 28
c) 42
d) 56

38. Triticum aestivum has 2n=.....chromosome number.
a) 14
b) 28
c) 42
d) 56

39. The inflorescence of wheat crop is known as ……..
a) Arrow
b) Panicle
c) Spike
d) Umbel

40. The chromosome number of Oat crop is…..
a) 40
b) 42
c) 44 d) 46

41. *Saccharum officinarum* has 2n = 8x =.....chromosome number.
a) 60
b) 80
c) 40
d) 20

42. Sugarcane breeding institute located at……..
a) Chennai
b) Coimbatore
c) Lucknow
d) Mumbai

43. Sugarcane is .....pollinated crop
a) Self-pollinated
b) Cross pollinated
c) Often cross pollinated
d) None of these

44. The inflorescence of sugarcane is known as …….
a) Spike

b) Arrow
c) Umbel
d) Tassel

45. Botanical name of sugarcane crop is……..
a) Saccharum officinarum
b) Saccharum barberi
c) Saccharum sinense
d) All of these

46. The term noblisation is related to which of the following
a) Wheat
b) Rice
c) Sugarcane
d) Soyabean

47. Which of the following organizations is engage in conservation of plant genetic resources.
a) NBRI
b) FAO
c) NBPGR
d) ICAR

48. The botanical name of Indian cane is which of the following
a) Saccharum barberi
b) Saccharum sinense
c) Saccharum robusta
d) Saccharum officinarum

49. Sugarcane germplasm is maintained at which of the following institutes
a) SBI Coimbatore
b) Canal Point, Florida
c) Indian institute of Sugarcane Research Lucknow
d) Both (a) and (b)

50. Sugarcane is cross pollinated crop due to..... machanism of the flower
a) Protandry
b) Protogyny
c) Dicliny
d) Unisexuality

51. is the capacity of a genotype or population for genetic changes in adaptation.
a) Adaptability
b) Heritability
c) Stability
d) Variability

52. The first systematic approach to the analysis of phenotypic stability of cultivars or genotypes was made by ..... n 1963
a) Finlay and Wilkinson Model
b) Eberhart and Russell
c) Perkins and jinks
d) Freeman and Perkins

53. The suitability of a variety for general cultivation over a wide range of environmental condition is known as :
    a) Adaptation
    b) Adaptability
    c) Stability
    d) Heritability
54. Independent estimation of mean performance and environmental index is done in which of the following model:
    a) Finlay and Wilkinson Model (1963)
    b) Eberhart and Russell (1966)
    c) Perkins and jinks (1968)
    d) Freeman and Perkins (1971)
55. In which model, two residual sums of squares is estimated?
    a) Finlay and Wilkinson Model (1963)
    b) Eberhart and Russell (1966)
    c) Perkins and jinks (1968)
    d) Freeman and Perkins (1971)
56. In which model, regression coefficient is used to assess stability
    a) Finlay and Wilkinson Model (1963)
    b) Eberhart and Russell (1966)
    c) Perkins and jinks (1968)
    d) Freeman and Perkins (1971)
57. Botanical name of chickpea crop is ……
    a) *Cicer arietinum* L
    b) Cicer arnanum
    c) Cicer sativum
    d) None of these
58. Chromosome number of *Cicer arietinum* has 2n=……..
    a) 12
    b) 14
    c) 16
    d) 18
59. Chickpea crop androecium observed in..... condition
    a) Monoadelphous
    b) Diadelphous
    c) Triadelphous
    d) None of these
60. In chickpea crop ..... number of stamens present.
    a) 8+2
    b) 9+1
    c) 5+5
    d) 8+1
61. Centre of origin of chick pea is ……
    a) South West Africa
    b) North west Africa
    c) Asia minor

d) None of these

62. Chick pea belongs to the family
    a) Gramineae
    b) Fabaceae
    c) Cruciferae
    d) Liliaceae
63. The Genus *Cicer* is divide into.....section.
    a) Two
    b) Three
    c) Four
    d) Five
64. Root system of chickpea crop is…….
    a) Fiber root system
    b) Tap root system
    c) Adventitious root system
    d) None of these
65. Chickpea is..... pollinated crop.
    a) Self-pollinated
    b) Cross pollinated
    c) Often cross pollinated
    d) None of these
66. Chickpea is a self-pollinated crop due to ……..
    a) Chasmogamy
    b) Cleistogamy
    c) Homogamy
    d) Dichogamy
67. In chickpea sour taste of leaves and pod due to
    a) Erucic and linoleic acid
    b) Malic, oxalic and citric acids
    c) Acetic acid
    d) All of these
68. Chickpea fruits are known as?
    a) Berry
    b) Cherry
    c) Pod
    d) Caryopsis
69. Is wild species of chickpea crop.
    a) C. reticulatum,
    b) C. pinnatifidum
    c) C. songaricum
    d) C. bijugum
70. Botanical name of lentil crop is……..
    a) Cicer aeritinum
    b) Cajanus cajan
    c) Lens esculenta
    d) Helianthus annus

71. Lentil belongs to..... Family.
    a) Gramineae
    b) Leguminaceae
    c) Compositae
    d) Liliaceae
72. Centre of origin of lentil crop is …….
    a) South west Africa
    b) Egypt
    c) Asia minor
    d) America
73. lentil has 2n = ... chromosome number.
    a) 14
    b) 16
    c) 18
    d) 20
74. Lentil is a.....pollinated crop.
    a) Self
    b) Cross
    c) Often cross
    d) None of these
75. Lentil is a self-pollinated crop due to …… mechanism of flower.
    a) Homogamy
    b) Cleistogamy
    c) Chasmogamy
    d) Dichogamy
76. Botanical name of sunflower crop is……
    a) Cicer aeritinum
    b) Cajanus cajan
    c) Helianthus annus
    d) Carthamus tinctorius
77. *Helianthus annus* belongs to..... Family.
    a) Gramineae
    b) composite
    c) Cruciferae
    d) Liliaceae
78. Centre of origin of Sunflower is ……
    a) South West Africa
    b) North west Africa
    c) Asia minor
    d) America
79. is wild species of sunflower crop.
    a) Helianthus hirsutus
    b) Helianthus annus
    c) Helianthus tuberosus
    d) None of these
80. Is cultivated species of sunflower crop.

a) *Helianthus hirsutus*
b) *Helianthus rigidus*
c) *Helianthus annus*
d) None of these

81. *Helianthus annus* has 2n =..... chromosome number.
a) 30
b) 34
c) 50
d) 54

82. The inflorescence of sunflower is known as…….
a) Spike
b) Arrow
c) Head or capitulum
d) Panicle

83. The achene or the fruit of the sunflower consists of a seed often called …...
a) Kernel
b) Caryopsis
c) Berry
d) None of these

84. hybrid of sunflower is downy mildew resistant and rainfed condition grow.
a) Modern
b) LSH-1
c) Co-1
d) Surya

85. Sunflower is a.....Pollinated crop.
a) Self-pollinated
b) Cross pollinated
c) Often cross pollinated
d) None of these

86. Botanical name of Rapeseed crop is …….
a) *Brsassica napus*
b) *Brassica juncea*
c) *Cajanus cajan*
d) None of these

87. Rapeseed crop belongs to.....Family.
a) *Leguminosae*
b) *Gramineae*
c) *Brassicacea*
d) *None of these*

88. Chromosome number of rapeseed crop is 2n= ……
a) 30
b) 38
c) 42
d) 56

89. In rapeseed crop androecium observed in..... condition.
a) Monodynamous

b) Didynamous
c) Tetradynamous
d) Pentadynamous

90. Botanical name of Mustard crop is …….
    a) Brsassica napus
    b) Brassica juncea
    c) Cajanus cajan
    d) None of these
91. Mustard crop belongs to .....Family.
    a) Leguminosae
    b) Gramineae
    c) Brassicacea
    d) None of these
92. Chromosome number of Mustard crop is 2n= ……
    a) 30
    b) 36
    c) 38
    d) *40*
93. Centre of origin Mustard crop is …….
    a) America
    b) Afghanistan
    c) India
    d) France

94. Brassica juncea has which of the following genomes?
    a) AACC
    b) AABB
    c) BBCC
    d) BBDD
95. Brassica juncea evolved from which of the following the crosses.
    a) B. oleracea X B. nigra
    b) B. nigra X B. compestris
    c) B. rapa X B. nigra
    d) B. napus X B. carinata
96. Botanical name of pea crop is …..
    a) Cajanus cajan
    b) Pisum sativum
    c) Vigna radiata
    d) Glycine max
97. Field pea belongs to..... Family.
    a) Leguminosae
    b) Gramineae
    c) Brassicacea
    d) None of these
98. Chromosome number of field pea crop is 2n = ……..
    a) 10

b) 12
c) 14
d) 20

99. Field pea consists of ..... stamens, of which nine are arranged in a bundle and one is free.
a) 8
b) 9
c) 10
d) 11

100. Pea crop is..... pollinated crop.
a) Self-pollinated
b) Cross pollinated
c) Often cross pollinated
d) None of these

101. Pea crop is self-pollinated crop due to ..... Mechanism of the flower.
a) Dichogamy
b) Chasmogamy
c) Male sterility
d) Heterostyle

102. In pea crop androecium observed in a..... condition.
a) Monoadalphous
b) Diadalphous
c) Triadalphous
d) Tetraadalphous

