

COMMON PRE BOARD EXAMINATION (2017-18)

Class XII

BIOLOGY

Time-3 hrs
Marks-70

(SCORING KEY)

SECTION A		
1	Cleistogamous flowers which ensures self pollination	1/2+1/2
2	2 adaptive radiations in the same region: convergent evolution	½+1/2
3	Poppy plant-name depressant	1/2+1/2
4	A.tumifaciens About Ti gene	1/2+1/2
5	Bt corn Resistant to corn borer and no need for use of insecticide application.	1/2+1/2
<u>SECTION B</u>		
6	2 differences	1+1
7	a)E. histolytica b) any 2 symptoms c) mechanical carriers	1/2 1 1/2
OR		
	a) figure b) proved chemical origin theory	1 1
8	Explanation about the charges of DNA and its movt to opp. Poles Use of Ethidium bromide About Elution	1 1/2+1/2
9	* Any one example- explanation *its 100-1000 times much faster than that of the prehistoric times	1 1
10	Logistic model Explanation with the figure and about K.	1/2 1+1/2

<u>SECTION C</u>		
11	a) 3 features one for each part b) Honey, pollen, site for laying eggs-explain in short	1+1/2 1+1/2
12	Function of all the 3	3
13	G+C=410+410=820 A+T=1500-820=680 T=680/2=340. So C+T=410+340=750.	3
14	a) Francis crick b) figure	$\frac{1}{2}$ 2+1/2
OR		
	a) any 2 reason b) 3 complexities-explanation	1 2
15	• Monohybrid cross • Law of segregation-to be explained	2 1
16	Pedigree analysis Father normal and mother heterozygous-cross Ratios of the progeny	$\frac{1}{2}$ 2 1/2
17	a)M.S. Swaminathan b)The 5 steps to be written-side headings	$\frac{1}{2}$ 2^{1/2}
18	a)gametocytes b) infected blood cells burst giving haemozoin c)chart	1 1 1
19.	a)spooling b) introd. Of recombinant DNA c) prodn. Of recombinant protein in large amounts	3
20	Method of production Difference with reference to C peptide	2 1
21	a)genetic b)3 reasons	$\frac{1}{2}$ 2+1/2
22	Major causes-any 3 Any 3 measures	1+1/2 1+1/2

<u>SECTION D</u>		
23	a)the resident did the right thing.This is because cobra is an important member in the food chain.	1
	b)popln. of rats and frogs will increase and eagles which feed on them decrease causing imbalance in the ecosystem.	2
	c)scientific attitude and social responsibility.	1
<u>SECTION E</u>		
24	*Cells of sporogenous tissue-meiosis-tetrad.	½
	*each one is pollen	½
	*microsporogenesis	½
	*tetrads dehydrate,separate	1
	*forms outer exine and inner intine	1
	*unequal mitosis ,forms vegetative and generative cell and their structure	
	*60 percent amgiosperms have 2 celled pollen-----figures	1+1/2
OR		
	a)figure	2
	b)*sperm comes in contact with zona pellucida	
	*brings changes in the membrane ,blocks entry of other sperms	3
	*completion of meiosis and formn. Of 2 nd polar body and haploid ootid followed by fertilisation	
25	a) Law of independent assortment with any one example	2
	b) Morgan studied genes that were sex linked	
	Linkage and recombination –reason for deviation from mendelian ratio	3
	Any one cross of morgan	
OR		
	a)definition	2
	b) explanation about light and dark moths during pre and post industrialization and their distribution and the role of natural selection	3
26	a) figure	3
	b) definition of retro virus	1
	c) any 2 measures	1
OR		

	a) Primary and secondary-steps in primary	2
	b) Explanation about secondary or biological treatment	3
