Class: M. Sc – II (III semester)		Lesson plan: Session 2020-2021			**Subject: Zoology**
Date	**Lecture No.**	**Teacher's Name**	**Paper**	**Chapter**	**Topic**
16.07.20	1	VKS	I	Principles Of Ecology	Environment : meaning definition and environmental perception in Vedic literature
17.07.20	1	S.K	II	Biostatistics And Computational Biology	Basic components of computers, hardware Application software; Introduction to MSEXCEL- use of worksheet to enter data,
18.07.20	1	R.N SINGH	III	BIOLOGY OF PARASITISIM	Introduction to parasitology: Animal associations and host – parasite relationship
20.07.20			CT		**Class Teaching**
21.07.20	2	VKS	I	Principles of Ecology	Environmental ethics and global imperatives; Environmental factors (Abiotic)
22.07.20	3	VKS	I	Principles Of Ecology	medium, substratum, soil, water and humidity, light, temperature, current and pressure, atmospheric gases (O2, CO2, and N.), pH, nutrients and their importance and role
23.07.20	2	S.K	II	Biostatistics And Computational Biology	edit data, copy data, move data; Use of in-built statistical functions for computations of mean, S.D., correlation, regression coefficients etc.,
24.07. 20	2	R.N SINGH	III	BIOLOGY OF PARASITISIM	Distribution of diseases and zoonosis caused by animal parasites, morphology, lifecycle , mode of infection of Plasmodium,
27.07. 20	1	N.K	IV	Animal Behaviour	Introduction - definition, historical out line, patterns of behaviour, objectives of beliaviour, mechanism of behaviour, asking questions:
28.07. 20			CT		**Class Teaching**
29.07. 20	4	VKS	I	Principles Of Ecology	medium, substratum, soil, water and humidity, light, temperature, current and pressure, atmospheric gases (O2, CO2, and N.), pH, nutrients and their importance and role
30.07. 20	5	VKS	I	Principles Of Ecology	Climate of India and Indian monsoons. Structure and composition of atmosphere, hydrosphere, lithosphere and biosphere;
31.07. 20	3	S.K	II	Biostatistics And Computational Biology	Use of bar diagram, histogram, scatter plots, etc.; Graphical tools in EXCEL for presentation of data;
04.08. 20	3	R.N SINGH	III	BIOLOGY OF PARASITISIM	molecular biology of Plasmodium- drug target, mechanism of drug resistance, vaccine strategies and proteomic approaches.
05.08. 20	2	N.K	IV	Animal Behaviour	Reflexes : reflex action, types of reflexes, reflex arch, characteristics of reflexes and complex behavior:
06.08. 20			CT		**Class Teaching**
07.08. 20	6	VKS	I	Principles Of Ecology	Terrestrial and aquatic (fresh water and marine) habitat; Environmental (biotic factors
08.08. 20	7	VKS	I	Principles Of Ecology	community ecology, parasitism and prey-predator relationship; population

					interaction
10.08. 20	4	S.K	II	Biostatistics And Computational Biology	Introduction to MS-WORD word processor- editing, copying, moving, formatting, table insertion, drawing flow charts etc; Introduction to Power Point, image and data handling.
11.08. 20	4	R.N.SINGH	III	BIOLOGY OF PARASITISIM	molecular biology of Plasmodium- drug target, mechanism of drug resistance, vaccine strategies and proteomic approaches.
13.08. 20	3	N.K	IV	Animal Behaviour	Orientation : primary and secondary orientation:kinesis - orthokinesis and klinokinesis,
14.08. 20			CT		**Class Teaching**
17.08. 20	8	VKS	I	Principles Of Ecology	community ecology, parasitism and prey-predator relationship population interaction, Ecological succession
18.08. 20	9	VKS	I	Principles Of Ecology	Ecosystem : definition, type, structural components of ecosystem (pond ecosystem) - autotrophs and heterotrophs (producer consumers, decomposers and transformers);
19.08. 20	5	S.K	II	Biostatistics And Computational Biology	Sampling techniques: methods of sampling, choice of sampling methods, sampling and non sampling errors; Tabulation and graphic representation of data: frequency distribution
20.08. 20	5	R.N SINGH	III	BIOLOGY OF PARASITISIM	Morphology, lifecycle and mode of infection of Leishmania, molecular biology of Leishmania - drug targets, drug resistance and vaccine strategies,:
21.08. 20	4	N.K	IV	Animal Behaviour	taxis - different kinds of taxis; Sun compass orientation, dorsal - light reaction Eusociality, social organization in honey bee,