103. Botanical name of potato crop is……..
a) Solanum melongena
b) Solanum tuberosum
c) Psidium guajava
d) All above

104. Potato crop belongs to.....family.
a) Gramineae
b) Leguminaceae
c) Solanaceae
d) Compositeae

105. Chromosome number of *Solanum tuberosum* crop is 2n=…….
a) 44
b) 46
c) 48
d) 50

106. is a cultivated species of potato crop.
a) Solanum andigenum
b) Solanum tuberosum
c) Solanum demissum
d) All Above

107. Potato is a ..... pollinated crop.
a) Self pollinated

b) Cross pollinated
c) Often cross pollinated
d) None of these

108. The production of potatofrom true potato seed (TPS) has several advantages compared to tubers, including.
a) Production of virus free stocks as viruses are generally not transmitted by seed.
b) Reduce storage problems because refrigeration of TPS is not necessary.
c) a and b
d) None of these

109. Botanical name of berseem crop is ……
a) Cajanus cajan
b) Cicer aretinum
c) Trifolium alexandrium
d) None of these

110. Berseem crops belongs to..... Family.
a) Gramineae
b) Leguminosae
c) Euphorbiaceae
d) None of these

111. Chromosome number of berseem crop is ……..
a) 14
b) 16
c) 18
d) 20

112. Berseem is a ..... Pollinated crop.
a) Self pollinated
b) Cross pollinated
c) Often cross pollinated
d) None of these

113. Botanical name of safflower crop is ……
a) Cajanus cajan
b) Helianthus annus
c) Carthamus tinctorius
d) None of these

114. Safflower crop belongs to …… family.
a) Gramineae
b) Leguminosae
c) Composite
d) None of these

115. Chromosome number of safflower crop has 2n= …….
a) 16
b) 20
c) 24
d) 28

116. Safflower is a..... Pollinated crop.
a) Self pollinated
b) Cross pollinated

c) Often cross pollinated
d) None of these

117. Inflorescence of safflower is known as……..
a) Spike
b) Capitulum
c) Arrow
d) Umbel

118. Safflower crop androecium observed in ..... condition.
a) Monoadelphus
b) Diadalphus
c) Syngenious
d) None of these

119. In safflower crop..... Types of male sterility used in hybrid seed production.
a) GMS
b) CMS
c) CGMS
d) All above

120. Give name of non-spiny safflower hybrid.
a) NARI-6
b) NARI-NH-1
c) DSH-129
d) Bhima

121. Botanical name of mango crop is ……..
a) *Mangifera indica* L.
b) Phyllanthus emblica
c) Psidium guajava
d) None of these

122. Mango crops belongs to ..... family.
a) Anacardaceae
b) Euphorbiaceae
c) Myrtaceae
d) Poaceae

123. Chromosome number of mango crop is 2n=……
a) 28
b) 40
c) 22
d) 60

124. Centre of origin of a mango crop is …….
a) Tropical America / West Indies
b) China
c) Indo-Burma Region
d) Afghanistan

125. is cultivated species of mango crop.
a) M. laurina
b) M. gedebe
c) M. Indica
d) M. grifith

126. Tommy, Ziulete, Haden, Sensation and Julie are the coloured varieties of mango which were introduced from…….
   a) Pakistan
   b) Florida (USA)
   c) Phillippines
   d) Thailand
127. Which one commercial variety of mango was developed from open pollinated seedling selection
   a) Sweet
   b) Sensation
   c) Dashehari
   d) Julie
128. Which of the following hybrid was developed through crossing between Ratna X Alphanso
   a) Mallika
   b) Sindhu
   c) Amrapali
   d) Ruchi
129. Which of the following hybrid was developed through crossing between Neelum X Alphanso
   a) Mallika
   b) Sindhu
   c) Ratna
   d) Amrapali
130. Mango is a ..... pollinated crop.
   a) Self-pollinated
   b) Cross pollinated
   c) Often cross pollinated
   d) None of these
131. Mango is a cross pollinated crop due to.....condition of flowering
   a) Andromonocious
   b) Gynomonocious
   c) Androdiocious
   d) gynodiocious
132. Botanical name of guava crop is ……..
   a) Mangifera indica L.
   b) Phyllanthus emblica
   c) Psidium guajava
   d) None of these
133. Guava crops belongs to ..... family.
   a) Anacardaceae
   b) Euphorbiaceae
   c) Myrtaceae
   d) Poaceae
134. Chromosome number of guava crop is 2n=……
   a) 28

b) 40
c) 22
d) 60

135. Centre of origin of a guava crop is …….
a) Tropical America / West Indies
b) China
c) Indo-Burma Region
d) Afghanistan

136. is cultivated species of guava crop.
a) Mangifera indica L.
b) Phyllanthus emblica
c) Psidium guajava
d) None of these

137. In guava .....species cannot be used as rootstock.
a) P. cujavalis,
b) P. molle,
c) P. guajava
d) P. cattleianum

138. …… may be defined as a description of the ancestors of an individual and it generally goes back to some distant ancestor or ancestors in the past.
a) Back cross
b) Bulk Method
c) Pedigree
d) Single seed decent

139. Individual plants are selected from F_2 and subsequent generations and their progenies are tested.
a) Back cross metod
b) Bulk method
c) Pedigree method
d) Single seed decent method

140. In ..... method F_2 and subsequent generations are harvested in mass or as bulks toraise the next generations.
a) Back cross method
b) Bulk method
c) Pedigree method
d) Single seed decent method

141. In ..... method a single seed from each of the one to thousand F_2 Plants is bulked to raise the F_3 generation.
a) Back cross method
b) Bulk method
c) Pedigree method
d) Single seed decent method

142. refers to the superiority of F_1 hybrid in one or more characters over its parents.
a) Heterosis

b) Heritability
c) Combining ability
d) None of these

143. refers to the superiority of F_1 hybrid in one or more characters over its better parents.
a) Average heterosis
b) Heterobeltiosis
c) Standard heterosis
d) Useful heterosis

144. Superiority of F_1 hybrid in one or more characters over commercial check is known as…….
a) Average heterosis
b) Better parent heterosis
c) Useful heterosis
d) Standard heterosis

145. Superiority of F_1 hybrid in one or more characters over local check hybrid is known as……
a) Average heterosis
b) Heterobeltiosis
c) Useful heterosis
d) Standard heterosis

146. refers to decrease in fitness and vigour in F_2 due to mating plants with similar genetic constitution.
a) Heterosis
b) Hybrid vigour
c) Inbreeding
d) Inbreeding depression

147. is an index of the transmission of characters from parents to their offspring.
a) Heterosis
b) Heritability
c) Inbreeding
d) Inbreeding depression

148. is the percentage ratio of genotypic variance to the phenotypic variance.
a) Heritability
b) Broad sense heritability
c) Narrow sense heritability
d) Inbreeding

149. is the percentage ratio of additive variance to the phenotypic variance.
a) Heritability
b) Broad sense heritability
c) Narrow sense heritability
d) Inbreeding

150. refers to the suitability or fitness of an economic plant product in relation to its end use.
a) Quality
b) Market quality
c) Industrial quality
d) Nutritional quality

151. …….. refers to fitness of a product for marketing. It includes uniformity in shape, size, colour and texture in food and vegetable crops.
a) Quality
b) Market quality
c) Industrial quality
d) Nutritional quality

152. …….. includes suitability for baking in wheat, malting in barley, crushing in sugarcane, canning in fruit crops, etc.
a) Quality
b) Market quality
c) Industrial quality
d) Nutritional quality

153. ……. refers to the suitability or fitness of a plant product for human and animal consumption.
a) Quality
b) Market quality
c) Industrial quality
d) Nutritional quality

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Department of Agricultural Botany

Course No. : GPB-366 Credit: 2(1+1) Semester-VI (New)

Course Title : Crop Improvement-II (*Rabi Crops*) (MCQ)

1. Progenitor of common bread wheat is/are
   a. *Triticum monococum*(AA) b. Unknown spp.(BB)
   c. *Triticum tauschii*(DD) d. All the above

2. The common bread wheat is
   a. Autopolyploid b. Tetraploid
   c. Allohexaploid d. None of the above

3. Centre of origin of oat is
   a. Near East b. Mediterranean
   c. Asia minor d. All the above

4. Wild relatives of oat are
   a. *Avena barbata* b. Both a and c
   c. *Avena fatua* d. None of the above

5. The species contains genes for drought tolerance in barley is
   a *Hordeum spontaneum* b. *Hordeum distichum*
   c. *Hordeum intermedium* d. All the above

6. Which of the following is/are varieties of chickpea
   a. BDN 9-3 b. Pusa 256
   c. B.M.-4 d. All the above

7. The inflorescence of sunflower is called as
   a. Panicle b. Head
   c. Capitulum d. Both b and c

8. Movement of sunflower head in the direction of sunlight from morning to evening is due to
   a. Photoperiodism b. Heliotropism
   c. Chemicals d. None of these

9. In sunflower floret that bear seed is
   a. Disc floret b. Ray floret
   c. Both a and b d. None of these

10. Botanically, the fruit(seed)of sunflower is called

a. Achene
b. Grain
c. both a and b
d. None of these

11. Sunflower is cross pollinated crop due to

a. Protandry
b. Self-incompatibility
c. Both a and b
d. None of these

12. Sunflower hybrids developed by using CGMS is/are

a. BSH-1
b. LDMRSH-1
c. APSH-11.
d. All the above

13. Safflower is which pollinated crop

a. Self
b. Cross
c. Often cross
d. None of these

14. The hybrid, DSH 129 in safflower is

a. CMS based
b. CGMS based
c. GMS based
d. None of these

15. The fruit in *Linum usitatissimum* is called

a. Capsule
b. Boll
c. Both a and b
d. None of these

16. Linseed varieties suitable for Maharashtra is/are

a. NL-97
b. Pusa-2
c. C-429
d. All the above

17. Indian rape seed *i.e. Brassica campestris* having three ecotypes

a. *Brassica campestris* var. brown sarson
b. *Brassica campestris* var. yellow sarson
c.*Brassica campestris* var. toria
d. All the above

