PREVIEW QUESTION BANK

Module Name : BET 2024-ENG Exam Date : 20-Apr-2024 Batch : 15:00-18:00

Vо.	Client Question ID		Question Body and Alternatives				Negativ Marks
ojec	tive Question					'	
	12001	Mata	h items in List I with items in List II			3.0	1.00
		iviate	n Items in List I with Items in List II				
			List I		List II		
		(A)	Mitochondria	(1)	Hydrogen Peroxide generation		
		(B)	Endoplasmic Reticulum	(II)	TCA cycle		
		(C)	Peroxisome	(III)	Degradation of proteins		
		(D)	Lysosomes	(IV)	Protein trafficking and export		
		Choo	ose the correct answer from the opt	ions giver	below:		
		(1)	(A)-(IV), (B)-(II), (C)-(I), (D)-(III)				
		(2)	(A)-(I), (B)-(III), (C)-(IV), (D)-(II)				
		(3)	(A)-(II), (B)-(IV), (C)-(I), (D)-(III)				
		(4)	$(A)\text{-}(III),\; (B)\text{-}(IV),\; (C)\text{-}(II),\; (D)\text{-}(I)$				
		A1:1					
		A2:2					
		A3:3					
		Δ3.3					
		A3.3					
		A4:4					
jec	tive Question					2.0	1.00
jec	live Question	A4:4	h items in List I with items in List II:			3.0	1.00
jec		A4:4	h items in List I with items in List II:		List II	3.0	1.00
jec		A4:4	List I	(1)		3.0	1.00
iec		A4 : 4 Matcl	List I pH of a solution		Fredrick Sanger	3.0	1.00
jec		A4 : 4 Matcl	List I	(II)		3.0	1.00
jec		A4:4 Matcl (A) (B)	List I pH of a solution Base composition of DNA	(II)	Fredrick Sanger Henderson-Hasselbalch equation	3.0	1.00
jec		(A) (B) (C) (D)	List I pH of a solution Base composition of DNA Molar absorption coefficient	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
jec		(A) (B) (C) (D) Choo	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing see the correct answer from the opti	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
jec		A4:4 Matcl (A) (B) (C) (D) Choo (1)	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing se the correct answer from the opti (A)-(IV), (B)-(III), (C)-(I), (D)-(II)	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
iec		A4:4 Match (A) (B) (C) (D) Choo (1) (2)	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing see the correct answer from the opti (A)-(IV), (B)-(III), (C)-(I), (D)-(III) (A)-(I), (B)-(II), (C)-(IV), (D)-(IIII)	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
ec		A4:4 Matcl (A) (B) (C) (D) Choo (1)	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing se the correct answer from the opti (A)-(IV), (B)-(III), (C)-(I), (D)-(II)	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
ecc		A4:4 Matcl (A) (B) (C) (D) Choo (1) (2) (3)	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing se the correct answer from the opti (A)-(IV), (B)-(III), (C)-(I), (D)-(III) (A)-(I), (B)-(IV), (C)-(IV), (D)-(III) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00
ec		(A) (B) (C) (D) Choo (1) (2) (3) (4)	List I pH of a solution Base composition of DNA Molar absorption coefficient Dideoxy sequencing se the correct answer from the opti (A)-(IV), (B)-(III), (C)-(I), (D)-(III) (A)-(I), (B)-(IV), (C)-(IV), (D)-(III) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)	(II) (III) (IV)	Fredrick Sanger Henderson-Hasselbalch equation Lambert-Beer law Chargaff's principle	3.0	1.00

	A4:4		
Objective Qu	on .		
3 12003	Identify the INCORRECT statement about mitochondria (1) Its number increases by fission (2) Defective mitochondria are removed by a process called mitophagy (3) In actively respiring mitochondria, the matrix is more acidic than the intermembrane space (4) Many of the mitochondrial proteins are encoded by the nuclear genome A1:1 A2:2 A3:3 A4:4	3.0	1.00
Objective Qu	on .		
4 12004	Which one of the following statements regarding miRNA is INCORRECT? (1) Generated from large precursor RNAs (2) Inhibits translation by binding to the 3'-UTR of mRNAs (3) Biogenesis involves RNAse H (4) Present in higher eukaryotes including nematodes, fruit flies, plants, and mammals A1:1 A2:2 A3:3 A4:4	3.0	1.00
Objective Qu	on	2.0	1.00
5 12005	Match items in List I with items in List II: List I (A) Sulphur containing amino acid (I) Aspartic acid (B) Optically inactive amino acid (II) Methionine (C) Acidic amino acid (III) Lysine (D) Basic amino acid (IV) Glycine Choose the correct answer from the options given below: (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III) (2) (A)-(II), (B)-(IV), (C)-(I), (D)-(IV) (3) (A)-(I), (B)-(III), (C)-(II), (D)-(IV) (4) (A)-(III), (B)-(III), (C)-(I), (D)-(IV)	3.0	1.00

		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
Object	tive Question						
6	12006	TL	ate constant of a first order reaction h			3.0	1.00
		(1)	s ⁻¹		mol L ⁻¹ s ⁻¹		
		(3)	mol L ⁻¹ s	(4)	mol ⁻¹ L s ⁻¹		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	tive Question						
7	12007	How	many grams of NaOH is required to n	nako 1	00 ml of 0.2 M solution of NaOH?	3.0	1.00
		(1)	2	(2)			
		(3)	8	(4)	0.8		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	tive Question						
8	12008	Matc	h items in List I with items in List II			3.0	1.00
			List I		List II		
		(A)	Sucrose	(1)	Monosaccharide		
		28 00	Maltose	(II)			
		(C)	Fructose	(III)			
		(D)	Lactose) Glucose + Glucose		
		Choo	se the correct answer from the option	ns give	en below		
		(1)	(A)-(I), (B)-(IV), (C)-(II), (D)-(III)				
		(2)	(A)-(II), (B)-(I), (C)-(IV), (D)-(III)				
		(3)	(A)-(IV), (B)-(II), (C)-(III), (D)-(I)				
		(4)	(A)-(III), (B)-(IV), (C)-(I), (D)-(II)				

		A1:1					
		A2:2					
		A3:3					
		A4:4					
01: (:						
9	ive Question 12009					3.0	1.00
	12007	How H ₂ O?		ogad	ro's number (N _A), are present in 9.0 g of		
		(1)	N _A	(2)	2N _A		
		(3)	N _A /2		N _A /4		
		(3)	IVA/ Z	(4)	142/4		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
10	12010	Polyn	nerisation of isoprene gives			3.0	1.00
		(1)	Natural rubber	(2)	Polyester		
		(3)	Buna-N	(4)	Neoprene		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
01:							
Object:	ive Question					3.0	1.00
		How I	many pi-bonds are present in cyano-b	enzer	ne?		,
		(1)	6	(2)	5		
		(3)	4	(4)	3		
		A1:1					
		A2:2					
		A3:3					
		A4:4					

Object	tive Question			
12	12012	Given below are two statements :	3.0	1.00
		Statement I : Penicillin is an antibiotic derived from fungus.		
		Statement II : Antibiotics are compounds obtained from micro-organisms and are used as pain killers.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	tive Question			
13	12013	In which of the following collisions, the total linear momentum of two colliding bodies is completely conserved?	3.0	1.00
		(1) Elastic collision		
		(2) Completely inelastic collision		
		(3) Partially elastic collision		
		(4) Any type of collision i.e. elastic, completely inelastic, or partially elastic		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	tive Question			
14	12014		3.0	1.00

		Arrano	e the following in the ascending or	rder of t	heir frequencies		
					State Branch Development		
			Ultraviolet Rays				
		3.55	Microwaves				
			X-rays				
		18.000	Sound waves				
		(E)	Infrared waves				
		Choos	e the correct answer from the optio	ons give	n below :		
		(1)	(D), (E), (B), (A), (C)				
		(2)	(E), (B), (A), (D), (C)				
		(3)	(C), (A), (B), (E), (D)				
			(B), (E), (D), (A), (C)				
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	tive Question						<u></u>
15	12015	The va	due of acceleration due to gravity	on the	surface of earth is g. If diameter of earth	3.0	1.00
		becom			mains unchanged, the new value of g on		
		(1)	4 g	(2)	16 g		
			g/4		g/16		
		. ,	J.	7.05			
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	tive Question						
16	12016					3.0	1.00
			is thrown vertically upwards in the air y at the highest point, respectively, w		certain velocity (v). Its acceleration and		
		(1)	−g , 0	(2) 0,	, v		
		(3)	g, 0	(4) 0,	, 0		
		A1:1					
		A2:2					
		A3:3					
	II '						

