

KVS TGT Science Previous Year Paper with Answers

1. Which of the following is not a chromosomal mechanism for sex determination?

- A) Genic balance mechanism
- B) Haploid diploid mechanism
- C) Metabolic mechanism
- D) Single gene mechanism

Answer: c)

2. Which assisted reproductive technology has been used for the longest time period?

- A) Intracytoplasmic sperm injection
- B) Artificial insemination
- C) In vitro fertilization
- D) Gamete intrafallopian transfer

Answer: b)

3. Lysosomes containing inactive enzymes are called

- A) Autophagosomes
- B) Residual bodies
- C) Secondary lysosomes
- D) Primary lysosomes

Answer: d)

4. Transpiration pull will be maximum under which of the following conditions?

- A) Open stomata, high humid atmosphere, and well irrigated soil
- B) Open stomata, high humid atmosphere, and dry soil
- C) Open stomata, dry atmosphere, and moist soil
- D) Closed stomata, low light intensity and humid atmosphere

Answer: c)

5. Hepatic portal system starts from

- A) Digestive system to liver
- B) Kidney to liver
- C) Liver to heart
- D) Liver to kidney

Answer: a)

6. Ivan Pavlov performed experiments on

- A) Simple reflexes
- B) Conditioned reflexes
- C) Cardiac reflexes
- D) Origin of life

Answer: b)

7. Greenhouse effect is caused by

- A) Green plants
- B) Infrared rays
- C) UV rays
- D) X-rays

Answer: b)

8. Free living nitrogen fixing bacteria are

- A) Nitrosomonas
- B) Clostridium
- C) Rhizopus
- D) Anabaena

Answer: b)

9. Eutrophication is caused by excess of in water.

- A) Nutrients
- B) Heavy metals
- C) Pesticides
- D) Microbes

Answer: a)

10. Photosynthetic pigments present in plants are:

- A) Chlorophyll a and b

- B) Chlorophyll a and c
- C) Chlorophyll a
- D) Chlorophyll b

Answer: a)

11. In aerobic organisms, glucose is converted into as a final product

- A) Lactic acid
- B) CO₂
- C) O₂
- D) Ethanol

Answer: b)

12. The role of double fertilization in angiosperms is to produce

- A) Integuments
- B) Endosperm
- C) Endocarp
- D) Cotyledons

Answer: b)

13. Natural pacemaker in heart is

- A) SA node
- B) Purkinje fibers
- C) Chordae tendineae
- D) Mitral valve

Answer: a)

14. The excretory organs in arthropods are

- A) Nephron
- B) Flame cells
- C) Tubefeet
- D) Malpighian tubules

Answer: d)

15. Which part of the brain in human body controls temperature?

- A) Cerebellum
- B) Medulla

C) Hypothalamus

D) Thalamus

Answer: c)

16. Addison's disease is caused by deficiency of a hormone which is secreted by

A) Pituitary gland

B) Adrenal cortex

C) Thyroid

D) Thymus

Answer: b)

17. Which of the following is a secondary pollutant?

A) Aerosol

B) CO

C) PAN

D) SO₂

Answer: c)

18. The layer of earth's atmosphere in which clouds occur is

A) Stratosphere

B) Troposphere

C) Thermosphere

D) Mesosphere

Answer: b)

19. Hybrid vigour is due to

A) Homozygosity of pure characters

B) Superiority of all genes

C) Heterozygosity

D) Mixing up of the cytoplasm of male with that of female

Answer: c)

20. Crosses between two plants by the same variety are called

A) Intravarietal

B) Intervarietal

C) Interspecific

D) Intergenic

Answer: a)

21. Which of the following explain relay intercropping?

A) Component crops are totally mixed in the available space

B) Component crops arranged in alternate rows

C) Sowing of fast growing crops with a slow growing crop

D) Second crop is sown during growth and often during fruiting of first crop

Answer: d)

22. The shoots and roots of the plant show

A) Negative and positive geotropism respectively

B) Only negative geotropism

C) Only positive geotropism

D) Positive and negative geotropism respectively

Answer: a)

23. Bacteria asexually reproduce by

A) Amitosis

B) Meiosis

C) Conjugation

D) Transformation

Answer: a)

24. Retina is most sensitive at

A) Optic disc

B) Periphery

C) Macula lutea

D) Fovea centralis

Answer: d)

25. Astigmatism can be corrected by wearing

A) Concave lens

B) Convex lens

C) Spherical cylindrical lens

D) Without any lens

Answer: c)

26. When the egg does not get fertilized, which hormone is produced by ruptured follicle?

A) LH

B) FSH

C) Progesterone

D) Thyroxine

Answer: c)