18. The Indian mustard *i.e. Brassica juncea* (2n=4x=36) is amphidiploid species between

a. *B. oleracea* and *B. campestris*
b. *B. nigra* and *B. oleracea*
c. *B. nigra* and *B. campestris*
d. None of these

19. The mustard and rapeseed fruit botanically is

a. Achene
b. Capsule
c. Siliqua (pod)
d. None of these

20. The good quality attributes of mustard and rapeseed include

a. High erucic acid for industrial purpose
b. Low erucic acid for edible purpose
c. Low linolenic acid and Glucosinolate content
d. All the above

21. National Research Centre for Mustard (NRCM) is located at

a. New Delhi
b. Ludhiana (Punjab)
c. Kanpur (U.P.)
d. Bharatpur (Rajasthan)

22. Napier grass i.e. *Pennisetum purpureum* is originated in
    a. Near East
    b. Himalayan region
    c. Sub-Saharan Tropical Africa
    d. None of these

23. The variety of napier grass developed by MPKV, Rahuri is/are
    a. Yashwant (RBN 9)
    b. Pusa Giant
    c. Supriya
    d. All the above

24. The botanical name of forage bajra is
    a. *Pennisetum glaucum*
    b. *Pennisetum typhoides*
    c. *Pennisetum americanum*
    d. None of these

25. The useful fodder sorghum spp is/are
    a. Johnson grass: *Sorghum halapense*
    b. Sudan grass: *Sorghum sudanese*
    c. Both a and b
    d. None of these

26. Multicut varieties of fodder sorghum is/are
    a. Ruchira (Maldandi)
    b. Harasona 855
    c. Pant Chari-5 (UPFS-32)
    d. All the above

27. Dual Purpose varieties fodder sorghum is/are
    a. CSH 13 R Hybrid
    b. CSV 15
    c. SPV 669
    d. All the above

28. The fodder maize variety developed by MPKV, Rahuri is
    a. African Tall (Composite)
    b. J 1006
    c. APFM 8
    d. Pratap Makka Chari 6

29. Berseem crop is generally a
    a. Self pollinated
    b. Cross pollinated
    c. Often cross pollinated
    d. None of these

30. The inflorescence of sugarcane is an open branched panicle known as
    a. Arrow
    b. Earhead
    c. Spikelet
    d. None of these

31. Sugarcane leads to cross pollination due to
    a. Protandry
    b. Self incompatibility
    c. Protogyny
    d. Male sterility

32. Salinity tolerance variety of sugarcane is/ are
    a. Co 453
    b. Co 62125
    c. Both a and b
    d. None of these

33. Potato crop *Solanum tuberosum* is

a. Tetraploid
b. Triploid
c. Diploid
d. Pentaploid

34. Spherical to ovoid fruit of potato is called

a. Berry
b. Ball
c. Capsule
d. All the above

35. Early varieties of field pea is/are

a. Pant Matar 2
b. Arkel
c. Early Badger
d. All the above

36. The constraints encountered in mango hybridization is/are

a. Heterozygous nature
b. Long juvenile phase
c. Polyembryony
d. All the above

37. Seedless and free from spongy tissues variety of mango is

a. Sindhu
b. Sai Sugandh
c. Alphonso
d. All the above

38. Aonla varieties developed by selection is/are

a. NA-4
b. NA-7
c. Anand-2
d. All the above

39. Guava *Psidium guajava* originated in

a. Tropical America
b. West Indies
c. Both a and b
d. None of the above

40. Good quality parameter (s) of guava is/are

a. Processing quality (high Vit. C or pectin content)
b. less pectin content for edible purpose
c. Eating quality (flavour, seedlessness and texture)
d. All the above

41. Wilt resistant cultivar of guava 'Peipa' was developed by crossing

a. *P. chinensis* X *P. molle.*
b. *P. molle* X *P. guineese*
c. Both and b
d. None of the above

42. The primitive varieties which evolved without a systematic and sustained plant breeding effort is

a. Land races
b. Obsolete varieties
c. Breeding lines
d. None of the above

43. Gene pool system of classification was given by

a. Harlan and De Wet (1971)
b. Harland (1975)
c. T. Dobzhansky(1920)
d. None of the above

44. The gradual loss of variability in cultivated species and their wild forms and relatives is called

a. Extinction
b. Genetic erosion
c. Inbreeding depression
d. All the above

45. The changes in gene and genotype frequencies of a sample/population entirely due to chance (small sample size, etc.) when grown in different climate is

a. Mutation
b. Random drift
c. Both a and b
d. All the above

46. National Bureau of Plant Genetic Resources is located at

a. Bangalore
b. New Delhi
c. Lucknow
d. None of the above

47. Conservation of germplasm in its natural habitat or in area where it grows naturally is known as

a. *Ex situ* conservation
b. *in situ* conservation
c. *In vitro* conservation
d. None of the above

48. Ex situ germplasm conservation comprises of conservation in the form of

a. Seed banks/Gene bank
b. Shoot tip culture
c. Cell or organ banks
d. All the above

49. In India Indigenous collection of germplasm of wild relative of crop plants carry the prefix

a. EC
b. WC
c. IW
d. WG

50. Base collection are conserved for long term (50 year or more) at

a. -18 ^{0}C or -20 ^{0}C
b. -30 ^{0}C or -40 ^{0}C
c. -50 ^{0}C or -60 ^{0}C
d. -25 ^{0}C or -35 ^{0}C

51. The seeds whose viability drops drastically if their moisture content is reduced below 12%.

a. Orthodox seeds
b. Recalcitrant seeds
c. Both
d. None of the above

52. Performance of a genotype with respect to changing environmental factors over time within a given location refers to

a. Stability
b. Adaptability
c. Adaptation
d. All the above

53. The genetic buffering capacity of a genotype to environmental fluctuations is

a. Genetic Homeostasis
b. Physiological Homeostasis
c. Both
d. None of the above

54. Isolation distance for sunflower certified seed production in case of hybrids is

a. 600m
b. 400m
c. 300m
d. 200m

55. Safflower hybrids based on genetic male sterility is/are

a. NARI-H-15
b. DSH-9
c. MKH-II
d. All the above

56. First castor hybrid GCH-3 in India is cross between

a. VP-1 x 48-1
b. TSP 10 R x JI 15
c. VP-1 x TSP 10 R
d. None of the above

57. The *rabi* sorghum hybrid seed production plots should have minimum field inspections

a. 3
b. 4
c. 5
d. None of the above

58. The term ideotype was introduced by

a. Donald (1968)
b. Hamblin (1970)
c. Both
d. None of the above

59. Wheat drought stress suitable varieties for Maharashtra

a. NIAW 1415
b. HD 2987
c. HD 2781
d. All the above

60. Rice salinity stress suitable varieties for Maharashtra

a. Panvel 3
b. Karjat 5
c. Both
d. None of the above

61. Sorghum drought stress suitable varieties for Maharashtra

a. Phule Chitra
b. Phule Vasudha
c. Phule Panchami
d. All the above

ANSWER KEY

Que. No.	Answer	Que. No.	Answer	Que. No.	Answer
1	d. All the above	24	a. *Pennisetum glaucum*	47	b. *in situ* conservation
2	c. Allohexaploid	25	c. Both a and b	48	d. All the above
3	d. All the above	26	d. All the above	49	c. IW
4	b. Both a and c	27	d. All the above	50	a. -18 ^{0}C or -20 ^{0}C
5	a. *Hordeum spontaneum*	28	a. African Tall (Composite)	51	b. Recalcitrant seeds
6	d. All the above	29	b. Cross pollinated	52	a. Stability
7	d. Both b and c	30	a. Arrow	53	a. Genetic Homeostasis
8	b. Heliotropism	31	c. Protogyny	54	b. 400m
9	a. Disc floret	32	c. Both a and b	55	d. All the above
10	a. Achene	33	a. Tetraploid	56	b. TSP 10 R x JI 15
11	c. Both a and b	34	d. All the above	57	b. 4
12	d. All the above	35	d. All the above	58	a. Donald (1968)
13	c. Often cross	36	d. All the above	59	d. All the above
14	c. GMS based	37	a. Sindhu	60	a. Panvel 3
15	c. Both a and b	38	d. All the above	61	d. All the above
16	d. All the above	39	c. Both a and b		
17	d. All the above	40	d. All the above		
18	c. *B.nigra*& B.*campestris*	41	a. *P. chinensis* X *P. molle.*		
19	c. Siliqua (pod)	42	a. Land races		
20	d. All the above	43	a. Harlan and De Wet		
21	d. Bharatpur (R.J.)	44	b. Genetic erosion		
22	c. Sub-Saharan T. Africa	45	b. Random drift		
23	a. Yashwant (RBN 9)	46	b. New Delhi		

GPB-366 OBJECTIVES

1. The most cultivated crop in India among cereals

a) Rice
b) Wheat
c) Maize
d) Sorghum

Ans: (b)

