1. Missing link between reptiles and birds is

(a) *Archaeopteryx* (b) *Platypus*
(c) Java Ape Man (d) Whale

2. Fossils can be dated absolutely by

(a) the amount of calcium (b) the radioactive carbon content
(c) their association with mammals (d) their stratigraphic age

3. Wings of mosquito, bat and bird indicate

(a) Divergent evolution (b) Convergent evolution
(c) Atavism evolution (d) Parallel evolution

4. Hugo de Vries worked on the plant

(a) Garden Pea/*Pisum sativum* (b) Sweat Pea/*Lathyrus odoratus*
(c) Chinese Primirose / *Primula sinensis* (d) Evening Primrose / *Oenothera lamarckiana*

5. In which respect, Darwin's theory is wrong ?

(a) High efficiency of reproduction (b) Origin of species
(c) Survival of the fittest (d) Arrival of the fittest

6. A population is in Hardy-weinberg equilibrium for a gene with only two alleles. If the gene frequency of an allele A is 0.7, the genotype frequency of Aa is

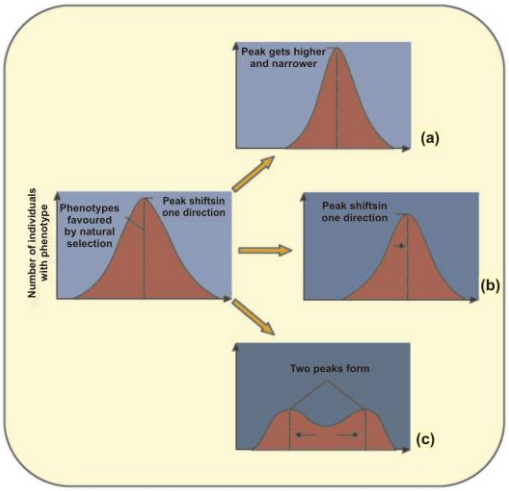
(a) 0.21 (b) 0.42
(c) 0.36 (d) 0.7

7. Given below are four statements (i - iv) each with one or two blanks. Select the option which correctly fills up the blanks in two statements.

i. Wings of butterfly and birds look alike and are the results of ____(A)____, evolution.
ii. Miller showed that CH_4, H_2, NH_3 and ____(A)_____,when exposed to electric discharge in a flask resulted in formation of ____(B)____.
iii. Vermiform appendix is a _____(A)_____organ and an _____(B)____evidence of evolution.
iv. According to Darwin evolution took place due to ___(A)____and _____(B)_____of the fittest.

(a) iv → (A) Small variations, (B) Survival, i → (A) Convergent
(b) i → (A) Convergent, ii → (A) Oxygen, (B) Nucleosides
(c) ii → (A) Water vapour, (B) Amino acids, iii → (A) Analogous, (B) Anatomical
(d) iii → (A) Vestigeal, (B) Anatomical, iv → (A) Mutations, (B) Multiplications

8. Following is the diagrammatic representation of the operation of natural selection of different trait, Which of the following options correctly identifies all the three graphs A, B and C



	A	B	C
(a)	Directional	Stabilizing	Disruptive
(b)	Stabilizing	Directional	Disruptive
(c)	Disruptive	Stabilizing	Directional
(d)	Directional	Disruptive	Stabilizing

9. Origin of life from pre-existing life is propounded by

(a) Biogenesis theory (b) Abiogenesis theory
(c) Special creation theory (d) Extra terrestrial theory

10. Darwin's finches provide an excellent evidence in favour of organic evolution. These are related to which of the following evidences?