27. Pollination by insects is known as

A) Entomophily

B) Anemophily

C) Chiropterophily

D) Ornithophily

Answer: a)

28. Vitellogenesis is the process of formation of

A) Vitelline membrane around the developing egg cell

B) Yolk cell membrane around the yolk mass during development of reptiles and birds

C) Yolk and its deposition within the growing oocyte of amphibians

D) Archenteron around egg cell

Answer: c)

29. During which epoch of Cenozoic era, there was extinction of large mammals?

A) Oligocene

B) Pliocene

C) Holocene

D) Pleistocene

Answer: d)

30. Fossils are found in

A) Rocks

B) Amber

- C) Asphalt
- D) All of these media

Answer: d)

31. Vascular bundles in a dicot stem are

- A) Open, collateral and endarch
- B) Closed, collateral and endarch
- C) Closed, collateral and exarch
- D) Open, collateral and exarch

Answer: a)

32. Hard, lignified, thick walled, long and pointed cells in a plant are

- A) Parenchyma
- B) Sclerenchyma
- C) Collenchyma
- D) Sclerids

Answer: b)

33. The layer of actively dividing cells of skin is termed as

- A) Stratum compactum
- B) Stratum corneum
- C) Stratum lucidum
- D) Stratum germinativum

Answer: d)

34. Alternative forms of a gene are called

- A) Loci
- B) Multiples
- C) Chromosomes
- D) Alleles

Answer: d)

35. What will be the genotypic ratio of the cross between Rr X rr?

- A) 1:2:1
- B) 3:1

C) 1:1

D) 1:1:1

Answer: c)

36. Which of the following does not occur within mitochondria?

A) Krebs cycle

B) Glycolysis

C) ECT

D) ATP Synthesis

Answer: b)

37. Cell wall of the plant cell contain pit fields known as

A) Mitochondria

B) Golgi bodies

C) Plasma membrane

D) Plasmodesmata

Answer: d)

38. Which phylum does not have a true coelom?

A) Arthropoda

B) Echinodermata

C) Porifera

D) Annelida

Answer: c)

39. Which one of the following kind of animals is triploblastic?

A) Corals

B) Flatworms

C) Sponges

D) Ctenophores

Answer: b)

40. Phylogenetic system of classification is based on

A) Floral characters

B) Evolutionary relationship

C) Morphological features

D) Chemical constituents

Answer: b)

41. Mycorrhiza is correctly described as

A) Parasitic association between roots and some fungi

B) Relation of ants with the stem of some trees

C) Symbiosis of algae and fungi

D) Symbiotic relationship between fungi and roots of some higher plants

Answer: d)

42. Common cold is not cured by antibiotics because it is

A) Caused by a Gram negative bacterium

B) Not an infectious disease

C) Caused by a virus

D) Caused by a Gram positive bacterium

Answer: c)

43. Prions affect which tissue in the body?

A) Endocrine

B) Cardiac

C) Connective

D) Nervous

Answer: d)

44. Gas leaked in Bhopal tragedy was

A) Methyl isocyanate

B) Potassium isothiocyanate

C) Sodium isothiocyanate

D) Ethyl isothiocyanate

Answer: a)

45. Tuberculosis is caused by

A) Mycobacterium

B) Vibrio

C) Clostridium

D) Nitrobacter

Answer: a)

46. HIV mainly affects

- A) Cell mediated T lymphocytes
- B) Helper T lymphocytes
- C) Natural Killer cells
- D) Cytotoxic T lymphocytes

Answer: b)

47. Release of milk and contraction of uterus are caused by

- A) Prolactin
- B) Oxytocin
- C) Progesterone
- D) Estrogen

Answer: b)

48. Which of the following are analogous organs?

- A) Eye of cephalopods and vertebrates
- B) Flippers of seal and wings of pigeon
- C) Tendril of Passiflora and thorn of Bougainvillea
- D) Legs of grasshopper and honey bee

Answer: a)

49. Which of the following is an apocrine gland?

- A) Mammary gland
- B) Thyroid
- C) Thymus
- D) Hypothalamus

Answer: a)

50. The development of fruit without fertilization is

- A) Parthenogenesis
- B) Parthenocarpy
- C) Apomixes
- D) Apogamy

Answer: b)

51. Ranikhet attacks the

- A) Pigs and poultry
- B) Poultry and honey bee
- C) Silkworm and camels
- D) Poultry only

Answer: d)

52. Knee or elbow joint is

- A) Pivot
- B) Condylod
- C) Gliding
- D) Hinge

Answer: d)

53. The product of conjugation in Spirogyra is

- A) Akinete
- B) Zygospor
- C) Chlamydospor
- D) Zoospor

Answer: b)