		A4:4						
Object 17	ive Question 12017	The veloc	city of light in vacu	um is 3 × 10 ⁸ m/s. I	f the	refractive index of glass is 1.5, what will	3.0	1.00
			elocity of light in gl			renderve index of glass is 1.5, mac min		
		55.55	$5 \times 10^{8} \text{ m/s}$	(2) 2	× 10 ⁸ m/s		
		(3) 3	× 10 ⁸ m/s	(4) 0	m/s		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
18	12018	Sunita is looking for her father. She went 90 m east before turning to her right. She went 20 m, took a right turn and walked for 30 m to look for her father at her uncle's place. Not finding him there, she went 100 m to the North before meeting her father in a street. How far is Sunita from her starting point?						1.00
		(1) 8	0 m		(2)	100 m		
		(3) 1	40 m		(4)	260 m		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
19	12019	If sales t	ax is reduced from	$3\frac{1}{2}\%$ to $3\frac{1}{3}\%$,	then	what will be the reduction in the net price	3.0	1.00
		of an art	icle with a marked	I value of ₹ 8,400?	•			
		(1) ₹	23		(2)	₹ 32		
		(3) ₹	14		(4)	₹ 45		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
20	12020						3.0	1.00

			en, working 9 h a day, can reap a field ame field, working 8 h a day?	d in 10	6 days. In how many days will 18 men reap		
		(1)	14 days	(2)	15 days		
		(3)	13 days	(4)			
		1 100000	differ a la Same di Const		17 (20-00-2000-2000)		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
Object	ive Question						
21	12021		0 m long train is running with a spec ss a man who is running at 8 km/h in		68 km/h. How long will it take for the train ame direction as the train?	3.0	1.00
		(1)	12 s	(2)	11 s		
		(3)	9 s	(4)	10 s		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
22	12022	What	is the value of 'a' in the equation given	belov	w?	3.0	1.00
				00.01			
		$\frac{3}{7} \times \frac{3}{7}$	$-\frac{a}{7} \times \frac{9}{7} + \frac{16}{7} \times \frac{16}{7} = 1$				
		(1)	1	(2) 7	7		
		(3)	4.57	(4) 3	32		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
[
Object	ive Ouestion						
Object 23	ive Question 12023				s. Each boy student gets four bananas and	3.0	1.00
		each	girl student gets five. The number of	boys i	is	3.0	1.00
		each (1)	girl student gets five. The number of 15	boys i (2)	is 38	3.0	1.00
		each	girl student gets five. The number of	boys i	is 38	3.0	1.00

		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
Object	ive Question						
24	12024		certain code language, '134' means 'g 729' means 'pictures are faint'. Which		and tasty'; '478' means 'see good pictures' e following digits stands for 'see'?	3.0	1.00
		(1)	9	(2)	2		
		(3)	1	(4)	8		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
	ive Question						
25	12025	In a r	ow of boys, A who is 10 th from the l positions. A now becomes 15 th from t	left a he lef	nd B who is 9 th from the right interchange ft. How many boys are there in the row?	3.0	1.00
		(1)	23	(2)	31		
		(3)	27	(4)	28		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
26	12026		he next number in the series 84, 83, 7			3.0	1.00
		(1)	20		39		
		(3)	29	(4)	23		
		A1:1					
		A2:2					
		A3:3					
		A4:4					

Object	ive Question					
27	12027			e a piece of work in 20 days. In how many ete the same piece of work?	3.0	1.00
		(1) 10 days	(2)	12 days		
		(3) 9 days	(4)	15 days		
		(5) 5 days	(4)	15 days		
		A1:1				
		A2:2				
		A3:3				
		A4:4				
Object	ive Question					
28	12028	A, B and C started a bumonths for which they C's, then B's share in the	3.0	1.00		
		(1) 1,200	(2)	2,500		
		(3) 1,500	(4)	2,000		
		A1:1				
		A2:2				
		A3:3				
		A4:4				
Object	ive Question					
29	12029	investment of Rs. 50,00 them in 3 : 1 ratio. After	0/ At the end of the y how many months did S	The state of the s	3.0	1.00
		(1) 4	(2)	6		
		(3) 8	(4)	2		
		A1:1				
		A2:2				
		A3:3				
		A4:4				
Object	ive Question					
30	12030				3.0	1.00

		Fill th	e missing number in the given series				
		4, 6, 1	10, 18, 66,130				
		(1)	30	(2)	38		
		(3)	34		42		
		1 10 10					
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object 31	ive Question					3.0	1.00
		right again	and walked 20 meter. Then, he again	n turr to i	ast and walked 30 meter. He then turned ned right and walked 42 meter. Finally, he reach his destination. What is the aerial g point?		
		(1)	13 meter	(2)	7 meter		
		(3)	30 meter	(4)	5 meter		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
32	12032	degre			e clockwise direction and then another 180 10 degrees in the anticlockwise direction.	3.0	1.00
		(1)	South East	(2)	South West		
		(3)	West	(4)	South		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question					3.0	1.00
33	12033					3.0	1.00

		In School A and School B, 20% and 25% of the students participate in sports, respectively. If School B has 60% more students than School A, then the number of students participating in sports in School A is (1)		
		A4:4		
Object	tive Question			
34	12034	Which one of the following is the lowest integer that is divisible by each of the integers 1 through 8, both inclusive? (1) 210 (2) 420 (3) 840 (4) 2520 A1:1 A2:2 A3:3 A4:4	3.0	1.00
35	12035	A tap X fills a tank in 5 hours. Another tap Y fills the same tank in 3 hours. If X starts filling the empty tank and tap Y joins after 1 hour, then how much time will it take for the tank to be completely filled starting from the time when the tap X started filling it? (1) 90 minutes (2) 120 minutes (3) 100 minutes (4) 150 minutes A1:1 A2:2 A3:3 A4:4	3.0	1.00

36	12036	If day 1 of a leap year is a Sunday, the last day of that year will be						1.00
		1	Monday	1000 1000 1000 1000		Tuesday		
		(1)	Sunday					
		(5)	Sunday	(4	4)	Saturday		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
		A4.4						
Object	ive Question							
37	12037	۸ ماء	os ior sontains 1	rad 2 graps 2 blue		d 4 valleys marbles If a single marble is	3.0	1.00
						d 4 yellow marbles. If a single marble is bility that it is yellow or green?		
		(1)	3/10			4/10		
			7/10					
		(3)	7/10	(4)	1/10		
		A1:1						
		A1 . 1						
		A2:2						
		A3:3						
		A4 : 4						
Object	ive Question							
38	12038			1 1 21 11 11	11.6		3.0	1.00
				then the larger numb		ference of these two numbers. If the sum		
		(1)	6		2)			
		(3)	7	(4)	9		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
39	12039						3.0	1.00

Identify the number of triangles in the following figure (1) 20 (2) (3) 22 (4) 25 A1:1 A2:2 A3:3 A4:4 Objective Question 12040 1.00 Identify the total number of rectangles in the given figure (1) 6 (2) 8 (3) 10 (4) 9 A1:1 A2:2 A3:3 A4:4 Objective Question 1.00 12041 3.0 Find the odd one out of the following **Bat-Wings** (2) Cat-Paws (1) (4) Fish-Fin Mouse-Teeth (3) A1:1 A2:2 A3:3

		A4:4		
	ive Question			
42	12042	Identify the next number in the following series	3.0	1.00
		8, 3, 16, 9, 32, 27, 64,		
		(1) 45 (2) 81		
		(3) 72 (4) 50		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
43	12043		3.0	1.00
		If the length of the sides of an equilateral triangle is doubled then its area increases by		
		(1) 100 percent (2) 200 percent		
		(3) 300 percent (4) 400 percent		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
44	12044	In a class of 60 students, 30 students have taken Physics; 30 Chemistry and 30 Biology. There are 10 students each who have taken a combo of 2 subjects i.e. Phy-Chem, Phy-Bio and Chem-Bio. The number of students who have taken all 3 subjects is	3.0	1.00
		(1) Zero (2) 10		
		(3) 5 (4) 2		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
45	12045		3.0	1.00
	II I			

		How	many unique 15-mer	peptides are possible	using 20 natural amino acids?		
		(1)	15	(2)	20 × 15		
		(3)	15 ²⁰	(4)	2015		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
		717.7					
Object	tive Question						
46	12046	Tho	sum of 10 consecutive	natural numbers is	605. What will be the value of the sm	3.0	1.00
			nese numbers?	Hatural Humbers is	003. What will be the value of the sir	idilest	
			54	(2)	55		
		(1)	56		57		
		(5)	36	(4)	31		
		A1:1					
		A1.1					
		A2:2					
		A3:3					
		A4:4					
Object	tive Question						
47	12047		12 -21 -	20 23 \$1783A49272	12	3.0	1.00
			ader allows successive Rs. 476 for the article,		nd 15% on selling price of an article	. If he	
				** Control (1922)			
				(2)			
		(3)	Rs. 900	(4)	Rs. 1000		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object 48	tive Question					3.0	1.00
	12010				ly filled with water. What will be the	r <mark>ise in</mark>	1.00
			level of water in the c iersed in water?	ylindrical vessel whe	n a solid ball of radius 3cm is comp	oletely	
		20,000,000,000		93,40-00	V/2		
		(1)	2/9 cm	(2)	4/9 cm		
		(3)	9/4 cm	(4)	9/2 cm		
		A1:1					

