

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)

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. Silique (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
c. Diploid
b. Triploid
d. Pentaploid
34. Spherical to ovoid fruit of potato is called
a. Berry
c. Capsule
b. Ball
d. All the above
35. Early varieties of field pea is/are
a. Pant Matar 2
c. Early Badger
b. Arkel
d. All the above
36. The constraints encountered in mango hybridization is/are
a. Heterozygous nature
c. Polyembryony
b. Long juvenile phase
d. All the above
37. Seedless and free from spongy tissues variety of mango is
a. Sindhu
c. Alphonso
b. Sai Sugandh
d. All the above
38. Aonla varieties developed by selection is/are
a. NA-4
c. Anand-2
b. NA-7
d. All the above
39. Guava *Psidium guajava* originated in
a. Tropical America
c. Both a and b
b. West Indies
d. None of the above
40. Good quality parameter (s) of guava is/are
a. Processing quality (high Vit. C or pectin content)
c. Eating quality (flavour, seedlessness and texture)
b. less pectin content for edible purpose
d. All the above
41. Wilt resistant cultivar of guava 'Peipa' was developed by crossing
a. *P. chinensis* X *P. molle*.
c. Both a and b
b. *P. molle* X *P. guineese*
d. None of the above
42. The primitive varieties which evolved without a systematic and sustained plant breeding effort is
a. Land races
c. Breeding lines
b. Obsolete varieties
d. None of the above
43. Gene pool system of classification was given by
a. Harlan and De Wet (1971)
c. T. Dobzhansky(1920)
b. Harland (1975)
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°C or -20°C
b. -30°C or -40°C
c. -50°C or -60°C
d. -25°C or -35°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. <i>Pennisetum glaucum</i>	47	b. <i>in situ</i> 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 °C or -20 °C
5	a. <i>Hordeum spontaneum</i>	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. <i>B.nigra</i> & <i>B.campestris</i>	41	a. <i>P. chinensis</i> X <i>P. molle.</i>		
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		