QB365 Student Learing Managemnet System
Exam Name: Pre Quarterly - Practice
Std: 12th Standard - Biology
Chapter: Botany - Principles and Processes of Biotechnology, Botany - Plant Breeding, Botany - Economically Useful Plants and Entrepreneurial Botany

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Questions:

Answer the Following questions

1. Mention the application of Biotechnology.
2. What are the different types of hybridization?

Answer the following Questions

3. What do you know about the word pBR332?
4. What are restriction enzyme. Mention their type with role in Biotechnology.
5. How will you identify a vector ?
6. Write the benefits and risk of Genetically Modified Foods.
7. Write a note on heterosis.
8. Discuss which wood is better for making furniture.
9. Which is called as the “King of Bitters”? Mention their medicinal importance.
10. What are millets? What are its types? Give example for each type.
11. Enumerate the uses of turmeric
12. What are the King and Queen of spices? Explain about them and their uses.

Answer the following Questions

13. What are the materials used to grow microorganism like Spirulina?
14. What are the enzymes you can used to cut terminal end and internal phospho di ester bond of nucleotide sequence?
15. Name the chemicals used in gene transfer.
16. Differentiate between primary introduction from secondary introduction.
17. How are microbial inoculants used to increase the soil fertility?
18. Explain the best suited type followed by plant breeders at present?
19. Write the cosmetic uses of Aloe.
20. What is pseudo cereal? Give an example.
21. Give definitions for organic farming?
22. Differentiate bio-medicines and botanical medicines.

Choose the Best Answer

23. Plasmids are _____.
    (a) circular protein molecules (b) required by bacteria (c) tiny bacteria (d) confer resistance to antibiotics
24. Consider the following statements:
    I. Recombinant DNA technology is popularly known as genetic engineering is a stream of biotechnology which deals with the manipulation of genetic materials by man invitro
    II. pBR322 is the first artificial cloning vector developed in 1977 by Boliver and Rodriguez from E.coli plasmid
    III. Restriction enzymes belongs to a class of enzymes called nucleases.
    Choose the correct option regarding above statements
    (a) I & II (b) I & III (c) II & III (d) I,II & III
25. The process of recombinant DNA technology has the following steps
    I. amplication of the gene
    II. Insertion of recombinant DNA into the host cells
    III. Cutting of DNA at specific location using restriction enzyme .
    IV. Isolation of genetic material (DNA) Pick out the correct sequence of step for recombinant DNA technology.
    (a) II, III, IV, I (b) IV, II, III, I (c) I, II, III, IV (d) IV, III, I, II
26. Match the Following :

Column A	Column B
1 Exonuclease	a. add or remove phosphate
2 Endonuclease	b. binding the DNA fragments
3 Alkaline Phosphatase	c. cut the DNA at terminus
4 Ligase	d. cut the DNA at middle

    (a) 1 2 3 4 / a b c d (b) 1 2 3 4 / c d b a (c) 1 2 3 4 / a c b d (d) 1 2 3 4 / c d a b
27. Some of the characteristics of Bt cotton are _____.
    (a) Long fibre and resistant to aphids (b) Medium yield, long fibre and resistant to beetle pests (c) high yield and production of toxic protein crystals which kill dipteran pests.
    (d) High yield and resistant to ball worms
28. Assertion(A): Genetic variation provides the raw material for selection
    Reason(R): Genetic variations are differences in genotypes of the individuals.
    (a) Assertion is right and reason is wrong. (b) Assertion is wrong and reason is right (c) Both reason and assertion is right. (d) Both reason and assertion is wrong.

29. Match Column I with Column II

Column I	Column II
i) William S. Gaud	I) Heterosis
ii) Shull	II) Mutation breeding
iii) Cotton Mather	III) Green revolution
iv) Muller and Stadler	IV) Natural hybridization

(a) i ii iii iv / I II III IV (b) i ii iii iv / III I IV II (c) i ii iii iv / IV II I IV (d) i ii iii iv / II IV III I

30. The quickest method of plant breeding is _____.

(a) Introduction (b) Selection (c) Hybridization (d) Mutation breeding

31. Dwarfing gene of wheat is _____.

(a) pal 1 (b) Atomita 1 (c) Norin 10 (d) pelita 2

32. Match column I (crop) with column II (Corresponding disease resistant variety) and select the correct option from the given codes.

Column I	Column II
I) Cowpea	i) Himgiri
II) Wheat	ii) Pusa komal
III) Chilli	iii) Pusa Sadabahar
IV) Brassica	iv) Pusa Swarnim

(a) I II III IV / iv iii ii i (b) I II III IV / ii i iii iv (c) I II III IV / ii iv i iii (d) I II III IV / i iii iv ii

33. Match list I with list II

List I	List II
Biofertilizer	Organisms
i) Free living N_2	a) Aspergillus
ii) Symbiotic N_2	b) Amanita
iii) P Solubilizing	c) Anabaena azollae
iv) P Mobilizing	d) Azotobacter

(a) i ii iii iv / c a b d (b) i ii iii iv / d c a b (c) i ii iii iv / a c b d (d) i ii iii iv / b a d c

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34. Assertion: Vegetables are important part of healthy eating.
Reason: Vegetables are succulent structures of plants with pleasant aroma and flavours.

(a) Assertion is correct, Reason is wrong (b) Assertion is wrong, Reason is correct (c) Both are correct and reason is the correct explanation for assertion.
(d) Both are correct and reason is not the correct explanation for assertion.

35. Tectona grandis is coming under family _____.

(a) Lamiaceae (b) Fabaceae (c) Dipterocaipaceae (d) Ebenaceae

36. Observe the following statements and pick out the right option from the following:
Statement I – Perfumes are manufactured from essential oils.
Statement II – Essential oils are formed at different parts of the plants.

(a) Statement I is correct (b) Statement II is correct (c) Both statements are correct (d) Both statements are wrong

37. The active principle trans-tetra hydro canabiol is present in _____.

(a) Opium (b) Curcuma (c) Marijuana (d) Andrographis