		A2:2					
		A3:3					
		A4:4					
Objecti	ive Question						
49	12049	1 3 3 1 1		52.TI	V 10 10 20 20 20 20 20 20 20	3.0	1.00
		How 22 cn		2 cm can	be made out of lead cube with edge of		
		(1)	1347	(2)	2541		
		(3)	2662	(4)	5324		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
50	12050		a pack of 52 cards, one card drawn is a four or a club?	is drawn a	t random. What is the probability that the	3.0	1.00
		(1)	1/4	(2)	4/13		
		(3)	1/13		1/26		
		(5)	7.13	1.7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
51	12051	What cultur		loubling time	e and specific growth rate of a microbial	3.0	1.00
		(1)	Doubling time is directly prop	ortional to t	the specific growth rate		
		(2)	Doubling time is inversely pro-				
		(3)	Doubling time is equal to the				
		(4)	Doubling time has no relation				
		1.17	abiling affice has no relation	min ab	g. v		
		A1:1					
		A2:2					
		A3:3					

		A4:4		
Objecti	ive Question			
52	12052	Given below are two statements: One is labelled as Assertion A and other is labelled as Reason R. Assertion (A): All expression vectors are also cloning vectors. Reason (R): Expression vectors contain the features of the cloning vectors. In light of the above statements, choose the correct answer from the options given below (1) Both (A) and (R) are correct and (R) is the correct explanation of (A) (2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A) (3) (A) is correct but (R) is not correct (4) (A) is not correct but (R) is correct A1:1 A2:2 A3:3 A4:4	3.0	1.00
Objecti 53	ive Question		3.0	1.00
Okioati		An athlete participating in an early morning marathon before breakfast is likely to derive most of the energy for muscles from (1) Glucose (2) Fats (3) Ketone bodies (4) Proteins A1:1 A2:2 A3:3 A4:4		
Objecti 54	ive Question 12054		3.0	1.00
)4	12054	Which one of the following techniques will you use to resolve proteins ONLY on the basis of their molecular weight?	3.0	1.00
		(1) Native-PAGE (2) SDS-PAGE		
		(3) Agarose Gel electrophoresis (4) 2D-Gel electrophoresis A1:1		
		A2:2		
		A3:3		

		A4:4		
Object	ive Question			
55	12055	Given below are two statements: One is labelled as Assertion (A) and other is labelled as Reason (R)	3.0	1.00
		Assertion (A): Spectrophotometry is a technique used for quantitative estimation of biomolecules in a solution.		
		Reason (R): Spectrophotometry is based on the Bragg's Law.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both (A) and (R) are correct and (R) is the correct explanation of (A)		
		(2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A)		
		(3) (A) is correct but (R) is not correct		
		(4) (A) is not correct but (R) is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
56	12056	Which one of the following techniques is used for detecting protein-protein interactions in vivo?	3.0	1.00
		(1) Surface Plasmon Resonance		
		(2) ELISA		
		(3) Yeast Two Hybrid Assay		
		(4) Yeast One Hybrid Assay		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
57	12057		3.0	1.00

		What	is the purpose of using quantitative	ne PCR (qRT-PCR)?			
		(1)					
		(2)					
		(3)	Quantify gene expression levels ba Identification of transcription start				
		(4)	Sequence DNA fragments to deter		eir identity		
		(')	bequence bivi raginerio to deteri	mine di	in identity		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
	ive Question						
58	12058		n one of the following methods is boteins to determine the protein conce		n the binding of Coomassie Brilliant Blue on?	3.0	1.00
		(1)	Lowry method	(2)	BCA method		
		(3)	Bradford method	35.00	Kjeldahl method		
		(-)		()	79-1-1-1		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
_	ive Question						1
59	12059	Match	n the items in List I with items in List	II :		3.0	1.00
			List I		List II		
		(A)	Surface Plasmon Resonance	(I)	Conformation difference of DNA		
		(B)	Iso-electric Focusing	(II)	Melting temperature of DNA strands		
		(C)	Single-strand Conformation	(III)			
		(D)	Polymorphism Denaturing Gradient Gel	(IV)	Protein-protein interaction		
		(0)	Electrophoresis	(14)	Trotell protell interaction		
		Choo	n below :				
		(1)	(A)-(IV), (B)-(III), (C)-(I), (D)-(II)				
		(2)	(A)-(I), (B)-(III), (C)-(II), (D)-(IV)				
		(3)	(A)-(IV), (B)-(II), (C)-(III), (D)-(I)				
		(4)	(A)-(II), (B)-(III), (C)-(I), (D)-(IV)				
		(1)	CA TONICO (TONICO) (TA)				
		A1:1					
		A2:2					
		112.2					

		A3:3		
		A4:4		
Object 60	ive Question 12060		3.0	1.00
	12000	How much calcium chloride is required to make 40 mL of 0.02 M solution? Assume molecular weight of calcium chloride is 219.	3.0	1.00
		(1) 17.52 gm (2) 1.752 mg		
		(3) 0.1752 gm (4) 0.1752 mg		
		(1) (1) (1)		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question		3.0	1.00
01	12001	Given below are two statements :	3.0	1.00
		Statement I : The Michaelis constant (K _m) characterizes the affinity of an enzyme to its substrate.		
		Statement II : Higher the value of the Michaelis constant (K _m), stronger is the binding		
		of the enzyme to the substrate.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		3 To 1 To		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Ohioot	ive Question			
62	12062		3.0	1.00

		In a Chemostat, which one of the following would increase the exit cell concentration? (1) Increase in dilution rate (2) Increase in inlet substrate concentration (3) Increase in inoculum dilution (4) Increase in impeller size		
		A2:2		
		A3:3 A4:4		
Objecti 63	12063	Which one of the following uses a photocell to measure the cell density of a culture to regulate the flow of culture media?	3.0	1.00
		(1) Chemostat (2) Turbidostat		
		(3) Hemostat (4) Cryostat		
		A1:1		
		A2:2		
		A3:3		
01: 4:		A4:4		
64	ive Question		3.0	1.00
04	12004	In a bioprocess mainly producing cell biomass, if the microbial cell yield has halved, what would be the rate of substrate consumption to maintain the same rate of cell mass production?	5.0	1.00
		(1) It would be doubled (2) It would also be halved		
		(3) It would remain unchanged (4) It would increase four fold		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
65	12065		3.0	1.00

		The first commercially produced plant secondary metabolite using plant suspension culture in bioreactor was		
		(1) Shikonin (2) Colchicine		
		(3) Riboflavin (4) Cytokinin		
		The state of the s		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
_	ive Question			
66	12066	Two proteins have approximately the same molecular weight and isoelectric point. The best way to resolve them would be using	3.0	1.00
		(1) Reverse phase chromatography		
		(2) Thin layer chromatography		
		(3) Gel filtration		
		(4) Isoelectric focusing		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
67	12067	Sugarcane molasses containing 50% sucrose, 1% invert sugars, 18% water and 31% other solids is mixed with corn steep liquor containing 2.5% invert sugars, 50% water and 47.5% other solids to produce a diluted sugar mixture containing 2% invert sugars. 125 kg corn steep liquor and 45 kg molasses are fed into the mixing tank. How much water should be added to the mixing tank to produce the desired diluted sugar mixture?	3.0	1.00
		(1) 6.25 kg (2) 10.05 kg		
		(3) 7.20 kg (4) 8.75 kg		
		A1:1		
		AL. I		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
68	12068		3.0	1.00

		A bacterial culture, with the molecular formula - $C_{4.4}$ $H_{7.3}$ $O_{1.2}$ $N_{0.86}$ is cultivated under aerobic conditions with hexadecane ($C_{16}H_{34}$) as substrate. The growth can be described by equation:						
		$C_{16}H_{34} + 16.28O_2 + 1.42NH_3 \rightarrow 1.65C_{44}H_{73}O_{12}N_{0.86} + 8.74CO_2 + 13.11H_2O$. Assuming 100% conversion, the yield of cell mass from hexadecane will be						
		(1) 0.						
			.55 g.g ⁻¹			0.66 g.g ⁻¹ 0.50 g.g ⁻¹		
			33			1		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
69	12069	For an e		naelis-Menten k	ine	tics, the catalytic efficiency of the enzyme	3.0	1.00
		(1) k	_{cat} /K _m	(2	2)	V_{max}		
		(3) K _r				k _{cat}		
		(5) K _r	m	(-	+)	Cat		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
	ive Question							
70	12070	An airlift	bioreactor uses				3.0	1.00
		(1) ar	n impeller for mixing t	he contents				
			r bubbles for mixing t					
			sparger for mixing the					
			fferential densities for		es			
		(4)	merential densities for	mixing purpos	CJ			
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
71	12071						3.0	1.00

