

M.Sc. ZOOLOGY
FOURTH SEMESTER
ANIMAL PHYSIOLOGY & BIOCHEMISTRY-IV
MSZ-402 E

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

(Objective)

Time: 15 mins.

Marks: 10

Choose the correct answer from the following:

1 × 10 = 10

- Cloudy appearance of synovial fluid indicates:
 - Inflammation
 - Non inflammation
 - Hemorrhagic
 - Sepsis
- Choose the correct characteristic features of Type II diabetes mellitus by which differs from Type I diabetes mellitus.
 - Onset age is usually 40 years
 - Insulin deficiency is partial
 - No immune destruction of beta cell
 - All of these
- Which one of the following diseases cannot be detected in ECG?
 - SA-nodal block
 - Arrhythmias
 - Myocardial infraction
 - Hypoglycemia
- Select the disease which can be diagnosed from the presence of prominent U-wave in ECG.
 - Hyperkalemia
 - Hypokalemia
 - Hypercalcemia
 - Hypocalcemia
- The dye added to QPCR is:
 - Methylene blue
 - Sybr green
 - Ethidium bromide
 - Fast green
- Which immune assay is considered as safe for human use?
 - RIA
 - ELIZA
 - Immunodiffusion
 - All of the above
- The use of probe in biotechniques is:
 - Hybridization with the test sample
 - Identification of the test sample
 - Both a and b
 - None of the above
- Which of these substances are not involved when nociceptors are stimulated?
 - Cytokines
 - Bradykinin
 - Substance P
 - None of the above
- Fast pain is elicited by:
 - Thermal stimuli
 - Mechanical stimuli
 - Both a & b
 - None of the above

10. What is the requirement for better visualization and contrast of image features in microscopy?
- a. Image enhancement
 - b. Image processing
 - c. Image segmentation
 - d. Conversion factor

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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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|---|--------|
| 1. Write how the Hepatic enzymes are useful in clinical diagnosis of disease. | 5 |
| 2. What is a probe? Discuss different blotting techniques and use of probe in those techniques. | 2+8=10 |
| 3. Write notes on the following:
a) Disease related with adrenal gland
b) Diagnostic use of cerebrospinal fluid and pleural fluid | 5+5=10 |
| 4. Write short notes on the following:
a) Real time PCR
b) Detection of HIV with ELIZA | 5+5=10 |
| 5. Write down the principle and application of PET and MRI. | 5+5=10 |

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