Class: M. Sc – III semester (old) Lesson plan: Session 2020-2021 **Subject: Zoology**					
Date	**Lecture No.**	**Teacher's Name**	**Paper**	**Chapter**	**Topic**
16.07.20	1	R.N. Singh	I	Chordata	Origin of Chordates
17.07.20	1	S.K	II	Animal Development	Gametes, structure and formation
18.07.20	1	VKS	III	Biostatistics	Measures of central tendencies and variations in data
20.07.20			**C L**		**CLASS TEACHING**
21.07.20	2	R.N. Singh	I	Chordata	Origin of Chordates
22.07.20	3	R.N. Singh	I	Chordata	Interrelationship of Ostracoderms
23.07.20	2	S.K	II	Animal Development	Gametes, structure and formation
24.07. 20	2	VKS	III	Biostatistics	Tests of significance: t-test, analysis of variance, f-test
27.07. 20	1	N.K	IV	Cell Biology-Cytological Techniques	Elementary principles of phase, interference, polarization, fluorescence
28.07. 20			**C L**		**CLASS TEACHING**
29.07. 20	4	R.N. Singh	I	Chordata	Interrelationship of Ostracoderms
30.07. 20	5	R.N. Singh	I	Chordata	Placoderms
31.07. 20	3	S.K	II	Animal Development	Fertilization (pre- and post-fertilization events)
04.08. 20	3	VKS	III	Biostatistics	Null hypothesis and Chi-square test
05.08. 20	2	N.K	IV	Cell Biology-Cytological Techniques	Elementary principles of phase, interference, polarization, fluorescence
06.08. 20			**C L**		**CLASS TEACHING**
07.08. 20	6	R.N. Singh	I	Chordata	Placoderms
08.08. 20	4	S.K	II	Animal Development	Fertilization (pre- and post-fertilization events)
10.08. 20	5	S.K	II	Animal Development	Biochemistry of fertilization
11.08. 20	4	VKS	III	Biostatistics	Distribution: Normal; Binomial and poison, correlation, regression and probability
13.08. 20	3	N.K	IV	Cell Biology-Cytological Techniques	Electron microscope (transmission electron microscope, scanning electron and atomic force microscopy)
14.08. 20			**C L**		**CLASS TEACHING**
17.08. 20	7	R.N. Singh	I	Chordata	General organization and affinities of Holocephali
18.08. 20	6	S.K	II	Animal Development	Nature of eggs and their cleavage
19.08. 20	7	S.K	II	Animal Development	Nature of eggs and their cleavage
20.08. 20	5	VKS	III	Biostatistics	Distribution: Normal; Binomial and poison, correlation, regression and probability
21.08. 20	4	N.K	IV	Cell Biology-Cytological Techniques	Electron microscope (transmission electron microscope, scanning electron and atomic force microscopy)
22.08. 20			**M E**		**MONTHLY EVALUATION**
24.08. 20	8	R.N. Singh	I	Chordata	General organization and affinities

					of Holocephali
25.08. 20	8	S.K	II	Animal Development	Gastrulation
26.08. 20	9	S.K	II	Animal Development	Organogenesis of vertebrate brain
27.08. 20	6	VKS	III	Principles of Taxonomy	Definition and basic concepts of Biosystematics & Taxonomy
28.08.20	5	N.K	IV	Cell Biology-Cytological Techniques	Theory and application of freeze-drying
01.09. 20			**C L**		**CLASS TEACHING**
02.09. 20	9	R.N. Singh	I	Chordata	Crossopterygii and Dipnoi
03.09. 20	10	S.K	II	Animal Development	Eye and heart
04.09. 20	11	S.K	II	Animal Development	Evolution of viviparity in mammals
05.09. 20	7	VKS	III	Principles of Taxonomy	Historical resume of systematics and its importance and application in biology
07.09. 20	6	N.K	IV	Cell Biology-Cytological Techniques	x-ray diffraction, radioautographs
08.09. 20			**C L**		**CLASS TEACHING**
09.09. 20	10	R.N. Singh	I	Chordata	Origin of paired fins in teleosts
10.09. 20	12	S.K	II	Animal Development	Cellular and biochemical events in metamorphosis of insects and amphibians
11.09. 20	8	VKS	III	Principles of Taxonomy	Trends in Biosystematics
12.09. 20	9	VKS	III	Principles of Taxonomy	Concepts of different conventional and newer aspects – chemotaxonomy, cytotaxonomy, ethotaxonomy
14.09. 20	7	N.K	IV	Cell Biology-Cytological Techniques	x-ray diffraction, radioautographs
15.09.20			**C L**		**CLASS TEACHING**
16.09. 20	11	R.N. Singh	I	Chordata	Rhynchocephalia
18.09. 20	13	S.K	II	Animal Development	Causes of fetal deformities
19.09. 20	10	VKS	III	Principles of Taxonomy	Molecular taxonomy and numerical taxonomy
21.09. 20	11	VKS	III	Principles of Taxonomy	Dimensions of speciation and Taxonomic characters
22.09. 20	8	N.K	IV	Cell Biology-Cytological Techniques	Methods of cell tissue culture
23.09. 20			**C L**		**CLASS TEACHING**
24.09. 20	12	R.N. Singh	I	Chordata	Origin Of Tetrapoda
25.09. 20	14	S.K	II	Morphogenesis	Determination of polarity and symmetry
26.09. 20	12	VKS	III	Principles of Taxonomy	Types of lineage changes, production of additional lineage, species concepts
28.09. 20	13	VKS	III	Principles of Taxonomy	species category, different species concepts, subspecies and infra-specific categories