2. Protein % in wheat –

a) 10-12 %
b) 40-60%
c) 90-100 %
d) 20-30%

Ans: (a)

3. Wheat is also known as –

a) king of cereals
b) minister of cereals
c) queen of cereal
d) poor man's cereal

Ans: (a)

4. Indian Institute of wheat and barley is situated in –

a) Ghaziabad , uttar Pradesh
b) Bhubaneswar , odisha
c) Dharwad , karnataka
d) Karnal , Haryana

Ans: (d)

5. Production of wheat is _____ million tonnes in India

a) 79
b) 85
c) 69
d) 200

Ans: (b)

6. Highest productivity of wheat is in _____state of India

a) West Bengal
b) Punjab
c) Maharashtra
d) Odisha

Ans: (b)

7. Ideal fertilizer dose for wheat is –

a) 140:80:60
b) 120:60:40
c) 180:80:100

Ans: (b)

8. Mention the Rabi season pulse

a) Chick pea
b) Green gram
c) Red gram
d) Soyabean

Ans: (a)

9. Origin of wheat –

a) South east asia
b) South west asia
c) America
d) India

Ans: (b)

10. Family of wheat –

a) Grammineae
b) Leguminacea
c) Triticeae
d) Malvaceae

Ans: (a)

11. Scientific name of wheat

a) Triticumdicoccum
b) Triticumaestivum
c) Zea mays

d) Oryzia sativa

Ans: (b)

12. Which one of the following sequence is correct in the context of three largest wheat producing states in India?

a) Punjab, Uttar Pradesh and Haryana

b) Uttar Pradesh, Haryana and Punjab

c) Uttar Pradesh, Punjab and Haryana

d) Punjab, Odisha , uttar Pradesh

Ans: (c)

13. If a farmer practices "sugarcane - wheat" the cropping intensity at his farm will be

a) 100%

b) 150%

c) 200%

d) 300%

Ans: (c)

14. Seminal roots of wheat are –

a) Temporary roots

b) Permanent root

c) Fixed roots

d) Non fixed roots

Ans: (a)

15. Marconi wheat is known as –

a) Triticum durum

b) Triticumdicoccum

c) Sonalika

d) Common bread wheat

Ans: (a)

16. Most critical stage for irrigation in wheat crop is -

a) Log stage

b) Havesting stage

c) Vegetative stage

d) C.R.I. stage

Ans: (d)

17. Gene responsible for dwarfness in wheat.

a) Lorin 10

b) Morin 10

c) Norine 10

d) DNA

Ans: (c)

18. Flowering portion of wheat is called.

a) Stem

b) Ear/ Head

c) crown

d) panicles

Ans: (b)

19. Central zigzag axis of wheat grain is called -

a) root

b) shoot

c) Rachis

d) Crown

Ans: (c)

20. Fruit type of wheat grain is –

a) Caryopsis

b) Rachis

c) Awns

d) Panicles

Ans: (a)

21.Energy rich drinks from barley malt are –

a. Bournvita, boost, horlicks

b. coca cola

c. ORSL

d. Visky and vodka

Ans: (a)

22. Protein content in Barley is –

a. 10-12%

b. 50-60%

c. 90-100%

d. 500-600%

Ans: (a)

23. Barley production in India is –

a. 5 M tones

b. 1.22 M tones

c. 20 M tones

d. 100 M tones

Ans: (b)

24. Can barely tolerate frost?

a. YES

b. NO

Ans: (b)

25. Highest producing state in india –

a. Rajasthan

b. West Bengal

c. Andhra Pradesh

d. Bihar

Ans: (a)

26. Seed rate of barley for 1 hectare is –

a. 400 kg

b. 10 kg

c. 100 kg

d. 1000 kg

Ans: (c)

27. Two varieties of Barley are –

a. Husk less & Hulled

b. Oval & round

c. Hulk & bulk

Ans: (a)

28. Moisture requirement for storage barley –

a. 10-12%

b. 50-60%

c. 100-200%

d. 90-100%

Ans: (a)

29. Average yield of barley is –

a. 3-3.5 t / ha

b. 100-150 t / ha

c. 20-30 t / ha

d. 6-7 t/ha

Ans: (a)

30. Centre of origin of Barley is -

a. America

b. S. Africa

c. Asia & Ethiopia

d. Australia

Ans: (c)

31. The inflorescence of barley is called -

a. Ear

b. panicle

c. spike

d. Spadix

Ans: (c)

32. Most critical stage of irrigation in barley is _____

a. Tillering

b. CRI

c. Flowering

d. Harvest

Ans: (a)

33. Barley crop needs _____

a. Cold & dry climate
b. Hot & humid
c. dry & hot
d. frost

Ans: (a)

34. Photoperiodically, barley is a type of plant is _____

a. Short day
b. Long day
c. Day neutral
d. Both a & b

Ans: (b)

35. Depth of sowing of barley is

a. 1-2cm
b. 3-5 cm
c. 5-6cm
d. 7-10 cm

Ans: (b)

36. Shoot of barley is called

a. Stem
b. Trunk
c. Culm
d. Bark

Ans: (c)

37. Leaf of barley is

a. Petiole
b. Sessile
c. Both
d. Fertile

Ans: (b)

38. Salt tolerant variety of barley

a. Amber
b. Neelam
c. RD137
d. RD101

Ans: (a)

39. Barley grows well in –

a. Kharif season
b. Zaid season
c. Rabi season
d. Pre monsoon season

Ans: (c)

40. Temperature requirement for barley –

a. 5-27 ^{0} C
b. 30-40 ^{0} C
c. 30-45 ^{0} C
d. 40-45 ^{0} C

Ans: (a)

41. Scientific name of chickpea -

a. Cicerarietinum
b. cicerfaboideae
c. cicerkabulinum
d. zea mays

Ans: (a)

42.Chickepa is also called as –

a. mokka
b. sarson
c. Bengal gram
d. Halwa

Ans: (c)

43. Family of chickpea is –

a. Solanaceae
b. Rootiacea
c. Fabaceae
d. Proteinacea

Ans: (c)

44. chickpeas are rich in –

a. Sugar
b. Protein
c. Thiamine
d. Riboflavin

Ans: (b)

45. In human body , chickpea can reduce –

a. Blood cholesterol
b. Blood sugar
c. Blood protein
d. blood pressure

Ans: (a)

46. average production of chickpea in India –

a. 100 M tonnes
b. 200 M tonnes
c. 10 M tonnes
d. 50 M tones

Ans: (c)

47. What percentage of the world's chickpeas is produced in India?

a. 65%
b. 63%
c. 64%
d. 70%

Ans: (c)

48. How many color varieties does chickpea have?

a. 3
b. 4
c. 3
d. 5

Ans: (c)

49. How long can dried chickpeas be stored?

a. 16 months
b. Unlimited time
c. 8 years
d. 17 years 4 months

Ans: (b)

50. Because chickpeas are high in dietary fibre, what disease are they considered beneficial for?

a. Diabetes
b. Arthiritis
c. Malaria
d. Nothing

Ans: (a)

51. seed rate of chickpea-

a. 75-100 kg /ha
b. 200 - 500 kg /ha
c. 2-10 kg /ha
d. 10-15 kg/ha

Ans: (a)

52. Recommended optimum spacing to be given for desi variety –

a. 100 x 100 cm
b. 50 x 50 cm
c. 30 x 30 cm
d. 20 x 20 cm

Ans: (c)

53. Recommended optimum spacing for kabuli variety –

a. 5 x 5 cm
b. 20 x 60 cm
c. 45 x 45 cm
d. 10 x10 cm

Ans: (c)

54. The inflorescence of chick pea is –

a. Axilary raceme

b. Panicle

c. Ear

d. Head

Ans: (a)

55. Most critical stage of irrigation for chick pea is -

a. Tillering

b. CRI

c. Pre flowering

d. Harvest

Ans: (c)

56. Ideal temperature for sowing of chick pea is -

a. 15-20 ^{0} C

b. 10-25 ^{0} C

c. 10-15 ^{0} C

d. 23-40 ^{0} C

Ans: (c)

57. The leading producer of chick pea is –

a. India

b. Burma

c. Bangladesh

d. Arica

Ans: (a)

58. Photoperiodically, chick pea is a type of plant is –

a. Short day

b. Long day

c. Day neutral

Ans: (b)

59. Nipping in chick pea is a process -

a. To enlarge branching

b. To reduce plant height

c. To protect plants against lodging

d. To protect from diseases

Ans: (a)

60.Duration of Kabuli chana is –

a. 90-180 days

b. 50-80 days

c. 300-350 days

d. 210-230 days

Ans: (a)

61.Scientific name of Lentil –

a. Lens culinaris

b. Lenskartculinaris

c. Lens pulinaris

d. Lenalens lentils

Ans: (a)

62. lentil belongs to the family of –

a. Solanaceae

b. Leguminoceae

c. Poaceae

d. Tilliaceae

Ans: (b)

63. The inflorescence in lentil is _____

a. Raceme

b. Spikelets

c. Panicle

d. Head

Ans: (a)

64. The recommended seed rate for lentil is___kg/ha

a. 8-10

b. 75-100

c. 30-40

d. 60-70

Ans: (c)

65. Lentil contains about _____% protein

a. 20

b. 25

c. 10

d. 40

Ans: (b)

66. Weed in lentil can be controlled by applying

a. 2,4-D

b. Fluchloralin

c. Both

d. Glyphosate

Ans: (b)