		In alcoholic fermentation, CO ₂ is evolved during (1) decarboxylation of pyruvic acid only (2) formation of acetaldehyde only (3) both decarboxylation of pyruvic acid and formation of acetaldehyde (4) oxidation of acetaldehyde A1:1 A2:2		
		A3:3 A4:4		
Object	ive Question			
72	12072	During the life cycle of microbes, at which stage do they produce primary metabolites? (1) Lag Phase (2) Exponential Phase (3) Stationary Phase (4) Death Phase A1:1 A2:2 A3:3 A4:4	3.0	1.00
73	12073	Under high concentration of glucose, ethanol production by yeast cells, instead of increasing cell mass via TCA cycle is described as (1) Warburg effect (2) Simpson's effect (3) Crabtree effect (4) Raman effect A1:1 A2:2 A3:3 A4:4	3.0	1.00
Object	ive Question			
74	12074		3.0	1.00

		A strain of <i>E. coli</i> is cultured in a 15 m³ mechanically stirred bioreactor. Under the operating conditions, the value of k_L a is 0.17 s ⁻¹ . Oxygen solubility in the broth is $8\times10^{-3}~kgm^{-3}$. If the specific rate of O ₂ uptake is 12.5 mmoles.g ⁻¹ .h ⁻¹ , what is the maximum possible cell concentration?							
		(1)	12 g.l ⁻¹		(2)	15 g.l ⁻¹			
		(3)	8.5 g.l ⁻¹		(4)	6.8 g.l ⁻¹			
		A1:1							
		A2:2							
		A3:3							
		A4:4							
Object	ive Question	<u></u>							
75	12075	subst satura	rate concentration	of 10 Kg.m ³ . The or	rganis	Intinuously under steady state with inlet sm being cultivated has $\mu_m = 0.30 \mathrm{h^{-1}}$ and μ_m rate required to achieve 90% conversion		3.0	1.00
		(1)	0.2 m ³ .h ⁻¹		(2)	2.0 m.h ⁻¹			
		(3)	1.0 m ³ .h ⁻¹		(4)	0.3 m ³ .h ⁻¹			
		A1:1							
		A2:2							
		A3:3							
		A4:4							
	ive Question								
76	12076	Whic	ch one of the follow	wing statements is	corre	ect?		3.0	1.00
		(1)				enes are directly proportional for all specie	c		
		(2)				genes are directly proportional only amo			
		(3)	-	e and the numbe	er of g	genes are directly proportional only amo	ong		
		(4)		e is not directly pr	oport	tional to the number of genes across speci	es		
		A1:1							
		A2:2							
		A3:3							
		A4:4							
Object	ive Question								

7 120	2077	20072000				3.0	1.00
		What	is the mutation rate per genera	ition for hum	aans?		
		(1)	1.3×10^{-36} per base pair	(2)	1.3×10^{-4} per million base pair		
		(3)	1.3×10^{-8} per base pair	(4)	1.3×10^{-6} per base pair		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
bjective (Question						
3 120	2078	Supp	ose the number of available n	ucleotides in Ions having e	If by 4 different nucleotides (A, T, G & C). creases to 6 (A, T, G , C, X & Y), for the equal number of nucleotides, what would for each codon?	3.0	1.00
		(1)	Three	(2)	Five		
		(3)	Two	(4)	Four		
		A1:1					
		A2:2					
		A2:2 A3:3					
biective (Ouestion	A3:3					
	Question	A3:3 A4:4	n the items in List I with the iter	ns in List II		3.0	1.00
•		A3:3 A4:4		ns in List II	List II	3.0	1.00
•		A3:3 A4:4	n the items in List I with the iter List I (Database)		List II scription)	3.0	1.00
		A3:3 A4:4 Match	List I			3.0	1.00
•		A3:3 A4:4 Match	List I (Database)	(De	scription) Genes and Disease (Phenotype)	3.0	1.00
•		A3:3 A4:4 Match (A)	List I (Database) 1000 Genomes	(De	scription) Genes and Disease (Phenotype) database Catalogue of genomic variants	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C)	List I (Database) 1000 Genomes GenBank	(De (I) (II) (III)	scription) Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic,	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D)	List I (Database) 1000 Genomes GenBank OMIM	(De (I) (II) (III)	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D)	List I (Database) 1000 Genomes GenBank OMIM UK Biobank	(De (I) (II) (III) (IV)	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D) Choose	List I (Database) 1000 Genomes GenBank OMIM UK Biobank se the correct answer from the	(De (I) (II) (IV) options given	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D) Choose (1)	List I (Database) 1000 Genomes GenBank OMIM UK Biobank se the correct answer from the (A)-(I), (B)-(II), (C)-(III), (D)-(IV) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)	(De (I) (II) (IV) options giver	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D) Choose (1) (2)	List I (Database) 1000 Genomes GenBank OMIM UK Biobank se the correct answer from the (A)-(I), (B)-(II), (C)-(III), (D)-(IV)	(De (I) (II) (IV) options giver	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
9 120		A3:3 A4:4 Match (A) (B) (C) (D) Choos (1) (2) (3)	List I (Database) 1000 Genomes GenBank OMIM UK Biobank se the correct answer from the (A)-(I), (B)-(II), (C)-(III), (D)-(IV) (A)-(III), (B)-(IV), (C)-(II), (D)-(IV)	(De (I) (II) (IV) options giver	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00
		A3:3 A4:4 Match (A) (B) (C) (D) Choos (1) (2) (3)	List I (Database) 1000 Genomes GenBank OMIM UK Biobank se the correct answer from the (A)-(I), (B)-(II), (C)-(III), (D)-(IV) (A)-(III), (B)-(IV), (C)-(II), (D)-(IV)	(De (I) (II) (IV) options giver	Genes and Disease (Phenotype) database Catalogue of genomic variants Biomedical resource with genetic, environmental and clinical data Nucleic Acid sequence database	3.0	1.00

		A2:2		
		A3:3		
		A3.3		
		A4:4		
Object 80	ive Question 12080		3.0	1.00
		The following sequence of DNA seems to form a structure.	3.0	1.00
		5' ATCCGTGAATTACGGAT 3'		
		When the third base is changed from C to G the DNA loses its structure. However if in the background of this change, the 15 th base (which is the 3 rd last one) is changed from G to C, the DNA regains back its structure. The most plausible reason for these observations is		
		(1) The 3 rd base and 15 th base are paired in a stem like structure		
		(2) The 3 rd and the 15 th base are part of a loop like structure		
		(3) The 3 rd and 15 th bases have steric clashes.		
		(4) The 3 rd base pairs with the 5 th base and the 15 th base pairs with the 13 th one		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
		AT.T		
Object	ive Question			
81	12081	Given below are two statements :	3.0	1.00
		Statement I : Unfolded protein response occurs when cells are stressed.		
		Statement II : Unfolded protein response is a hallmark response by the nucleus to		
		protect the genome.		
		In light of the above statements, choose the correct answer from the options given below :		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		BOTH AND SUBSICION AND AND SUBSICION OF BOTH AND SUBSICION AND AND S		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			

