# BIO-BOTANY FULL POR PROPRIATE INC.

ONE MARK TEST -1 Max Mark:25

### I CHOOSE THE CORRECT ANSWERS 25 x 1 = 25

- New world species of cotton

  - a ) Gossipium arboretum b ) G.herbaceum
  - c) Both a and b
- d) G.barbadense
- 2. Which of the following explains how progeny can posses the combinations of traits that none of the parent possessed?
  - a) Law of segregation
- b ) Chromosome theory
- c ) Law of independent assortment
- d ) Polygenic inheritance
- 3. Which of the following sentences are correct?
  - 1. The offspring exhibit only parental combinations due to incomplete linkage.
  - 2. The linked genes exhibit some crossing over in complete linkage.
  - 3. The separation of two linked genes are possible in incomplete linkage.
  - 4. Crossing over is absent in complete linkage.
  - a)1 and 2
    - b)2 and 3 c)3 and 4 d)1 and 4
- 4. A specific place in an ecosystem, where an organism lives and performs its functions is
  - a ) habitat
- b) niche
- c) landscape d) biome
- 5. Which of the following represent megagametophyte?
  - b) Embryo sac c) Nucellus d) Endosperm
- The genotype of a plant showing the dominant phenotype can be determined by
  - a) Back cross
- b) Test cross
- c ) Dihvbrid corss
- d ) Pedigree analysis
- 7. 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
- 8. Dwarfing gene of wheat is
  - a) Pal 1 b ) Atomita 1
- g) Norin 10 d) Pelita 2
- 9. 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
- 10. First cell of male gametophyte in angiosperm is
  - a) Microspore
- b) Megaspore
- c) Nucleus
- d ) Primary Endosperm Nucleus
- 11. In Mendel's experiments with garden pea, round seed shape (RR) was dominant over wrinkled seeds (rr), yellow cotyledon (YY) was dominant over green cotyledon (yy). What are the expected phenotypes in the F2 generation of the cross RRYY x rryy?
  - a ) Only round seeds with green cotyledons
  - b ) Only wrinkled seeds with yellow cotyledons
  - c ) Only wrinkled seeds with green cotyledons
  - d) Round seeds with yellow cotyledons an wrinkled seeds with yellow cotyledons
- 12. How many map units separate two alleles A and B if the recombination frequency is 0.09?
  - a) 900 cM b) 90 cM
- c)9cM
  - d) 0.9 cM
- 13. Crosses between the plants of the same variety are called
  - a) interspecific
- b) inter varietal
- c ) intra varietal
- d) inter generic
- 14. Choose the correct statement(s) about tenuinucellate
  - a ) Sporogenous cell is hypodermal
  - b) Ovules have fairly large nucellus key answer to our email id Padasalai.net@gmail.com of 2.

- www.clispologesouscom isfedidermal
  - d ) Ovules have single layer of nucellus tissue
  - 15. Match list I with list II.

Ligt I

List II

Biofertilizer

Organisms

i) Free living N2

- a) Aspergillus
- ii) Symbiotic N2
- b) Amanita
- iii) P Solubilizing
- c) Anabaena azollae d) Azotobactor
- iv) P Mobilizing
- a) i-c, ii-a, iii-b, iv-d
- b) i-d, ii-c, iii-a, iv-b
- c ) i-a. ii-c. iii-b. iv-d
- d) i-b. ii-a. iii-d. iv-c
- 16. Consider the following statement(s).
  - i) In Protandrous flowers pistil matures earlier
  - ii) In Protogynous flowers pistil matures earlier
  - iii) Herkogamy is noticed in unisexual flowers
  - iv) Distyly is present in Primula
  - a) i and ii are correct
- b) ii and iv are correct
- c ) ii and iii are correct
- d) i and iv are correct
- 17. Statement A: Coffee contains caffeine.
  - Statement B: Drinking coffee enhances cancer.
  - a) A is correct, B is wrong b) A and B Both are correct
  - c) A is wrong, B is correct d) A and B Both are wrong
- 18. Match column I (crop) with column II (Corresponding disease resistant variety) and select the correct option from the given codes.

