

(Biology)

1. Which of the following characters is related with telophase

- (a) Formation of nuclear membrane
- (b) Formation of nucleolus
- (c) Elongation of chromosome
- (d) Formation of two daughter nuclei

Sol. (d)

2. In case of incomplete dominance, what will be the phenotypic ratio of F_2 generation

- (a) 3 : 1
- (b) 1 : 2 : 1
- (c) 1 : 1 : 1 : 1
- (d) 2 : 2

Sol. (b)

3. Which of the following does not contain DNA

- (a) Mitochondria
- (b) Chloroplast
- (c) Peroxisome
- (d) Nucleus

Sol. (c)

4. Genes exhibiting multiple effects are known as

- (a) Complementary genes
- (b) Pleiotropic genes
- (c) Cistrons
- (d) Pseudogenes

Sol. (b)

5. Who coined the term 'cistron'

- (a) Muller
- (b) Benzer
- (c) Khorna
- (d) Sutton

Sol. (b)

6. Which of the following is responsible for the origin of lysosome

- (a) Chloroplast
- (b) Mitochondria
- (c) Golgi body
- (d) Ribosome

Sol. (c)

7. In *Selaqinella* trabeculae are the modification of

- (a) Epidermal cells
- (b) Cortical cells
- (c) Endodermal cells
- (d) Pericycle cells

Sol. (c)

8. Tonoplast is a membrane which surrounds

- (a) Ribosome
- (b) Mitochondria
- (c) Vacuole
- (d) Cytoplasm

Sol. (c)

9. Who coined the term 'gene'

- (a) Johenson
- (b) Watson
- (c) Morgan
- (d) Williamson

Sol. (a)

10. Protein coat of a virus enclosing nucleic acid is called

- (a) Plasmid
- (b) Capsid
- (c) Vector
- (d) Genome

Sol. (b)

11. Highest number of antibiotics are produced by

- (a) Bacillus
- (b) Penicillium
- (c) Streptomyces
- (d) Cephalosporium

Sol. (c)

12. Which of the following is stained using carmine

- (a) Bacteria
- (b) Diatoms
- (c) Chromosomes
- (d) Viruses

Sol. (c)

13. A mature pollen grain of Pinus has

- (a) 2 cells
- (b) 3 cells
- (c) 4 cells
- (d) 5 cells

Sol. (c)

14. Polyploidy can be induced by the application of

- (a) Auxin
- (b) Kinetin
- (c) Colchicine
- (d) Ethylene

Sol. (c)

15. Quantasomes are present in

- (a) Chloroplast
- (b) Mitochondria
- (c) Golgi body
- (d) Lysosome

Sol. (a)

16. In mitochondria, enzyme cytochrome oxidase is present in

- (a) Outer membrane
- (b) Perimitochondrial space
- (c) Inner membrane
- (d) Matrix

Sol. (c)

17. Which of the following bioengineered bacteria is utilized for cleaning of marine oil slicks

- (a) Escherichia coli
- (b) Pseudomonas syringae
- (c) Pseudomonas putida
- (d) Rhizoctonia solani

Sol. (c)

18. Green potatoes are toxic due to

- (a) Phytoalexins
- (b) Solanin
- (c) Triazine
- (d) Hormones

Sol. (a)

19. Cells obtained from cancerous tumors are known as

- (a) Hybridomas
- (b) Myelomas
- (c) Lymphocytes
- (d) Monoclonal cells

Sol. (b)

20. The plant of *Triticum aestivum* is

- (a) Haploid
- (b) Diploid
- (c) Tetraploid
- (d) Hexaploid

Sol. (d)

