

CHAPTER 9 BIOLOGY

Question 1: Who is known as the father of genetics?

- a) Charles Darwin
- b) Gregor Mendel
- c) Jean-Baptiste Lamarck
- d) Thomas Hunt Morgan

Answer: b) Gregor Mendel

Question 2: The basic unit of heredity is:

- a) Chromosome
- b) Gene
- c) DNA
- d) Protein

Answer: b) Gene

Question 3: The process of the formation of gametes is called:

- a) Fertilization
- b) Meiosis
- c) Mitosis
- d) Replication

Answer: b) Meiosis

Question 4: The percentage of nitrogenous bases in DNA is:

- a) 10%
- b) 25%
- c) 50%
- d) 75%

Answer: c) 50%

Question 5: The genetic material in bacteria is:

- a) DNA
- b) RNA
- c) Both DNA and RNA
- d) None of the above

Answer: a) DNA

Question 6: The number of chromosomes in a human cell is:

- a) 23
- b) 46
- c) 69
- d) 92

Answer: b) 46

Question 7: The process of the formation of mRNA from DNA is called:

- a) Replication
- b) Transcription
- c) Translation
- d) Mutation

Answer: b) Transcription

Question 8: The process of the formation of a protein from mRNA is called:

- a) Replication
- b) Transcription
- c) Translation
- d) Mutation

Answer: c) Translation

Question 9: The first living organism on earth was:

- a) Bacteria
- b) Fungi
- c) Algae

d) Virus

Answer: a) Bacteria

Question 10: The study of the geographical distribution of plants and animals is called:

a) Biogeography

b) Paleontology

c) Embryology

d) Genetics

Answer: a) Biogeography

Question 11: Which of the following is not a vestigial organ in humans?

a) Ear muscles

b) Wisdom teeth

c) Appendix

d) Coccyx

Answer: a) Ear muscles

Question 12: The term 'gene' was coined by:

a) Charles Darwin

b) Gregor Mendel

c) Thomas Hunt Morgan

d) Hugo de Vries

Answer: d) Hugo de Vries

Question 13: The theory of natural selection was proposed by:

a) Charles Darwin

b) Gregor Mendel

c) Jean-Baptiste Lamarck

d) Thomas Hunt Morgan

Answer: a) Charles Darwin

Question 14: The process of the formation of a zygote is called:

- a) Fertilization
- b) Meiosis
- c) Mitosis
- d) Replication

Answer: a) Fertilization

Question 15: The number of sex chromosomes in a human gamete is:

- a) 1
- b) 2
- c) 23
- d) 46

Answer: a) 1

Question 16: Which of the following is not a Mendelian trait in humans?

- a) Blood group
- b) Eye colour
- c) Height
- d) Hair colour

Answer: c) Height

Question 17: The process of the formation of a new species from an existing one is called:

- a) Adaptation
- b) Natural selection
- c) Speciation
- d) Mutation

Answer: c) Speciation

Question 18: The total number of nucleotides in a DNA molecule is:

- a) 2
- b) 4
- c) 20

d) 40

Answer: b) 4

Question 19: The study of fossils is called:

a) Biogeography

b) Paleontology

c) Embryology

d) Genetics

Answer: b) Paleontology

Question 20: The process of the formation of a new individual from a single parent without gamete formation is called:

A) Binary fission

b) Budding

c) Fragmentation

d) Regeneration

Answer: a) Binary fission

Question 21: The human genome was completely sequenced in the year:

a) 2001

b) 2003

c) 2005

d) 2007

Answer: a) 2001

Question 22: The study of the structure and function of genes is called:

a) Genetics

b) Biotechnology

c) Bioinformatics

d) Genomics

Answer: a) Genetics

Question 23: The father of genetics is:

- a) Charles Darwin
- b) Gregor Mendel
- c) Thomas Hunt Morgan
- d) Hugo de Vries

Answer: b) Gregor Mendel

Question 24: The human blood group AB is an example of:

- a) Incomplete dominance
- b) Co-dominance
- c) Multiple alleles
- d) Polygenic inheritance

Answer: b) Co-dominance

Question 25: The process of the formation of gametes is called:

- a) Fertilization
- b) Meiosis
- c) Mitosis
- d) Replication

Answer: b) Meiosis

Question 26: The study of the geographical distribution of plants and animals is called:

