1) Adaptive radiation is an example of:
    a) Convergent evolution
    b) Divergent evolution
    c) Co-evolution
    d) Parallel evolution

2) The joint changes of two or more species in a close interaction is:
a) Co-evolution
b) Parallel evolution
c) Convergent evolution
d) Divergent evolution

3) An organism adapts to the environment through:
a) Divergent evolution
b) Convergent evolution
c) Co-evolution
d) All of these

4) Which one of the following evolution commonly occurs in a predator-prey relationship?
a) Parallel evolution
b) Divergent evolution
c) Convergent evolution
d) Co-evolution

5) Which one of the following is incorrect?
    a) A species may evolve together
    b) Species may evolve apart.
    c) Species may evolve with similar structure and appearance.
    d) None of these

6) Which one of the following is the major difficulty involved in convergent evolution?

a) Homologous structures

b) Analogous structures

c) Vestigial structures

d) All of these

7) Parallel evolution occurs between two unrelated species that:

a) Occupy the similar niches in a given habitat

b) Do not occupy the similar niches in a given habitat

c) Both (a) and (b)

d) Share common traits

8) Consider the following statements about divergent evolution:

(A) Such type of evolution generally occurs when closely related species diversify to new habitats

(B) On a large scale, it is responsible for the formation of the present diversity of life on the earth from

the first living cells

(C) Macroevolution results in evolutionary divergence

(D) Macroevolution results in parallel special adaptations in divergent groups
The correct statements are:

a) All

b) A, Band C

c) Band C

d) C and D

9) Which one of the following is applicable to macroevolution?

a) Genetic divergence

b) Production of adaptive types

c) Population fragmentation

d) All of these

10) The natural selection becomes operative when the correlation between reproductive success and a trait is:

a) Positive

b) Negative

c) Positive or negative

d) Zero

11) Which one of the following prevents many communities from reaching competitive equilibrium?

a) Abiotic factors

b) Predation

c) Disturbance

d) All of the above

12) Which one of the following results in the splitting of parental population into two or more new populations?

a) Co-evolution

b) Parallel evolution

c) Convergent evolution

d) Divergent evolution

13) The varied group of plants and animals, either related or unrelated, provide an example of:

a) Divergent evolution

b) Convergent evolution

c) Parallel evolution

d) Co-evolution

14) Maeroevolution results in the formation of:

a) Genera

b) Families

c) Orders

d) All of these

15) Genetic equilibrium of a population is disturbed by:

a) Genetic recombination

b) Genetic drift

c) Natural selection

d) All of these

16) The establishment of a true link of eo-evolution between species requires:

a) Experimentation

b) Genetic analysis

c) A large number of observations

d) All of these

17) Which one of the following types of species interaction provides the ideal ground for eo-evolution?

a) Plant – Herbivore

b) Predator – Prey

c) Parasite - Host

d) All of these

18) The development of the same biological traits in unrelated lineages is:

a) Convergent evolution

b) Divergent evolution

c) Parallel evolution

d) Co-evolution

19) Microevolutionary forces, which are operative for a shorter period, result in the production of:

a) Parallel evolution

b) Sequential evolution

c) Convergent evolution

d) Co-evolution

20) The Red Queen Hypothesis has been proposed by:

a) J D Bermal (1967)

b) Van Valen (1973)

c) M Goodman (1982)

d) L H Thompson (1985)

21) Asiatic lady beetle *(Harmonia axyridis)* presents an actual instance of:

a) Mieroevolution

b) Mesoevolution

c) Mega evolution

d) Sequential evolution

22) Antifreeze proteins are found both in Arctic and Antarctic fishes. However, the genetic pathways that produce these proteins are different in these fishes. This shows:

a) Co-evolution

b) Parallel evolution

c) Convergent evolution

d) Divergent evolution

23) Consider the following statements:

a) Mesoevolutionary changes require time lesser than human life

b) Mesoevolution causes alteration in numerous genetic units

c) Mega evolution is not followed by mesoevolution

d) Mieroevolution may be sequential or divergent

The correct statements are:

a) All of these

b) A, Band C

c) A and C

d) Band D

24) Maeroevolutionary changes are:

a) Repeatable

b) Reversible

c) Both repeatable and reversible

d) Neither repeatable nor reversible

25) Which one of the following is regarded as the engine of adaptive evolution?

a) Hardy-Weinberg equilibrium

b) Natural selection

c) Genetic drift

d) Mutation

26) Dobzhansky coined the term 'mesoevolution', after obtaining the results from a cross between geographically isolated populations of:

a) Drosophila melanogaster

b) D. pseudoobseura

c) D. bipectinate

d) D. malerkotliana

27) Which one of the following is a general hypothesis about macroevolution?

a) Ecological replacements

b) Red queen hypothesis

c) Community paradigm

d) All of these

28) Microevolutionary changes are:

a) Repeatable

b) Reversible

c) Reproducible

d) All of these

29) The presence of beak and wings in extinct Pteurosaurs and birds presents an example of:

a) Parallel evolution

b) Divergent evolution

c) Convergent evolution

d) Sequential evolution

30) Environmental conditions that involve similar developmental or structural adaptations, even in the species having different descent, may lead to:

a) Convergent evolution

b) Divergent evolution

c) Co-evolution

d) Parallel evolution

31) Galapagos finches studied by Darwin present a very good example of:

a) Adaptive radiation

b) Parallel evolution

c) Co-evolution

d) Microevolution

32) Which one of the following is applicable to the evolution of humans and apes from a common ancestor?

a) Divergent evolution

b) Convergent evolution

c) Parallel evolution

d) Co-evolution

33) Which one of the following is incorrect?

a) Macroevolution results in evolutionary

b) Macroevolution is directional divergence

c) Macroevolution is caused due to macromutations

d) None of these

34) Which of the following theories states that species evolve because of biotic interactions?

a) Synthetic theory

b) Community paradigm hypothesis

c) Red queen hypothesis

d) Punctuated equilibrium theory

35) Divergent evolution is the process by which related lineages develop different over time.

a) Behavioural traits

b) Biological traits

c) Genetic traits

d) All of these

36) Which one of the following is incorrect?

a) Hindlimb dominance is an analogous trait in lemurs and humans

b) The differences in length between the finger bones of birds and bats is an example of divergent
evolution

c) Macroevolution documents the process of large-scale changes at OT above the species level over long periods

d) Mammals and cephalopods have developed eyes in a similar manner

37) In insects, the shape and the size of the body as well as the size of the proboscis is different according to the structure of flowers. This is an example of:

a) Parallel evolution

b) Co-evolution

c) Convergent evolution

d) Divergent evolution

38) Through which one of the following bacteria may a develop resistance to antibiotics?

a) Microevolution

b) Meso evolution

c) Mega evolution

d) None of these

39) Which one of the following may cause macroevolution?

a) Entry of a small population in a new niche

b) Change in developmental programme

c) Both (a) and (b)

d) Change in gene frequency.

40) Golschmidt is associated with:

a) Microevolution and macroevolution

b) Genetic drift

c) Isolating mechanism

d) Concept of species

41) Which one of the following is incorrect?

a) Mutation - Provide raw material for macroevolution

b) Flattening of canine - An example of macroevolution

c) Genetic drift - Random fixation of gene pool

d) Hox genes - Essential for patterning and growth of tetrapod limbs