Column II Column I

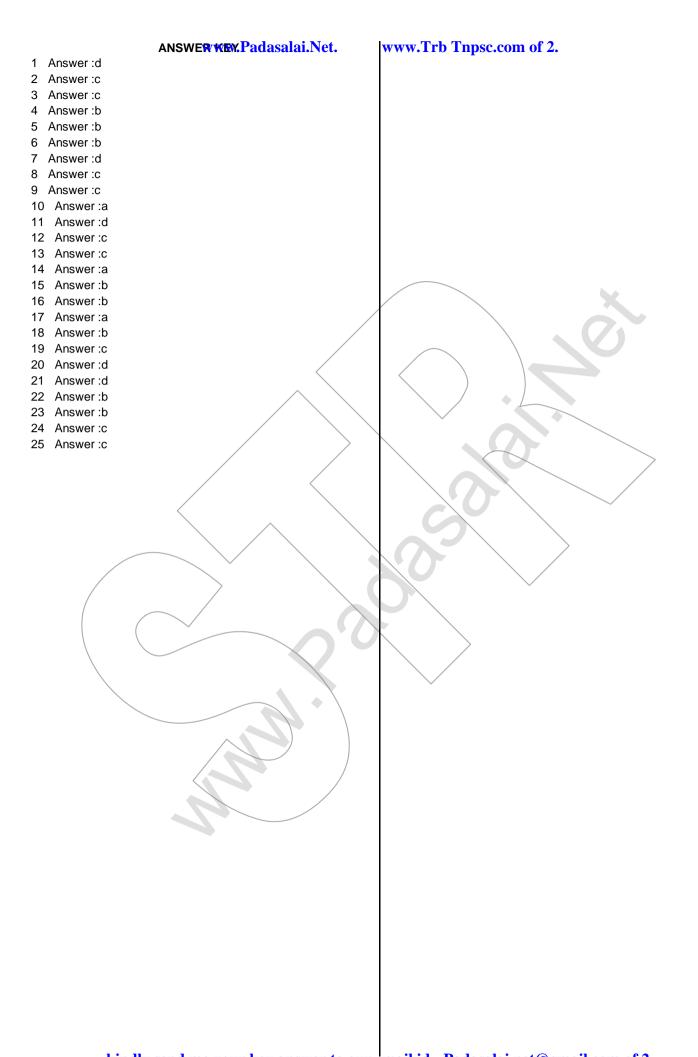
- I) Cowpea i) Himgiri
- N) Wheat
  - ii) Pusa komal
- iii) Pusa Sadabahar III) Chilli
- IV) Brassica iv) Pusa Swarnim a) I-iv, II-iii, III-ii, IV-i
  - b ) I-ii, II-i, III-iii, IV-iv d) I-i, II-iii, III-iv, IV-ii
- c ) I-ii, II-iv, III-i, IV-iii
- 19. pBR 322, BR stands for a ) Plasmid Bacterial Recombination
  - b) Plasmid Bacterial Replication
  - c Plasmid Boliver and Rodriguez
  - d) Plasmid Baltimore and Rodriguez
- 20. The plant of this group are adapted to live partly in water and partly above substratum and free from water
  - a ) Xerophytes
- b) Mesophytes
- c) Hydrophytes
- d) Halophytes
- 21. Match the following:
  - Column A 1. Exonuclease
- Column B
- 2. Endonuclease
- a. add or remove phosphate b. binding the DNA fragments
- 3. Alkaline Phosphatase

4. Ligase

- c. cut the DNA at terminus d. cut the DNA at middle
- a) 1-a, 2-b, 3-c, 4-d
- b) 1-c, 2-d, 3-b, 4-a
- c) 1-a, 2-c, 3-b, 4-d
- d) 1-c, 2-d, 3-a, 4-b 22. In majority of plants pollen is liberated at
  - a) 1 celled stage
- b) 2 celled stage d) 4 celled stage

b) P.Maheswari

- c) 3 celled stage
- 23. An eminent Indian embryologist is
  - a) S.R.Kashyap c ) M.S. Swaminathan
- d) K.C.Mehta
- 24. An allohexaploidy contains
  - a ) Six different genomes
  - b ) Six copies of three different genomes
  - c ) Two copies of three different genomes
  - d ) Six copies of one genome
- 25. Due to incomplete linkage in maize, the ratio of parental and recombinants are
  - a)50:50
- b)7:1:1:7