67. Lentil crop needs -

a. Cool & dry climate

b. Warm & humid

c. Dry & hot climate

d. Drought

Ans: (a)

68. Centre of origin of Lentil is -

a. America

b. S. Africa

c. Mediterranean region

d. Asia

Ans: (c)

69. Major production of lentil is from –

a. India & Canada

b. America

c. Sri lanka

d. Russia

Ans: (a)

70. Pollination in lentil –

a. Cross pollination

b. Double cross pollination

c. Self pollination

d. Triple cross pollination

Ans: (c)

71. lentils grows well with –

a. Low fertilizer doses

b. High fertilizer doses

c. Medium fertilizer doses

d. Extremely high fertilizer doses

Ans: (a)

72. Identify the fungal disease in lentil –

a. Broad bean mottle

b. Broad bean stain

c. Black root rot

d. Root knot nematode

Ans: (c)

73. lentil crop is also known as –

a. Masti crop

b. Dryland crop

c. Wet land crop

d. No land crop

Ans: (b)

74. Lentil plants are –

a. C4 plants

b. Short day plant

c. C3 plants

d. C9 plants

Ans: (c)

75. spacing recommended for lentil is -

a. 100x100 cm

b. 30 x 5 cm

c. 45 x 45 cm

d. 60 x 60 cm

Ans: (b)

76. variety of lentil suitable for flood condition –

a. Pusa -6

b. Pant – 98

c. Shirt – 24

d. Lensulen

Ans: (a)

77. lentil production in India is high in –

a. Uttar Pradesh

b. Andhra Pradesh

c. West Bengal

d. Madhya Pradesh

Ans: (d)

78 which element deficiency is seen if lentil is cultivated after rice –

a. Zinc

b. Magnesium

c. Calcium

d. Potassium

Ans: (a)

79 suitabletempertature for lentil –---

^{0} C a. 40-50

b. 18-32

c. 0-5

d. 100-110

Ans: (b)

80 Major insect pest in lentil is –

a. Semi looper

b. Grasshopper

c. Rats

d. Maize

Ans: (a)

81.Field pea seeds are –

a. Smaller than garden pea seeds

b. Larger than garden pea seeds

c. Same like garden pea seeds

d. Larger than sugarcane setts

Ans: (a)

82. moisture required for storage of pea seeds –

a. 40-60%

b. 100-200%

c. 8-10%

d. 20-30%

Ans: (c)

83. Training and Stalking is an important intercultural operation in –

a. Short varieties of pea plant

b. Late varieties of pea plant

c. Tall varieties of pea plant

d. Nothing such required

Ans: (c)

84. Botanical name of garden pea is –

a. Pisumsativumvar . horse

b. Pisumsativum var. chotens

c. Pisumsativum var. hortens

d. Pisumsacamum var. hortens

Ans: (c)

85. Germination of pea is –

a. Epigeal

b. Hypogeal

c. Exogeal

d. Epihypogial

Ans: (b)

86. Pea plants are –
    a. Short day plants
    b. Long day plants
    c. Night plant
    d. Day – neutral plants
    Ans: (d)

87. Origin of pea –
    a. India
    b. Ethiopia
    c. Australia
    d. Norway
    Ans: (b)

88. Which type of root system is found in pea –
    a. Fibrous root
    b. Deep root
    c. Flat root
    d. tap root
    Ans: (d)

89. Pea fruit is known as –
    a. shell
    b. shaft
    c. pod
    d. seed
    Ans: (c)

90. Flower color of field peas –
    a. yellow
    b. orange
    c. purple
    d. white
    Ans: (c)

91. Pea is known as –
    a. minister of pulses
    b. queen of pulses
    c. king of pulses
    d. dancing star of pulses
    Ans: (b)

92. Pea maturity is measured by –
    a. tendrometer
    b. hydrometer
    c. peatometer
    d. speedometer
    Ans: (a)

93. Critical stages of irrigation in pea –
    a. flower initiation & pod filling stage
    b. vegetative stage
    c. ripening stage
    d. zigzag stage
    Ans: (a)

94. Major pea producing state of india –
    a. Madhya Pradesh
    b. Odisha
    c. Uttar Pradesh
    d. Bihar
    Ans: (c)

95. yield of pea in q/ha is –
    a. 200-500
    b. 80-100
    c. 5-10
    d. 50-70
    Ans: (b)

96. Pea production out of total vegetable production is –
    a. 2.4%
    b. 5.6%
    c. 40%
    d. 80%

Ans: (a)

97. flower color of garden pea –

a. Yellow
b. Blue
c. Pink
d. White

Ans: (d)

98. Delayed harvesting leads to convertion of sugar to –

a. Carbohydrates
b. Chocolate
c. Starch
d. Drink

Ans: (c)

99. Shelling % in pea –

a. 49%
b. 100%
c. 2%
d. 75%

Ans: (a)

100. Seed rate of pea –

a. 2-5 kg/ha
b. 500 kg /ha
c. 80-100 kg /ha
d. 1000 kg / ha

Ans: (c)

101. Most popular method of potato planting is –

a. Dibbling
b. Broadcasting
c. Throwing
d. Ridge & furrow method

Ans: (d)

102. Important nutrient of potato is –

a. Manganese
b. Nitrogen
c. Sulphur
d. Zinc

Ans: (b)

103. Botanical name of potato is –

a. Solanumtuberosum
b. Solanumcubersuum
c. Potato French fries
d. Potato botato

Ans: (a)

104. type of fruit of potato is –

a. Cherry
b. Berry
c. Litchi
d. Pota

Ans: (b)

105. optimum temperature for tuber growth –

a. 0 d C
b. 50 d C
c. 20 d C
d. 150 d C

Ans: (c)

106. potato is also known as –

a. Poor man's friend
b. Rich man's friend
c. My friend
d. Your friend

Ans: (a)

107. Green color of potato is due to –

a. Malanine
b. Solanine
c. Gasoline

d. Potaline

Ans: (b)

108. Indian potato research is present in –

a. Bankok
b. Odisha
c. West Bengal
d. Shimla

Ans: (d)

109. " True potato seed " was developed by –

a. Dr. Ramanujan
b. Dr. reddy
c. Swaminthan
d. Phulwa

Ans: (a)

110. The best method of irrigation for potato –

a. Flooding
b. Furrow method
c. Ridge method
d. Channel method

Ans: (b)

111. inflorescenceof potato is –

a. Racimose
b. Axil
c. Dashes
d. Tofsils

Ans: (a)

112. Tubers appear green color due to –

a. Carotin
b. Green paint
c. Anthocyanin
d. Nothing such

Ans: (c)

113. in potato tubers represent –

a. Above stems
b. Underground stems
c. Root growth

Ans: (b)

114. Tuber growth occurs at –

a. 60-80 Days after planting (DAP)
b. 100 DAP
c. 20 DAP
d. 200 DAP

Ans: (a)

115. When is dehaulming done in potato –

a. 40 days before harvesting
b. After sowing
c. After harvesting
d. 10-12 days before harvesting s

Ans: (d)

116. Serious disease of potato is –

a. Zero blight
b. Late blight s
c. Early blight
d. Low blight

Ans: (b)

117. Potato is susceptible to –

a. Heat
b. Water
c. Frost
d. Dry

Ans: (c)

118. potato propagated by –

a. Seeds
b. Tubers
c. Stems

d. Roots

Ans: (b)

119. Which fertilizer is NOT suitable for potato –

a. MCL

b. IPL

c. KCl

d. MPL

Ans: (c)

120. Critical stage for irrigation in potato is –

a. Tuber formation

b. Seed formation

c. Flower color changing

d. Leaf development

Ans: (a)

121. World production of tobacco is _____M tonnes

a. 8.07

b. 9.07

c. 7.07

d. 12.2

Ans: (c)

122. Production of tobacco in India is _____m tonnes

b. 0.54

c. 0.64

d. 0.74

e. 1.1

Ans: (b)

123. Tobacco variety suitable for cigar and binder making in Tamil Nadu is _____

a. Oosikappal (I 737)

b. Vellaivazhai (VV 2)

c. Vazhaikappal (I 115)

d. TN 111

Ans: (b)

124. Recommended dose of potash for chewing tobacco is_____kg/ha

a. 75

b. 100

c. 50

d. 15

Ans: (c)

125. Recommended dose of N and P for tobacco is_____kg/ha

e. 75 : 100

f. 100 : 100

g. 50 : 75

h. 90:45

Ans: (b)

126. Spacing recommended for chewing tobacco is _____

a. 75 x 50 cm

b. 75 x 75 cm

c. 60 x 45 cm

d. 75 x 75 cm

Ans: (b)

127. Scientific name of tobacco –

a. Nicotianatabacum

b. Nicotianaabacum

c. Nicotinatabacii

d. Nictoiananictoiani

Ans: (a)

128. The stimulant alkaloid present in tobacco is –

a. Nicotine

b. Nictotina

c. Necrotic

d. Nicotec

Ans: (a)

129. Family of Tobacco plant –

a. Ravulfoliacea

b. Leguminaceae

c. Nictoinaceae

d. Solanaceae

Ans: (d)

130. Tobacco ptimum temperature required is –---^{0} C

a. 40-50

b. 20-32

c. 100-120

d. 5-10

Ans: (b)

131. Leaf color of tobacco plant –

a. Blue

b. Pink

c. White

d. Yellow

Ans: (b)

132. Nicotine in tobacco is absent in –

a. leaves

b. Seeds

c. Flowers

Ans: (b)

