

ZOOLOGY Paper-I

[Biodiversity (Chordates) and Evolution – II (Zoo-401)]

Time Allowed : 3 hours

Maximum marks : 36

Note : Attempt five questions in all, selecting at least one question from each unit. Question No. 1 is compulsory.

1. Answer the following briefly :

- (a) Hibernation in *Uromastix*
- (b) Foramen of Panizzae
- (c) Air sacs in pigeon
- (d) Uropygial gland
- (e) External characters of rat
- (f) Foramen of Monro
- (g) Micro evolution
- (h) Neanderthal man

1×8=8

UNIT-I

2. Write note on any two of the following :

- (i) Buccopharyngeal cavity of *Uromastix*
- (ii) Working of *Uromastix* heart
- (iii) Forebrain of *Uromastix*

3½+3½=7

3. Explain in detail the difference between poisonous and non-poisonous snakes. Write briefly about treatment of snake bites. 7

UNIT-II

4. Describe the arterial system of *Columba*. 7
5. Classify any two of following and write ecological notes on them :
(i) *Pavo*
(ii) *Eudynamis*
(iii) *Alcedo* 3 1/2 + 3 1/2 = 7

UNIT-III

6. Write notes on any two of the following :
(i) Structure of kidney of rat
(ii) Structure of testis of rat 3 1/2 + 3 1/2 = 7
(iii) Working of rat eye
7. Classify any two of the following and write ecological notes on them :
(i) *Macropus*
(ii) *Panthera*
(iii) *Manis* 3 1/2 + 3 1/2 = 7

UNIT-IV

8. Explain macro and mega evolution. 7
9. Discuss the biological concept of species. 7