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## ONE MARK TEST – 2

Max Mark :25

#### I CHOOSE THE CORRECT ANSWERS $25 \times 1 = 25$

- Identify the incorrect pair.
  - a ) Sporopollenin exine of pollen grain
  - b ) Tapetum nutritive tissue for developing microspores
  - c ) Nucellus nutritive tissue for developing embryo
  - d ) Obturator directs the pollen tube into micropyle
- 2. A specific place in an ecosystem, where an organism lives and performs its functions is
  - a) habitat
- b) niche
- c ) landscape
- d) biome
- 3. Which of the following is / are not the mechanism of decomposition?
  - a) Eluviation
- b ) Catabolism
- c) Anabolism
- d) Fragmentation
- Find out the correctly matched pair
  - a) Rubber Shorea robusta
  - b ) Dye Lawsonia inermis
  - c ) Timber Cyperus papyrus
  - d ) Pulp Hevea brasiliensis
- One of the chief reasons among the following for the depletion in the number of species making endangered is
  - a) over hunting and poaching
  - b) green house effect
  - c) competition and predation
  - d) habitat destruction
- 6. Jaya and Ratna are the semi dwarf varieties of
  - a) wheat
    - b) rice
- d) mustard c) cowpea
- 7. Gene which suppresses other genes activity but does not lie on the same locus is called as
  - a) Epistatic
- b) Supplement only
- c ) Hypostatie
- d ) Codominant
- Among the following characters which one was not considered by Mendel in his experimentation pea?
  - a) Stem Tall or dwarf
  - b) Trichomal glandular or non-glandular
  - c) Seed Green or yellow
  - d) Pod Inflated or constricted
- Pond ecosystem is
  - a) not self sufficient and self regulating
  - b) partially self sufficient and self regulating
  - c) self sufficient and not self regulating
  - d) self sufficient and self regulating
- 10. The guickest method of plant breeding is
  - a ) Introduction
- b) Selection
- c ) Hybridization
- d) Mutation breeding
- 11. If haploid number in a cell is 18. The double monosomic and trisomic number will be
  - a) 35 and 37
- b) 34 and 35
- c) 37 and 35
- d) 17 and 19
- 12. Match list I with list II.

List I

List II

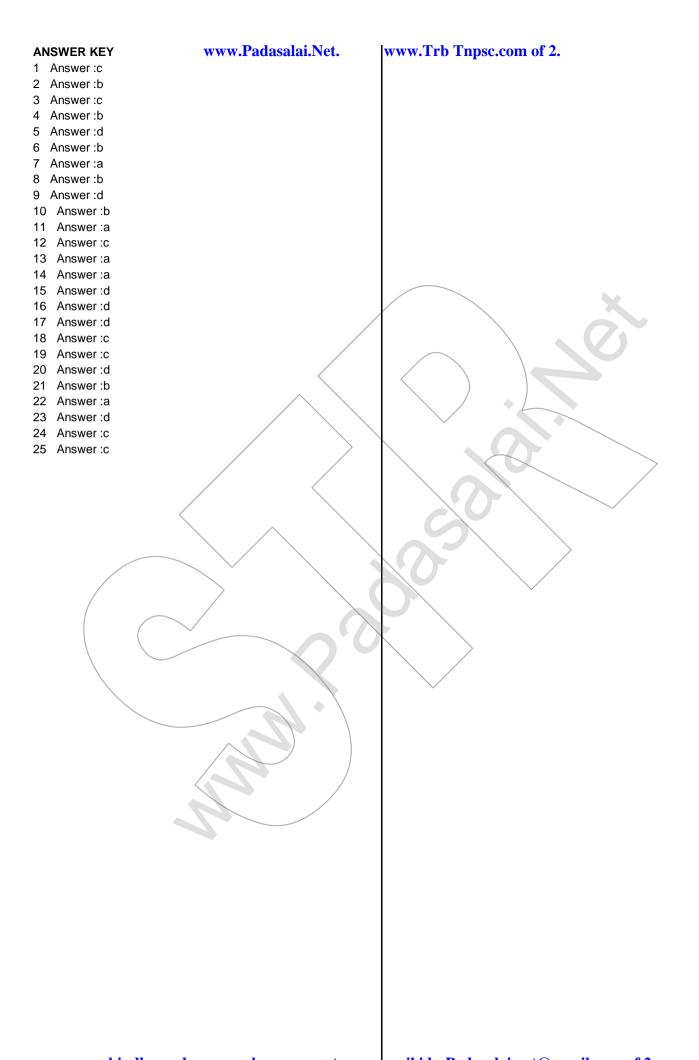
- A. A pair of chromosomes extra with diploid i) monosomy
- B. One chromosome extra to the diploid
- ii) tetrasomy iii) trisomy
- C. One chromosome loses from diploid D. Two individual chromosomes
- lose from diploid
- iv) double monosomy
- a ) A-i, B-iii, C-ii, D-iv
- b ) A-ii, B-iii, C-iv, D-i
- c ) A-ii, B-iii, C-i, D-iv
- d) A-iii, B-ii, C-i, D-iv
- 13. Select the period for Mendel's hybridization experiments
  - a) 1856 1863
- b) 1850 1870
- c) 1857 1869
- d) 1870 1877