133. Nicotine content in tobacco leaves –

a. 2- 8%

b. 10-20%

c. 50-70 %

d. 100-200%

Ans: (a)

134. Which tobacco contains less sugar –

a. Flue – cured tobacco

b. Sun – cured tobacco

c. Air – cured tobacco

d. Virginia tobacco

Ans: (b)

135. Topping is –

a. Removing of flower heads

b. Removing of leaves

c. Cutting of stems

d. Tying of leaves

Ans: (b)

136. Which is the fungal disease in tobacco –

a. Granvielle wilt

b. Alternaria leaf spot

c. Leaf curl disease

d. Tobacco mosaic disease

Ans: (b)

137. Origin of tobacco –

a. India

b. South America

c. Phillipines

d. Norway

e. Ans: (b)

138. Most Important part of tobacco plant is –

a. Flowers

b. Roots

c. Leaves

d. Root hairs

Ans: (c)

139. In tobacco curing is done by –

a. Air, fire , flue

b. Coke

c. Charcoal

d. Water

Ans: (a)

140. Tobacco total production in india –

a. 50 M kg leaves

b. 100 M kg leaves

c. 750 M kg leaves

d. d. 2000 M kg leaves

Ans: (c)

141. Temperature requirement for oats------ ^{0} C

a) 20-30

b) 50-60

c) 0-10

d) 60-80

Ans: (a)

142. How much amount of MOP fertilizer is needed for oats

a. 100 kg

b. 200 kg

c. 50 kg

d. Not required

Ans: (d)

143. Scientific name of oats –

a. Avenafatua

b. Avena sativa

c. Avenafavena

d. Zea mays

Ans: (b)

144. Oats contain a legume like protein called as –

a. Avenalin

b. Fevastik

c. Fevistik

d. Oryza

Ans: (a)

145. Seed rate requirement of oats

a. 2-5 kg/ha

b. 1000-2000 kg/ha

c. 125-175 kg /ha

d. 10-20 kg/ha

Ans: (c)

146. Oats can remove _____ from soil

a. Gold

b. Nitrogen

c. Water

d. Diamond

Ans: (b)

147. Storage temperature required for oats –

a. 12-14%

b. 50-60%

c. 90-100%

d. 20-30%

Ans: (a)

148. Separating the outer hull from inner hull is called as –

a. Tulling

b. Dehulling

c. Shelling

d. Beating

Ans: (b)

149. Heating of oats to maintain moisture for storage is called as –

a. Kilning
b. Bricking
c. Sticking
d. Burning

Ans: (a)

150. identify the processing method –

a. Shelling
b. Flaking
c. Stuffing
d. Cracking

Ans: (b)

151. Famous method of sowing of oats –

a. Dibbling
b. Broadcasting
c. Drilling
d. Line

Ans: (c)

152. Seed rate required is of oats

a. 80-100 kg/ha
b. 20-30kg/ha
c. 2-5 kg/ha
d. 200-500 kg/ha

Ans: (a)

153. Interval between two successive irrigations in oats should be –

a. 50 days
b. 100 days
c. 15 days
d. 60 days

Ans: (c)

154. Average yield of oats –

a. 15-20 q/ha t
b. 100 q /ha
c. 500 tonnes
d. 4 kg

Ans: (a)

155. Propagation in oats done through –

a. Fruits
b. Roots
c. Seeds
d. Stems

Ans: (d)

156. Oat favours mostly –

a. Hot climate
b. Temperate climate
c. Humid
d. Sub humid

Ans: (b)

157. Family to which oats belong –

a. Soacea
b. Poaceae
c. Leguminoceae
d. Tillaceae

Ans: (b)

158. Fodder from oats harvesting is –

a. High
b. Low
c. Negligible

Ans: (a)

159. Oats are which type of grasses –

a. Annual
b. Biennial
c. Perennial
d. Terennial

Ans: (a)

160. Are oats good as cover crops ?

a. YES

b. NO

Ans: (a)

161. Berseem is also known as –

a. Hindi clover

b. Gulshangrover

c. Egyptian clover

d. No clover

Ans: (c)

162. Barseem belongs to the family of –

a. Fabaceae

b. Solanaceae

c. Leguminoceae

d. Saucaceae

Ans: (a)

163. According to their branching behaviour and subsequent productivity , berseem is of how many types –

a. 5

b. 6

c. 100

d. 4

Ans: (d)

164. berseem is mainly used as –

a. Fruit

b. Grain

c. Forage

d. Drink

Ans: (c)

165. Berseem clover can also be used as -

a. green manure crop

b. white manure crop

c. yellow manure crop

d. weed

Ans: (a)

166. Propagation can only be done by –

a. fruit

b. stem

c. seed

Ans: (c)

167. CanBerseem be used as Hay?

a. YES

b. NO

c. SOMETIMES

d. ALWAYS

Ans: (b)

168. Scientific name of berseem is –

a. Trifoliumalexandrinum

b. Zea mays

c. Oryza sativa

d. Root knot

Ans: (a)

169. Green fodder yield if berseem (tons/hectare) –

a. 10

b. 80-100

c. 500

d. 10000

Ans: (b)

170. Crude protein in berseem -

a. 18-20 %.

b. 50-60%

c. 120%

d. 200%

Ans: (a)

171. The major associated weed of berseem crop is –

a. Chicory

b. Chichorree

c. Arkasona

d. Elusinefoetida

Ans: (a)

There are certain Agronomic problems that occur in the field, identify the solution for it – answer the below 3 questions (172,173,174)

172. Water stagnated creation damp conditions -

a. Not sowing seeds in the field anymore.

b. Leveling field properly to avoid water stagnation.

Ans: (b)

173. Cloudy condition prevails for longer period -

a. Avoiding too frequent irrigations during cloudy days.

b. Fertilizing the crop with heavy dose of potassium.

Ans: (a)

174. Light penetration at the ground is curtailed due to delayed cutting –

a. Cutting the crop frequently to expose the ground for adequate light availability.

b. Fertilizing the crop with heavy dose of potassium.

Ans: (a)

175. Number of irrigations required for berseem crop is –

a. 100

b. 50

c. 16-18

d. 2-4

Ans: (c)

176. Crop rotation with berseem recommended to reclaim soils is –

a. Rice – berseem

b. Rice- maize

c. Maize – wheat

d. Berseem – alfaalfa

Ans: (a)

177. to remove chicory weed seeds from berseem seeds , which of this is used –

a. Magnetic separator

b. Iron walker

c. 10% NaCl

d. 100% watery jell

Ans: (c)

178. berseem enriches soil through –

a. Phosphorous fixation

b. Symbiotic Nitrogen fixation

c. Asymbiotic fixation

d. Pulling water from soil

Ans: (b)

179. In which state berseem production ismore ?

a. Uttar Pradesh

b. Odisha

c. Goa

d. Ladakh

Ans: (a)

180. Dry matter yield of berseem –

a. 2-5 quintals /ha

b. 500-600 q /ha

c. 3000 q / ha

d. 200 t /ha

Ans: (b)

181. Scientific name of lucerne–

a. Marigold sativa

b. Medicago sativa

c. Alfa alfa

d. Zea mays

Ans: (b)

182. Lucerne is also called as –

a. Balabala

b. Talatala

c. Alfa alfa

d. Luc-e-rne

Ans: (c)

183. Lucerne is which type of crop –

a. Summer

b. Temperate

c. Rainy

d. Naughty

Ans: (b)

184. Rainfed Lucerne produces about –

a. 4-8 tons of dry matter/ha/year

b. 100 tons of dry matter/ha/year

c. No dry matter

d. 50 tons of dry matter/ha/year

Ans: (a)

185. Lucerne can be grown as –

a. Intercrop

b. Pasture crop

c. Mixed crop

d. Border crop

Ans: (b)

186. Drought tolerant capacity of Lucerne is –

a. Medium

b. zero

c. Low

d. Very high

Ans: (d)

187. Water logging tolerance is –

a. Low

b. High

c. Optimum

d. Very high

Ans: (a)

188. Can be grown as a cover crop with –

a. Maize

b. Wheat

c. Barley

d. Cocacola

Ans: (c)

189. Soil suitable for Lucerne cultivation is -

a. Loamy soil

b. Clay soil

c. Heavy soil

Ans: (a)

190. The centre of origin of Lucerne is -

a. S. Africa

b. America

c. S.W.Asia

Ans: (c)

191. One of the oldest cultivated fodder crop is -

a. Guinea grass

b. BN grass

c. Lucerne

Ans: (c)

192. Ideal time of sowing of Lucerne is -

a. Oct.-Nov

b. May - June

c. Jan. – Feb

Ans: (b)

193. Parasitic weed found in Lucerne is -

a. Orobanche

b. Cuscuta

c. Striga

Ans: (a)

194. Seed Rate of lucerne

a. 20 kg/ha

b. 100 kg/ha

c. 2 kg/ha

d. 90 kg/ha

Ans: (a)

195. Fertilizer requirement of lucerene–

a. 100-100-100 NPK

b. 50-60-60 NPK

c. 50-50-50 NPK

d. 25-120-40 NPK

Ans: (d)

196. Lucerne can be grown in –

a. Summer season only

b. Winter season only

c. Throughout the year

Ans: (c)

197. most recommended variety of Lucerne –

a. Sirsa -9

b. Ronaldo – 10

c. Lucky – 9

d. Mahi - 7

Ans: (a)

198. Best sowing time of Lucerne -

a. first fortnight of October to end of November

b. last December

c. 1st January

d. 25thapril

Ans: (a)