(a) Anatomy (b) Biogeography
(c) Embryology (d) Palaentology

11. Which of the following is not vestigeal in man?

(a) Tail vertebrae (b) Nictitating membrane
(c) Nails (d) Vermiform appendix

12. Living organism with complete fossil history is

(a) Dinosaur (b) *Archaeopteryx*
(c) Horse (d) Man

13. Phenomenon of organisms having dissimilar structure with a similar origin is

(a) Mimicry (b) Analogy
(c) Homology (d) Both A and B

14. The organs, which are functionally different but are related through common descent, are

(a) Analogous (b) Homologous
(c) Divergent organs (d) Parallel organs

15. Primitive Man who built up dwelling huts and buried its dead was

(a) Java Ape Man (b) Cro-Magnon Man
(c) Peking Man (d) Neanderthal man

16. Which one is correct?

(a) Australopithecus is real ancestor of man
(b) Homo erectus is real ancestor of man
(c) Neanderthal man is direct ancestor Homo sapiens
(d) None of the above

17. Reproductive isolation is

(a) Inability to interbreed (b) Ability to interbreed
(c) Breeding in isolation (d) Intraspecific breeding

18. A group of interbreeding individuals reproductively isolated from others is

(a) Biological species (b) Morphospecies
(c) Linnean species (d) Evolutionary species

19. Two related populations occupying geographically separate area are

(a) Allopatric populations (b) Parapatric populations
(c) Quantum populations (d) Saltational populations

20. Coacervates belong to category of

(a) cyanobacteria
(b) Protozoans
(c) molecular aggregates
(d) molecular aggregate surrounded by lipid membrane

21. Lamarckism cannot explain

(a) webbed toes in aquatic birds (b) weak muscles in the son of a wrestler
(c) long narrow and limbless body of snakes (d) heterophylly

22. Which is FALSE about conditions on the earth 3.8 billion years ago ?

(a) The atmosphere contained more CO_2 than is present day
(b) The atmosphere contained more O_2 than is present day
(c) Biochemical evidence suggests there may have been life
(d) All of the above are false

23. Adaptive radiation in a taxon is mainly due to

(a) allopatric distribution (b) sympatric distribution
(c) parapatric distribution (d) orthopatric distribution

24. Darwin's theory of pangenesis proposes

(a) Some physical basis of inheritance
(b) Development of useful organs and degeneration of useless organs
(c) Increase in organ size with age
(d) Development of organs due to will power

25. Which one of the following sequences was proposed by Darwin and Wallace for organic evolution?

(a) Overproduction, variations, constancy of population size, natural selection
(b) Variations, constancy of population size, overproduction, natural selection
(c) Overproduction, constancy of population size, variations, natural selection
(d) Variations, natural selection, overproduction, constancy of population size

26. There are two opposing views about origin of modern man. According to one view Homo erectus in Asia was ancestor of modern man. A study of variations of DNA, however suggested African origin of modern man. What kind of observation on DNA variations could suggest this

(a) Greater variation in Asia than in Africa
(b) Greater variation in Africa than in Asia
(c) Similar variation in Africa and Asia
(d) Variation only in Asia and no variation in Africa

27. Adaptive radiation refers to

(a) Evolution of different species from a common ancestor
(b) Migration of members of a species to a geographical area
(c) Power of adaptation in an individual to a variety of environments
(d) Adaptation due to geographical isolation

28. Crocodile and Penguin are similar to Whale and Dogfish in which one of the following features ?

(a) Have gill slits at some stage
(b) Possess a solid single stranded central nerovous system
(c) Lay eggs and guard them till they hatch
(d) Possess bony skeleton

29. Which one of the following are analogous structures?

(a) Wings of Bat and Wings of Pigeon
(b) Gills of Prawn and Lungs of Man
(c) Thorns of Bougainvillea and Tendrils of Cucurbita
(d) Flippers of Dolphin and legs of Horse

30. The wings of a bird and the wings of an insect are :

(a) analogous structures and represent convergent evolution
(b) phylogenetic structures and represent divergent evolution
(c) homologous structures and represent convergent evolution
(d) homologous structures and represent divergent evolution

1. (a)
2. (b)
3. (b)
4. (d)
5. (d)
6. (b)
7. (a)
8. (b)
9. (a)
10. (b)
11. (c)
12. (c)
13. (c)
14. (b)
15. (d)
16. (b)
17. (a)
18. (a)
19. (a)
20. (c)
21. (b)
22. (b)
23. (a)
24. (a)
25. (c)
26. (b)
27. (a)
28. (a)
29. (b)
30. (a)