

ANDHRA UNIVERSITY

Telegrams: UNIVERSITY
Telephone: 284 4000
Fax: 0891-2755324



All Official letters,
packages etc, should be
addressed to the Registrar
by designation and not by
name.

Visakhapatnam,
Dt: 05-07-2021

No. L I (1)/U.G. Courses/Zoology/MQP/2021

From: **THE REGISTRAR**

To

Isarapu Satyavathi,
Chairperson,
Board of Studies in Zoology.
Govt. Degree College,
V.Madugula,
Visakhapatnam

Sir,

Sub: Approval of Model Question Papers – Reg.

Ref: Email dated 05-05-2021 along with Model Question Papers.

With reference to the above, I am by direction to inform that the Revised Choice Based Credit System, U.G. Courses (w.e.f. 2020-2021) Model Question Papers of I,II,III,IV,V Semesters 1) Animal diversity Biology of Non-chordates 2) Animal diversity-Biology of chordates 3) Cell biology, Genetics, Molecular biology & evolution 4) Animal Physiology, Cellular Metabolism & Embryology 5) Immunology & Animal Biotechnology have been approved.

Hence, I request to arrange to circulate the same among the Teaching Staff and Students concerned and placed in A.U. website.

Yours faithfully,

(B. RAMACHANDER)
ASSISTANT REGISTRAR (ACADEMIC)

Copies to:

1. The Dean of Academic Affairs, A.U., VSP.
2. The Dean, U.G. & P.G, Professional Courses, A.U., Vsp.
3. The Dean, CDC, A.U., Vsp.
4. The Dean, Confidential, A.U., Vsp.
5. All Principals, A.U. Affiliated Colleges Offered in U.G. courses.
6. The Controller of Examinations, A.U., Vsp.
7. The Superintendent S.I Section for taking necessary further action.
8. The Secretary to V.C., Rector Table, P.A. to Registrar, A.U., Vsp.
9. The Director, Computer Centre, A.U., Vsp.
10. O.C. & O.O.F.



Isarapu satyavathi

Wed, May 5,
8:17 PM

to me

Attachments area

L.S.
Accept
J.V.V.
3/07/21

Model paper for semester IV
Immunology & Animal Biotechnology
Two hours

Max Marks: 75

Section - A
Answer any FIVE of the following. Draw labelled diagrams wherever necessary.
5 x 5 = 25

1. Acquired immunity
2. Phagocytosis
3. MHC
4. Natural & synthetic media
5. Uses of MAb
6. Dolly
7. Artificial insemination
8. Western blotting

Section - B

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

1. Explain structure and importance of primary lymphoid organs. (or) write an essay on T & B lymphocytes
2. Explain the production of antibodies in detail. (or) Write notes on various types of Hypersensitivity.
3. Write an account on stem cells. (or) Explain various types of organ culture
4. Give an account on transgenic animals. (or) Explain various methods of manipulation of reproduction.
5. Write an essay on DNA Sequencing. (or) Give an account on DNA fingerprinting.

Zoology Model paper for semester IV

Zoology paper IV
Animal physiology, Cellular metabolism & Embryology.
Max Marks : 75

Time : 2 hrs

Section - A

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

- (1) Transport of O_2
- (2) Cardiac cycle
- (3) pancreas
- (4) polysaccharides
- (5) Uracil cycle
- (6) types of cleavages
- (7) Transamination
- (8) Enzymatic inhibition

Section - B

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

- (a) Describe Urine formation (or)
Explain the process of digestion of carbohydrates & proteins.
- (b) Explain the sliding filament theory of muscle contraction.
(or) write an account on hormonal control of reproduction.
- (c) Explain the classification of proteins (or)
Classify enzymes with suitable examples.
- (d) Explain β oxidation of palmitic acid. (or)
Give an account on Krebs's cycle.
- (e) Describe the process of fertilization. (or)
Explain the development of frog upto gastrulation.

Zoology Model paper for semester III

Zoology paper III

Cell biology, Genetics, Molecular biology & Evolution

Max. Marks: 75

Time: 3 hrs

Section - A

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

- (1) Mycoplasma
- (2) Lethal genes
- (3) pedigree analysis
- (4) translation
- (5) Genetic drift
- (6) Lamarckism
- (7) Genomics & proteomics
- (8) Genetic balance

Section - B

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

- (9) Explain the structure and functions of Endoplasmic reticulum.
- (10) Write an account on chromosomes.
- (11) What is meant by sexlinked inheritance? Explain (or) Explain the inheritance of blood groups.
- (12) Describe chromosomal disorders (or) Write an account on human Karyotype.
- (13) Write notes on central Dogma (or) Write an account on DNA replication.
- (14) Explain the modern synthetic theory of Evolution. (or) Write an account on speciation.

— X —

Zoology Model paper for semester II

Zoology paper II

Animal diversity - Biology of chordates

Time: 3 hrs

Max Marks: 75

Section - A

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

5 x 5 = 25

- (1) Urochordata
- (2) placoid scales
- (3) Crocodilia
- (4) Air sacs
- (5) prototheria
- (6) Tadpole larva
- (7) Apoda
- (8) Archaeopteryx

Section - B

Answer any FIVE of the following. Draw labelled diagrams wherever necessary.

- (9) What are the characters of chordata? (or)
Describe the life cycle of Herdmania.
- (10) Mention the differences between Petromyzon & Myxine.
Write an account on migration of fishes.
- (11) Describe the structure and functions of brain of frog or
Classify Reptiles upto orders.
- (12) Mention flight adaptations in Aves (or)
Describe the structure and functioning of heart in Col.
- (13) Write an account on general characters of mammals.
Give an account on Dentition in mammals.

— X —

Zoology Model paper for semester I

Zoology paper - I

Animal diversity - Biology of Non-chordate

Max. Marks: 75

Time: 3 hrs

Section - A

1. Answer any FIVE of the following. Draw labelled & wherever necessary. $5 \times 5 =$

- (1) Binomial nomenclature
- (2) Metagenesis
- (3) pathogenesis of Fasciola
- (4) Vermicompost
- (5) peripatus
- (6) Bispinnaria larva
- (7) conjugation
- (8) ctenophora

Section - B

5×10

2. Answer any FIVE of the following. Draw labelled & wherever necessary.

- (9) Write an account on nutrition in protozoa. (or)
Describe the life cycle of Elphidium.
- (10) Give an account on characters & classification of (or)
Write an account on canal system in sponges.
- (11) What are the parasitic adaptations (or)
Describe the life cycle of Ascaris.
- (12) Describe the social-life of Bees & Termites.
- Write notes on classification of phylum Annelida.
- (13) Describe water vascular system in Echinodermata.
- (14) Give an account on affinities of Balanus.