Padasalai’s Telegram Groups!

( பாடசாலைன் டீசர் தொடரில் நீண்ட நோய்கள் முறையில் தொடர்ந்து விளக்கம்! )

- Padasalai's NEWS - Group
  https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA

- Padasalai's Channel - Group
  https://t.me/padasalaichannel

- Lesson Plan - Group
  https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw

- 12th Standard - Group
  https://t.me/Padasalai_12th

- 11th Standard - Group
  https://t.me/Padasalai_11th

- 10th Standard - Group
  https://t.me/Padasalai_10th

- 9th Standard - Group
  https://t.me/Padasalai_9th

- 6th to 8th Standard - Group
  https://t.me/Padasalai_6to8

- 1st to 5th Standard - Group
  https://t.me/Padasalai_1to5

- TET - Group
  https://t.me/Padasalai_TET

- PGTRB - Group
  https://t.me/Padasalai_PGTRB

- TNPSC - Group
  https://t.me/Padasalai_TNPSC
I. Choose the correct answer: \(10 \times 1 = 10\)

1. Choose the correct statement about tenuinucellate ovule
   a) sporogenous cell is hypodermal
   b) ovules have fairly large nucellus
   c) sporogenous cell is epidermal
   d) ovules have single layer of nucellus tissue

2. Choose the incorrect pair
   a) March 21 – world forest day
   b) April 22 – earth day
   c) May 22 – international ozone day
   d) June 05 – world environment day

3. Match the following:
   A – O – Horizon - (i) parent material
   B – A – Horizon - (ii) organic horizon
   C – B – Horizon - (iii) leached horizon
   D – R – Horizon - (iv) accumulation horizon

   A  B  C  D
   a) (iii) (i) (iv) (ii)
   b) (ii) (i) (iii) (iv)
   c) (i) (ii) (iii) (iv)
   d) (ii) (iii) (iv) (i)
4. Choose the incorrect statement
   (i) Plant tissue culture is used in clonal propagation
   (ii) The culture room can be sterilized by autoclave
   (iii) MS medium is the commonly used nutrient medium
   (iv) B₅ medium is also called Nitsch medium
   a) (i) and (iv) only   b) (ii) and (iv) only
   c) (i) and (iii) only   d) (iii) and (iv) only

5. Dicet and Drosha are ________.
   a) plasmids           b) rDNA
   c) enzyme             d) transgenic plants

6. Choose the correct pairs:
   a) Single cross - Genetic map
   b) Allen - Nicotiana – sex determination
   c) Recombination - Robin Holliday
   d) Papaya - n = 17

7. Incomplete dominance was reported in ______.
   a) mirabilis          b) wheat
   c) tobacco            d) cucurbita

8. Choose the correct pair:
   a) Diaecious - Boressus
   b) Self sterility - Passidlora
   c) Heterostyly - Hibiscus
   d) Prorogyny - Aristolochia
9. Ecology is the study of an individual species is called
   (i) community ecology   (ii) autecology
   (iii) species ecology   (iv) synecology
   a) (i) only           b) (ii) only
   c) (i) and (iv) only  d) (ii) and (iii) only

10. Which one of the following is an example for polygenic inheritance?
   a) Flower color in mirabilis jalaba
   b) Production of male honey bee
   c) Pod shape in garden pea
   d) Skin color in humans

II. Answer any FIVE questions:  5 x 2 = 10

11. What are multiple alleles?
12. What is synapsis?
13. What are okazaki fragment?
14. Name the chemical used in gene transfer.
15. Draw the flow chart of general steps in patenting.
16. Write any two advantages of seed dispersal.

III. Answer any FIVE questions:  5 x 3 = 15

17. Distinguish habitat and niche.
18. What do you mean Embryoids? Write its application.
19. Write the advantages of herbicide tolerant crops.
20. What is gene mapping? Write its uses.
21. Draw and label the parts of polyembryong embro sae.
IV. Answer all questions: 3 x 5 = 15

22. Enumerate the characteristic feature of Entomophilous flowers. (OR) Write a note on Atavism.

23. Explain the mechanism of crossing over. (OR) Write the benefits and risk of Genetically modified foods.

24. Explain the basic concepts involved in plant tissue culture. (OR) What are the advantages of seed dispersal?

---All the Best---

Prepared by...

I. Choose the correct answer: 10 x 1 = 10

1. Which method of a sexual reproduction can be said as method of regeneration?
   a) binary fission  
   b) sporulation
   c) budding
   d) fragmentation

2. Which part is cut and tied in tubectomy?
   a) funnel of fallopian tube
   b) ovaries
   c) fulllopain tube
   d) uterus

3. The division of zygote forms in to 16 daughter cells this stage is called ________.
   a) blasta cell
   b) blastomeres
   c) morula
   d) (a) and (b) both

4. Which of the following symbols are used for representing sex chromosomes of birds
   a) zz – zw
   b) xx – xy
   c) xo – xx
   d) zz – ww

5. Which of the following is true about Rh factor in the offspring of a parental combination Dd × Dd (both Rh positive)?
   a) All will be Rh – positive
b) Half will be Rh positive

c) About $\frac{3}{4}$ will be Rh negative

d) About one fourth will be Rh negative

6. Who is related with modern synthetic theory of evolution?

a) Dobzhansky

b) Haldane

c) Mayr

d) Devries

7. The age of fossils can be determined by

a) Electron microscope

b) Weighing the fossils

c) Carbon dating

d) Analysis of bones

8. Paratope is an

a) Antibody binding site on variable regions

b) Antibody binding site on heavy regions

c) Antigen binding site on variable regions

d) Antigen binding site on heavy regions

9. Cyclosporine – A is an immunosuppressive drug produced from

a) Aspergillus niger

b) Manascus purpureus

c) Penicillium notatum

d) Trichoderma polysporum

10. The interaction in nature, where one gets benefit on the expense of other is _________.

a) Predation

b) Mutualism

c) Amensalism

d) Commensalism
II. Answer any SEVEN questions:  \[ 7 \times 2 = 14 \]
11. List out and explain the types of natural parthenogenesis?
12. What is nebenkern?
13. Explain cryopreservation technique.
14. Mention the symptoms of downs syndrome.
15. What is founder effect?
16. What are interferons? Mention their role.
17. Classify Antibiotics.
18. Define ecological niche.

III. Answer any SEVEN questions:  \[ 7 \times 3 = 21 \]
(Question No. 22 compulsory)
20. Explain various phases of life cycle.
21. Give a schematic representation of spermatogenesis in humans.
22. Explain various types of IUDS.
23. What are the applications of karyotyping?
24. Mention the main objection to Darwinism.
25. List out the features of mutation theory.
26. Write the scientific name of the filarial worm that causes filariasis.
27. What is the key difference between primary and secondary sewage treatment?

IV. Answer any FIVE questions: \(5 \times 5 = 25\)
29. Differentiate between Tundra and Taiga Biomes.
30. List out various barriers of innate immunity and their melanism.
31. Explain stabilizing, directional and disruptive selection with examples.
32. Write short notes on Darwin’s theory.
33. Explain the causes, inheritance pattern and symptoms of two mendelian genetic disorders.
   (i) Albinism       (ii) Thalassemia
34. Write notes on two bacterial disease STD.
35. Explain the various phases of the menstrual cycle.
36. Write short notes on types of syngamy.

~~~All the Best~~~

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