

SECOND SEMESTER EXAMINATION 2021-22**M.Sc. ZOOLOGY****Paper - II****Population Genetics & Evolution**

Time : 3.00 Hrs.

Max. Marks : 80

Total No. of Printed Page : 02

Mini. Marks : 29

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dhft ; sA vdkadk folhktu iR; d [k.M eafn; k x; k gSA

Note: Question paper is divided into three sections. Attempt question of all three section as per direction. Distribution of Marks is given in each section.

Section - 'A'**Very short answer type question (in few words)**

Q.1 Attempt any six question from the following questions :

6x2=12

- (i) Define sibling species ?
- (ii) Gene flow ?
- (iii) What is Heterosis ?
- (iv) Quantitative and qualitative traits ?
- (v) Microevolution ?
- (vi) Spatial Isolation ?
- (vii) What is truncation ?
- (viii) Define Rooted and unrooted trees ?
- (ix) How is molecular clock calculated ?
- (x) What is the most common cause of speciation ?

(2)

Section - 'B'

Short answer type question (in 200 words)

Q.2 Attempt any four question from the following questions :

4x5=20

- (i) Difference between convergent and divergent evolution ?
- (ii) Explain mutation ?
- (iii) Write note on Meiotic drive ?
- (iv) Immunological techniques ?
- (v) What does variation mean in genetics ?
- (vi) Explain Genetic equilibrium ?

Section - 'C'

Long answer / Essay type questions :

Q.3 Attempt any four question from the following questions :

4x12=48

- (i) Describe five principles of Darwinism and also write criticism of Darwinism ?
- (ii) Explain in detail Hardy Weinberg's law of equilibrium ?
- (iii) Give a detail account of analysis of quantitative traits ?
- (iv) Describe models of speciation ?
- (v) Write an essay on major trends in origin of higher categories ?
- (vi) Give a detail account of molecular evolution ?

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