

## ZO504 HUMAN CYTOGENETICS AND DEVELOPMENTAL

### BIOLOGY

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Programme: Master of Science Zoology MSCZO12

Year / Semester: 1st Year

Credits: 6

#### **BLOCK – I : Human Cytogenetics**

Unit –1 : Introduction to Human Cytogenetics

Unit –2 : Chromosomes & Karyotyping

Unit –3 : Chromosomal Abnormalities

Unit –4 : Genetic Disorders

Unit –5 : Mutations and Repair of DNA

Unit –6 : Recombinant DNA Technology

Unit –7 : Cytogenetic Culture setup and Harvest

Unit –8 : Slide Preparation and Staining

Appendix – A Glossary of Genetic Terms

Appendix – B Glossary of Malformations

#### **BLOCK – II: Development Biology**

Unit –9 : Basic concepts of Development Biology

Unit –10 : Gametes and Fertilization

Unit –11 : Cleavage and Gastrulation

Unit –12 : Early vertebrate Development

Unit –13 : Differentiation

Unit –14 : Body Axis

Unit –15 : Tetra pod Limb Development

Unit –16 : Growth and Post-embryonic Development

Unit –12 : Regeneration