82	While analyzing a multiple sequence alignment of homologous protease seq the following was observed: The 14 th position was variable but always encoded by a hydrophobic amino acid. The 17 th position was conserved and was Serine in all the sequences. The 29 th position was variable but always encoded by an Aspartate or a Glutamate. The 50 th position was conserved and always encoded by a Phenylalanine. Which statements do you think are consistent with the above observations? (A) Residue 14 th is a buried amino acid. (B) 17 th position may be part of the active site of the protein. (C) 29 th residue is a buried amino acid. (D) 50 th position is an exposed amino acid. Choose the correct answer from the options given below: (1) (A) and (B) only (2) (B) and (C) only (3) (A) and (D) only (4) (B) and (D) only A1:1 A2:2 A3:3 A4:4	quences,	1.00
	12083		
83		3.0	1.00
83	The ΔG of unfolding reaction of a monomeric protein	3.0	1.00
83		3.0	1.00
83	The ΔG of unfolding reaction of a monomeric protein		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the fo		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded ↔ Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = \text{m} \times [\text{GdnHCI}] + 10\text{kCal/mol}$		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = m \times [\text{GdnHCI}] + 10\text{kCal/mol}$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$.		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = m \times [\text{GdnHCI}] + 10\text{kCal/mol}$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$. What is the [GdnHCI] at which half of the protein is unfolded?		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = m \times [GdnHCI] + 10kCal/mol$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = m \times [GdnHCI] + 10kCal/mol$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the forelationship $\Delta G = m \times [GdnHCI] + 10kCal/mol$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M		1.00
83	The ΔG of unfolding reaction of a monomeric protein Folded \leftrightarrow Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCl] with the forelationship $\Delta G = m \times [GdnHCl] + 10kCal/mol$ Where, $m = -2 \text{ kCalMol}^{-1}\text{M}^{-1}$. What is the [GdnHCl] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M Al:1		1.00
Object	The ΔG of unfolding reaction of a monomeric protein Folded ↔ Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the for relationship ΔG = m x [GdnHCI] + 10kCal/mol Where, m = −2 kCalMol⁻¹M⁻¹. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M A1:1 A2:2 A3:3 A4:4	ollowing	
	The ΔG of unfolding reaction of a monomeric protein Folded ↔ Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the for relationship ΔG = m x [GdnHCI] + 10kCal/mol Where, m = -2 kCalMol⁻¹M⁻¹. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M A1:1 A2:2 A3:3 A4:4	ollowing	1.00
Object	The ΔG of unfolding reaction of a monomeric protein Folded ↔ Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the for relationship ΔG = m x [GdnHCI] + 10kCal/mol Where, m = −2 kCalMol⁻¹M⁻¹. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M A1:1 A2:2 A3:3 A4:4	ollowing	
Object	The ΔG of unfolding reaction of a monomeric protein Folded ↔ Unfolded Varies with the concentration of Guanidine Hydrochloride [GdnHCI] with the for relationship ΔG = m x [GdnHCI] + 10kCal/mol Where, m = −2 kCalMol⁻¹M⁻¹. What is the [GdnHCI] at which half of the protein is unfolded? (1) 0 M (2) 2 M (3) 5 M (4) 10 M A1:1 A2:2 A3:3 A4:4	ollowing	

		A protein X forms dimer.		
		$X - X \leftrightarrow X + X$		
		The K_D of the reaction is 1 μ M.		
		At 1 µM concentration of the monomer X, what is the concentration of dimer of X.		
		(1) 0.5 μM (2) 1 μM		
		(3) 0.25 μM (4) 0.75 μM		
		(i) 0.15 pm		
		A1:1		
		A2:2		
		A2 . 2		
		A3:3		
		A4:4		
Object	ive Question			
85	12085	Sometimes phi and psi angles can be used to construct the 3D structure of a protein. Which one of the following statements are true with respect to this process?	3.0	1.00
		(A) The omega angle is required to model the final 3D structure.		
		(B) phi and psi are not sufficient to model the 3D positions of the side chain atoms.		
		(C) The allowed regions of Ramachandran Map is sufficient to model the 3D structure ab initio		
		(D) phi and psi are sufficient to fix all main chain atoms except for Glycine which is achiral.		
		Choose the correct answer from the options given below :		
		(1) (A) and (B) only		
		(2) (B) and (C) only		
		(3) (B) and (D) only		
		(4) (C) and (D) only		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object:	ive Question 12086		3.0	1.00
		Which one of the following forward primer(s) will you use to amplify the DNA sequence given below?		
		5' ATGCAATCGATGCCGATC 3'		
		3' TACGTTAGCTACGGCTAG 5'		
		(1) 5'ATGCA 3' (2) 5' TACGT 3'		
		(3) 5' ACTAGC 3' (4) 5' GATCG 3'		

		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
87	12087		3.0	1.00
		Approximately how many helical turns are generally present in a 4800 bp long, non-supercoiled B-DNA?		
		(1) 48 (2) 480		
		(3) 4800 (4) 400		
		(1)		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
88	12088	Which one of the following is formed when the cytosine base is deaminated?	3.0	1.00
		(1) Uracil (2) Guanine		
		(3) Adenine (4) Thymidine		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
89	12089		3.0	1.00

		are in	solving a protein structure by X-ray crystallography you found that a few residues the disallowed region of the Ramachandran Map. Which one of the following are ible explanations for this observation?		
		(A)	There may be errors in the structure of these residues		
		(B)	There may be side-chain interactions in those residues that off-set the disallowed cost		
		(C)	The protein may have a lot of Proline residues		
		(D)	The protein may not be in a proper folded state when it was crystallized		
		Choo	se the correct answer from the options given below:		
		(1)	(A) and (B) Only		
		(2)	(B) and (C) Only		
		(3)	(A) and (D) Only		
		(4)	(C) and (D) Only		
		A1:1			
		A2:2			
		A3:3			
		A4:4			
Object	tive Question				
90	12090	virus.	time PCR was done with the two patient samples, A and B, to detect SARS-CoV-2 The Ct value obtained in patient sample A was higher than that obtained in patient e B. The inference to be drawn from this observation is that the	3.0	1.00
		(1)	patient A has a higher viral load than patient B		
		(2)	patient B has higher viral load than patient A		
		(3)	strain infecting Patient A is more virulent than that in Patient B		
		(4)	viral load cannot be determined by the Ct value		
		A1:1			
		A2:2			
		A3:3			
		A4:4			
_	tive Question				
91	12091	RNAi	was discovered in	3.0	1.00
		(1)	Drosophila melanogaster (2) Caenorhabditis elegans		
		(3)	Escherichia coli (4) Saccharomyces cerevisiae		
		A1:1			
		A2:2			

		A3:3		
		A4:4		
Object	ive Question			
92	12092	Which one of the following statements about neutrophils is INCORRECT?	3.0	1.00
		(1) They are the most abundant circulating leukocytes		
		(2) They differentiate in the bone marrow and move into circulation		
		(3) They differentiate only during bacterial infection		
		(4) They are recruited to the site of infection in response to chemokines		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
93	12093	Generation of a DNA probe using random primer technique uses a combination of	3.0	1.00
		oligonucleotides 6 bp in length. How many number of distinct oligonucleotides are		
		possible if all four nucleotides are randomly incorporated?		
		(1) 4096 (2) 1296		
		(3) 1024 (4) 24576		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
		A4:4		
Object	ive Question			
94	12094	Which one of the following is likely to happen when a double-stranded DNA solution is	3.0	1.00
		heated?		
		(1) The absorbance of DNA at 260 nm increases		
		(2) The absorbance of DNA at 260 nm decreases		
		(3) The absorbance of DNA at 260 nm remains the same		
		(4) The absorbance of DNA at 260 nm first decreases and then increases		
		A1:1		
		A2:2		
		A3:3		

		A4:4			
Object	ive Question		- 11		
95	12095	Which one of the following is NOT primarily a microtubule	-based structure?	3.0	1.00
		(1) Centriole (2) Centrosc	ome		
		(3) Basal Body (4) Filopodia	i		
		A1:1			
		A2:2			
		A3:3			
		A4:4			
Object	ive Question				
96	12096	There are twenty amino acids. How many different polypamino acids are possible?	peptide chains of 'N' number of	3.0	1.00
		(1) N^4 (2) 4^N			
		(3) N^{20} (4) 20^N			
		A1:1			
		A2:2			
		A3:3			
		A4:4			
Object	ive Question				
97	12097				
		(1) Leishmania donovani (2) Streptod	coccus pneumoniae		
			albicans		
		A1:1			
		A2:2			
		A3:3			
		A3 : 3			
		A4:4			
Object	ive Question				
98	12098			3.0	1.00

		The process by which the genetic material can be transferred from one bacterium to another by a virus is known as					
		(1)	Transformation	(2)	Conjugation		
		(3)	Transduction	(4)	Transfection		
		A1:1		()			
		A2:2					
		A3:3					
		A4:4					
	ive Question						
99	12099	there one h 2 hyd have	were four nucleotides, L, M, N and C hydrogen bond between them and I drogen bonds between them. Given the highest melting temperature in the). L and N and this, eir do		3.0	1.00
		(1)	LMMLLLMLON	2500-500	LLLMMMMLML		
		(3)	ONONNMLMLL	(4)	NNOONONOML		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
Object	ive Question						
100	12100	DNA activit		oli lac	ks which one of the following enzyme	3.0	1.00
		(1)	5' to 3' exonuclease activity				
		(2)	3' to 5' exonuclease activity				
		(3)	5' to 3' DNA-dependent DNA polym	erase	activity		
		(4)	5' to 3' RNA-dependent DNA polym	erase	activity		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
101	12101					3.0	1.00

		Transmission of organisms from mother to fetus or new born child is known as Vertical transmission of infection. Which one of the following is most likely to transmit vertically?						
		(1) Clostridium tetani (2) Chi	lamydia trachomatis					
			eptococcus pneumoniae					
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
102	12102	Which one of the following combinations of the drug pathway?	gs acts to inhibit the same metabolic	1.00				
		(1) Sulfonamide and Trimethoprim (2) Am	photericin and Flucytosine					
		(3) Isoniazid and Rifampicin (4) Pen	icillin G and Gentamicin					
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
103	12103	Which one of the following statements is NOT corvirus (HIV)?	rect about human immunodeficiency	0 1.00				
		(1) HIV is an enveloped RNA virus						
		(2) Acyclovir inhibits HIV replication						
		(3) A DNA copy of the HIV genome may integrate	into host cell DNA					
		(4) The virion contains an RNA-dependent DNA p						
		(4) The virion contains an Nivi dependent brive	orymerase					
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
104	12104		3.0	0 1.00				

