

PRACTICAL EXAM DEC-2021 (SESSION -2021-2022)

M.Sc. first semester ZOOLOGY

TIME:05 Hrs.

MAXIMUM MARKS -100

Q.1 Based on paper ZOO101 20

- A. Write down the procedure for genomic DNA isolation from E. coli and its quantification.
B. Write down the procedure for PCR amplification and electrophoretic separation of 16s rRNA gene sequence.

Q.2 Based on paper ZOO102 20

- A. To determine the hydrogen ion concentration (pH) of given soil and water samples using pH meter.
B. To study the insect diversity of soil at Govt. RRM PG college campus.
C. To Study the food chain assessment in artificially simulated pond ecosystem in glass aquaria.

Q.3 Based on paper ZOO103 20

- A. Write about the web-based tools used for sequence searches and homology screening
B. write about the databases available for Nucleic acid and protein sequences
C. Write down the protocol for construction of phylogenetic tree for DNA sequences using MEGA_64 software.

Q.4 Write 2-5 comments on given spots (SPOTTING). 2 x 10 = 20

1. pH electrode

6. Hydrosere

2. Southern Blotting

7. MS Excel

3. BLAST

8. Microarray

4. SCOPUS

9. Internet

5. GPS

10. Web address

Q.5 Sessional and Record

10

Q.6 Viva- Voce

10

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GOVT REWATI RAMAN MISHRA P.G. COLLEGE, SURAJPUR (C.G.)

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GOVT REWATI RAMAN MISHRA P.G. COLLEGE, SURAJPUR (C.G.)

CCA-III EXAM DEC-2021 (SESSION -2021-2022)

M.Sc. first semester **ZOOLOGY** PAPER-I (ZOO101)

DATE : 02-03-2022

MAXIMUM MARKS -20

Q.1 Fill in the blanks & objective questions.

1 X 5 = 5

1. Theory of germplasm was given by-----
2. Life originated in -----Era.
3. DNA is also present in which cell organelles.
(a) Golgi Body (b) Lysosome (c) Mitochondria (d) Cell wall
4. Study of improvement of human race by means of principles of genetics is called-
(a) Eugenics (b) Euthenics (c) Euphonic (d) Genetics
5. Characteristics which was not in the direction of evolution of man is-
(a) Binocular vision (b) Browridges (c) Shortening of jaw (d) Prehensil tail

Q.2 Short answer type question----- Any one

05

1. Explain in details that life originated from DNA.
Or
2. Explain diversification in biodiversity.

Q.3 Long answer type question -----Any one

10

1. What is the evolution. Explain it with different experiments.
Or
2. Describe the mechanism of origin of species.

GOVT REWATI RAMAN MISHRA P.G. COLLEGE, SURAJPUR (C.G.)

CCA-III EXAM DEC-2021 (SESSION -2021-2022)

M.Sc. first semester ZOOLOGY PAPER-I (ZOO101)

DATE : 02-03-2022

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Q.2 Short answer type question-----Any one

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1. Explain in details that life originated from RNA.
Or
2. Explain diversification in biodiversity.

Q.3 Long answer type question-----Any one

10

1. What is the evolution. Explain it with different experiments.
Or
2. Describe the mechanism of origin of species.

GOVT REWATI RAMAN MISHRA P.G. COLLEGE, SURAJPUR (C.G.)

CCA-III EXAM DEC-2021 (SESSION -2021-2022)

M.Sc. first semester **ZOOLOGY** **PAPER-II (ZOO102)**

DATE : 02-03-2022

MAXIMUM MARKS -20

Q.1 Fill in the blanks & objective questions.

1 X 5 = 5

1. Pond is an example of -----
2. Father of biodiversity is -----
3. Which of the following is the most stable ecosystem-
(a) Desert (b) Forest (c) Ocean (d) Mountain
4. A thin layer of ozone is present in-
(a) Troposphere (b) Stratosphere (c) Stratopause (d) Mesosphere
5. Which of this is an in-situ method of conservation:
(a) National park (b) Botanical garden (c) Tissue culture (d) Genetic engineering

Q.2 Short answer type question----- Any one

05

1. Describe phytogeography
Or
2. What do you mean by global warming.

Q.3 Long answer type question -----Any one

10

1. Discuss bioremediation of chemical in detail.
Or
2. Write an essay on environmental stresses and their management.

Botany B.Sc-III Practical Exam 2021-22

Maximum marks - 50

Date 12-04-2022

Time: -10 AM

Attempt all Question (सभी प्रश्नों को हल करना अनिवार्य है।)

Question 1. Black rust disease का वर्णन कीजिए। 10 marks

Discribe the Black rust disease.

Question 2. नम उष्मीय निर्जमीकरण के लिए Autoclave का वर्णन कीजिए। 05 marks

Discribe Autoclave moist heat sterilization.

Question 3. जीवाणुओं के gram's staining का वर्णन कीजिए। 05 marks

Discribe the gram's staining for Bacteria.

Question 4. कैलस कल्चर का वर्णन कीजिए। 05 marks

Discribe the callus culture.

Question 5 . Spotting 10 marks

Write 2 to 5 comments 1 to 5 spots

1- Hot air oven

2- Culture media

3- white rust

4- PH meter

5- Compound microscope

(6) Project work 05 marks

(7) Viva 05 marks

(8) Sessional 05 marks