



BIOLOGY

BOOKS - SARAS PUBLICATION

Solved Question Paper-19-20_01

Exercise

1. Which one of the following is not an advantage of micro propagation?

A. Plants are produced genetically identical

B. Endangered plants can be propagated

C. Sometimes undesirable genticial changes

occur

D. Disease free plants can be produced

Answer:



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2. A simplified model for the RNAi pathway is

- A. The trigger RNA is processed into a short interfering RNA by RNase II enzymes
- B. siRNAs are loaded into the effector complex RNA-induced silencing complex
- C. Both (a) and (b)
- D. The gene editing tools such as CRISPR can be loaded

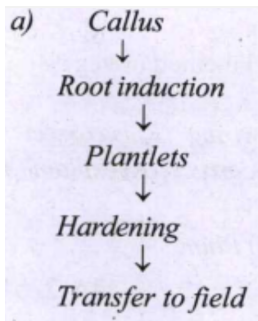
Answer:



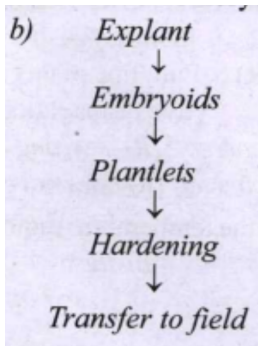
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3. Which one of the following is the correct steps in the direct embryogenesis?

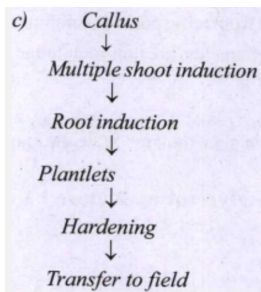
A.



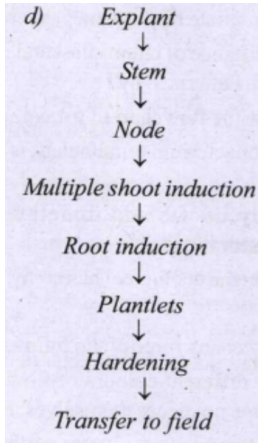
B.



C.



D.



Answer:



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4. Which one of the following is an alien invasive species?

A. *Mangifera indica*

B. *Eichhronia crassipes*

C. *Solanum nigrum*

D. *Zizipus jujupa*

Answer:



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5. Assertion (A): a Variety formed by pure line selection methods shows more homozygosity with respect to all genes.

Reason [®]: Pure line plants are produced by asexual method or vegetative propagation method.

A. (A) is correct: (R) is wrong

B. (A) is wrong: (R) is correct

C. (A) is correct: (R) does not explain

D. (A) is correct, (R) explain (A)

Answer:



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6. Differentiate bisporic megaspore development from tetrasporic development.



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7. Inheritance of chloroplast and mitochondria characters are non-mendelian inheritance Pattern. Why?



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8. Draw the flowchart of triticales production.



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9. Why is *Agrobacterium tumefaciens* a good cloning vector ? Explain ?



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10. Why do we add dimethyl sulphoxide, glycerol or sucrose before cryopreservation?



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11. What is ecological hierarchy? Name the levels of ecological hierarchy.



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12. The different colours of flower *Mimulus lewisii* is the result of blending of phenotype not genes themselves. Explain it.



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13. Western blot test is more perfect than ELISA How?



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14. What is meant by biological indicators ?
Give example .



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15. Now a days azolla is an inevitable organism in paddy field. Why?



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16. TN Govt suggest Nilavembu as a medicine for Dengue. Write its medicinal importance.



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17. Insects and plants are leading commensalism type of life. Explain it with an example.



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18. Explain coupling and repulsion aspects of linkage with the help of examples.



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19. Mention two morphological adaptations of hydrophytes.



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20. Write the classification of productivity of an ecosystem.



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21. Which one of the following is true regardign copper releasing IUDs?

A. They suppress the ovulation

B. They can remain in the uterus for more than 20 years

C. They suppress sperm motility

D. They suppress fertilization and conduction of zygote

Answer:





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22. The haemophilia man marries a homozygous normal woman. What would be the possible condition to their children?

A. Sons would be normal but daughters would be sufferer

B. Sons would be sufferer but daughters would be normal

C. Both sons and daughters would be normal

D. Both sons and daughters would be normal but daughters would be carrier

Answer:



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23. UAA, UAG and UGA codons are designated as

- A. Stop codons
- B. Non-sense codons
- C. Both (a) and (b)
- D. initiator codons

Answer:



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24. Which of the following is correct pair?

- A. Cyclosporin A- Immunosuppressant

B. Whisky- Fermented grape

C. Statins- Lower blood glucose level

D. Super bug- Giant insect

Answer:



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25. Assertion(A): Normal secretion of insulin prevents diabetes mellitus.

Reason (R): Insuline facilitates the cellular uptake of glucose

A. (A) is correct, (R) is wrong

B. (A) is wrong, (R) is correct

C. Both (A) and (B) is correct, but (R) does
not explain (A)

D. Both (A) and (B) is correct: but (R)
explain(A)

Answer:



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26. Kaziranga National Park is protected area for

A. Lion

B. Elephant

C. Tiger

D. Horned Rhinoceros

Answer:



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27. Which one of the following is not a ozone depleting substance?

- A. Methyl chloroform
- B. Carbon tetrachloride
- C. Hydrochloro fluorocarbons
- D. Nitrous oxide

Answer:



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28. Differentiate merozoites from sporozoites.



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29. Scrotum acts as a thermoregulator - Justify.



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30. Write the symptoms of Hepatitis-B.



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31. Write the key features of organic farming.



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32. What is called positive phototaxis?



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33. Write the biological effects of smog?



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34. Draw the diagrammatic representation of spermatogenesis.



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35. A thalassemia baby is born to a normal non thalassemic parents. Explain the possible causes for the occurrence of thalassemia.



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36. Stem cell therapy will increase the logivity of human life. Explain it logically.



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37. Defferentiate mutualism from commenslism.



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38. Intensive agriculture results in reduction of genetic diversity. How?



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39. Explain the transformation experiment of Avery et al.,



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40. Satellite DNA forms the basis of DNA finger printing. Explain?



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41. Write the assumptions included in Hardy Weinberg Principle?



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42. Explain the role of immunity in prevention of cancer.



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