- www.Whitch Tittes to thow in one 2 or a abiotic component of the ecosystem?
  - a ) Bacteria
- b) Humus
- c ) Organic compounds
- d ) Inorganic compounds
- 15. The only cereal that has originated and domesticated from the New world.
  - a ) Oryza sativa
- b) Triticum asetumn
- c) Triticum duram
- d) Zea mays
- 16. Groundnut is native of \_

  - a) Philippines
- b) India d ) Brazil
- c ) North America 17. Ecology is the study of an individual species is called
  - ii) Autecology
  - i) Community ecology iii) Species ecology
- iv) Synecology
- a) i only
- b) ii only
- d) ii and iii only
- c) i and iv only 18. Pick out the odd pair
  - a ) Mass selection Morphological characters
  - b ) Purline selection Repeated self pollination
  - c) Clonal selection Sexually propagated
  - d ) Natural selection Involves nature
- 19. Cryopreservation means it is a process to preserve plant cells, tissues or organs
  - a) at very low temperature by using ether
  - b) at very high temperature by using liquid nitrogen
  - c) at very low temperature of -196 by using liquid nitrogen
  - d) at very low temperature by using liquid nitrogen
- 20. Assertion: Sporopollenin preserves pollen in fossil deposits.

Reason: Sporopollenin is resistant to physical and biological decomposition.

- a ) Assertion is true; reason is false
- b) Assertion is false; reason is true
- c) Both Assertion and reason are not true
- d) Both Assertion and reason are true
- 21. Pure tall plants are crossed with pure dwarf plants. In the F1 generation, all plants were tall. These tall plants of F1 generation were selfed and the ratio of tall to dwarf plants obtained was 3:1. This is called
  - a ) Døminance
- b ) Inheritance
- c) Codominance
- d) Heredity
- 22. The plants which are grown in silivpasture system are
  - a ) Sesbania and Acacia b ) Solenum and Crotalaria
- c ) Clitoria and Begonia d) Teak and sandal 23. Significance of food web is / are
  - a ) it does not maintain stability in nature
  - b ) it shows patterns of energy transfer
  - c ) it explains species interaction
  - d) b and c
- 24. pBR 322, BR stands for
  - a ) Plasmid Bacterial Recombination
  - b ) Plasmid Bacterial Replication
  - c ) Plasmid Boliver and Rodriguez
- d ) Plasmid Baltimore and Rodriguez
- 25. The unit for measuring ozone thickness a ) Joule
  - b) Kilos
  - c ) Dobson
- d) Watt



# BIO-ZOOLOGY FULLY PORTHOLAI. Net.

### **ONE MARKS TEST - 1**

Max Mark:25

#### I CHOOSE THE CORRECT ANSWERS $25 \times 1 = 25$

- Three children of a family have blood groups A, AB and B. What could be the genotypes of their parents?
  - a) IA IB and I° I°
- b) IA I° and IBI°
- c) IB IB and IA IA
- d) IA IA and I° I°
- The milk secreted by the mammary glands soon after child birth is called
  - a) Mucous
- b) Colostrum
- c) Lactose
- d ) Sucrose
- 3. The gases produced in anaerobic sludge digesters are
  - a) Methane, oxygen and hydrogen sulphide
  - b ) Hydrogen sulphide, methane and sulphur dioxide
  - c ) Hydrogen sulphide, nitrogen and methane
  - d) Methane, hydrogen sulphide and CO2
- Mammalian egg is
  - a) Mesolecithal and non cleidoic
  - b ) Microlecithal and non cleidoic
  - c ) Alecithal and non cleidoic d ) Alecithal and cleidoic
- The first codon to be deciphered was \_\_\_\_\_ codes for
  - a) AAA, proline
- b) GGG, alanine
- c ) UUU, Phenylalanine
- d) TTT, arginine
- 6. A population will not exist in Hardy-Weinberg equilibrium if
  - a) Individuals mate selectively
  - b) There are no mutations
  - c) There is no migration
  - d) The population is large
- 7. Assertion In human male, testes are extra abdominal and lie in scrotal sacs.

