MAHATMA GANDHI UNIVERSITY, KOTTAYAM

SECOND SEMESTER

MGU-UGP (HONOURS) ZOOLOGY REGULAR EXAMINATION

DISCIPLINE SPECIFIC CORE COURSE: MG2DSCZGY100

ENVIRONMENTAL BIOLOGY PRACTICALS

(2024 ADMISSION ONWARDS)

MODEL QUESTION PAPER

Duration :2 hrs **Maximum Marks:35**

Certified Record -10 marks

1. Estimate the CO2 in given water sample [CO5]

   (i) Principle & procedure-5 marks

   (ii) Observation, calculation and results-3 marks

   Or

   Write down the principle and procedure of oxygen estimation in water- 4 marks [CO5]

   And

   Identify the given 2 planktons & write on their adaptations (using Slides/ images)- 4 marks [CO5]

2. Identify the spotter and write notes (secchi disc/ counting chamber/plankton net- Any 2) 3marks each-6 marks [CO5]
3. Comment on the given Animal interaction (Any 1 positive and 1 negative using images) 2marks each-4 marks [CO5]
4. Field visit report- 4 marks [CO5]
5. Viva- 3 marks [CO5]

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MGU-UGP (HONOURS)

SECOND SEMESTER PRACTICAL EXAMINATION (2024 ADMISSION ONWARDS)

MG2DSCZIM101 - PUBLIC HEALTH MICROBIOLOGY

Duration : 2 hrs Maximum marks :35

Certified Record [Understand] [CO1] **10marks**

1) Perform MPN Method [Analyse] [CO4] **8marks**

Principle and Performance 4 marks
Result and recording 4 marks

2) Enumeration of bacteria from the given culture plate [Analyse] [CO5] **2 Marks**

Principle and Procedure

3) Identify and comment on given spotters [Understand] [CO2] **(4 x 2 = 8 marks)**

a Identify the media
b Identify the Instrument
c Identify the diseases
d Identify the organism

4) Hospital Visit Report [Understand] [C01] **6Marks**

5) Viva [Understand] [CO6] **1marks**

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MGU-UGP (HONOURS) FIRST SEMESTER EXAMINATION

(2024ADMISIONONWARDS)

MG2DSCZGY101 – Biological Basis of Behaviour II

Practical Model Question Paper

Duration:2hrs MaximumMarks:35

Certified Record 10 mark

1. Identify the labelled parts and comment on the molecular composition of DNA. 5 Marks

a) Identify any 4 parts – 2 marks

b) comment -3 marks (CO: 5) (Understand)

2. Identify and comment on any two stages of mitosis - 2 marks

a) Identification: 1 mark
b) Comment: 1 mark (CO: 5) (Understand)

3. Identify and comment on any two - mendelian disorders/karyotype of Chromosomal disorders/normal karyotype of human - 4 Marks

a) Identification: 2 marks
b) Comment: 2 marks (CO: 5) (Understand)

4. Solve the given genetic problem (monohybrid cross/ dihybrid cross/ test cross/ back cross) - 8 Marks (CO: 5) (Apply)

Example: In pea plants, round seed shape (R) is dominant over wrinkled (r), and yellow seed colour (Y) is dominant over green (y). A plant that is heterozygous for both traits (RrYy) is crossed with another plant that is also heterozygous for both traits (RrYy).

(a) Construct a Punnett square for this dihybrid cross.
(b) Determine the phenotypic ratio of the offspring.
(c) How many offspring are expected to have round yellow, round green, wrinkled yellow, and wrinkled green seeds?

5. Identify and comment on symbols in pedigree chart (Any two) -2 Marks

a) Identification: 1 mark
b) Comment: 1 mark (CO: 5) (Understand)

6. Construct a pedigree chart for the given inheritance (Haemophilia) - 4 Marks (CO: 5) (Analyse)

Example: A man with haemophilia marries a woman who is a carrier for the condition. They have three children: a healthy son, a daughter who is a carrier, and a son with haemophilia. Construct a pedigree chart representing this family's inheritance pattern.

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B.Sc Biological Techniques and Specimen Preparation

Model question paper

Second Semester Practical Exam

MGU-UGP(Honours)Multi-disciplinary course-

MG2MDCBTS100 Biological foundations for health and wellness

Time : 2 hours **Marks:35**

PART A

I. Certified record-10 marks

II. Viva -5 marks

III. Submit a case study report on a lifestyle disease.

a) Report submission- 3 marks

b) Viva- 2marks

PART B

IV Using specific chemical tests identify the biomolecules of the given two samples

Procedure: 4 marks [An] [1]

Performance: 6 marks

PART C

V a. Identify the given spotter. Mention its use. [R] [1]

b. Identify the given diet plan [U] [1]

c. Identify the mitotic stage. [R] [1]

d. Identify the given diet pattern. [U] [1]

e. Specify the use of the given reagent. [R] [1]

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

MGU-UGP(HONOURS)ZOOLOGYSECOND SEMESTER EXAMINATION

(2024 Admission Onwards)

MDC- PRACTICAL MODEL QUESTION PAPER

MG2MDCZGY100–PET CARE AND MANAGEMENT

Duration:2hrs. Total Marks: 35

(Provide diagrams/photographs where ever necessary)

Certified Record - 10 marks

1.Identification of sixgiven pets(dog -2, cat-2,bird-2) with reasons[U][CO5]

(Identification -1mark each , Reason -1 mark each) (6+6= 12 marks)

2. Identification of oneectoparasite and one endoparasite of (dog/cat/ bird)

and comment on **[**K][CO5]

(Identification - 1 mark each , Comment -1mark each) (2+2= 4 marks)

3. Write the composition of balanced diet of any one pet (dog/cat/bird)[U] [CO5]**(3 marks)**

4**.** Identify any two pet diseases and comment on itssymptoms (dog/cat/ bird) [U] [CO5]

(Identification - 3/4 mark each, Comment -3/4 marks each) (1.5+1.5= 3 marks)

5. Reports-submission (Veterinary hospital visit and incidence of different diseases) and

Viva [A][CO5] (**3 marks)**

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MGU-UGP (HONOURS)

SECOND SEMESTER PRACTICAL EXAMINATION

(2024 ADMISSION ONWARDS)

MG2DSCZIM102 – Molecules of Life

Duration: 2 hrs Maximum Marks: 35

Certified Record [Understand] [CO1] **10 Marks**

1Following a systematic scheme for analysis identify the given sample of carbohydrate
[Analyze] [CO1] **8 Marks**

Experiment & Observation 4 Marks

Confirmation & Result 4 Marks

2 Following a systematic scheme for analysis identify the given sample of NPN
[Analyze][CO6]] **8 Marks**

Experiment & Observation 4 Marks

Confirmation & Result 4 Marks

3. Identify and comment on given Spotter [Understand] [CO6] **(4^x2=8 Marks)**

1.Test used to identify proteins.

2.Test used to identify lipids

3.Identify the Reagent

4.Identify the Scientist

4.Viva [Understand] [CO6] **1 Mark**