		India has major burden of tuberculosis (TB) which is caused by <i>Mycobacterium tuberculosis</i> . Efforts are on to eliminate TB by 2025 and effective prophylaxis against the disease can be achieved with the BCG vaccine, which has been developed from (1) <i>Mycobacterium tuberculosis</i> (2) <i>Mycobacterium avium</i> (3) <i>Mycobacterium bovis</i> (4) <i>Mycobacterium smegmatis</i> A1:1		
		A3:3		
		A4:4		
Object	ive Question			
105	12105	Flow cytometry is an analytical technique that quantifies the frequencies of cells binding to fluorescent antibodies and scattering light in characteristic ways. When a flow cytometer is used to sort cell subpopulations on the basis of florescence and light scattering it is referred to as Fluorescence Activated Cell Sorting (FACS). Which one of the following statement is NOT correct regarding FACS?	3.0	1.00
		(1) Every time a cell passes in front of the laser beam, light is scattered, and this scattering of the laser signal is recorded		
		(2) The more forward light scatter, the larger the cell, and so the amount of light scattered in the forward direction can be used as a rough measure of the range of sizes of the cells in the stream		
		(3) The amount of side scattered light offers an indication of the extent of size of the scattering cells		
		(4) Cells in suspension are hydrodynamically focused into a narrow stream by being introduced inside a rapidly moving column of sheath fluid		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
_	ive Question			
106	12106	While running in the 200 meter race in National Games, the required ATP generation in the athlete is primarily facilitated by:	3.0	1.00
		(1) Contraction of Actin and myosin proteins		
		(2) Hydrolysis of stored ATP polymer		
		(3) Creatine phosphate in the muscle		
		(4) Ketone bodies in the muscles		
		A1:1		
		A2:2		

		A3:3		
		A4:4		
Object 107	ive Question		3.0	1.00
		A slide of macrophages was stained by immunofluorescence using a monoclonal antibody for the TAP1/TAP2 complex. Which one of the following intracellular compartments would exhibit positive staining with this antibody? (1) Mitochondria (2) Endoplasmic Reticulum		
		(3) Golgi apparatus (4) Nucleus		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
108	12108	Given below are two statements :	3.0	1.00
		Statement I : Agglutination is a simple. inexpensive, rapid and highly specific immunological test that is widely performed in diagnostic laboratories. For example, it is often used for human blood typing based on the presence of specific antigens on the surface of red blood cells, which vary among individuals.		
		Statement II : Agglutination is routinely used in clinical laboratories for determining HIV-infected CD4 ⁺ cells.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
109	12109		3.0	1.00

		The va	accine for cervical cancer is composed of	of			
		(1)	Human Papilloma Virus-like-particles	(VLP	s)		
		(2)	Inactivated Human Papilloma Virus				
		(3)	Live attenuated Human Papilloma Viru	us			
		(4)	Recombinant adenovirus				
		. ,					
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
		A4.4					
Objecti	ve Question						
110	12110	Match	the items in List I with the items in List	tII:		3.0	1.00
			1211		121au		
			List I Cystic Fibrosis	(II)	List II Hypoxanthine-guanine		
		(A)	Cystic Fibrosis	(l)	phosphoribosyl transferase		
		(B)	Lesch-Nyhan syndrome	(II)	CFTR		
			Severe combined immunodeficiency	(III)			
			Spinal muscle atrophy	(IV)	Adenosine Deaminase		
		Choos	e the correct answer from the options	giver	n below:		
		(1)	(A)-(IV), (B)-(I), (C)-(III), (D)-(II)				
		(2)	(A)-(II), (B)-(III), (C)-(I), (D)-(IV)				
		(3)	(A)-(IV), (B)-(III), (C)-(I), (D)-(II)				
		(4)	(A)-(II), (B)-(I), (C)-(IV), (D)-(III)				
		A1:1					
		A2:2					
		A3:3					
		A3.3					
		A4 : 4					
Objecti 111	ve Question					3.0	1.00
111	12111	Which	one of the following antibiotic specific	ally i	inhibits RNA synthesis?	3.0	1.00
		(1)	Isoniazid	(2)	Penicillin		
		8 20		2002/	Streptomycin		
				2005	e 81		
		A1:1					
		A2:2					
		A3:3					

		A4:4		
	ive Question			
Object 112	ive Question 12112	Given below are two statements: Statement I : If one parent carries the defective Huntington disease gene, his or her offspring have a 100% chance of inheriting the disease Statement II : Huntington disease is an autosomal dominant genetic disorder In light of the above statements, choose the correct answer from the options given below: (1) Both Statement I and Statement II are correct (2) Both Statement I and Statement III are incorrect (3) Statement I is correct but Statement II is incorrect (4) Statement I is incorrect but Statement II is correct	5.0	1.00
		A4:4		
01:				
113	ive Question 12113	Functional magnetic resonance imaging (fMRI) is one of the most powerful methods for examining brain function. This method is based on the changes in the magnetic properties of (1) neurotransmitters (2) neurons (3) myelin (4) hemoglobin A1:1 A2:2 A3:3 A4:4	3.0	1.00
Object 114	12114		5.0	1.00
117	12117	Which one of the following diseases is due to severe deficiency of proteins in diet? (1) Kwashiorkor (2) Tay-Sach's disease (3) Scurvy (4) Myasthenia gravis		1.00

		A2:2					
		A3:3					
		A4:4					
	ive Question						
115	12115	Asserti Reason In light below	son (R). on (A): Mycoplasma stains n (R): Mycoplasma's cell t of the above statements, : Both (A) and (R) are correct a	s negative in wall is devoic choose the nd (R) is the	d of teichoic acid. correct answer from the options given	3.0	1.00
			(A) is correct but (R) is not co		are correct explanation of (1)		
		11111	(A) is not correct but (R) is co				
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
116	12116		one of the following is respo s system?	onsible for de	velopment of myelin sheath in the central	3.0	1.00
		(1)	Astrocytes	(2)	Oligodendrocytes		
		(3)	Microglia	(4)	Dendritic cells		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
	ive Question						
117	12117		The state of the s	3 / 1111	T involved in eye movement control?	3.0	1.00
			Premotor cortex		Parietal cortex		
		(3)	Inferior temporal gyrus	(4)	Frontal eye field		

		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
118	12118	Which one of the following disorders leads to hallucinations?	3.0	1.00
		(1) Anxiety (2) Schizophrenia		
		(3) Alzheimer's (4) Epilepsy		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question		11	
119	12119	In absolute refractory period of neurons	3.0	1.00
		(1) Na ⁺ channels are open (2) Na ⁺ channels are closed		
		(3) K ⁺ channels are open (4) K ⁺ channels are closed		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
120	12120	Phagocytosis in the central nervous system involves	3.0	1.00
		(1) recovering excess Ca ²⁺ from synapse		
		(2) specialized ability of some neurons to divide		
		(3) bridging the blood brain barrier		
		(4) clearing of dead cells		
		(i) clearing of dead cens		
		A1:1		
		A2:2		
		A3:3		
		A4:4		

Object 121	ive Question		3.0	1.00
121	12121	What attribute do DREB transcription factors impart to higher plants?	3.0	1.00
		(1) Insect resistance (2) Pathogen resistance		
		(3) Drought resistance (4) Virus resistance		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
		741.4		
	ive Question			1.00
122	12122	Quantitative Trait Loci (QTL) can be mapped using	3.0	1.00
		(1) Transgenic approach (2) SSR markers		
		(3) Gene editing (4) Tissue culture		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
_	ive Question		3.0	1.00
123	12123	Given below are two statements :	3.0	1.00
		Statement I : Heterologous expression of prokaryotic genes in plants can be used to		
		render resistance against insects.		
		Statement II : Expression of <i>BtCry1Ac</i> gene in cotton improves resistance against		
		aphids.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		

		A3:3					
		A4 : 4					
Ohiecti	ive Question						
124	12124					3.0	1.00
		Targe	ted gene disruption CANNOT be ach	ieved	by		
		(1)	Cre/Lox system	(2)	CRISPR system		
		(3)	Zinc-Finger nucleases	(4)	T-DNA integration		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objecti 125	ive Question					3.0	1.00
123	12123			tic dis	tance between two loci with a statistically	3.0	1.00
		correc	ted recombination frequency of				
		(1)	10%	(2)	0.1%		
		(3)	1%	(4)	0.01%		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
		11					
Objecti	ive Question						
126	12126			aic Viru	us (CaMV) accumulates in inclusion bodies	3.0	1.00
		in wh	ich part of the cells?				
		(1)	Nucleus	(2)	Chloroplast		
		(3)	Cytoplasm	(4)	Mitochondria		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objecti 127	ive Question					3.0	1.00
14/	1212/					5.0	1.00