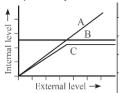
Reason – Scrotum acts as thermoregulator and keeps temperature lower by 2°C for normal sperm production.

- a) A and R are true, R is the correct explanation of A.
- b) A and R are true, R is not the correct explanation of A.
- c) A is true, R is false.
- d) Both A and R are false.
- Down's syndrome is a genetic disorder which is caused by the presence of an extra chromosome number
  - a)20
- b)21
- c)4
- d)23
- In an accident there is great loss of blood and there is no time to analyse the blood group which blood can be safely transferred?
  - a) O and Rh negative
- b) O and Rh positive
- c) B and Rh negative
- d) AB and Rh positive
- 10. The male homologue of the female clitoris is

- a) Scrotum b) Penis c) Urethra
- d) Testis
- 11. In which type of parthenogenesis are only males produced?
  - a ) Arrhenotoky
- b) Thelytoky
- c ) Amphitoky
- d) Both a and b
- 12. Which of the following microorganism is used for production of citric acid in industries?
  - a ) Lactobacillus bulgaris b ) Penicillium citrinum
  - c ) Aspergillus niger
- d) Rhizopus nigricans

- 13. Which among the following always decreases in a Food chain across tropic levels?
  - a) Number
- b ) Accumulated chemicals
- c) Energy
- d) Force
- 14. 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 deage with references were our small id Padasalai.net@gmail.com of 2.

www.The high representation of response of organisms to abiotic factors. What do A, B and C represent respectively.

