

Type:MCQ

Q1. is the process by which haploid spermatozoa develop from germ cells in the seminiferous tubules of the testis. (1)

1. Parthenogenesis
2. ****Spermatogenesis**
3. Oogenesis
4. Metamorphosis

Q2. is the process of formation of female gametes. (1)

1. ****Oogenesis**
2. Viviparity
3. Spermatogenesis
4. Ovoviviparity

Q3. Which of the following is not a part of chromosome? (1)

1. chromocentre
2. telomere
3. chromatid
4. ****cell membrane**

Q4. is the failure of homologous chromosomes or sister chromatids to separate properly during cell division. (1)

1. ****Non-disjunction**
2. Hybridisation
3. Transcription
4. Translation

Q5. is a tightly packed form of DNA or condensed DNA, which comes in multiple varieties. (1)

1. **Euchromatin**
2. ****Heterochromatin**
3. **Starch**
4. **Lipid**

Q6. is a lightly packed form of chromatin that is enriched in genes, and is often under active transcription. (1)

1. ****Euchromatin**
2. **Lipid**
3. **Heterochromatin**
4. **Protein**

Q7. is a type of hybridization that uses a labeled complementary DNA, RNA or modified nucleic acids strand to localize a specific DNA or RNA sequence in a portion or section of tissue or if the tissue is small enough, in the entire tissue, in cells, and in circulating tumor cells. (1)

1. ****In situ Hybridization**
2. **Complementation**
3. **Ex situ Hybridization**
4. **Penetrance**

Q8. Which of the following is an example of giant chromosome? (1)

1. **X chromosome of Human**
2. **Y chromosome of Human**
3. **21st Human chromosome**
4. ****Lamp brush chromosome**

Q9. What is allele? (2)

1. ****Alternative forms of a gene**
2. **Alternative forms of a chromonema**
3. **Alternative forms of a chromosome**
4. **Alternative forms of a chromatid**

Q10.is a statistic used in the fields of breeding and genetics that estimates the degree of variation in a phenotypic trait in a population that is due to genetic variation between individuals in that population. (2)

1. **Inbreeding**
2. **Karyokinesis**
3. ****Heritability**
4. **Cytokinesis**

Q11. It is important to note that while multiple alleles occur and are maintained within a population, any individual possesses only such alleles. (2)

1. **One**
2. ****Two**
3. **Three**
4. **Four**

Q12. are constructed by using the frequency of crossing-over to estimate the distance between a pair of loci. (2)

1. ****Gene maps**
2. **protein maps**
3. **Idiogram**
4. **Karyotype**

Q13. is the relative frequency of an allele at a particular locus in a population, expressed as a fraction or percentage. (2)

1. ****Allelic frequency**
2. **Penetrance**
3. **Heritability**
4. **Outbreeding**

Q14. occurs when the contributions of both alleles are visible in the phenotype. (2)

1. **Dominance**
2. **Hypostasis**
3. ****Co-dominance**
4. **Inbreeding**

Q15. In allele does not completely mask the effects of a recessive allele, and the

organism's resulting physical appearance shows a blending of both alleles. (2)

1. ****Incomplete dominance**
2. **Dominance**
3. **Co-dominance**

4. **Polygene**

Q16. A refers to a group of genes that when expressed together produce a particular phenotype or trait. (2)

1. **Chromosome**
2. **Trait**
3. **Allele**
4. ****Polygene**

Q17. is the mating of individuals or organisms that are closely related through common ancestry. (3)

1. ****Inbreeding**
2. **Outbreeding**
3. **Genetic drift**
4. **Mutation**

Q18. Select the correct sentence from the following (3)

1. **** Evolution is change in the heritable characteristics of biological populations over successive generations.**
2. **Variability is change in the heritable characteristics of biological populations over successive generations.**
3. **Epistasis is change in the heritable characteristics of biological populations over successive generations.**
4. **Complementation is change in the heritable characteristics of biological populations over successive generations.**

Q19. is a theory of biological evolution developed by the English naturalist Charles Darwin and others. (3)

1. ****Darwinism**
2. **Lamarckism**
3. **Neo- Darwinism**
4. **Mendelism**

Q20. is generally used to describe any integration of Charles Darwin's theory of evolution by natural selection with Gregor Mendel's theory of genetics. (3)

1. **Lamarckism**
2. ****Neo-Darwinism**
3. **Mendelism**
4. **Darwinism**

Q21. Hugo Marie de Vries known for introducing the term "mutation", and for developing a theory of evolution. (3)

1. ****mutation**
2. **genetic drift**
3. **evolution**
4. **regeneration**

Q22. The is the set of all genes, or genetic information, in any population, usually of a particular species. (3)

1. **allele**
2. **gene**
3. **polygene**
4. ****gene pool**

Q23. In population genetics, the states that allele and genotype frequencies in a population will remain constant from generation to generation in the absence of other evolutionary influences. (3)

1. ****Hardy–Weinberg principle**
2. **mutation theory**
3. **Darwinism**
4. **Wiesman's theory**

Q24.is one of the stage in developmental biology. (4)

1. **Locomotion**
2. ****Pattern formation**
3. **Mutation**
4. **Regeneration**

Q25. is the biological process that causes a cell, tissue or organism to develop its shape. (4)

1. ****Morphogenesis**
2. **Fertilization**
3. **morphometry**
4. **Circulation**

Q26. biology is the study of the process by which organisms grow and develop.(4)

1. **Environmental**
2. **Marine**

3. ***"Developmental**
4. **Molecular**

Q27. A cell's lineage describes the developmental history of a cell from its birth until its final division and differentiation into a particular cell type, which is known as its

..... (4)

1. **cell cycle**
2. **cell division**
3. **cell bursting**
4. ****cell fate**

Q28. Cell is a cell's ability to differentiate into other cell types. (4)

1. ****potency**
2. **diversity**
3. **fate**
4. **cycle**

Q29. Autonomous specification gives rise to a pattern of development referred to as development. (4)

1. ****mosaic**
2. **regulative**
3. **circular**
4. **rectangular**

Q30. specification gives rise to a pattern of embryogenesis called regulative development. (4)

1. **Autonomous**
2. **Automatic**
3. ****conditional**
4. **syncitial**