



V.M.G.R.R SRI SARADA SAKTHI MAT. HR. SEC. SCHOOL

STD: XII

BIOLOGY

MARKS-50

BIO – BOTANY

MARKS-25

I. CHOOSE THE CORRECT ANSWER :

50 X1=50

- First cell of male gametophyte in angiosperm is
 - Microspore
 - megaspore
 - Nucleus
 - Primary Endosperm Nucleus
- In majority of plants pollen is liberated at
 - 1 celled stage
 - 2 celled stage
 - 3 celled stage
 - 4 celled stage
- Which one of the following is an example of polygenic inheritance?
 - Flower colour in *Mirabilis Jalapa*
 - Production of male honey bee
 - Pod shape in garden pea
 - Skin Colour in humans
- In his classic experiments on Pea plants, Mendel did not use
 - Flowering position
 - Seed colour
 - Pod length
 - Seed shape
- The point mutation sequence for transition, transition, transversion and transversion in DNA are
 - A to T, T to A, C to G and G to C
 - A to G, C to T, C to G and T to A
 - C to G, A to G, T to A and G to A
 - G to C, A to T, T to A and C to G
- If haploid number in a cell is 18. The double monosomic and trisomic number will be
 - 35 and 37
 - 34 and 35
 - 37 and 35
 - 17 and 19
- EcoRI cleaves DNA at
 - AGGGTT
 - GTATATC
 - GAATTC
 - TATAGC
- 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

	1	2	3	4
A)	a	b	c	d
B)	c	d	b	a
C)	a	c	b	d
D)	c	d	a	b
- The time duration for sterilization process by using autoclave is _____ minutes and the temperature is _____
 - 10 to 30 minutes and 125° C
 - 15 to 30 minutes and 121° C
 - 15 to 20 minutes and 125° C
 - 10 to 20 minutes and 121° C
- Virus free plants are developed from
 - Organ culture
 - Meristem culture
 - Protoplast culture
 - Cell suspension culture
- Which of the given plant produces cardiac glycosides?
 - Calotropis*
 - Acacia*
 - Nepenthes*
 - Utricularia*
- In soil water available for plants is
 - gravitational water
 - chemically bound water
 - capillary water
 - hygroscopic water

13. *Ophrys* an orchid resembling the female of an insect so as to be able to get pollinated is due to phenomenon of
 a) Myrmecophily b) Ecological equivalents c) Mimicry d) None of these
14. Profundal zone is predominated by heterotrophs in a pond ecosystem, because of
 a) with effective light penetration b) no effective light penetration
 c) complete absence of light d) a and b
15. Which of the following is / are not the mechanism of decomposition
 a) Eluviation b) Catabolism c) Anabolism d) Fragmentation
16. The plants which are grown in silvopasture system are
 a) Sesbania and Acacia b) Solenium and Crotalaria
 c) Clitoria and Begonia d) Teak and sandal
17. Jaya and Ratna are the semi dwarf varieties of
 a) wheat b) rice c) cowpea d) mustard
18. 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 – I, ii – II, iii – III, iv – IV | b) i – III, ii – I, iii – IV, iv – II |
| c) i – IV, ii – II, iii – I, iv – IV | d) i – II, ii – IV, iii – III, iv – I |
19. Dwarfing gene of wheat is
 a) pal 1 b) Atomita 1 c) Norin 10 d) pelita 2
20. 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.
21. *Tectona grandis* is coming under family
 a) Lamiaceae b) Fabaceae c) Dipterocarpaceae d) Ebenaceae
22. Which one of the following matches is correct?
 a) Palmyra - Native of Brazil b) Saccharun - Abundant in Kanyakumari
 c) Steveocide - Natural sweetener d) Palmyra sap - Fermented to give ethanol
23. In which techniques Ethidium Bromide is used?
 a. Southern Blotting techniques b. Western Blotting techniques
 c. Polymerase Chain Reaction d. Agrose Gel Electroporosis
24. "Gametes are never hybrid". This is a statement of
 a) Law of dominance b) Law of independent assortment
 c) Law of segregation d) Law of random fertilization
25. In *Haplopappus gracilis*, number of chromosomes in cells of nucellus is 4. What will be the chromosome number in Primary endosperm cell?
 a)8 b)12 c)6 d)2

BIO – ZOOLOGY**MARKS-25**

26. Animals giving birth to young ones:
 a) Oviparous b) Ovoviviparous c) Viviparous d) Both a and b
27. Assertion: In bee society, all the members are diploid except drones.
 Reason: Drones are produced by parthenogenesis.
 A. If both A and R are true and R is correct explanation for A
 B. If both A and R are true but R is not the correct explanation for A
 C. If A is true but R is false
 D. If both A and R are false.