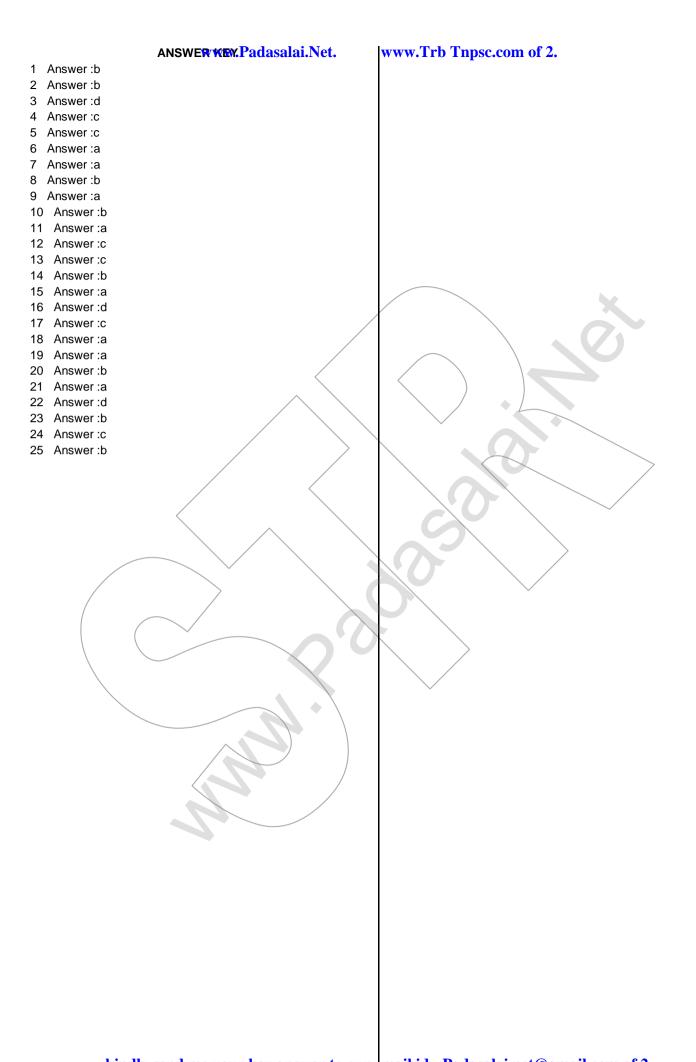


- a ) a. A-Conformer B-Regulator C-Partial Regulator
- b ) b. A-Regulator B-Partial Regulator C-Conformer
- c ) c. A-Partial Regulator B-Regulator C-Conformer
- d ) d. A-Regulator B-Conformer C-Partial Regulator
- 16. Which of the following statements is not true about DNA replication in eukaryotes?
  - a) Replication begins at a single origin of replication.
  - b) Replication is bidirectional from the origins.
  - c ) Replication occurs at about 1 million base pairs per minute.
  - d) There are numerous different bacterial chromosomes, with replication ocurring in each at the same time.
- 17. The most important hormone in intiating and maintaining lactation after birth is
  - a) Oestrogen
- b) FSH
- c) Prolactin
- d ) Oxytocin
- 18. Conservation of biodiversity within their natural habitat is
  - a ) Insitu conservation
- b) Exsitu conservation
- c) In vivo conservation
- d) In vitro conservation
- 19. Select the incorrect action of hormonal contraceptive pills from the following.
  - a ) Inhibition of spermatogenesis.
  - b) Inhibition of ovulation.
  - c) Changes in cervical mucus impairing its ability to allow passage and transport of sperms.
  - d) Alteration in uterine endometrium to make it unsuitable for implantation.
- 20. The organization which published the red list of species is
  - a)WWF
- b) IUCN
- c)ZSI
- d) UNEP
- 21. All populations in a given physical area are defined as
  - a ) Biøme
- b) Ecosystem
- c) Territory
- d) Biotic factors
- 22. Which of the following is incorrect regarding ZW-ZZ type of sex determination?
  - a) It occurs in birds and some reptiles
  - b) Females are homogametic and males are heterogametic
  - c ) Males produce one types of gamete
  - d) It occurs in gypsy moth
- 23. Right to Clean Water is a fundamental right, under the Indian Constitution
  - a ) Article 12 b ) Article 21 c ) Article 31 d ) Article 41
- 24. Assertion Ovulation is the release of ovum from the Graafian follicle.

Reason - It occurs during the follicular phase of the menstrual cycle.

- a) A and R are true, R is the correct explanation of A.
- b) A and R are true, R is not the correct explanation of A.
- c) A is true, R is false.
- d) Both A and R are false.
- 25. Transgenic animals are those which have
  - a ) Foreign DNA in some of their cells
  - b) Foreign DNA in all their cells
  - c ) Foreign RNA in some of their cells
  - d) Foreign RNA in all their cells

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# BIO-ZOOLOGY FULLY PORTHOLAI. Net.

### **ONE MARKS TEST - 2**

Max Mark:25

#### I CHOOSE THE CORRECT ANSWERS $25 \times 1 = 25$

- The process which the sperm undergoes before penetrating the ovum is
  - a ) Spermiation
- b ) Cortical reaction
- c ) Spermiogenesis
- d ) Capacitation
- The most important hormone in intiating and maintaining lactation after birth is
  - a) Oestrogen b) FSH
- c) Prolactin d) Oxytocin
- 3. Dolly, the sheep was obtained by a technique known as
  - a ) Cloning by gene transfer
  - b ) Cloning without the help of gametes
  - c ) Cloning by tissue culture of somatic cells
  - d ) Cloning by nuclear transfer
- Assertion: The Environmental conditions of the tropics are favourable for speciation and diversity of organisms.

Reason: The climate seasons, temperature, humidity and photo period are more or less stable and congenial.

