



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 6th Semester Examination, 2021

ZOOACOR14T-ZOOLOGY (CC14)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer any **eight** questions from the following: 2×8 = 16

- (a) What do you mean by RNA world hypothesis?
- (b) What is hot dilute soup?
- (c) What are the factors that disrupt H-W equilibrium?
- (d) What is Darwinian fitness?
- (e) What is blending hypothesis of inheritance?
- (f) Name the various periods of Palaeozoic era.
- (g) What is 'founder effect'?
- (h) What are the effects of a genetic drift?
- (i) What is radioactive clock method?
- (j) In which periods birds and amphibians originated?
- (k) State two post mating isolating mechanism.
- (l) What is gene pool?
- (m) What is stabilizing selection?
- (n) Who are Cro-magnons?

2. Answer any **three** questions from the following: 3×3 = 9

- (a) How can you determine the age of fossils by radioactive carbon method? What are the drawbacks of this method?
- (b) Distinguish between man and ape.
- (c) Define Darwinian fitness and selection coefficient.
- (d) What is genetic drift? What are the consequences of genetic drift?
- (e) What is the basic principle of a molecular clock?
- (f) Write a short note on the types of fossils.

3. Answer any **three** questions from the following: 5×3 = 15
- (a) Define biological species. Discuss the drawbacks of biological species concept. 1+4
- (b) Describe the processes of allopatric and sympatric speciation with examples. 4+1
What is cline?
- (c) Name the divisions of the coenozoic era. What is the importance of this era? 3+2
- (d) How does a vertebrate globin gene prove evolution? 5
- (e) Describe disrupting and directional selection with examples. $2\frac{1}{2} + 2\frac{1}{2}$
- (f) Write short notes on founder effect and population bottleneck with examples. $2\frac{1}{2} + 2\frac{1}{2}$

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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