28. Colostrum is rich in
 a. Ig E b. Ig A c. Ig D d. Ig M
29. Find the wrongly matched pair
 a. Bleeding phase - fall in oestrogen and progesterone
 b. Follicular phase - rise in oestrogen
 c. Luteal phase - rise in FSH level
 d. Ovulatory phase - LH surge
30. The process which the sperm undergoes before penetrating the ovum is
 a. Spermiation b. Cortical reaction c. Spermiogenesis d. Capacitation
31. A contraceptive pill prevents ovulation by
 (a) blocking fallopian tube (b) inhibiting release of FSH and LH
 (c) stimulating release of FSH and LH (d) causing immediate degeneration of released ovum.
32. Match column I with column II and select the correct option.
- | Column I | Column II |
|--------------------------|----------------------|
| A. Copper releasing IUD | (i) LNG-20 |
| B. Hormone releasing IUD | (ii) Lippes loop IUD |
| C. Non medicated IUD | (iii) Saheli |
| D. Mini pills | (iv) Multiload-375 |
- (a) A-(iv), B-(ii), C-(i), D-(iii) (b) A-(iv), B-(i), C-(iii), D-(ii)
 (c) A-(i), B-(iv), C-(ii), D-(iii) (d) A-(iv), B-(i), C-(ii), D-(iii)
33. The _____ deals with the control of several inherited human diseases especially inborn errors of metabolism
 a)Euphenics b) Eugenics c) Euthenics d) All of these
34. A marriage between a colourblind man and a normal woman produces
 a)All carrier daughters and normal sons b)50% carrier daughters, 50% normal daughters
 c)50% colourblind sons, 50% normal sons d)All carrier offsprings
35. DNA and RNA are similar with respect to
 a) Thymine as a nitrogen base
 b) A single-stranded helix shape
 c) Nucleotide containing sugars, nitrogen bases and phosphates
 d) The same sequence of nucleotides for the amino acid phenyl alanine
36. A mRNA molecule is produced by
 a) Replication b) Transcription c) Duplication d) Translation
37. Who proposed the Germplasm theory?
 a) Darwin b) August Weismann c) Lamarck d) Alfred Wallace
38. Which period was called "Age of fishes"?
 a) Permian b) Triassic c) Devonian d) Ordovician
40. The wings of birds and butterflies is an example of
 a) Adaptive radiation b) convergent evolution c) divergent evolution d) variation
41. Allergy involves
 a) IgE b) IgG c) IgA d) IgM
42. Which of the following is not involved in nitrogen fixation?
 a) *Pseudomonas* b) *Azotobacter* c) *Anabaena* d) *Nostoc*
43. Which of the following pair is correctly matched for the product produced by them?
 a) *Acetobacter aceti* - Antibiotics b) *Methanobacterium* - Lactic acid
 c) *Penicilium notatum* - Acetic acid d) *Saccharomyces cerevisiae* - Ethanol
44. How many amino acids are arranged in the two chains of Insulin?
 a) Chain A has 12 and Chain B has 13 b) Chain A has 21 and Chain B has 30 amino acids
 c) Chain A has 20 and chain B has 30 amino acids
 d) Chain A has 12 and chain B has 20 amino acids.
45. Organisms which can survive a wide range of temperatuer are called

- a) Ectotherms b) Eurytherms c) Endotherms d) Stenotherms
46. Animals that can move from fresh water to sea called as.....
a) Stenothermal b) Eurythermal c) Catadromous d) Anadromous
47. Which one of the following is not coming under insitu conservation
a) Sanctuaries b) Natural parks c) Zoological park d) Biosphere reserve
48. Which one of the following are at high risk extinction due to habitat destruction
a) Mammals b) Birds c) Amphibians d) Echinoderms
49. Excess of fluoride in drinking water causes:
a) Lung disease b) Intestinal infection c) Fluorosis d) None of the above
50. The 'thickness' of Stratospheric Ozone layer is measured in/on:
a) Sieverts units b) Dobson units c) Melson units d) Beaufort Scale

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