

Full Name of Candidate:	
Signature of Candidate:	

Instruction to Candidates:

- (a) Total Marks: 100
- (b) Time duration: 03 hours
- (c) Section I consists of 40 multiple choice objective types of questions (all are compulsory) for which there is no negative marking
- (d) Please mark "✓" clearly on one of the four options (a, b, c, or d) of the Answers provided below each Question in Section I with Ink Pen only (not with Pencil)
- (e) Section II consists of questions for which short answers are desired
- (f) Section III consists of questions for which essay type long answers are desired
- (g) Candidates are expected to return the Question Paper along with the Answer Paper to the Supervisor before leaving the Examination Hall.

SECTION I:

No.	Question/ Answers			
01	Grana are found in			
	(a) Lysosomes	(c) Ribosomes		
	(b) Oxysomes	(d) Chloroplast		
02	Chloroplast is found in the following animal cells			
	(a) Amoeba	(c) Paramoecium		
	(b) Euglena	(d) Hydra		
03	Which one is an insectivorous Plant?			
	(a) Papaya	(c) Nepenthes		
	(b) Pea	(d) Maize/ Corn		
04	In humans, the nucleotidic pairing is			
	(a) TT	(c) GG		
	(b) TG	(d) AT		
05	Which of the following is quantitative character of community?			
	(a) Physiognomy	(c) Density		
	(b) Dominance	(d) All four		

06.	(a)	Malthus	(c)	Alexander von Humboldt
	(b)	Antonie Von Leuwenbock	(d)	Egerton
07	Members of same species			
	(a)	Interbreed and share the same gene pool	(c)	Cannot interbreed; cannot share the same gene pool
	(b)	Cannot interbreed but share the same gene pool	(d)	Can interbreed, but do not share the same gene pool
08	Which of the following statement is true?			
	(a)	Animal growth is unlimited	(c)	Animal growth is continuous
	(b)	Animal growth is limited and generally proportionate	(d)	None of the above
09	Which of the following are hormones			
	(a)	Auxins	(c)	Aniline
	(b)	Biotin	(d)	Avidine
10	Pseudopodia are observed in			
	(a)	<i>Amoeba</i>	(c)	<i>Hydra vulgaris</i>
	(b)	<i>Plasmodium malarie</i>	(d)	<i>Sesbania indica</i>
11	Mushrooms belong to			
	(a)	Phycomycetes	(c)	Basidiomycetes
	(b)	Myxomycetes	(d)	Agaricomycetes
12	In a polluted estuary, index of pollution is			
	(a)	Artemia	(c)	Mussels
	(b)	Daphnia	(d)	Small fishes
13	Nitrogen fixation is			
	(a)	Conversion of nitrogen to ammonia	(c)	Conversion of free atmospheric N ₂ to its compounds
	(b)	Conversion of ammonia to nitrogen	(d)	None of the above
14	The most abundant salt in sea water is:			
	(a)	MgCl ₂	(c)	NaCl
	(b)	NaCO ₃	(d)	MgSO ₄
15	Which one is a artificial Polymer?			
	(a)	Polythene	(c)	Teflon
	(b)	PVC	(d)	All of these

16	From mixing the solution of which of the following, can the acidic buffer be made?			
	(a)	Ammonium Acetate and Acetic Acid	(c)	Sodium Sulphate and Sulphuric Acid
	(b)	Ammonium Chloride and Ammonium Hydroxide	(d)	Sodium Chloride and Sodium Hydroxide
17	The rate of Chemical Reaction			
	(a)	increases as the reaction progresses	(c)	may increase or decrease during the reaction
	(b)	decreases as the reaction progresses	(d)	remains constant as the reaction progresses
18	Which of the following is not a Redox Indicator?			
	(a)	Diphenyl Amine	(c)	Nitramine
	(b)	Indigo carmine	(d)	Methylene Blue
19	Lassaignes Test gives violet colouration with Sodium Nitrosulphate; it indicates the presence of			
	(a)	Nitrogen	(c)	Oxygen
	(b)	Sulphur	(d)	Chloride
20	A "P" orbital can accommodate:			
	(a)	4 electrons	(c)	6 electrons
	(b)	2 electrons with parallel spin	(d)	2 electrons with opposite spin
21	The equation $x^2 + y^2 + 4x + 6y + 13 = 0$ represents			
	(a)	a point	(c)	a pair of two distinct lines
	(b)	a circle	(d)	a pair of coincident lines
22	A circle passing through the points $(0, b)$, $(a, 0)$, $(0, 0)$ has the center with co-ordinates given by			
	(a)	(a, b)	(c)	$(a/2, b/2)$
	(b)	(b, a)	(d)	$(b/2, a/2)$
23	The eccentricity e of hyperbola is			
	(a)	$= 1$	(c)	< 1
	(b)	> 1	(d)	None of the above
24	Point of intersection of lines $x + y = 2$ and $5x - 3y = 2$ is			
	(a)	$(1, 1)$	(c)	$(1, -1)$
	(b)	$(3, 4)$	(d)	$(0, 1)$

25	Which of the following is not a Pythagorean triplet?		
	(6,8,10)	(c)	(18,24,30)
	(3,4,5)	(d)	(1,1,1)
26	7) Which is smallest even prime number?		
	(a) 2	(c)	1
	(b) 3	(d)	-1
27	Ionosphere forms the inner edge of		
	(a) Troposphere	(c)	Stratopause
	(b) Stratosphere	(d)	Magnetosphere
28	Which of the following is a Greenhouse gas?		
	(a) Chloroform	(c)	Carbon Monoxide
	(b) Oxygen	(d)	Nitrogen Sulphide
29	The downslide of Continents into the sea is called as -		
	(a) Continental Shelf	(c)	Continental Margin
	(b) Continental Slope	(d)	Continental Edge
30	Alternating light & dark lines on glaciers are		
	(a) Ogives	(c)	Delta
	(b) Settlements	(d)	Industry
31	Enzymes are biological		
	(a) Catalysts	(c)	Inhibitors
	(b) Reducing agents	(d)	Oxidising agents
32	Biodiesel is obtained from plant		
	(a) Cedar	(c)	Teak
	(b) Papaya	(d)	Jatropha
33	For genetic modification of a bacterium, we commonly use following technology:		
	(a) Breeding	(c)	Chemical Treatment
	(b) Recombinant DNA Technology	(d)	Heat Treatment
34	Penicillin was first discovered by		
	(a) D.B. Rasnik	(c)	Alexander Fleming
	(b) Norman Borlog	(d)	J.W. Kirchner
35	Phagocytosis is the function of _____		
	(a) Mitochondria	(c)	Vacuoles
	(b) Lysosomes	(d)	DNA

