S-1073

Total Pages: 3 Roll No.

ZO-504

Human Cytogenetic & Developmental Biology

M.Sc. Zoology (MSCZO)

1st Year Examination, 2022 (Dec.)

Time: 2 Hours] Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 19 = 38)$

1. Explain the Prophase first of meiosis in detail.

- **2.** What is cleavage? Explain in detail how cleavage takes place.
- **3.** Describe the condition required for peripheral blood cell culture.
- **4.** Write briefly about different important parts of microscope.
- **5.** Describe the difference between spermatogenesis and oogenesis.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

- **1.** What is aging? Give reasons for aging.
- **2.** Explain the limbless and legless mutations.
- **3.** Explain development of segmentation in Drosophilo.
- **4.** What is regeneration?
- **5.** Explain the mechanism of primary neurulation.

- **6.** Describe The ultra-structure of a sperm and ova with the help of a suitable diagram.
- 7. Write short notes on dominance and recessiveness.
- **8.** What is the mutation called when it replaces a single base with another?