199. seed rate of Lucerne –

a. 100 kg/ha

b. 15 kg/ha

c. 150 kg/ha

d. 500 kg/ha

Ans: (b)

200. Family of Lucerne –

a. Leguminoceae

b. Solanaceae

c. Poaceae

d. Lucerneceae

Ans: (a)

201. In India, Sunflower is commonly known as

a. Jwalamukhi

b. Surajmukhi

c. Koodu

d. Singari

Ans: (b)

202. Edible conventional oil seed crops are

a. Ground nut

b. Sunflower

c. Safflower

d. Linseed

Ans: (b)

203. Winter oilseed crop _____

a. Groundnut

b. Sunflower

c. Rape seed

Ans: (b)

204. Linseed belongs to family

a. Leguminaceae

b. Cruciferae

c. Linaceae

d. Astraceae

Ans: (c)

205. Sowing time of sunflower as Zaid crop

a. First fortnight of February

b. Second fortnight of February

c. First fortnight of March

d. Second fortnight of March

Ans: (c)

206. Optimum pH range for sunflower cultivation

a. 6.5-8.5

b. 4.5-5.5

c. 5.5-6.5

d. 8.5-above

Ans: (a)

207. linoleic acid (%) in safflower

a. 70

b.75

c.78

d.85

Ans: (c)

208. The peculiar pungency of rapeseed-mustard is due to the presence of _____

a. erusic acid

b. sinigrin

c. Glucosinolates

d. none of the above

Ans: (b)

209. Oil content of Brassica juncea is _____

a. 45 %

b. 43 %

c. 35 %

d. 50%

Ans: (c)

210. Oil content of Brassica campestrisVar.yellowsarson is _____

a. 45 %

b. 43 %

c. 35 %

d. 50%

Ans: (a)

211. Oil content of Brassica campestrisVar.brownsarson is _____

a. 45 %

b. 43 %

c. 35 %

d. 41%

Ans: (b)

212. Seed rate of rapeseed-mustard is _____kg/ha

a. 6 - 8

b. 4 – 6

c. 2 – 4

d. 10

Ans: (b)

213. Spacing recommended for rapeseed-mustard is _____

a. 35 x 15 – 20 cm

b. 30 x 15 – 20 cm

c. 30 x 10 – 15 cm

d. 40 x 10 – 15 cm

Ans: (c)

214. Fertilizer dose for irrigated rapeseed-mustard is_____kg NPK /ha

a. 60-40-40

b. 30-20-20

c. 40-20-20

d. 80-50-40

Ans: (a)

215. Fertilizer dose for rainfed rapeseed-mustard is_____kg NPK /ha

a. 60-40-40

b. 30-20-20

c. 40-20-20

d. 10-20-20

Ans: (b)

216. Rate of sulphur recommended for rapeseed-mustard is_____kg /ha

a. 10-20

b. 20-40

c. 30-40

d. 50

Ans: (b)

217. Sugarcane is the_____most important industrial crop in the country India

a. First

b. Third

c. Second

d. fifth

Ans: (c)

218. In India, the productivity of sugarcane is highest in the state

a. Punjab

b. Karnataka

c. Uttar predesh

d. Odissa

Ans: (c)

219. The most cultivated sugar crop of the world is _____

a. Sorghum

b. Sugarbeet

c. Sugarcane

d. both b& c

Ans: (c)

220. Sugarcane seed sets essentially have _____buds

a. 1

b. 2

c. 3

d. 4

Ans: (c)

221. Molasses is used for _____ preparation.

a. Alcohol

b. Fuel

c. Fertilizer

d. none of the above

Ans: (a)

222. By product of sugarcane is _____

a. Spentwash

b. Bagasse

c. Molasses

d. all these

Ans: (d)

223. Bagasse is used for production of___

a. Electricity

b. paper

c. methane

d. all these

Ans: (c)

224. The precipitated impurities contained in the cane juice, after removal by filtration is called _____

a. Pressmud

b. Bagasse

c. Molasses

d. all these

Ans: (a)

225. The final effluent obtained in the preparation of sugar by repeated crystallization is _____

a. Pressmud

b. Bagasse

c. Molasses

d. all these

Ans: (b)

226. The yield of molasses is approximately_____ % per tonne of sugarcane

a. 5

b. 7

c. 3

d. 10

Ans: (c)

227. Sucrose content of molasses is _____

a. 45 %

b. 35 %

c. 25 %

d. 55 %

Ans: (b)

228. Glucose content of molasses is _____

a. 5 %

b. 7 %

c. 10 %

d. 12 %

Ans: (b)

229. Ash content of molasses is_____<

a. 12 %

b. 7 %

c. 10 %

d. 15 %

Ans: (a)

230. Total world production of sugarcane is___million m tonnes

a. 125.5

b. 115.5

c. 135.5

d. 175.1

Ans: (d)

231. Cultivated species of sugarcane is _____

a. S. spontaneum

b. S. robustum

c. S. officinarum

d. S. obutunam

Ans: (c)

232. Wild species of sugarcane is _____

a. S. barberi

b. S. robustum

c. S. officinarum

d. S. obutunam

Ans: (b)

233. Seed rate for two budded setts is _____setts /ha

a. 50,000

b. 75,000

c. 1,87,500

d. 2,00,000

Ans: (b)

234. Seed rate for three budded setts is _____setts /ha

a. 50,000

b. 75,000

c. 1,87,500

d. 2,22,222

Ans: (a)

235. Seed rate for single budded setts is _____setts /ha

a. 50,000

b. 75,000

c. 1,87,500

d. 2,30,000

Ans: (c)

236. Latest planting technique developed by TNAU in sugarcane is _____

a. Furrow planting

b. Trench method

c. Pit method

d. Ring method

Ans: (a)

237. Fertilizer dose recommended for coastal and irrigated areas is__ kg NPK/ha

a. 225 : 112.5 : 60

b. 270 : 112.5 : 60

c. 175 : 112.5 : 60

d. 300:150:100

Ans: (b)

238. Fertilizer dose recommended for lift irrigated areas is_____kg NPK/ha

a. 225 : 112.5 : 60

b. 270 : 112.5 : 60

c. 175 : 112.5 : 60

d. 300:150:100

Ans: (a)

239. Fertilizer dose recommended for jaggery producing areas is___ kg NPK/ha

a. 225 : 112.5 : 60

b. 270 : 112.5 : 60

c. 175 : 112.5 : 60

d. 300:150:100

Ans: (c)

240. Removal of dried and older leaves in sugarcane is called _____

a. Mulching

b. Propping

c. Detrashing

d. Staking

Ans: (c)

241. Tying the canes by using the lower bottom leaves is called _____

a. Mulching

b. Propping

c. Detrashing

d. Staking

Ans: (b)

242. The late formed tillers or side shoots which are robust and fast growing are called

a. Sword suckers

b. water shoots

c. sprouts

d. tiller suckers

Ans: (b)

243. Flowering in sugarcane is called _____

a. Arrowing

b. Sprouting

c. Tillering

d. spike

Ans: (a)

244. _____ % of brix reading indicates the maturity of sugarcane

a. 16 – 18

b. 18 – 25

c. 25 – 27

d. 27-30

Ans: (b)

245. Ripening in sugarcane is enhanced by spraying _____

a. Sodium metasilicate

b. Polaris

c. Ethrel

d. all these are correct

Ans: (a)

K. K. Wagh College of Agriculture, Nashik-03
Department of Agricultural Botany

Course No. : GPB-366 Credit: 2(1+1) Semester-VI (New)

Course Title : Crop Improvement-II (*Rabi Crops*) (MCQ)

Course Teacher: - Dr. S. S. Bornare

1. Progenitor of common bread wheat is/are
   a. *Triticum monococum*(AA) b. Unknown spp.(BB)
   c. *Triticum tauschii*(DD) d. All the above

2. The common bread wheat is
   a. Autopolyploid b. Tetraploid
   c. Allohexaploid d. None of the above

3. Centre of origin of oat is
   a. Near East b. Mediterranean
   c. Asia minor d. All the above

4. Wild relatives of oat are
   a. *Avena barbata* b. Both a and c
   c. *Avena fatua* d. None of the above

5. The species contains genes for drought tolerance in barley is
   a *Hordeum spontaneum* b. *Hordeum distichum*
   c. *Hordeum intermedium* d. All the above

6. Which of the following is/are varieties of chickpea
   a. BDN 9-3 b. Pusa 256
   c. B.M.-4 d. All the above

7. The inflorescence of sunflower is called as
   a. Panicle b. Head
   c. Capitulum d. Both b and c

8. Movement of sunflower head in the direction of sunlight from morning to evening is due to
   a. Photoperiodism b. Heliotropism
   c. Chemicals d. None of these

9. In sunflower floret that bear seed is
   a. Disc floret b. Ray floret
   c. Both a and b d. None of these

10. Botanically, the fruit(seed)of sunflower is called
    a. Achene
    b. Grain
    c. both a and b
    d. None of these

11. Sunflower is cross pollinated crop due to
    a. Protandry
    b. Self-incompatibility
    c. Both a and b
    d. None of these