		Which one of the following genes provide herbicide tolerance?		
		(1) Neomycin phosphotransferase (2) Phosphinothricin acetyltransferase		
		(3) Hygromycin phosphotransferase (4) Gentamycin acetyltransferase		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			<u> </u>
128	12128	During cell cycle, genome replication occurs in	3.0	1.00
		(1) M Phase (2) G1 phase		
		(3) G2 phase (4) S phase		
		(i) of phase		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
129	12129	Plant transformation method that uses tungsten or gold particle coated with DNA accelerated at a high velocity is called:	3.0	1.00
		(1) Agrobacterium mediated particle delivery method		
		(2) Particle bombardment method		
		(3) High velocity gene delivery method		
		(4) Accelerated gene delivery method		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
130	12130	Which one of the following chemicals enhances <i>vir</i> gene expression in Agrobacterium?	3.0	1.00
		(1) Dextran (2) Acetosyringone		
		(3) Acetyl carboxylic acid (4) Acetyl salicylic acid		
		A1:1		

		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
131	12131	3	3.0	1.00
		In monocot seedlings the highest concentration of auxin is found in the		
		(1) Stem (2) Bud		
		(3) Coleoptile (4) Trichome		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Ob:4	ive Question			
132	12132		3.0	1.00
		In plants, which stage of somatic embryo development requires ABA in culture medium?		
		(1) Formation of embryogenic cells (2) Globular embryogenesis		
		(3) Torpedo stage (4) Maturing embryo		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
133	12133	A classical plant breeder wants to develop a disease resistant variety. What is the first step?	3.0	1.00
		(1) Development of Recombinant Inbred Lines (RILs)		
		(2) Selection of a naturally resistant landrace		
		(3) Hybridization of contrasting parents		
		(4) Production of Near Isogenic Lines (NILs)		
		A1:1		
		A2:2		
		A3:3		
		A4:4		

	ive Question			1
134	12134	Which class of enzymes catalyzes the formation of oxalo-acetic acid from phosphoenol pyruvic acid in the chloroplasts of mesophyll cells?	3.0	1.00
		(1) Dehydrogenases (2) Carboxylases		
		(3) Decarboxylases (4) Isomerases		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
01.				
Object 135	ive Question		3.0	1.00
		Given below are two statements : One is labelled as Assertion A and the other is labelled as Reason R :		
		Assertion (A): The major factors influencing the water potential in plants are solute		
		concentration, pressure and gravity.		
		Reason (R): Turgor pressure in xylem vessel is responsible for generating the water		
		potential.		
		In light of the place statement of any the great agreement to a subject to the su		
		In light of the above statements, choose the <i>most appropriate</i> answer from the options given below :		
		(1) Both (A) and (R) are correct and (R) is the correct explanation of (A)		
		(2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A)		
		(3) (A) is correct but (R) is not correct		
		(4) (A) is not correct but (R) is correct		
		Not the same state of the same of the same state		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object 136	ive Question		3.0	1.00
		Which one of the following is the correct sequence of electron transfer in the thylakoid membrane during light cycle of photosynthesis?		
		(1) P680 – Cytochrome b ₆ f – PC – PQ – P700		
		(2) P680 − PQ-Cytochrome b ₆ f − PC − P700		
		(3) P680 − Cytochrome b ₆ f − PQ − PC − P700		
		(4) P680 – PC – Cytochrome b ₆ f – PQ – P700		

		A1:1		
		A2:2		
		A3:3		
		A4:4		
Ohioat	ive Question			
137	12137		3.0	1.00
		Vinblastine and vincristine, the potent anticancer metabolites present in <i>Catharanthus roseus</i> , accumulate in which one of the following?		
		(1) Middle Lamella (2) Primary cell walls		
		(3) Schlerenchyma (4) Idioblasts		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
		A7.7		
Object	ive Question			
138	12138	Which one of the following is the immediate effect of ABA-dependent stomatal closure in plants?	3.0	1.00
		(1) Enhanced transpiration and enhanced photosynthesis		
		(2) Reduced transpiration and enhanced photosynthesis		
		(3) Enhanced transpiration and reduced photosynthesis		
		(4) Reduced transpiration and reduced photosynthesis		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
OF: ·	ive Question			
139	12139		3.0	1.00
		The ABC model of flower development determines organ arrangement in the sequence sepal, petal, stamen and carpel. Due to the loss of Class A gene functions, the observed phenotype will be		
		(1) Sepal, Sepal, Carpel, Carpel (2) Stamen, Carpel, Carpel, Carpel		
		(3) Sepal, Petal, Petal, Sepal (4) Carpel, Stamen, Carpel		
		A1:1		
		A2:2		

		A3:3					
		A4:4					
		111.1					
	tive Question					2.0	1.00
140	12140		h one of the following enzymes is k treatment?	adminis	tered to dissolve blood clots during heart	3.0	1.00
		(1)	Amylase	(2)	Laccase		
		(3)	Streptokinase	(4)	Acylase		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objec	tive Question						
141	12141		h one of the following anti-diabetion	drugs i	s produced by coupling of GLP-1 peptide	3.0	1.00
		(1)	Semaglutide	(2)	Liraglutide		
		(3)	Dulaglutide	(4)	Insulin		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
		A4.4					
Objec 142	tive Question					3.0	1.00
142	12142	Matc	h the enzymes in List I with their pr	oducts it	rems in List II :	3.0	1.00
			List I		List II		
		(A)	Penicillin Acylase	(1)	Bioactive peptides		
		(B)	Alkalase	(II)	6-APA		
		(C)	Thermolysin	(III)	Lactose free milk		
		(D)	β –galactosidase	(IV) Aspartame		
		Choo	se the correct answer from the opti	ions give	en below :		
		(1)	(A)-(II), (B)-(IV), (C)-(III), (D)-(I)				
		(2)	(A)-(III), (B)-(IV), (C)-(I), (D)-(II)				
		(3)	(A)-(III), (B)-(I), (C)-(II), (D)-(IV)				
		(4)	(A)-(II), (B)-(I), (C)-(IV), (D)-(III)				

		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
143	12143	Given below are two statements :	3.0	1.00
		Statement I : Both aspirin and paracetamol belong to non-narcotic analgesics.		
		Statement II : The synthesis of prostaglandins, which stimulate inflammation in the tissue causing pain, is inhibited by aspirin.		
		In light of the above statements, choose the correct answer from the options below :		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
144	12144	Given below are two statements :	3.0	1.00
		Statement I : The manufacturing process of SARS-CoV-2 mRNA vaccine requires synthesis of mRNA from DNA using <i>in vitro</i> transcription.		
		Statement II : The naked mRNA is administered intramuscularly to the vaccine recipients to generate a protective immune response.		
		In light of the above statements, choose the correct answer from the options given below:		
		(1) Both Statement I and Statement II are correct		
		(2) Both Statement I and Statement II are incorrect		
		(3) Statement I is correct but Statement II is incorrect		
		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
		(4) Statement I is incorrect but Statement II is correct		
		A1:1		

		A2:2		
		A3:3		
		A4 : 4 		
Object	tive Question			
145	12145		3.0	1.00
		Saccharomyces cerevisiae was grown in batch fermentation mode to produce ethanol. The rate of ethanol production in the exponential phase was 2 g/L/h, which decreased to 1 g/L/h after sometime. Which of these is least likely to be responsible for this?		
		(1) Nutrient depletion (2) Mineral salt depletion		
		(3) Oxygen depletion (4) Accumulation of waste		
		A1:1		
		A2:2		
		A3:3		
		A4 : 4		
	tive Question			
146	12146	The aspect ratio (based on height & diameter) of a tower reactor is	3.0	1.00
		(1) 6/1 – 10/1 (2) 2/1 – 3/1		
		(3) 2/1 – 4/1 (2) 2/1 – 3/1 (4) 1 – 1/2		
		(3) 2/1-4/1 (4) 1-1/2		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	tive Question			
147	12147		3.0	1.00
		The average molecular weight of a nucleotide base in oligonucleotides is 330. What would be the amount required to prepare 100 μ L of 1 μ M solution of a 20 bp long single-		
		stranded DNA?		
		(1) 660 μg (2) 66 μg		
		(3) $6.6 \mu g$ (4) $0.66 \mu g$		
		A1:1		
		A2:2		
		A3:3		
		A3 . 3		

