STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

1. Root of any plant breeding programme is :
(1) Mutation (2) Genetic variability
(3) Hybridisation (4) Selection

2. The contribution of agriculture in indian GDP is approximately :
(1) 62% (2) 90%
(3) 33% (4) 5%

3. 'P-1542' is a hybrid variety of which plant ?
(1) Wheat (2) Rice
(3) Maize (4) Pea

4. "Jaya" and "Ratna" are better yielding semi dwart varieties of rice. These varieties are doveloped in which country ?
(1) Japan (2) India
(3) Phillipins (4) Mexico

5. *Saccharum* barberry had poor sugar content and yield. This veriety of sugar cane mainly grown in which part of india ?
(1) South India (2) East India
(3) North India (4) West India

6. Himgiri variety of wheat, which developed by hybridisation and selection is mainly resistance for
(1) Leaf and stripe rust
(2) White rust
(3) Bacterial blight
(4) Chilly mosaic virus

7. The conventional method of breeding for disease resistance in plants is :
(1) Hybridisation (2) Selection
(3) Mutation (4) Both (1) and (2)

8. In mung bean, resistance to yellow mosaic virus and powdery mildew were induced by :
(1) Plant introduction (2) Plant tissue culture
(3) Hybridisation (4) Mutation

9. Parbhani Kranti, which has resistance to yellow mosaic virus is a variety of :
(1) Wheat (2) Cow pea
(3) Bhindi (4) Chilli

10. Which character of maize leads to resistance to maize stem borers naturally ?
(1) High aspartic acid
(2) Low nitrogen content
(3) Low sugar content
(4) All of the above

11. "Atlas 66" is high protein contained variety of :
(1) Wheat (2) Maize
(3) Rice (4) Bhindi

12. Production of thousands of plants through tissue culture method is called :
(1) Macropropagation (2) Micropropagation
(3) Somatic embryo (4) Totipotency

13. Which variety of Bhindi is resistance to shoot and fruit borer ?
(1) Pusa Gaurav (2) Pusa sem-2
(3) Pusa komal (4) Pusa sawani

14. Plants produced by tissue culture method are called:
(1) Explant
(2) Somaclones
(3) Micropropagation
(4) SCP (Single cell protein)

15. India has maximum genetic diversity of :
(1) Wheat (2) Rice
(3) Mango (4) Apple

16. In India, how many varieties of rice are present ?
(1) 200000 (2) 50000
(3) 10000 (4) 1000

17. Pomato is an example of :
(1) Somatic hybrid (2) Somatic embryo
(3) Androgenic haploid (4) SCP

18. Which chemical is used in somatic hybridisation ?
(1) Polyethyline glycole (2) Acredine
(3) HNO_2 (4) Ethenol

19. Sonalika is variety of :
(1) Wheat (2) Rice
(3) Maize (4) Pea

20. "International center for wheat and maize" improvement" is situated at :

(1) Phillipins (2) India

(3) Mexico (4) Brazil

21. Biological principles as applied to animal husbandry and food production. Which of the following technique is not going to play a pivotal role in further enhancing food production

(1) Embryo transfer technique

(2) Tissue culture technique

(3) Mutations

(4) Biomining

22. Green revolution was dependent to a large extent on plant breeding techniques for development of

(1) High yielding varieties

(2) Disease resistant varieties

(3) Wild varieties

(4) Both 1 and 2

23. Purposeful manipulation of plant species in order to create desired plant type that are better suited for cultivation, give better yields and disease resistant is

(1) Plant systematics (2) Plant breeding

(3) Plant monitoring (4) Biofortification

24. Classical plant breeding involves

(1) Hybridisation of pure lines exclusively

(2) Hybridisation of pure lines followed by artificial selection

(3) Artificial selection exclusively

(4) Mutation breeding

25. Which of the following is not a step of plant breeding

(1) Collection of variability

(2) Evalution and selection of parents

(3) Cross hybridisation within a pure line

(4) Selection and testing of superior recombinants

26. Which of the following is root of any plant breeding programme

(1) Genetic variability

(2) Evaluation and selection of parents

(3) Cross hybridisation among selectied parents

(4) Selection of superior recombinants

27. The entire collection of plants / seeds having all the diverse alleles for all genes in a given crop is known as

(1) Genetic erosion

(2) Germplasm collection

(3) Gene pool

(4) Genetic drift

28. For how many growing seasons, new selected lines is tested in farmer's field

(1) Two growing seasons

(2) Three growing seasons

(3) Four growing seasons

(4) Five growing seasons

29. Which of the following rice variety were developed in India

(1) IR - 8 (2) IR - 36

(3) TN - 1 (4) Jaya

30. Which of the following sugarcane species were crossed to combine desirable qualities of high yield, thick stem, high sugar content and ability to grow in sugarcane areas of North India