22.08. 20			ME		**Monthly Evaluation**
24.08. 20	10	VKS	I	Principles Of Ecology	Ecological pyramids on numbers, biome and energy.Concept of productivity and standing crops ecotone, ecotype; Edge effect.
25.08. 20	6	S.K	II	Biostatistics And Computational Biology	tabulation, bar diagram, histograms, pie diagram; and their significance and limitations;
26.08. 20	7	S.K	II	Biostatistics And Computational Biology	Measures of dispersion : interquartiles range, variance and standard deviation,coefficient of variation, measures of skewness, coefficients of skewness, kurtosis;
27.08. 20	6	R.N SINGH	III	BIOLOGY OF PARASITISIM	Morphology, lifecycle and mode of infection of Leishmania, molecular biology of Leishmania - drug targets, drug resistance and vaccine strategies,:
28.08. 20	5	N.K	IV	Animal Behaviour	polyphenism and its neural control, flower recognition, displacement and translocation experiment,
01.09. 20			CT		**Class Teaching**
02.09. 20	11	VKS	I	Principles Of Ecology	Ecological indicators.: Biogeochemical cycles, concept of stress and strain;
03.09. 20	8	S.K	II	Biostatistics And Computational Biology	Probability : theorems on probability, application of permutation and combination condional probability:,
04.09. 20	9	SK	II	Biostatistics And Computational Biology	Probability or theoretical distributions : (a) Binomial distribution : mean, variance, conditions for application
05.09. 20	7	R.N SINGH	III	BIOLOGY OF PARASITISIM	morphology, lifecycle , mode of infection of Entamobia and Giardia
07.09. 20	6	N.K	IV	Animal Behaviour	various type of communications production of new queen and hive, swarıning, honey bee as super organism
08.09. 20			CT		**Class Teaching**
09.09. 20	12	VKS	I	Principles Of Ecology	Acclimation & acclimatization, adaptations ecological habitats and niche,;
10.09. 20	10	S.K	II	Biostatistics And Computational Biology	Pascal's triangle, characteristics of binomial distribution; (b) Poisson distribution condition under which it is used, mean and variance of and binomial approximation to Poisson distribution:
11.09. 20	11	S.K	II	Biostatistics And Computational Biology	(c) Normal distribution : properties and applications. of normal distribution Probit analysis; Correlation covariance, correlation analysis, presentation
12.09.20	8	R.N SINGH	III	BIOLOGY OF PARASITISIM	morphology, biology, lifecycle and mode of infection of gastrointestinal, nematodes (Ascaris lumbrisoides, Ancylostoma duodenale, Enterobius vermicularis) and Wuchereria bancrofti
14.09. 20	7	N.K	IV	Animal Behaviour	Fixed action pattern: mechanism deprivation experiment, controversies.; FAP- characteristics and evolutionary features,

15.09. 20			CT		**Class Teaching**
16.09. 20	13	VKS	I	Principles Of Ecology	concept of limiting factors, Liebig's law of the minimun; Shelford's law of tolerance;
18.09. 20	12	S.K	II	Biostatistics And Computational Biology	correlation of coefficient, Spearman's Rank correlation coefficient, graphical method of Regression: regression analysis, Fitting of lines of regression, regression
19.09. 20	10	R.N SINGH	III	BIOLOGY OF PARASITISIM	morphology, biology, lifecycle and mode of infection of gastrointestinal, nematodes (Ascaris lumbrisoides, Ancylostoma duodenale, Enterobius vermicularis) and Wuchereria bancrofti
21.09. 20	11	R.N SINGH	III	BIOLOGY OF PARASITISIM	morphology, biology, lifecycle and mode of infection of gastrointestinal, nematodes (Ascaris lumbrisoides, Ancylostoma duodenale, Enterobius vermicularis) and Wuchereria bancrofti
22.09. 20	8	N.K	IV	Animal Behaviour	Learning and instincts: conditioning. habituation, sensitization,reasoning Innate releasing mechanisms: key stimuli. stimulus filtering, supernormal stimuli, open and closed IRM; mimetic releaser, code breakers;,
23.09. 20			CT		**Class Teaching**
24. 09. 20	14	VKS	I	Principles Of Ecology	; Concept of homeostasis and feedback Concept of model and ecosystem modeling;
25. 09. 20	13	S.K	II	Biostatistics And Computational Biology	coefficient and its properties. coefficient of determination; standard error of estimates, linear and non-linear lines or
26. 09. 20	12	R.N.SING H	III	BIOLOGY OF PARASITISIM	Morphology biology, lifecycle and mode of entry of Fasciola, Taenia and Schistosoma
28. 09. 20	13	R.N SINGH	III	BIOLOGY OF PARASITISIM	Morphology biology, lifecycle and mode of entry of Fasciola, Taenia and Schistosoma
29.09. 20	9	N.K	IV	Animal Behaviour	Homeostasis and behavior: motivational system, physiological basis of motivation, control of hunger drive in blow fly and thirst drive in goat,
30.09. 20			ME		**Monthly Evaluation**
01.10. 20	15	VKS	I	Principles Of Ecology	, Conservation of natural resources; Wetlands Ecological succession,
03.10. 20	14	S.K	II	Biostatistics And Computational Biology	Hypothesis testing : Standard error of a statistic, estimation theory, confidence limit, testing of hypothesis test of significance of mean (large sample), of difference between two means (large sample);
05.10. 20	14	R.N SINGH	III	BIOLOGY OF PARASITISIM	molecular biology of nematodes, cestodes and trematodes and vaccine strategies.
06.10. 20	15	R.N SINGH	III	BIOLOGY OF PARASITISIM	Pathology of helminth infections ; immune response and self defense mechanisms,
07.10. 20	10	N.K	IV	Animal Behaviour	role of hormone, motivational conflict and decision makingdisplacement activity. models of motivation, measuring motivation;

