

Padasalai.Net's Quarterly Exam 2022 – Model Question Paper

STD : XII
Time : 3Hrs

SUBJECT : Zoology
Max mark:70

MODEL QUARTLY EXAM

I. Choose the correct answer 1X 15=15

1. A few statements describing certain features of reproduction are given below. Select the options that are true for both sexual and asexual reproduction from the options given:
 - i. Gametic fusion takes place
 - ii. Transfer of genetic material takes place
 - iii. Reduction division takes place
 - iv. Progeny have some resemblance with parents
 - a) i and ii
 - b) ii and iii
 - c) ii and iv
 - d) i and ii
2. Choose the odd one out . a. Budding b. Sporulation c. Anisogamy d. Budding
3. Several hormones like hCG, hPL, oestrogen and progesterone are produced by
 - a) ovary
 - b) placenta
 - c) fallopian tube
 - d) pituitary
4. Which one of the following is not the function of placenta?
 - a) To facilitate supply of oxygen and nutrients to embryo
 - b) To secrete oestrogen
 - c) To facilitate the removal of carbon dioxide and material from embryo
 - d) To secrete oxytocin during parturition
5. Hormones secreted by placenta to maintain pregnancy are
 - a) hCG, hPL, progesterone, estrogen
 - b) hCG, hPL, estrogen, relaxin, oxytocin
 - c) hCG, hPL, progesterone, prolactin
 - d) hCG, progesterone, estrogen, glucocorticoids
6. Which of the following is a hormone releasing Intrauterine Device (IUD)?
 - a) Multiload 375
 - b) LNG-20
 - c) Cervical cap
 - d) Vault
7. In context of amniocentesis, which of the following statements is incorrect?
 - a) It is usually done when a woman is between 14-16 weeks pregnant
 - b) It is used for prenatal sex determination
 - c) It can be used for detection of Down syndrome
 - d) It can be used for detection of Cleft palate
8. The fruit fly *Drosophila melanogaster* was found to be very suitable for experimental verification of chromosomal theory of inheritance by Morgan and his colleagues because
 - a) It reproduces parthenogenetically
 - b) A single mating produces two young flies
 - c) Smaller female is easily recognizable from large male
 - d) It completes the life cycle in about two weeks
9. Pick out the correct statements:
 - a) Haemophilia is a sex-linked recessive disease
 - b) Down's syndrome is due to aneuploidy
 - c) Phenylketonuria is an autosomal recessive gene disorder
 - d) Sickle cell anaemia is an X-linked recessive gene disorder
 - a) A and D are correct
 - b) B and D are correct
 - c) A, C and D are correct
 - d) A, B and C are correct
10. The association of histone H1 with a nucleosome indicates
 - a) Transcription is occurring
 - b) DNA replication is occurring
 - c) The DNA is condensed into chromatin fibre
 - d) The DNA double helix is exposed
11. Reverse transcriptase is
 - a) RNA dependent RNA polymerase
 - b) DNA dependent RNA polymerase
 - c) DNA dependent DNA polymerase
 - d) RNA dependent DNA polymerase
12. The wings of a bird and of an insect are
 - a) homologous structure and represent convergent evolution
 - b) homologous structure and represent divergent evolution
 - c) analogous structure and represent convergent evolution
 - d) analogous structure and represent divergent evolution
13. In Hardy-Weinberg equation, the frequency of heterozygous individual is represented by
 - a) p^2
 - b) $2pq$
 - c) pq
 - d) q^2
14. Select the correct statement from the given below.
 - a) Barbiturates when given to criminals make them tell the truth
 - b) Morphine is often given to persons who have undergone surgery as a pain killer
 - c) Chewing tobacco lowers blood pressure and heart rate
 - d) Cocaine is given to patients after surgery as it stimulates recovery
15. During sewage treatment, biogas are produced which includes
 - a) Methane, hydrogen sulphide, carbon dioxide
 - b) Methane, oxygen, hydrogen sulphide
 - c) Hydrogen sulphide, methane, sulphur dioxide
 - d) Hydrogen sulphide, nitrogen, methane

II. Write any SIX questions. Q NO 24*.Is compulsory 2X6=12

- 16.What is known as paedogamy?
- 17.Describe the location and shape of the uterus
18. Enlist the body fluids where we can find blood group antigens in secretors?
- 19.Mention any two objections to darwinism
- 20.What is digenic organisms
21. what is zymology
22. How does a doctor identify the cervical cancer?
- 23.What is founder effect?
24. Why is DNA said to be both heterocatalytic and autocatalytic? – Explain

III Write any three questions .Q.33 is compulsory 3X6=18

- 25.How do amoeba reproduce during unfavourable condition.
- 26.Where are areolar glands located? Give its significance?
- 27.Differentiate Vasectomy and Tubectomy?
- 28.Differentiate – Leading and lagging strand
- 29.What is K-T extinction
- 30.What is morphine
- 31.Define metastasis
- 32.What is biodiesel
- 33.Do all the female honey bees become the Queens? If not why?

IV Write all questions 5X5=25

- 34.Enumerate the types of binary fission.(or)
Describe the major STDs and their symptoms.
- 35.Explain the various phases of menstrual cycle? (or)
Elaborate on extra embryonic membranes.
- 36.Explain male heterogamety? (or)
What are the application of DNA finger printing.
- 37.Explain the structure of tRNA, the adapter molecule (or)
Explain urey and miller experimental approach to the origin of life
- 38.Differentiate normal cell and cancer cell (or)
Write a note on Aerobic microbes involved in bioremediation

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