12. Sunflower hybrids developed by using CGMS is/are
    a. BSH-1
    b. LDMRSH-1
    c. APSH-11.
    d. All the above

13. Safflower is which pollinated crop
    a. Self
    b. Cross
    c. Often cross
    d. None of these

14. The hybrid, DSH 129 in safflower is
    a. CMS based
    b. CGMS based
    c. GMS based
    d. None of these

15. The fruit in *Linum usitatissimum* is called
    a. Capsule
    b. Boll
    c. Both a and b
    d. None of these

16. Linseed varieties suitable for Maharashtra is/are
    a. NL-97
    b. Pusa-2
    c. C-429
    d. All the above

17. Indian rape seed *i.e. Brassica campestris* having three ecotypes
    a. *Brassica campestris* var. brown sarson
    b. *Brassica campestris* var. yellow sarson
    c.*Brassica campestris* var. toria
    d. All the above

18. The Indian mustard *i.e. Brassica juncea* (2n=4x=36) is amphidiploid species between
    a. B. oleracea and *B. campestris*
    b. *B. nigra* and *B. oleracea*
    c. *B. nigra* and *B. campestris*
    d. None of these

19. The mustard and rapeseed fruit botanically is
    a. Achene
    b. Capsule
    c. Siliqua (pod)
    d. None of these

20. The good quality attributes of mustard and rapeseed include
    a. High erucic acid for industrial purpose
    b. Low erucic acid for edible purpose
    c. Low linolenic acid and Glucosinolate content
    d. All the above

21. National Research Centre for Mustard (NRCM) is located at
    a. New Delhi
    b. Ludhiana (Punjab)
    c. Kanpur (U.P.)
    d. Bharatpur (Rajasthan)

22. Napier grass i.e. *Pennisetum purpureum* is originated in
    a. Near East
    b. Himalayan region
    c. Sub-Saharan Tropical Africa
    d. None of these

23. The variety of napier grass developed by MPKV, Rahuri is/are
    a. Yashwant (RBN 9)
    b. Pusa Giant
    c. Supriya
    d. All the above

24. The botanical name of forage bajra is
    a. Pennisetum glaucum
    b. *Pennisetum typhoides*
    c. *Pennisetum americanum*
    d. None of these

25. The useful fodder sorghum spp is/are
    a. Johnson grass: *Sorghum halapense*
    b. Sudan grass: *Sorghum sudanese*
    c. Both a and b
    d. None of these

26. Multicut varieties of fodder sorghum is/are
    a. Ruchira (Maldandi)
    b. Harasona 855
    c. Pant Chari-5 (UPFS-32)
    d. All the above

27. Dual Purpose varieties fodder sorghum is/are
    a. CSH 13 R Hybrid
    b. CSV 15
    c. SPV 669
    d. All the above

28. The fodder maize variety developed by MPKV, Rahuri is
    a. African Tall (Composite)
    b. J 1006
    c. APFM 8
    d. Pratap Makka Chari 6

29. Berseem crop is generally a
    a. Self pollinated
    b. Cross pollinated
    c. Often cross pollinated
    d. None of these

30. The inflorescence of sugarcane is an open branched panicle known as
    a. Arrow
    b. Earhead
    c. Spikelet
    d. None of these

31. Sugarcane leads to cross pollination due to
    a. Protandry
    b. Self incompatibility
    c. Protogyny
    d. Male sterility

32. Salinity tolerance variety of sugarcane is/ are
    a. Co 453
    b. Co 62125
    c. Both a and b
    d. None of these

33. Potato crop *Solanum tuberosum* is
    a. Tetraploid
    b. Triploid
    c. Diploid
    d. Pentaploid

34. Spherical to ovoid fruit of potato is called
    a. Berry
    b. Ball
    c. Capsule
    d. All the above

35. Early varieties of field pea is/are
    a. Pant Matar 2
    b. Arkel
    c. Early Badger
    d. All the above

36. The constraints encountered in mango hybridization is/are
    a. Heterozygous nature
    b. Long juvenile phase
    c. Polyembryony
    d. All the above

37. Seedless and free from spongy tissues variety of mango is
    a. Sindhu
    b. Sai Sugandh
    c. Alphonso
    d. All the above

38. Aonla varieties developed by selection is/are
    a. NA-4
    b. NA-7
    c. Anand-2
    d. All the above

39. Guava *Psidium guajava* originated in
    a. Tropical America
    b. West Indies
    c. Both a and b
    d. None of the above

40. Good quality parameter (s) of guava is/are
a. Processing quality (high Vit. C or pectin content)
b. less pectin content for edible purpose
c. Eating quality (flavour, seedlessness and texture)
d. All the above

41. Wilt resistant cultivar of guava 'Peipa' was developed by crossing
    a. P. chinensis X *P. molle.*
    b. *P. molle* X *P. guineese*
    c. Both and b
    d. None of the above

42. The primitive varieties which evolved without a systematic and sustained plant breeding effort is
    a. Land races
    b. Obsolete varieties
    c. Breeding lines
    d. None of the above

43. Gene pool system of classification was given by
    a. Harlan and De Wet (1971)
    b. Harland (1975)
    c. T. Dobzhansky(1920)
    d. None of the above

44. The gradual loss of variability in cultivated species and their wild forms and relatives is called
a. Extinction
b. Genetic erosion
c. Inbreeding depression
d. All the above

45. The changes in gene and genotype frequencies of a sample/population entirely due to chance (small sample size, etc.) when grown in different climate is
a. Mutation
b. Random drift
c. Both a and b
d. All the above

46. National Bureau of Plant Genetic Resources is located at
a. Bangalore
b. New Delhi
c. Lucknow
d. None of the above

47. Conservation of germplasm in its natural habitat or in area where it grows naturally is known as
a. *Ex situ* conservation
b. *in situ* conservation
c. *In vitro* conservation
d. None of the above

48. Ex situ germplasm conservation comprises of conservation in the form of
a. Seed banks/Gene bank
b. Shoot tip culture
c. Cell or organ banks
d. All the above

49. In India Indigenous collection of germplasm of wild relative of crop plants carry the prefix
a. EC
b. WC
c. IW
d. WG

50. Base collection are conserved for long term (50 year or more) at
a. -18 ^{0}C or -20 ^{0}C
b. -30 ^{0}C or -40 ^{0}C
c. -50 ^{0}C or -60 ^{0}C
d. -25 ^{0}C or -35 ^{0}C

51. The seeds whose viability drops drastically if their moisture content is reduced below 12%.
a. Orthodox seeds
b. Recalcitrant seeds
c. Both
d. None of the above

52. Performance of a genotype with respect to changing environmental factors over time within a given location refers to
a. Stability
b. Adaptability
c. Adaptation
d. All the above

53. The genetic buffering capacity of a genotype to environmental fluctuations is
a. Genetic Homeostasis
b. Physiological Homeostasis
c. Both
d. None of the above

54. Isolation distance for sunflower certified seed production in case of hybrids is
a. 600m
b.400m
c. 300m
d. 200m

55. Safflower hybrids based on genetic male sterility is/are
    a. NARI-H-15
    b. DSH-9
    c. MKH-II
    d. All the above

56. First castor hybrid GCH-3 in India is cross between
    a. VP-1 x 48-1
    b. TSP 10 R x JI 15
    c. VP-1 x TSP 10 R
    d. None of the above

57. The *rabi* sorghum hybrid seed production plots should have minimum field inspections
    a. 3
    b. 4
    c. 5
    d. None of the above

58. The term ideotype was introduced by
    a. Donald (1968)
    b. Hamblin (1970)
    c. Both
    d. None of the above

59. Wheat drought stress suitable varieties for Maharashtra
    a. NIAW 1415
    b. HD 2987
    c. HD 2781
    d. All the above

60. Rice salinity stress suitable varieties for Maharashtra
    a. Panvel 3
    b. Karjat 5
    c. Both
    d. None of the above

61. Sorghum drought stress suitable varieties for Maharashtra
    a. Phule Chitra
    b. Phule Vasudha
    c. Phule Panchami
    d. All the above

ANSWER KEY

Que. No.	Answer	Que. No.	Answer	Que. No.	Answer
1	d. All the above	24	a. *Pennisetum glaucum*	47	b. *in situ* conservation
2	c. Allohexaploid	25	c. Both a and b	48	d. All the above
3	d. All the above	26	d. All the above	49	c. IW
4	b. Both a and c	27	d. All the above	50	a. -18 ^{0}C or -20 ^{0}C
5	a. *Hordeum spontaneum*	28	a. African Tall (Composite)	51	b. Recalcitrant seeds
6	d. All the above	29	b. Cross pollinated	52	a. Stability
7	d. Both b and c	30	a. Arrow	53	a. Genetic Homeostasis
8	b. Heliotropism	31	c. Protogyny	54	b. 400m
9	a. Disc floret	32	c. Both a and b	55	d. All the above
10	a. Achene	33	a. Tetraploid	56	b. TSP 10 R x JI 15
11	c. Both a and b	34	d. All the above	57	b. 4
12	d. All the above	35	d. All the above	58	a. Donald (1968)
13	c. Often cross	36	d. All the above	59	d. All the above
14	c. GMS based	37	a. Sindhu	60	a. Panvel 3
15	c. Both a and b	38	d. All the above	61	d. All the above
16	d. All the above	39	c. Both a and b		
17	d. All the above	40	d. All the above		
18	c. *B.nigra*& B.*campestris*	41	a. *P. chinensis* X *P. molle.*		
19	c. Siliqua (pod)	42	a. Land races		
20	d. All the above	43	a. Harlan and De Wet		
21	d. Bharatpur (R.J.)	44	b. Genetic erosion		
22	c. Sub-Saharan T. Africa	45	b. Random drift		
23	a. Yashwant (RBN 9)	46	b. New Delhi		