Assessment Scheme

For Biology 12th Part II Session 2012-14 & ONWARD

Time: 03:30 hrs **Total Marks:- 100**

Sr. No	Chapters	Weightage	Distribution of Marks	M.C.Qs				Short Answer Questions				Essay Type Questions				Questions relating to Practicals
				Allotted Marks 17				Allotted Marks 44				Allotted Marks 24				Allotted Marks 15
				Q. to be asked 17 Q. to be attempted 17				Q. to be asked 33 Q. to be attempted22				Q. to be asked 5 Q. to be attempted 3				Q. to be asked 5 Q. to be attempted 3
				Time 20 Minutes				Time 3 Hours & 10 Minutes								
				K	U	A	Total Marks	K	U	A	Total Marks	K	U	A	Total Marks	
1	Homeostasis	10 %	12	1	1	-	2	1	1	1	6	½	-	-	4	
2	Support and movement	10 %	12	1	-	1	2	2	-	1	6		½	-	4	
3	Coordination and Control	9 %	11	1	-	-	1	-	2	1	6	½	-		4	
4	Reproduction	10 %	12	1	-	1	2	2	1	-	6	-	-	½	4	
5	Growth and Development	6 %	7	-	-	1	1	1		-	2	½	-	-	4	
6	Chromosomes and DNA	9 %	11	1	-	-	1	2	-	1	6	½		-	4	
7	Cell Cycle	5%	6	1	1	-	2	1	-	1	4	-	-	-	-	Question No. 10=25 Marks
8	Variation and Genetics	10 %	11	1	-	-	1	2	1	-	6	-	½	-	4	
9	Bio technology	4 %	5	-		1	1	-	2	-	4	-	-	-	-	
10	Evolution	8 %	11	1	-	-	1	2	-	1	6	½		-	4	
11	Eco system	8 %	11	-	-	1	1	2	1	-	6	-	-	½	4	
12	Some major eco systems	4 %	5	1	-		1	1	1	-	4	-	-	-	-	
13	Man and his environment	7 %	9	-	1	-	1	-	1	1	4	-	½	-	4	
Total		**100 %**	**123+25**				**17**				**66**				**40**	**25**

Important Note:- 1) K= Knowledge. U= Understanding / Comprehension A= Application & Analysis

2) This scheme of Assessment is prepared as per 33% choice in short answer questions, essay questions & questions relating to practicals.

3) In order to promote the cause of concept based learning at least 10 % questions must be unseen or of daily life but relating to specified learning outcomes of Curricula & Syllabi. This portion will increase @ 10% annually but not more than 30%.

4) The questions relating to practical will be asked from the practical Note Book as per chapter were detail given in the curriculum and syllabi 2006.

5) The Practical will be conducted at the end of 12th Class which is mandatory to qualify for award of certificate.
The Practical assessment will be made in the form of grading as per following criteria.

A+= 90% & above, A=80% to 89%, B= 70% to 79%, C= 60% to 69%, D= 50% to 59%, E= 40% to 49%, F= Fail = Below 40%

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Note: This is Model Paper only for guidance of students & teachers.

