

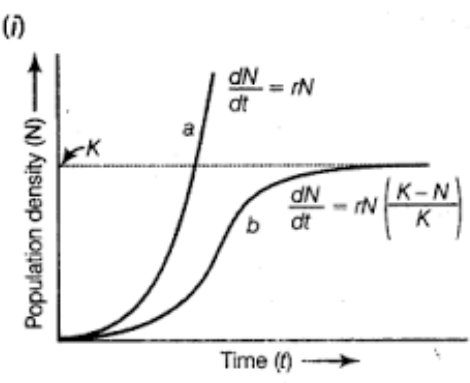
COMMON PRE BOARD EXAMINATION (2017-18)

Class XII

BIOLOGY
(Scoring key)

Time-3 hrs
Marks-70

<u>SECTION A</u>		
1	Foetal ejection reflex-1/2 Oxytocin----1/2	1
2	Analogous organs- ¹ / ₂ convergent evolution- ¹ / ₂	1
3	Fixes atmospheric nitrogen-1/2 act as biofertilizer---1/2	1
4	Taq polymerase—1/2 thermostable --1/2	1
5	a) Bt –corn - ¹ / ₂ b) self protective plant- ¹ / ₂	1
<u>SECTION B</u>		
6	Nurse cells-1 help in nourishing the sperms-1	2
7	Each anti body molecule has 2 small light chains and 2 heavy peptide chains—1 Any 2 examples-----1	2
OR		
	Figure---1 acquired immunity---- 1	
8	Ori-sequence from where replication starts ----- 1 Restriction site will be the site of ligation of the foreign DNA which is the antibiotic resistant gene -----1	2
9	Definition-1 Any 2 limitations--1	2
10	Examples- Nile perch causing the extinction of chichlid fishes-1 African cat fishes –explanation---1	2
<u>SECTION C</u>		
11	a) seminiferous tubules: figure showing the stages-1/2+1 b) tubules-rete testes-vasa efferentia-epididymis-vas deferens-ejaculatory duct-----1 ¹ / ₂	3
12	Definition -----1 2 measures--2	3
13	Cross-2: conclusion-1	3
14	Single nucleotide polymorphism, Bacterial artificial chromosome and yeast artificial chromosome-----1+1+1	3

	OR	
	Initiator codon and codes for methionine ----1 TAC and UAC----- 2	
15	a polycistronic structural genes:operator, promoter and regulator gene---1 a) Figure---- 1 c) inducer-explanation-----1	3
16	a)figure-----1 b) methane, H ₂ ,NH ₃ and vapour :discharge of 800degree Celsius ---- 1 c) life came from preexisting non living organic molecules –1	3
17	a) Definition -1 b) 2 examples-1 c) hallucinogen and causes euphoria---1(any other suitable point.)	3
18	A- Selection of suitable location-1 B- Catching and swarming of swarms ----- 1 Importance -2 points----1	3
19	Amphicillin and tetracycline gene used as marker-explanation---2 Need for the use of 2 markers-1	3
20	aMeloidegyny incognita 1 b) notes on RNA interference----- 2	3
21	Study the population growth curves given below. (i)  <p style="text-align: center;">Population growth curve</p>	3
	a)Exponential and logistic-1 b) Unlimited and limited resources-1 c) Definition of carrying capacity---- 1	

22	Friends of Arcata Marsh—1 Explanation about the 2 stages---2	3
<u>SECTION D</u>		
23	a) biodiversity conservation and ecosystem protection anything suitable---2 b) destroyed completely and many species would have become extinct.---2	4
<u>SECTION E</u>		
24	a) Figure----- a) figure-----2 b) embryo sac contains 3 antipodals,3 synergids, 1 egg and 2 polar nuclei-1½ the fate of each-----1½	5
OR		
	a) figure-----2 b) starts at puberty in males and during embryonic stage in females-----1 c) males completed in testes in females in the fallopian tube --2	
25	Cross-----3 Phenotypic ratio-2	5
OR		
	a) DNA has thymine which gives stability at the place of uracil. RNA has 2'OH group which makes RNA labile and degradable while DNA is less reactive and more stable.----2 b) features---3 (ANY 3)	
26	a) definition---2 b) oncogenes which get switched on in the presence of certain factors-1 c) CT and MRI-----1 d) interferons activate the immune system and destroys the cancer---1. OR a) Citric acid-----industries 5×1=5 b) Lactobacillus-----curd production c) Trichoderma polysporum-----immunosuppressive agent d) Statin-----cholesterol lowering agent e) Streptokinase-----clot buster. -----	5