- a) Biogeography
- b) Paleontology
- c) Embryology
- d) Genetics

Answer: a) Biogeography

Question 27: The first living organisms on earth were:

- a) Bacteria
- b) Fungi

- c) Algae
- d) Animals

Answer: a) Bacteria

Question 28: The process of the formation of a new individual from a single parent without gamete formation is called:

- A) Binary fission
- b) Budding
- c) Fragmentation
- d) Regeneration

Answer: b) Budding

Question 29: The study of the development of an organism from fertilization to birth is called:

- a) Biogeography
- b) Paleontology
- c) Embryology
- d) Genetics

Answer: c) Embryology

Question 30: The number of chromosomes in a human somatic cell is:

- a) 1
- b) 2
- c) 23
- d) 46

Answer: d) 46

Question 31: Who is regarded as the father of modern genetics?

- a) Charles Darwin
- b) Gregor Mendel
- c) Thomas Hunt Morgan
- d) Hugo de Vries

Answer: b) Gregor Mendel

Question 32: The branch of biology which deals with the study of heredity and variations is called:

- a) Biotechnology
- b) Genetics
- c) Biogeography
- d) Bioinformatics

Answer: b) Genetics

Question 33: The study of fossils is called:

- a) Biogeography
- b) Paleontology
- c) Embryology
- d) Genetics

Answer: b) Paleontology

Question 34: The study of the inheritance of characters over generations is called:

- a) Genetics
- b) Biotechnology
- c) Biogeography
- d) Bioinformatics

Answer: a) Genetics

Question 35: The genetic material in bacteria is:

- a) RNA
- b) DNA
- c) Both RNA and DNA
- d) None of the above

Answer: b) DNA

Question 36: The sex chromosomes in human males are:

- a) XX
- b) XY
- c) YY
- d) None of the above

Answer: b) XY

Question 37: The process of evolution in which the organisms develop similar structures but have different functions is called:

- a) Homologous organs
- b) Analogous organs
- c) Vestigial organs
- d) None of the above

Answer: b) Analogous organs

Question 38: The process of the formation of a new individual from a vegetative part of a parent plant is called:

- A) Binary fission
- b) Budding
- c) Fragmentation
- d) Vegetative propagation

Answer: d) Vegetative propagation

Question 39: The study of the inheritance of characters in successive generations is called:

- a) Genetics
- b) Biotechnology
- c) Biogeography
- d) Bioinformatics

Answer: a) Genetics

Question 40: The genetic material in viruses is:

- a) RNA
- b) DNA

- c) Both RNA and DNA
- d) None of the above

Answer: c) Both RNA and DNA

Question 41: The process of the formation of new species from an existing one is called:

- a) Evolution
- b) Speciation
- c) Natural selection
- d) Mutation

Answer: b) Speciation

Question 42: The theory of evolution was given by:

- a) Charles Darwin
- b) Gregor Mendel
- c) Thomas Hunt Morgan
- d) Hugo de Vries

Answer: a) Charles Darwin

Question 43: The process of the formation of gametes is called:

- a) Fertilization
- b) Meiosis
- c) Mitosis
- d) Budding

Answer: b) Meiosis

Question 44: The study of the geographical distribution of plants and animals is called:

- a) Biotechnology
- b) Genetics
- c) Biogeography
- d) Bioinformatics

Answer: c) Biogeography

Question 45: The sex chromosomes in human females are:

- a) XX
- b) XY
- c) YY
- d) None of the above

Answer: a) XX

Question 46: The process of the formation of new species due to geographical isolation is called:

- a) Sympatric speciation
- b) Allopatric speciation
- c) Natural selection
- d) Mutation

Answer: b) Allopatric speciation

Question 47: The process of the formation of new species without geographical isolation is called:

- a) Sympatric speciation
- b) Allopatric speciation
- c) Natural selection
- d) Mutation

Answer: a) Sympatric speciation

Question 48: The process of the formation of new individuals from the body parts of an organism is called:

- A) Binary fission
- b) Budding
- c) Fragmentation
- d) Regeneration

Answer: d) Regeneration

Question 49: The study of the structure and function of genes is called:

- a) Biotechnology

- b) Genetics
- c) Biogeography
- d) Bioinformatics

Answer: b) Genetics

Question 50: The genetic material in humans is:

- a) RNA
- b) DNA
- c) Both RNA and DNA
- d) None of the above

Answer: b) DNA