

HEREDITY AND EVOLUTION

- Q.1)** The principle of sterilization is based upon experiments carried by :
- (A) Oparin (B) S.L Miller
(C) L. Pasteur (D) V. Helmont
- Q.2)** Life was created by some supernatural power. This theory is :
- (A) Spontaneous generation
(B) Spore theory
(C) Special creation
(D) All of these
- Q.3)** About how long ago was the earth formed ?
- (A) 4.6 billion years ago
(B) 10 billion years ago
(C) 3.0 billion years ago
(D) 20 billion years ago
- Q.4)** Which of the following gas was absent on primitive earth :
- (A) O₂ (B) CH₄
(C) CO₂ (D) NH₃
- Q.5)** Nucleoproteins most probably gave the first sign of :
- (A) Proteins (B) Mimicry
(C) Evolution (D) Life
- Q.6)** Life originated :
- (A) In water (B) On land
(C) In air (D) In all of these
- Q.7)** Homologous organ are :
- (A) similar in origin with similar or dissimilar functions
(B) similar in origin which are dissimilar functions
(C) dissimilar in origin and dissimilar in structures
(D) dissimilar in origin but similar in functions
- Q.8)** Which of the following are homologous structures :
- (A) ginger and sweet potato
(B) trunk of elephant and hand of chimpanzee
(C) nail of man and claw of cat
(D) wing of bird and butterfly
- Q.9)** Which of the following is a vestigial structure in man ?
- (A) Muscle of glottis (B) Wisdom tooth
(C) Intestine (D) Ear pinna
- Q.10)** Fossil remains of Archaeopteryx indicate that :
- (A) reptiles gave rise to birds during Jurassic
(B) reptiles gave rise to birds during Permian
(C) it was a flying reptile from Permian
(D) it was a flying reptile from Triassic
- Q.11)** "Ontogeny repeats phylogeny" was coined by :
- (A) Darwin (B) Lamarck
(C) Morgan (D) Haeckel
- Q.12)** Study of human evolution is under :
- (A) Palaeontology (B) Anthropology
(C) Arthrology (D) Mammology
- Q.13)** The cause of mutation is :-
- (A) Changes in DNA
(B) Changes in chromosome
(C) Changes in gene
(D) All
- Q.14)** The Spark-discharge apparatus to test chemical evolution of life was designed by :-

- (A) Urey and Miller
(B) Oparin and Haldane
(C) Dixon and Jolley
(D) Jacob and Monad
- Q.15)** Swan-necked flask experiment was done by :-
(A) Francisco Redi (B) Aristotle
(C) Robert Koch (D) Louis Pasteur
- Q.16)** The theory of Natural selection of Darwin to explain organic evolution was based on
(A) modification in organs through used and disuse
(B) probability of reproduction, struggle for existence and survival of the fittest
(C) Inheritance of acquired characters
(D) appearance of sudden large variations, then inheritance and survival of those having these variations
- Q.17)** When a red flowered homozygous pea plant is crossed with a white flowered plant what colour is produced in F_1 generation ?
(A) Red (B) White
(C) Pink (D) Red and white
- Q.18)** Mendel worked on
(A) Pisum (B) Solanum
(C) Lathyrus (D) Dolichos
- Q.19)** Which one carries extra nuclear genetic material ?
(A) Plastids (B) Ribosomes
(C) Chromosomes (D) Golgi – complex
- Q.20)** Father of genetics is
(A) Morgan (B) Mendel
(C) Darwin (D) Hutchinson
- Q.21)** Mendel noted as many pairs of contrasting traits in pea plants
(A) 2 (B) 5
(C) 7 (D) 9
- Q.22)** In monohybrid cross, what is the ratio of homozygous dominant and homozygous recessive individuals in F_2 – generation ?
(A) 1 : 2 : 1 (B) 2 : 1 / 1 : 2
(C) 3 : 1 / 1 : 3 (D) 1 : 1
- Q.23)** Back cross is a cross between
(A) $F_1 \times F_1$ (B) $F_1 \times$ Recessive
(C) $F_1 \times$ Dominant (D) $F_1 \times$ any parent
- Q.24)** A cross between a tall plant (TT) and short pea plant (tt) resulted in progeny that were all tall plants because
(A) Tallness is the dominant trait
(B) Shortness is the dominant trait
(C) Tallness is the recessive trait
(D) Height of pea plant is not governed by gene “T” or “t”
- Q.25)** Mendel formulated the law of purity of gametes on the basis of
(A) dihybrid cross (B) monohybrid cross
(C) back cross (D) test cross
- Q.26)** A cross between $AaBB \times aaBB$ yields a genotypic ratio of
(A) 1 $AaBB$: 1 $aaBB$
(B) 1 $AaBB$: 3 $aaBB$
(C) 3 $AaBB$: 1 $aaBB$
(D) All $AaBb$
- Q.27)** A zygote which has an X-chromosome inherited from the father will develop into a
(A) Boy
(B) Girl
(C) X-chromosome does not determine the sex of a child
(D) Either boy or girl
- Q.28)** Branch of biology which deals with heredity and variation is called

(A) Paleontology (B) Evolution

(C) Genetics (D) Ecology

Q.29) If the fossil of an organism is found in the deeper layers of earth, then we can predict that

(A) The extinction of organism has occurred recently

(B) The extinction of organism has occurred thousands of years ago

(C) The fossil position in the layers of earth is not related to its time of extinction

(D) Time of extinction cannot be determined

Q.30) Two allelic genes are located on

(A) the same chromosome

(B) two homologous chromosomes

(C) two non – homologous chromosomes

(D) any two chromosomes

Answer Sheet

Q.1	C	Q.11	D	Q.21	C
Q.2	C	Q.12	B	Q.22	D
Q.3	A	Q.13	D	Q.23	D
Q.4	A	Q.14	A	Q.24	A
Q.5	D	Q.15	D	Q.25	B
Q.6	A	Q.16	B	Q.26	A
Q.7	A	Q.17	A	Q.27	B
Q.8	C	Q.18	A	Q.28	C
Q.9	B	Q.19	A	Q.29	B
Q.10	A	Q.20	B	Q.30	B