- 21.** Which of the following is a total root parasite
(a) Cuscuta (b) Rafflesia
(c) Santalum (d) Monotropa
Sol. (b)
- 22.** Which of the following tissues consist of living cells
(a) Vessels (b) Tracheids
(c) Companion cell (d) sclerenchyma
Sol. (c)
- 23.** Which is a useful product of epidermal origin
(a) Saffron (b) Cotton fibres
(c) Clove (d) Jute
Sol. (b)
- 24.** Fern spores are usually
(a) Haploid (b) Diploid
(c) Triploid (d) Tetraploid
Sol. (a)
- 25.** When pollen tube enters through micropyle, the process is called
(a) Porogamy (b) Chalazogamy
(c) Misogamy (d) Apogamy
Sol. (a)
- 26.** Outer wall of pollen grain is made up of
(a) Cellulose (b) Sporopollenin
(c) Pectocellulose (d) Lignin
Sol. (b)
- 27.** Nucleotides are formed by
(a) Purine, sugar and phosphate
(b) Purine, pyrimidine and phosphate
(c) Purine, pyrimidine, sugar and phosphate
(d) Pyrimidine, sugar and phosphate
Sol. (c)
- 28.** DNA replication occurs in
(a) G₁ – phase (b) S – phase
(c) G₂ – phase (d) M – phase
Sol. (b)
- 29.** Which of the following plant cells is **not** surrounded by a cell wall
(a) Root hair cell (b) Stem hair cell
(c) Gamete cell (d) Bacteria cell
Sol. (c)
- 30.** Which of the following cell organelles stores hydrolytic enzymes
(a) Centriole (b) Lysosome
(c) Chromoplast (d) Chloroplast
Sol. (b)
- 31.** A monocarpic plant is one which
(a) Has only one carpel
(b) Flowers once in a life-time
(c) Produces only one seed
(d) Produces only one fruit
Sol. (b)
- 32.** AIDS virus contains
(a) RNA with protein (b) DNA with protein
(c) DNA without protein (d) DNA only
Sol. (a)
- 33.** Calyptra develops from
(a) Venter wall of archegonium
(b) Outgrowth of gametophyte
(c) Neck wall of archegonium
(d) Paraphysis of the archegonial branch
Sol. (a)
- 34.** Protonema is the stage in the life
(a) Cycas (b) Funaria
(c) Selaginella (d) Mucor
Sol. (b)
- 35.** A fern differs from a moss in having
(a) Swimming archegonia
(b) Swimming antherozoids
(c) Independent gametophytes
(d) Independent sporophytes
Sol. (c)
- 36.** Female cone of Pinus is a
(a) Modified needles (b) Modified long shoot
(c) Modified dwarf shoot (d) Modified scale
Sol. (c)
- 37.** Development of egg without fertilization is called as
(a) Apomixis (b) Polyembryony
(c) Parthenocarpy (d) Parthenogenesis
Sol. (d)
- 38.** Which of the following floral parts forms pericarp after fertilization
(a) Nucellus (b) Outer integument
(c) Ovary wall (d) Inner integument
Sol. (c)
- 39.** Prothallus of the fern produces
(a) Spores
(b) Gametes
(c) Both spores and gametes
(d) Cones
Sol. (b)

- 40.** Which of the following cell organelles is associated with photo respiration
(a) Mitochondria (b) Peroxisome
(c) Glyoxysome (d) Lysosome
Sol. (b)
- 41.** The thickness of membrane is
(a) 20 Å (b) 35 Å
(c) 55 Å (d) 75 Å
Sol. (d)
- 42.** Chromosomes are arranged along the equator during
(a) Prophase (b) Metaphase
(c) Anaphase (d) Telophase
Sol. (b)
- 43.** Width of DNA molecule is
(a) 15 Å (b) 20 Å
(c) 25 Å (d) 34 Å
Sol. (b)
- 44.** In gymnosperms, the ovule is naked because
(a) Ovary wall is absent (b) Integuments are absent
(c) Perianth is absent (d) Nucellus is absent
Sol. (a)
- 45.** In Funaria capsule dispersal of spores takes place through
(a) Peristomial teeth (b) Annulus
(c) Calypha (d) Operculum
Sol. (a)
- 46.** Crossing over occurs during
(a) Leptotene (b) Diplotene
(c) Pachytene (d) Zygotene
Sol. (c)
- 47.** Genes are made up of
(a) Histones (b) Hydrocarbons
(c) Polynucleotides (d) Lipoproteins
Sol. (c)
- 48.** The site of photosynthesis in blue green algae is
(a) Chromatophores (b) Mitochondria
(c) Chloroplast (d) Root hair
Sol. (a)
- 49.** Viral infection is usually absent in
(a) Phloem cells (b) Xylem cells
(c) Pith cells (d) Apical meristem
Sol. (d)
- 50.** Clamp connection are found in
(a) Phycomycetes (b) Ascomycetes
(c) Basidiomycetes (d) Deuteromycetes
Sol. (c)
- 51.** Which is called Hamburger shift
(a) Hydrogen shift (b) Bicarbonate shift
(c) Chloride shift (d) Sodium shift
Sol. (c)
- 52.** Papillary muscles are found in mammalian
(a) Auricles (b) Ventricles
(c) Pinna (d) Eyes
Sol. (b)
- 53.** Which foramen is paired in mammalian brain
(a) Foramen of Luschka (b) Foramen of Magendie
(c) Foramen of Monro (d) Inter-ventricular foramen
Sol. (a)
- 54.** Corpus luteum produces
(a) Progesterone (b) Estrogen
(c) Luteotropin hormone (d) Luteinizing hormone
Sol. (a)
- 55.** Axis vertebra is identified by
(a) Sigmoid notch (b) Deltoid ridge
(c) Odontoid process (d) Centrum
Sol. (c)
- 56.** Which is thickened to form organ of Corti
(a) Reissner's membrane (b) Basilar membrane
(c) Tectorial membrane (d) All of the above
Sol. (b)
- 57.** Which stage of silkworm secretes silk
(a) Adult (b) Larva
(c) Cocoon (d) Pupa
Sol. (c)
- 58.** Real product of apiculture is
(a) Honey (b) Bee wax
(c) Honey and bee wax (d) None
Sol. (b)
- 59.** Which shows polymorphism
(a) Physalia (b) Trypanosoma
(c) Termite (d) All of the above
Sol. (d)
- 60.** Secondary radial symmetry is found in
(a) Cnidaria (b) Jelly fish
(c) Echinodermata (d) Hemichordata
Sol. (c)
- 61.** Basic unit of classification is
(a) Genus (b) Species
(c) Order (d) Class
Sol. (b)

