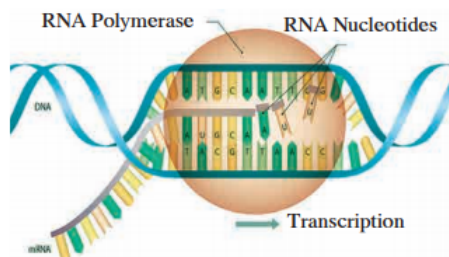


Chapter: 1

Q.1 A) Choose the correct alternative and rewrite the sentence (1)

1) What does the following diagram represent ?



- a. Mutation
- b. Translocation of DNA
- c. Formation of mRNA
- d. Translational process of DNA

B) Answer the following (2)

i) Find co-related terms.

Fossils : Paleontological Evidences :: Appendix :

ii) Find the odd one out.

With respect to central dogma - mRNA, rRNA, tRNA, DNA, Ribosome

Q.2 A) Give scientific reason: (Any one) (2)

- i) Huge animals like dinosaur become extinct.
- ii) Carbon dating method is based upon the radioactive decay of naturally occurring C-14.

B) Answer the following questions. (Any two) (4)

i) Give example of Four Anatomically similar organs.

ii) Write Short Notes on

Embryology.

iii) Complete the flow chart

3 Transcription and Translation

Q.3 Answer the following questions. (Any two) (6)

i) Which are the components the DNA molecule?

ii) Complete the paragraph

(translation, anticodon, tRNA, mRNA, amino acids, triplet codon, transcription, DNA)

The formed in nucleus comes in cytoplasm. It brings in the coded message from The message contains the codes for amino acids. The code for each amino acid consists of three nucleotides. It is called as '.....' . Each mRNA is made up of

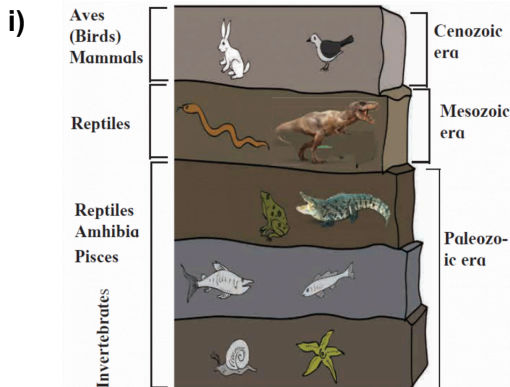
thousands of triplet codons. As per the message on mRNA, are supplied by the For this purpose, tRNA has '.....' having complementary sequence to the codon on mRNA. This is called '.....'.

- iii) Read the following statements and justify the same in your own words with the help of suitable examples.

Study of fossils is an important aspect of study of evolution.

Q.4 Answer in brief (Any one)

(5)



- What are invertebrates ?
- Give any two examples of the organisms precisely found in Mesozoic era.
- group refers to aquatic animals.
- What are the remnants of the buried animals called as ?
- Why are the Invertebrates shown in the deepest layers of Earth ?

- ii)
- Some plants and animals show some morphological characters by which they can be related to two different groups; hence they are called as '.....'. Ex. In Peripatus, characters like segmented body, thin cuticle, and parapodia-like organs are present. Similarly, these animals show respiration and open circulatory system similar to arthropods. This indicates that Peripatus is connecting link between annelida and arthropoda. Similarly, duck billed platypus lays eggs like reptiles but shows relationship with mammals too due to presence of mammary glands and hairs. Lung fish performs respiration with lungs irrespective of being fish. These examples indicate that mammals are evolved from reptiles and amphibians from fishes.

- Fill in the blank in the following paragraph.
- Give one example of a connecting link any other than from the given paragraph.
- The example from the above question is connecting link between which two different groups of animals ?