(1) Saccharum officinale x Saccharum barberi

(2) S. officinarum x S. baberi

(3) S. barberi x S.indica

(4) S. officinarum x S. officinale

31. Match the following

A.	Himgiri variety	i.	White rust
B.	Pusa swarnim	ii.	Hill bunt
C.	Pusa shubhra	iii.	Leaf curl
D.	Pusa sadabahar	iv.	Black rot

	A	B	C	D
(1)	ii	i	iii	iv
(2)	i	ii	iv	iii
(3)	ii	i	iv	iii
(4)	i	ii	iii	iv

32. About disease resistant varieties of plant select out the incorrect match

(1) Wheat – Himgiri

(2) Brassica – Pusa swarnim

(3) Cauliflower – Pusa shubhra

(4) Cowpea – Pusa snowball K1

33. In mung bean, resistance to yellow mosic virus and powdery mildew were induced by

(1) Conventional breeding

(2) Mutation breeding

(3) Germplasm collection

(4) Polyploidy breeding

34. Parbhani kranti variety of *Ablemoschus esculentus* was created for resistance against which of the following disease

(1) Yellow mosaic virus

(2) Curl blight black rot

(3) White rust

(4) Powdery mildew

35. Resistance to jassids in cotton and cereal leaf beetles in wheat is due to which of the following morphological / physiological / Biochemical characteristic

(1) Solid stem (2) Nectorlessness

(3) High aspartic acid (4) Hairy leaves

36. In maize resistance to maize **stem borer** is due to

(1) High aspartic acid

(2) Low nitrogen and sugar content

(3) High nitrogen and suger content

(4) Both 1 and 2

37. Select the incorrect match

(1) Pusa gaurav – Aphids

(2) Pusa sem 2 – Shoot borers

(3) Pusa sem 3 – Jassids & Aphids

(4) Pusa sawani – Fruit borers

38. Hidden hunger is associated with deficiency of

(1) Proteins (2) Vitamins

(3) Micronutrients (4) All the above

39. Which of the following is not a consiquence of hidden hunger

(1) Increased the risk of disease

(2) Reduced life span

(3) Reduced mental abilities

(4) Reduced skin pigmentation

40. Breeding crops with higher levels of vitamins and minerals, higher proteins and healthier fats is known as

(1) Bioremediation (2) Biomagnification

(3) Biofortification (4) Biotransformation

41. Which of the following is not an objective of plant breeding for improved nutritional quality

(1) Protein content and quality

(2) Oil content and quality

(3) Vitamin content

(4) Carbohydrate content

42. Which of the following nutrient was enhanced in hybrid maize developed in the year 2000

(1) Lysine (2) Tryptophane

(3) Threonine (4) Both 1 and 2

43. Which of the following wheat variety have high protein content

(1) Kalyansona (2) Sharbati sonaro

(3) Atlas 66 (4) IR - 8

44. Biofortified rice are enriched in which of the following nutrient

(1) Iron (2) Amino acids

(3) Fatty acids (4) Essential amino acids

45. Match the following

A.	Vitamin A rich	i	Lablab
B.	Vitamin C rich	ii	Spinach
C.	Fe and Ca Rich	iii	Bitter gaurd
D.	Protein Rich	iv	Carrot

	A	B	C	D
(1)	iv	iii	ii	i
(2)	iv	iii	i	ii
(3)	iii	iv	ii	i
(4)	iii	iv	i	ii

46. Which of the following can be used for cultivation of SCP

(1) Waste water from potato processing plants

(2) Straw

(3) Sewage

(4) All above

47. 250 gm *Methylophilus methylotrophus* can produce how much amount of proteins in a day :-

(1) 2.5 tonnes (2) 25 tonnes

(3) 250 tonnes (4) 25 Kg

48. Which of the following cell property is the basis of plant tissue culture

(1) Homeostasis (2) Thermoperiodicity

(3) Meristematic (4) Totipotency

49. Each of the plant obtained through tissue culture are genetically identical to the original plant from which they were grown are known as

(1) Genocopies

(2) Somaclonal variants

(3) Somaclones

(4) Phenocopies

50. Fusion between two naked protoplasts is known as

(1) Somatic hybridisation

(2) Germinal hybridisation

(3) Parasexual hybridisation

(4) Both 1 and 3

ANSWERS KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	**2**	**3**	**4**	**2**	**3**	**1**	**4**	**4**	**3**	**4**	**1**	**2**	**4**	**2**	**2**	**1**	**1**	**1**	**1**	**3**
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	**4**	**4**	**2**	**2**	**3**	**1**	**2**	**2**	**4**	**2**	**3**	**4**	**2**	**1**	**4**	**4**	**2**	**4**	**4**	**3**
Que.	41	42	43	44	45	46	47	48	49	50										
Ans.	**4**	**4**	**3**	**1**	**1**	**4**	**2**	**4**	**3**	**4**										