

2009BBS Bioinformatics Questions From Bharat Patel's section

1. Outline how molecular phylogenetics has contributed to our understanding of evolutionary relationships
 - (a) amongst different organisms
 - (b) between humans and primates
2. Explain why there is no universal molecular clock.
3. Define orthologs and paralogs in terms of
 - (a) evolutionary concepts
 - (b) biology concepts
4. This question relates to COG and KOG databases.
 - (a) Define COG and KOG
 - (b) Describe the rationale behind constructing these databases.
 - (c) Discuss in brief the structure and organisation of COG and KOG databases.
5. Discuss the theories on cellular evolution using diagrams wherever possible.
6. The very simple microbes have contributed enormously to the evolution of complex organisms. Justify the statement.