62. Connecting link between Annelida and Mollusca is

- (a) Peripatus (b) Lepidosiren
 (c) Neopilina (d) Protopterus

Sol. (c)

63. Select incorrect pair

- (a) Porifera–choanocytes (b) Coelenterata-nematocysts
 (c) Annelida – segmentation (d) Monera – eukaryote

Sol. (d)

64. Bilateral symmetry, metameric segmentation, coelom and open circulatory are the features of

- (a) Annelida (b) Arthropoda
 (c) Mollusca (d) Echinodermata

Sol. (b)

65. Ancestor of man who first stood erect was

- (a) Australopithecus (b) Cro – Magnon
 (c) Java Ape man (d) Peking man

Sol. (a)

66. Core zone, buffer zone and manipulation zone are found in

- (a) National park (b) Sanctuary
 (c) Tiger reserve (d) Biosphere reserve

Sol. (d)

67. Which insecticide is more hazardous to human health

- (a) Rotenone (b) Pyrethrum
 (c) D.D.T (d) Humalin

Sol. (c)

68. Universal donor is

- (a) O Rh⁺ (b) O Rh⁻
 (c) AB Rh⁺ (d) AB Rh⁻

Sol. (b)

69. One of these is not concerned with wild life conservation

- (a) IVF (b) IUCN
 (c) WWF (d) IBWL

Sol. (a)

70. Largest tiger population is found in

- (a) Sunderban national park
 (b) Corbett national park
 (c) Ranthambhor national park
 (d) Kanha national park

Sol. (a)

71. Genetic material found in Human Immunodeficiency Virus (HIV) is

- (a) Double stranded RNA (b) Single stranded RNA
 (c) Double stranded DNA (d) Single stranded DNA

Sol. (b)

72. Gigantism and acromegaly are due to

- (a) Hypothyroidism (b) Hyperthyroidism
 (c) Hypopituitarism (d) Hyperpituitarism

Sol. (d)

73. If a child is of O blood group and his father is of B blood group, the genotype of father is

- (a) I^A I^O (b) I^A I^B
 (c) I^O I^B (d) I^O I^O

Sol. (c)

74. Spermatogenesis is under the regulatory influence of

- (a) ADH (b) FSH
 (c) LH (d) STH

Sol. (b)

75. Which of the following can controlled by using biopesticides

- (a) Insects (b) Diseases
 (c) Weeds (d) All of these

Sol. (d)

76. Which hormone is secreted in a women if pregnancy has occurred

- (a) Estrogen (b) Progesterone
 (c) Luteinizing hormone (d) Chorionic gonadotropin

Sol. (d)

