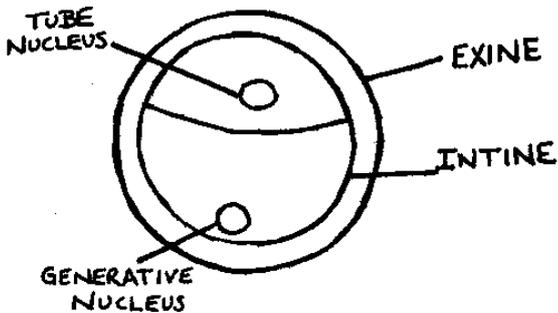


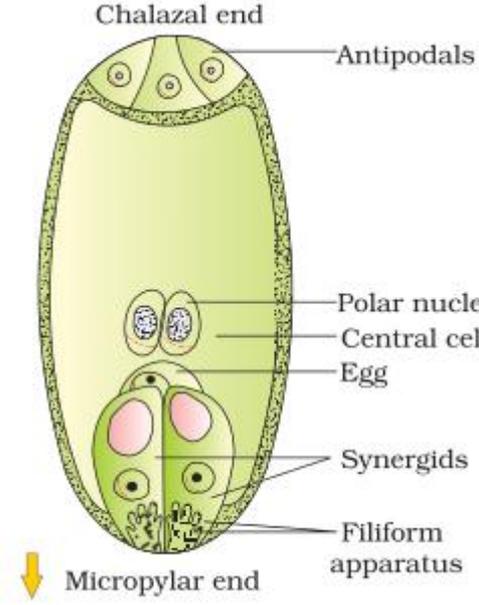
Sample Paper SCORING KEY

Q.NO	VALUE POINTS	MARKS
1.	Blastula/Blastocyst	1m
2.	(DNA dependent) DNA polymerase 3'---5'	1/2m+1/2m=1m
3.	Saccharomyces cerevisae	1 m
4.	Lysozyme	1 m
5.	Polymerase Chain reaction	1m
6.	Tobacco bud worm/ Army worm/corn borer	1/2m+1/2 m=1m (Any Two)
7.	Amazon rain Forest	1 m
8.	Rise in temperature leading to deleterious change in the environment resulting in odd climatic changes	1m
9	Three and Two	1m+1m=2m
10.	Ribosomes are the sites where peptide bond formation take place ATP provides the energy for activation of aminoacids	1m+1m=2m
11	Genotype of father-XY Genotype of mother-XXh XYxXXh 50% of the sons will be haemophilic	1/2m+1/2m+1m=2m
12	Created conditions similar to the primitive atmosphere with the help of glass apparatus Energy was provided in the form of electrodes Simple amino acids were synthesized – glycine alanine	1/2m+1/2m+1m=2m
13	Severe cases passive immunisation is to be given	2m
14	Eli Lilly an American company synthesized two DNA sequences corresponding to the two chains A and B and then introduced them to the host Human Insulin has an additional peptide	1m+1m=2m

	called C-peptide and is produced as a pro hormone .But the hormone produced by the company is a mature hormone without the C-peptide	
15	Restriction enzymes cut the same two bases on either sides of the palindromes thus leaving overhanging stretches that makes the sticky ends The two ends are then joined by the enzyme ligase	1m+1m=2m
16	Nile Perch introduced into Lake Victoria in East Africa led to the extinction of more than 200 sp. of Cichlid fish in the Lake	2m
17	(1) Migrate (2)Suspend (3) Diapause (Explain) OR 1. Use of CNG 2. Phase out old vehicles 3 Follow Euro III Norms 4.Use of catalytic converters	2m 1/2x4=2m
18	a. Disappearance of clean water leading to the death of fishes b. B- Reappearance of clean water organisms	1m+1m=2m
19	Sporopollenin is most resistant because it cannot be decomposed by microorganisms 	1m+2m=3m

20	<p>1. Invitro fertilization 2. Zygote intra fallopian transfer 3. Intra Uterine Transfer 4. Medical Termination of pregnancy</p> <p>IVF-Eggs are taken out of the body and fertilised by the sperm of a donor or husband in a test tube. The embryo at the 8 celled stage is the transferred into the mothers body</p>	$1/2m+1/2m+1/2m+1/2m+1m=3m$
21	<p>Unambiguous- No two aminoacids will have the same codon</p> <p>Universal- Genetic code is the same for all organisms –from bacteria to human beings</p> <p>Degenerate-One aminoacid can have several codons</p>	$1m+1m+1m=3m$
22.	<p>Drosophila has XX-XY mechanism</p> <p>Grasshopper has XX-XO mechanism</p>	$(1\ 1/2+1\ 1/2\ m=3m)$
23	<p>a. Totipotency</p> <p>b. Disease free explants are taken for propagation</p>	$(1+2=3m)$
24	<p>Large holes in Swiss cheese are due to a bacterium Propionibacterium sharmanii due to the evolution of CO₂.</p> <p>The characteristic flavour of Roquefort cheese is due to a Fungus</p> <p>BOD or Biochemical oxygen Demand is very high in Polluted water whereas the BOD is very low in less polluted water</p>	$1m+1m+1m=3m$
25	<p>GEAC Genetic engineering approval committee</p> <p>Manipulation of living organism cannot be done without any regulations</p> <p>Takes care about the Validity of GM research</p> <p>ORI-Origin of replication that can support very high copy no. Per cell</p>	$1m+1m+1m=3m$

	Selectable markers-Identify and eliminate the non transformants and selectively permit the growth of transformants Recognition sequence			
26	a.Parasitism b.Mutualism c. Commensalism d. Mutualism e. Commensalism f.Competition			1/2mx6=3m
27.	a.Natural Calamities such as Forest fire Earth quake b. Succession takes place very fast because it takrs place in areas where it was earlier inhabited			1m+2m=3m
28	a. Pranoy's concern for health because tobacco contains an alkaloid Nicotine which affects the lungs . Incomplete burning of Carbon to CO can cause CO poisoning b. Cigarette Smoking is Injurious to life Dont die of Ignorance Smoke thrills but kills			1m+1m+1m+1m+1m=5m
29	Leydig Cells	Found in the interstitial spaces between seminiferous tubules	Secrete Testicular hormones	1m+1m+1m+2m=5m
	Sertoli Cells	Found in between spermatocyte inside seminiferous tubules	Nourish the developing sperms	
	Primary spermatocyte	Testis	Enters Spermatogenesis	
	Seminal Vesicle and Prostate glands nourish the sperms and makes the			

	transport of sperms easier	
	or	
	 <p>Zygote, Pro embryo. Globular embryo Heart Shaped embryo and Mature embryo</p>	$3m+2m=5m$
30	<p>Hugo De Vries his work on evening primrose brought forth the idea of mutations –Differences arising suddenly in a population He believed large single step mutation called saltation cause speciation Mutation is directionless sudden and random According to Darwin it is directional gradual slow continuous variation</p> <p style="text-align: center;">Or</p> <p>Dryopithecus, Ramapithecus</p>	$2m+3m=5m$

	Ethiopia/Tanzania/East Africa	$1/2m+1/2m=1m$
		1m
	Homo habilis,Homo erectus,Neanderthal	2m
	75000-10000 years ago	1m