54. Thylakoids occur inside

- A) Endoplasmic Reticulum
- B) Golgi Complex
- C) Chloroplast
- D) Mitochondria and chloroplast

Answer: c)

55. Which state consists of super energetic and super excited particles?

- A) Liquid
- B) Gas
- C) Plasma
- D) Bose-Einstein Condensate

Answer: c)

56. According to Henry's law

- A) Doubling the partial pressure doubles the solubility
- B) Doubling the partial pressure triples the solubility
- C) Doubling the partial pressure decreases the solubility
- D) Doubling the partial pressure does not affect the solubility

Answer: a)

57. The protecting power of lyophilic colloidal sol is expressed in terms of

- A) Critical miscelle concentration
- B) Oxidation number
- C) Coagulation value
- D) Gold number

Answer: d)

58. Atoms having same number of neutrons but different mass number are called

- A) Isotopes
- B) Isobars
- C) Isotones
- D) Isotherms

Answer: c)

59. Which of the following has largest negative electron affinity?

- A) F
- B) Cl
- C) Br
- D) I

Answer: b)

60. The family of elements with the highest ionisation enthalpy:

- A) Alkali metals
- B) Alkaline earth metals
- C) Halogens
- D) Noble gases

Answer: d)

61. Which of the following has coordination bond?

- A) N_2
- B) $CaCl_2$
- C) O_3
- D) H_2O

Answer: c)

62. What will be the pH at 25°C containing 0.10 M CH_3COONa and 0.03 M CH_3COOH . pK_a for $CH_3COOH = 4.57$.

- A) 4.87
- B) 3.33
- C) 5.09
- D) 4.05

Answer: c)

63. The function of alum used for the purification of water is to

- A) Coagulate the sol particles
- B) Disperse the sol particles
- C) Emulsify the sol particles
- D) Absorb the sol particles

Answer: a)

64. Which one of the following is metal?

- A) C
- B) N
- C) Na
- D) O

Answer: c)

65. Which non-metal is found in liquid state at room temperature?

- A) Mercury
- B) Zinc
- C) Iodine
- D) Bromine

Answer: d)

66. Oxides of non metals are _____ in nature.

- A) Basic
- B) Acidic

- C) Neutral
- D) Amphoteric

Answer: b)

67. Which gas is produced when metal react with acids ?

- A) Oxygen
- B) Nitrogen
- C) Hydrogen
- D) Carbon dioxide

Answer: c)

68. Which of the following can be shown to be both a Bronsted acid and a Bronsted base?

- A) O^{-2}
- B) HSO_4^{-1}
- C) PO_4^{-3}
- D) CN^{-1}

Answer: b)

69. An example of an emulsifying agent would be _____.

- A) Oil
- B) Soap
- C) Water
- D) Salt

Answer: b)

70. Which is not an organic compound?

- A) methanol
- B) acetonitrile
- C) Sodium cyanide
- D) Phenol

Answer: c)

71. In benzene, each carbon atoms undergoes:

- A) sp
- B) sp^2
- C) sp^3
- D) sp^2 and sp^3 hybridisation

Answer: b)

72. The shortest C-C bond distance is found in:

- A) Ethane

- B) ethene
- C) ethyne
- D) Diamond

Answer: c)

73. Propene reacts with HBr in presence of organic peroxide to form:

- A) 1-Bromopropane
- B) 2-Bromopropane
- C) 3-Bromopropane
- D) 2-Bromopropene

Answer: a)

74. The strongest acid among the following is:

- A) C_2H_6
- B) C_3H_8
- C) C_2H_4
- D) C_2H_2

Answer: d)

75. The compound formed as a result of oxidation of ethyl benzene by $KMnO_4$ is

- A) Benzoic acid
- B) Acetophenone
- C) Benzophenone
- D) Benzyl alcohol

Answer: a)

76. Which acid is used in the manufacture of synthetic rubber?

- A) Acetic acid
- B) Formic acid
- C) Carbonic acid
- D) Benzoic acid

Answer: a)

77. Not a characteristic property of ceramic material

- A) High temperature stability
- B) High mechanical strength
- C) Low elongation

D) Low hardness

Answer: d)

78. Increasing concentration of CO₂ in atmosphere is responsible for:

A) acid rain

B) greenhouse effect

C) lack of photosynthesis

D) death of aquatic life

Answer: b)

79. The coating on modern non- stick cookware and electric iron is of

A) Terrycot

B) Rayon

C) Polyester

D) Teflon

Answer: d)

80. For corrosion of iron to take place

A) Presence of moisture is sufficient

B) Presence of moisture and oxygen is essential

C) Hydrogen is required

D) A strong acid is necessary

Answer: b)