77. Product of biotechnology is

- (a) Transgenic crop (GM crop)
 (b) Humulin
 (c) Biofertilizer
 (d) All of these

Sol. (d)

78. Phase common in aerobic and anaerobic respiration is

- (a) Kerb's cycle (b) Glycolysis
 (c) Glycogenolysis (d) ETS

Sol. (b)

79. Oxyntic cells secrete

- (a) HCl (b) Trypsin
 (c) NaOH (d) Pepsinogen

Sol. (a)

80. Menstruation is due to sudden

- (a) Reduction of FSH
 (b) Increase of LH
 (c) Reduction in estrogen and progesterone
 (d) None of these

Sol. (c)

81. Correctly matched set of phylum, class and example is

- (a) Protozoa – Mastigophora – Entamoeba
- (b) Mollusca – Bivalvia – *Pinactada*
- (c) Arthropoda – Diplopoda – *Scolopendra*
- (d) Chordata – Cyclostomata – *Phrynosoma*

Sol. (b)

82. Urea synthesis occurs in

- (a) Kidney
- (b) Liver
- (c) Brain
- (d) Muscles

Sol. (b)

83. Which is common to kidney and skeleton in mammals

- (a) Cortex
- (b) Medulla
- (c) Pelvis
- (d) Radius

Sol. (c)

84. Which is regarded as urinary bladder of embryo

- (a) Amnion
- (b) Allantois
- (c) Chorion
- (d) Yolk sac

Sol. (b)

85. Deficiency of vitamin B₁₂ causes

- (a) Cheilosis
- (b) Thalassaemias
- (c) Beri - Beri
- (d) Pernicious anaemia

Sol. (d)

86. Blood is a kind of

- (a) Areolar tissue
- (b) Connective tissue
- (c) Fluid connective tissue
- (d) Reticular connective tissue

Sol. (c)

87. Which of these is used to control human population

- (a) Estrogen + progesterone
- (b) IUCD and MTP
- (c) Tubectomy and Vasectomy
- (d) All of these

Sol. (d)

88. Addiction to alcohol causes

- (a) Cirrhosis
- (b) Epilepsy
- (c) Neurosis
- (d) Psychosis

Sol. (a)

89. The most primitive vertebrates are

- (a) Ostracoderms
- (b) Cephalochordates
- (c) Placoderms
- (d) Cyclostomes

Sol. (a)

90. Change in the number of body parts is called

- (a) Continuous variation
- (b) Discontinuous variation
- (c) Meristic variation
- (d) Substantive variation

Sol. (c)

91. Which has an additional Y chromosome

- (a) Turner's syndrome
- (b) Klinefelter's syndrome
- (c) Super female
- (d) Down's syndrome

Sol. (w)

92. Origin of life occurred in

- (a) Precambrian
- (b) Coenozoic
- (c) Palaeozoic
- (d) Mesozoic

Sol. (a)

93. Branch of Zoology dealing with the study of fishes is called

- (a) Arthrology
- (b) Ichthyology
- (c) Saurology
- (d) Herpetology

Sol. (b)

94. Theory of continuity of germplasm was propounded by

- (a) Mendel
- (b) Lamarck
- (c) Weismann
- (d) Haeckel

Sol. (c)

95. Who discovered oocysts in the stomach of female Anopheles

- (a) Ronald Ross
- (b) Charles Lavern
- (c) Golgi
- (d) Lamble

Sol. (a)

96. Epimysium, perimysium and endomysium are found in

- (a) Nerve
- (b) Blood vessel
- (c) Striated muscle
- (d) Uterus

Sol. (c)

97. Endothelium is made up of

- (a) Squamous cells
- (b) Cuboidal cells
- (c) Columnar cells
- (d) Stratified epithelium

Sol. (a)

98. Bipolar neurons occur in

- (a) Vertebrate embryos
- (b) Retina of eye
- (c) Brain and spinal cord
- (d) Skeletal muscles

Sol. (b)

99. Glisson's capsules are found in which organ of mammals

- (a) Stomach
- (b) Kidney
- (c) Testis
- (d) Liver

Sol. (d)

100. Production of glucose from amino acids, fatty acids and glycerol is called

- (a) Glycogenesis
- (b) Gluconeogenesis
- (c) Glycogenolysis
- (d) Glycolysis

Sol. (b)