- a) Both Assertion and Reason are true and Reason explains Assertion correctly.
- b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion
- c ) Assertion is true, but Reason is false.
- d) Both Assertion and Reason are false.
- 5. Which of the following phenotypes in the progeny are possible from the parental combination AxB?
  - a) A and B only
- b) A, B and AB only
- c) AB only
- d) A, B, AB and O
- 6. Females with Turners' syndrome have
  - a ) Small uterus
- b) Rudimentary ovaries
- c) Underdeveloped breasts d) All of these
- "Universal Donor" and "Universal Recipients" blood group \_\_\_ respectively. \_\_\_ and \_\_

c)/A, B

- b ) O, AB a) AB, O Fossils are generally found in
- a) igneous rocks
- b) metamorphic rocks
- c) volcanic rocks
- d) sedimentary rocks
- The glandular accessory organ which produces the largest proportion of semen is
  - a ) Seminal vesicle
- b) Bulbourethral gland
- c) Prostate gland
- d) Mucous gland
- 10. Down's syndrome is a genetic disorder which is caused by the presence of an extra chromosome number
  - a)20
- b)21
- c)/4
- d) 23

d ) B, A

- 11. The approach which does not give the defined action of contraceptive is
  - a) Hormonal contraceptive Prevents entry of sperms, prevent ovulation and fertilization
  - b ) Vasectomy Prevents spermatogenesis
  - c ) Barrier method Prevents fertilization
  - d ) Intra uterine device Increases phagocytosis of sperms, suppresses sperm motility and fertilizing capacity of sperms
- 12. The relationship between sucker fish and shark is..........
  - a ) Competition
- b) Commensalism
- c) Predation
- d) Parasitism
- 13. Assertion Head of the sperm consists of acrosome and mitochondria.

Reason – Acrosome contains spiral rows of mitochondria.

- a) A and R are true, R is the correct explanation of A.
- b) A and R are true, R is not the correct explanation of A.
- c) A is true, R is false.
- S. THIYAGARAJAN M.Sc., M.Phil., B.Ed.,

- www.Assertion.poffscoingsofr2duced by asexual reproduction are genetically identical to the parent.
  - Reason: Asexual reproduction involves only mitosis and no meiosis.
  - a) If both A & 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
  - 15. Statement 1: Diaphragms, cervical caps and vaults are made of rubber and are inserted into the female reproductive tract to cover the cervix before coitus. Statement 2: They are chemical barriers of conception and are reusable.
    - a) Both statements 1 and 2 are correct and statement 2 is the correct explanation of statement 1.
    - b) Both statements 1 and 2 are correct but statement 2 is not the correct explanation of statement 1.
    - c) Statement 1 is correct but statement 2 is incorrect
    - d) Both statements 1 and 2 are incorrect
  - 16. Spread of cancerous cells to distant sites is termed as
    - a ) Metastasis
- b ) Oncogenes
- c) Proto-oncogenes
- d ) Malignant neoplasm
- 17. Transgenic animals are those which have
  - a) Foreign DNA in some of their cells
  - b) Foreign DNA in all their cells
  - c) Foreign RNA in some of their cells
  - d) Foreign RNA in all their cells
- 18. Three children of a family have blood groups A, AB and B. What could be the genotypes of their parents?
  - a) IA IB and I° I°
- b) IA I° and IBI°
- c) IB IB and IA IA
- d) IA IA and I° I°
- 19. Which of the following is true about Rh factor in the offspring of a parental combination Dd x Dd (both Rh positive)?
  - a) All will be Rh positive b) Half will be Rh positive
  - c) About 34 will be Rh negative
  - d) About one fourth will be Rh negative
- 20. Darwin's finches are an excellent example of
  - a) connecting links
- b) seasonal migration
- c) adaptive radiation
- d) parasitism
- 21. Animals that can move from fresh water to sea called as...
  - a) Stenothermal
- b) Eurythermal
- c) Catadromous
- d) Anadromous
- 22. Which of the following region has maximum biodiversity
  - a) Taiga
- b) Tropical forest
- c ) Temperate rain forest d ) Mangroves
- 23. Assertion: In bee society, all the members are diploid except drones.

Reason: Drones are produced by parthenogenesis.

- a) If both A & 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
- 24. Which of the following is correct regarding HIV, hepatitis B, gonorrhoea and trichomoniasis?
  - a ) Gonorrhoea is a STD whereas others are not.
  - b) Trichomoniasis is a viral disease whereas others are hacterial
  - c ) HIV is a pathogen whereas others are diseases.
  - d ) Hepatitis B is eradicated completely whereas others
- 25. Who introduced the term biodiversity?
  - a ) Edward Wilson
- b) Walter Rosen
- d) Both Analysis false.

  c) Norman Myers

  d) Alice Norman

  d) Both Analysis false me your key answer to our email id Padasalai.net@gmail.com of 2.