29.09. 20	9	N.K	IV	Cell Biology-Cytological Techniques	Chemical basis of fixation
30. 09. 20			M E		**MONTHLY EVALUATION**
01.10. 20	13	R.N. Singh	I	Chordata	Neoteny in Amphibia
03.10. 20	15	S.K	II	Morphogenesis	Pattern regulation in insect imaginal discs
05.10. 20	14	VKS	III	Principles of Taxonomy	Theories of biological classification hierarchy of categories, taxonomic and non-taxonomic characters
06.10. 20	15	VKS	III	Principles of Taxonomy	Procedure in Taxonomy: Collection, preservation, identification, taxonomic keys – different kinds of taxonomic keys, their merits and demerits
07.10. 20	10	N.K	IV	Cell Biology-Cytological Techniques	Cytochemical localization of proteins
09.10. 20			**C L**		**CLASS TEACHING**
10.10. 20	14	R.N. Singh	I	Chordata	Origin and evolution of Reptiles
12.10. 20	16	S.K	II	Morphogenesis	Induction and organizer concept
13.10. 20	16	VKS	III	Principles of Taxonomy	Systematic publications, different kinds of publications
14.10. 20	11	N.K	IV	Cell Biology-Cytological Techniques	Lipids, glycogen, RNA, DNA, phosphatase, esterases and oxidases
15.10. 20	12	N.K	IV	Cell Biology-Cytological Techniques	Lipids, glycogen, RNA, DNA, phosphatase, esterases and oxidases
16.10. 20			**CT**		**CLASS TEACHING**
17.10. 20	15	R.N. Singh	I	Chordata	Birds, Mammals
19.10. 20	17	S.K	II	Morphogenesis	Differentiation at the level of chromosomes
20.10. 20	17	VKS	III	Principles of Taxonomy	Different zoological types, international code of zoological nomenclature (ICZN)– its operative principles, interpretation and application of important rules
21.10. 20	13	N.K	IV	Cell Biology-Cytological Techniques	Lipids, glycogen, RNA, DNA, phosphatase, esterases and oxidases
22.10. 20	14	N.K	IV	Cell Biology-Cytological Techniques	Purification and fractionation of nucleic acids
23.10. 20			**ME**		**MONTHLY EVALUATION**
29.10. 20	16	R.N. Singh	I	Chordata	Aerodynamics in birds
31.10. 20	18	S.K	II	Morphogenesis	Regeneration and gradients in developing systems

02.11. 20	18	VKS	III	Principles of Taxonomy	Zoological nomenclature, formation of scientific names of various taxa
03.11. 20	15	N.K	IV	Cell Biology-Cytological Techniques	Nucleic acid hybridization
04.11. 20	16	N.K	IV	Cell Biology-Cytological Techniques	Nucleic acid hybridization
05.11. 20			**C L**		**CLASS TEACHING**
06.11. 20	17	R.N. Singh	I	Chordata	Birds are glorified reptiles
07.11. 20	18	R.N. Singh	I	Chordata	Adaptive radiation in Eutheria
09.11. 20	19	S.K	II	Morphogenesis	Ageing and cellular death
10.11. 20	19	VKS	III	Evolution	Neo-Lamarckism, Neo-Darwinism and Synthetic theory of evolution, Isolation and speciation
17.11. 20	17	N.K	IV	Cell Biology-Cytological Techniques	Enzymatic application of DNA by PCR
18.11. 20			**C L**		**CLASS TEACHING**
19.11. 20	19	R.N. Singh	I	Chordata	Origin and evolution of Man
21.11. 20	20	R.N. Singh	I	Chordata	Origin and evolution of Man
23.11. 20	20	S.K	II	Morphogenesis	Transgenic animals and knock outs (production, application, embryonic stem cell)
24.11. 20	20	VKS	III	Evolution	Genes in population: Hardy Weinberg Law and Sewell Wright effect, Micro evolution
26.11. 20	21	VKS	III	Evolution	Macro evolution and Mega evolution, Evolution in action
27.11. 20			**ME**		**MONTHLY EVALUATION**
28.11. 20	18	N.K	IV	Cell Biology-Cytological Techniques	Enzymatic application of DNA by PCR