

Moyna College
Zoology (G)
Part - I
Paper - I
Session : 2016-17
Teacher : Monalisa Maity

Syllabus Division :

Group	Marks
A : Non Chordate	30
B : Taxonomy, Evolution, Adaptation & Distribution	30
C : Developmental Biology	20
D : Ecology, Ethology & Wildlife	20

Group A : Non Chordate

Unit I: classification with distinctive features & suitable examples

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
1.Kingdom Protozoa(upto phylum)	12.7.16	1	Lecture , Question-Answer	i) স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায় ii) ত্রিবার্ষিক প্রাণিবিদ্যা(১+২)-ড.অসীম কুমার চট্টপাধ্যায়, ড.চন্দ্রশেখর চক্রবর্তী
2.Phylum Porifera(upto subclass)	13.7.16	1	Lecture , Question-Answer	” -
3.Phylum Cnidaria (upto subclass)	14.7.16	1	Lecture , Question-Answer	”
4.Phylum Platyhelminthes (upto subclass)	9.8.16	1	Lecture , Question-Answer	”
5.Phylum Nematelminthes (upto subclass)	10.8.16	1	Lecture , Question-Answer	”

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
6. Phylum Annelida (upto subclass)	16.8.16	1	Lecture , Question-Answer	i) স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায় ii) ত্রিবার্ষিক প্রাণিবিদ্যা(১+২)-ড. অসীম কুমার চট্টপাধ্যায়, ড. চন্দ্রশেখর চক্রবর্তী
7. Phylum Arthropoda (upto subclass)	17.8.16	1	Lecture , Question-Answer	”
8. Phylum Mollusca (upto subclass)	22.8.16	1	Lecture , Question-Answer	”
9. Phylum Echinodermata (upto subclass)	23.8.16	1	Lecture , Question-Answer	”

Unit II : General structure & function/processes of the following with reference to the specimens mentioned

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
1. Locomotion: i) Microfibrils (<i>Amoeba</i>)	24.8.16	1	Lecture Question-Answer	i) স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায়
ii) Flagella (<i>Euglena</i>) iii) Cilia (<i>Paramecium</i>) iv) Parapodia (<i>Nereis</i>)	”	”	Lecture Question-Answer	ii) Modern textbook of Zoology: Invertebrates -R.L.Kotpal
2. Feeding & Digestion: i) Microphagy (<i>Amoeba</i>) ii) Macrophagy (<i>Paramecium</i>) iii) Canal System (<i>Sycon</i>)	29.8.16 30.8.16	2	Lecture Question-Answer	”
3. Respiration : i) Respiratory Pigments (haemoglobin & Haemocyanin), ii) Ctenidium & Pulmonary Sac (<i>Pila</i>), iii) Gills, Trachea & book lung (prawn, Cockroach, Scorpion)	31.08.16 5.9.16	2	Lecture Question-Answer	”

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
4.Excretion : i)Flame cells (<i>Taenia</i>) ii)Nephridia(Earthworm) iii)Malpighian tubules(Cockroach) iv)Green gland(Prawn)	6.9.16 7.9.16	2	Lecture Question-Answer	”
5.Circulation : i)Open circulation (Cockroach) ii)Closed circulation(Earthworm) iii)Haemal circulation(Starfish)	12.9.16 14.9.16	2	Lecture Question-Answer	”
6.Neural integration : i)integration- simple & complex nerve nets ii)Nervous system-cockroach, Apple snail	19.9.16 20.9.16	2	Lecture Question-Answer	”
7. Reproduction & Life cycle: i)Fission(<i>Amoeba</i>) ii)Conjugation(<i>Paramecium</i>) iii)Budding(<i>Hydra</i>) iv)Metagenesis(<i>Obelia</i>) v)Sexual reproduction (Earthworm&Cockroach) vi)Metamorphosis in insects	21.9.16 27.9.16 28.9.16	3	Lecture Question-Answer	”

Group B : Taxonomy, Evolution, Adaptation & Distribution

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
1.Definition of Systematic & Taxonomy	3.10.16	1	Lecture, Question-Answer	i)স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায় ii) ত্রিবার্ষিক প্রাণিবিদ্যা(১+২)-ড.অসীম কুমার চট্টপাধ্যায়, ড.চন্দ্রশেখর চক্রবর্তী
2.Species as unit of evolution (definition & types : Biological,Sibling & Polytypic)	4.10.16 5.10.16	2	Lecture, Question-Answer	”
3. Chemical basis of origin of life	1.11.16 2.11.16	2	”	”
4.Darwinism & synthetic theory of evolution	7.11.16	1	”	”
Subunits	Date	Total No.	Teaching	Ref. Books

		of class	Strategy	
5.Hardy – Weinberg equilibrium In relation to natural selection	8.11.16	1	Question- Answer, Problem solving	”
6.Anatomical & physiological adaptations : aquatic, desert & volant animals	9.11.16 15.11.16	2	Lecture, Question- Answer	”
7.Zoogeographical realms & their subdivisions with characteristics fauna	16.11.16 28.11.16	2	Lecture, Question- Answer	”
8. Schematic representation Of geological time scale indicating time of origin Of major animal groups	29.11.16 30.11.16 5.12.16 6.12.16	4	Lecture, Question- Answer	”

Group C : Developmental Biology

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
1.Spermatogenesis & Oogenesis	7.12.16 12.12.16 14.12.16 19.12.16	4	Lecture, Question- Answer	i) স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায় ii) ত্রিবার্ষিক প্রাণিবিদ্যা(১+২)- ড.অসীম কুমার চট্টপাধ্যায়, ড.চন্দ্রশেখর চক্রবর্তী
2.Fertilization in Sea-urchinn	20.12.16 21.12.16	2	”	”
3.Types of eggs & cleavage, process of cleavage in Frog & Chick	3.1.17 4.1.17	2	”	”
4. Gastrulation in frog & chick	9.1.17 10.1.17	2	”	”
5.Placentation in mammals (Rabbit)	11.1.17 16.1.17	2	”	”
6.Organiser concept	17.1.17 18.1.17 24.1.17	3	”	”

Group D : Ecology, Ethology & Wildlife

Subunits	Date	Total No. of class	Teaching Strategy	Ref. Books
1.Ecology&Ecosystem – definition, components, energy flow, food chain, food web, ecological pyramids	25.1.17 30.1.17 31.1.17 6.2.17 7.2.17 8.2.17 13.2.17 14.2.17	8	Lecture, Question-Answer	i) স্নাতক প্রাণিবিদ্যা(১) -দেবজ্যোতি চট্টপাধ্যায় ii) ত্রিবার্ষিক প্রাণিবিদ্যা(১+২)- ড.অসীম কুমার চট্টপাধ্যায়, ড.চন্দ্রশেখর চক্রবর্তী
2. Population- definition & Growth types (logistic & Exponential)	15.2.17 20.2.17	2	Lecture, Question-Answer	”
3. Community – definition & types (major & minor community)	21.2.17 22.2.17	2	Lecture, Question-Answer	”
4. Pollution – air, water, noise	27.2.17 28.2.17 1.3.17	3	Lecture, Question-Answer	”
5.Social behavior of honey bee	6.3.16 7.3.17	2	”	”
6.Echolocation In bat	8.3.17 14.3.17	2	”	”
7.Conservation of Wild life – purpose & methods; concept of wild life Sanctuary, National Park & Biosphere Reserve	15.3.17 20.3.17 21.3.17 22.3.17 27.3.17 28.3.17 29.3.17	7	Lecture, Question-Answer	”