Model Paper Biology Objective

Intermediate Part – II (12th Class) Examination Session 2012-2014 and onward

Total marks: 17 Paper Code_____ Time Allowed: 20 minutes

Note:- You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q. 1	QUESTIONS	(A)	(B)	(C)	(D)
1	Flame cells are part of excretory system of	Hydra	Planaria	Earth worm	Cockroach
2	Sharks excrete nitrogenous waste in the form of	Ammonia	Uric acid	Urea	Allention
3	The membrane that bounds vacuole is called	Tonoplast	Protoplast	Chloroplast	Leucoplast
4	The living cells of cartilage are called	cnidocytes	chondrocytes	nematocytes	Blastocytes
5	The largest part of brain is called	Cerebellum	Medulla	Thalamus	Cerebrum
6	In Honey Bee male's sperm are produce by	Mitosis	Meiosis	Parthenogenesis	Binary Fission
7	The light which promotes germination of fern-spores	Green	White	Blue	Red
8	Clear cytoplasm produces	Larval epidermis	Muscle cell	Gut	Neural tube
9	The start codon for translation is	AUG	UAA	UGA	UGG
10	Synapsis takes place in	Leptotene	Zygotene	Pachytene	Diakinesis
11	The microtubules are composed of a protein tubulin and traces of	DNA	NAD	FAD	RNA
12	Secretor gene Se is present on chromosome number	11	19	21	23
13	An antibody made by soybeans can be used as treatment for	AIDS	Herpes simplex	Genital Herpes	Hepatitis-c
14	The ultimate source of changes is	Evolution	Mutation	Genetic drift	Migration
15	The relationship between insects and flowering plants is the example of	Parasitism	Predation	Mutualism	Commensalism
16	Coniferous forest located at high altitude are	Alpine	Boreal	Taiga	Arctic
17	The Nuclear power station can last only for about	10 Years	20 Years	30 Years	40 Years

(4)

Model Paper Biology Subjective

Intermediate Part – II (12th Class) Examination Session 2012-2014 and onward

Total marks: 83 **Time: 3:10 hours**

Section I

Q.2 Attempt any EIGHT short questions. (8x2=16)

(i) Describe the metabolic disorders causing kidney stone formation.
(ii) State two function of liver in relation to homeostasis.
(iii) What are heat shock proteins and what is their function?
(iv) State two modification of arthropoda exoskeleton.
(v) Write down three events of sliding filament model of muscle contraction.
(vi) What do you mean by rigor mortis?
(vii) Define limbic system. Give its two functions.
(viii) Compare dendrites with axone.
(ix) Define acromegaly. Give its cause.
(x) Define labour pain.
(xi) Differentiate between oogenesis and spermatogenesis in human beings.
(xii) Describe the role of pituitary gland during menstrual cycle.

Q.3 Attempt any EIGHT Short questions. (8x2=16)

(i) State the role of quality of light on plant growth.
(ii) Define nucleosome. Name proteins which it contains and mention their role.
(iii) State the two unique features of DNA polymerase iii.
(iv) Define point mutations. Give one example.
(v) Compare G_1 with G_2 phase.
(vi) Differentiate between apoptosis and necrosis.
(vii) Define linkage group and mention two linkage groups in human.
(viii) Describe two major types of diabetes mellitus.
(ix) Define nullo gametes.
(x) Explain hydrothermal vents.
(xi) What are vestigial organ. Give it two examples?
(xii) Define evolution.

Q.4 Attempt any SIX Short questions. (6x2=12)

(i) What are palindromic sequences?
(ii) Define Genomic library and how it can be made.
(iii) Compare autecology and synecology.
(iv) Define Nitrogen cycle. Enlist its three main steps.
(v) Compare primary succession with secondary succession.
(vi) Differentiate between thal and thar.
(vii) Write about limnetic zone of fresh water lakes.
(viii) What are pollutants?
(ix) Differentiate between aforestration and reforestation.

SECTION II

Attempt any three questions. (8x3=24)

Q.5

(a) Explain nature of excretory products in relation to habitats.
(b) Write a note on green house effect.

Q.6

(a) What is bone fracture? Describe four phases of repairing of bone.
(b) Explain four major factors affecting gene frequency.

Q.7

(a) Describes any four roles of Auxins.
(b) Write a note on regeneration.

Q.8

(a) Write a note on vernalisation.
(b) Write a note on food web.

Q.9

(a) Explain Watson and Crick's model of DNA.
(b) What are X Linked traits? Describe genetics of colour blindness.

Section III (Practical)

Attempt any three questions. **(5x3=15)**

Q.10

(i) Sketch and label the nervous system of Cockroach.
(ii) Pick out the pelvic girdle of frog and sketch its labeled diagram.
(iii) Draw and Explain different stages of mitosis using root tip squarish.
(iv) Investigate the water contents of soil samples.
(v) Write short answers.
   a. What are pyramid.
   b. Enlist types of tropism.
   c. What is humus?
   d. What is trophic level of fungi?
   e. Enlist two human trait controlled by single gene pair.