09.10. 20			CT		**Class Teaching**
10.10. 20	16	VKS	I	Principles Of Ecology	mass and energy transfer access to various interfaces Material balance:
12.10. 20	15	S.K	II	Biostatistics And Computational Biology	Students' t-test : assumption for t-test,properties and application of t-distribution, computation of t-statistic (t-values),
13.10. 20	16	R.N SINGH	III	BIOLOGY OF PARASITISIM	immune evasion and biochemical adaptation parasites ;
14.10. 20	17	R.N SINGH	III	BIOLOGY OF PARASITISIM	parasites of veterinary importance ; parasites of insects and their significance,
15.10. 20	11	N.K	IV	Animal Behaviour	Hormones and pheromones influencing animal behaviour.Patterns of communication (chemical. visual, light, audio, species specificity of songs, evolution of language with respect to primates)
16.10. 20			CT		**Class Teaching**
17.10. 20	17	VKS	I	Principles Of Ecology	Energy flow; First and second law of thermodynamics Heat transfer processes;,;
19.10. 20	16	S.K	II	Biostatistics And Computational Biology	tests of significance of a single mean (small samples), of difference between two means (small sample); paired t-test for difference of means.
20.10. 20	18	R.N SINGH	III	BIOLOGY OF PARASITISIM	host parasite interactions.
21.10. 20	12	N.K	IV	Animal Behaviour	Social behavior with reference to insects and primates Sexual behaviour
22.10. 20	13	N.K	IV	Animal Behaviour	Social behavior with reference to insects and primates Sexual behaviour
23.10. 20			ME		**Monthly Evaluation**
29.10. 20	18	VKS	I	Principles Of Ecology	Demography: population size and density, life table, generation time,
31.10. 20	17	S.K	II	Biostatistics And Computational Biology	Chi-square-test: degree of freedom, properties and uses of chi-square, conditions for using. the chi-square sign-test for paired data,
02.11. 20	18	R.N SINGH	III	BIOLOGY OF PARASITISIM	host parasite interactions.
03.11. 20	14	N.K	IV	Animal Behaviour	Courtship, sexual selection, mating patterns parental care,
04.11. 20	15	NK	IV	Animal Behaviour	migratory behaviour of fishes and birds
05.11. 20			CT		**Class Teaching**
06.11. 20	19	VKS	I	Principles Of Ecology	reproductive dispersion, age structure. survivorship, population growth,

07.11. 20	17	S.K.	II	Biostatistics And Computational Biology	Mann-Whitney U-test,Spearman'srank correlation test; Types of Non-parametric tests, its advantages/disadvantages and use;
09.11. 20	18	S.K.	II	Biostatistics And Computational Biology	Experimental design: basic concepts and principles, completely randomized design
10.11. 20	19	SK	II	Biostatistics And Computational Biology	Duncan's multiple range test, randomizedblock design;Latin square design,
17.11. 20	16	N.K	IV	Animal Behaviour	Territorial behavior: Behavioural genetics
18.11. 20			CT		**Class Teaching**
19.11. 20	20	VKS	I	Principles Of Ecology	natality, mortality, biotic potential, Concept of rand k selection
21.11. 20	21	VKS	I	Principles Of Ecology	evolution of sex and mating system,. Life history strategies,
23.11. 20	20	S.K	II	Biostatistics And Computational Biology	Tukey's test of additivity, simple lattice design.
24.11. 20	21	SK	II	Biostatistics And Computational Biology	Tukey's test of additivity, simple lattice design.
26.11. 20	16	N.K	IV	Animal Behaviour	Territorial behavior: Behavioural genetics
27.11. 20			ME		**Monthly Evaluation**