		A4:4		
Object	ive Question			
148	12148	Yeast are facultative anaerobes – they can grow anaerobically during alcoholic fermentation and aerobically using oxygen for cellular respiration. Interestingly, wild type yeast cannot live anaerobically using glycerol as their only fuel source. Which one of the following is the correct explanation?	3.0	1.00
		(1) Glycerol inactivates alcohol dehydrogenase in yeast		
		(2) Yeast lacks functional glycerol transporter		
		(3) Yeast cannot regenerate NAD ⁺ in the presence of glycerol		
		(4) Yeast is unable to catabolize glycerol		
		(4) reast is unable to catabolize glyceror		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question		11	
149	12149	The pelleting of microsomal fraction from liver homogenate sample was performed using a centrifuge operated at 15000 rpm. What is the angular velocity of centrifuge in rad/s?	3.0	1.00
		(1) 785 (2) 1570		
		(3) 3140 (4) 6280		
		(1)		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
01: (
150	ive Question 12150		3.0	1.00
		Which one among the following CANNOT induce cell flocculation?		
		(1) Neutralization of anionic charges on the surface of microbial cells		
		(2) Reduction in surface hydrophobicity		
		(3) Use of high molecular weight polymer bridges		
		(4) Alteration of pH		
		(4) Atteration of pri		
		A1:1		
		A2:2		
		A3:3		
		A4:4		

	ive Question			
151	12151	Which one of the following is the Del factor value for sterilizing a culture medium containing 10 ¹¹ viable bacterial cells?	3.0	1.00
		(1) 14.1 (2) 4.2		
		(3) 32.2 (4) 16.1		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
152	12152	Exponential growth of a bacterial culture in batch mode is usually defined by the equation $dX/dt = \mu X$, where μ is	3.0	1.00
		(1) Exponential fermentation rate (2) Specific growth rate		
		(3) Specific batch rate (4) Relative growth rate		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
153	12153	During a fermentation process, the feed is sterilized using wet-heat sterilization method. What will happen to D-value, if the solute concentration in the feed increases by four-fold?	3.0	1.00
		(1) Increases (2) Decreases		
		(3) Remains constant (4) First decreases and then increases		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
154	12154		3.0	1.00

		You have mixed 100 ml of 0.5 M solution of glucose and 200 ml of 0.5 M solution glucose. The resultant solution will contain	on of	
		(1) 0.25 M glucose (2) 0.5 M glucose		
		(3) 0.33 M glucose (4) 0.25 M maltose		
		(1) 0.00 9.0000		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
1	ive Question		'	
155	12155	The penicillin extraction process involves the following steps:	3.0	1.00
		A. Extraction from the organic solvent into an aqueous buffer		
		B. Extraction from the aqueous buffer into an organic solvent		
		C. Extraction of penicillin from the filtered broth into organic solvent		
		D. Extraction of solvent to obtain penicillin salt		
		Choose the correct sequence of steps from the options given below :		
		$(1) B \to A \to C \to D \qquad (2) C \to A \to B \to D$		
		$(3) D \to A \to B \to C \qquad (4) A \to B \to C \to D$		
		The state of the s		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
	12156	Suppose that an obligate anaerobe suffered a mutation that resulted in the loss of tr phosphate isomerase activity. What will be the net ATP yield under anaerobic condition		1.00
		(1) 0 (2) 1		
		(3) 2 (4) 4		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
157	12157		3.0	1.00

		Which of the following processes can be utilized for sterilization of medium with heat-sensitive components? (1) Short sterilization (2) Batch sterilization		
		(3) Dry sterilization (4) Microfiltration		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
01: 4	· 0 · i			
158	ive Question 12158		3.0	1.00
		Bacillus polymyxa strain was cultivated under anaerobic condition in a media containing 10 g/L glucose as the sole carbon source. The glucose was completely utilized in 10 h producing 2, 3-Butanediol with productivity of 5 g/L/h. What is the yield of 2, 3-Butanediol produced per gram of glucose consumed (g/g)?		
		(1) 5 (2) 10		
		(3) 50 (4) 100		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
159	12159	If the partitioning coefficient (K) of a solute is 20 when it is extracted by an organic solvent from culture medium, what is the amount of solvent required per litre of culture medium to extract 90% of the solute in a single equilibrium stage?		1.00
		(1) 0.45 litre (2) 4.5 litre		
		(3) 0.045 litre (4) 45 litre		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
160	12160		3.0	1.00

		With respect to Good Manufacturing Practices and Process Safety, HACCP stands for		
		(1) Help and Awareness in Critical Care Processes		
		(2) Human Awareness in Commercial Critical Processes		
		(3) Hazard Analysis and Critical Care Point		
		(4) Hazard Analysis and Critical Control Point		
		(4) Hazara Analysis and Chicar Cond of Form		
		A1:1		
		42.2		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
161	12161	Which of the following ISO standards is designed for Food Safety Management?	3.0	1.00
		(1) ISO 9000 series (2) ISO 14000 series		
		(3) ISO 18000 series (4) ISO 22000 series		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
162	12162		3.0	1.00
		Which of the following methods is used for rapid and accurate detection of toxic organisms in food?		
		(1) Staining (2) ATP estimation		
		(3) PCR (4) MPN counting		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Ohiect	ive Question			
163	12163		3.0	1.00

		An investigation of an outbreak of food poisoning following consumption of cultivated mussels showed the presence of a glutamate antagonist known as domoic acid in the body of the affected persons. What is the source of the domoic acid?		
		(1) Escherichia coli contamination		
		(2) Gambierdiscus toxicus contamination		
		(3) Nitzschia pungens contamination		
		(4) Salmonella species contamination		
		\$400.00 (150 miles)		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
164	12164	Milish and a sharefully sign has dealer to the great hand all and the	3.0	1.00
		Which among the following bacteria is the most heat tolerant?		
		(1) Clostridium botulinum type E (2) Bacillus coagulans		
		(3) Clostridium pasteurianum (4) Bacillus polymyza		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
165	12165	The recent advancements in computing that has exponentially enhanced computing power for bioinformatics include	3.0	1.00
		(1) Logical and High Performance Computing		
		(2) BIT and Graphic Processing Units aided Computing		
		(3) Graphic Processing Units and High Performance Computing		
		(4) High Performance Serial Computing		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
166	12166		3.0	1.00

		The researchers are looking for a possible DNA-binding groove in a protein structure. It is most likely to be a		
		(1) Negatively charged region (2) Positively charged region		
		(3) Hydrophhobic region (4) Unstructured region		
		(4) Offstructured region		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
167	12167		3.0	1.00
		Which one of the following CANNOT be used to determine the atomic structure of proteins?		
		(1) Cryo Electron Microscopy		
		(2) Nuclear Magnetic Resonance Spectroscopy		
		(3) X-ray Crystallography		
		(4) Atomic Absorption Spectroscopy		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
168	12168	MILL OF CHILD AND A CHILD AND CHILD	3.0	1.00
		Which one of the following represents the structure of silk protein fibroin?		
		(1) Antiparallel β -sheets (2) α -helical filament		
		(3) Mixture of α -helices and β -sheets (4) Parallel β -sheets		
		A1:1		
		A2:2		
		A22		
		A3:3		
		A4:4		
Object	ive Question			
169	12169	Which one of the following amino acid residue pairs can disrupt α -helices?	3.0	1.00
		(1) Glutamine and Proline (2) Lysine and Arginine		
		(3) Glycine and Proline (4) Alanine and Leucine		

A2 : 2			A1:1		
Objective Question Objective Question Organic solvent acetone denatures proteins by (1) Disrupting hydrophobic core (2) Altering net charge of protein (3) Breaking covalent bonds (4) Disrupting inherent symmetry A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4			A2:2		
Objective Question Tigo 12170 Organic solvent acetone denatures proteins by (1) Disrupting hydrophobic core (2) Altering net charge of protein (3) Breaking covalent bonds (4) Disrupting inherent symmetry A1:1 A2:2 A3:3 A4:4 Objective Question Tigo 12171 12171 12171 The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1:1 A2:2 A3:3 A4:4 Objective Question Tigo 12172 12			A3:3		
170			A4:4		
Organic solvent actone denatures proteins by (1) Disrupting hydrophobic core (2) Altering net charge of protein (3) Breaking covalent bonds (4) Disrupting inherent symmetry A1: 1 A2: 2 A3: 3 A4: 4 Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1: 1 A2: 2 A3: 3 A4: 4 Objective Question Objective Question Objective Question A1: 1 A2: 2 A3: 3 A4: 4 Objective Question Objective Question A1: 1 A2: 2 A3: 3 A4: 4 Objective Question A1: 1 A2: 2 A3: 3 A4: 4 Objective Question Objective Question A1: 1 A2: 2 A3: 3 A4: 4 Objective Question A1: 1 A2: 2 A3: 3 A4: 4 Objective Question Objective Question A1: 1 A2: 2 A3: 3	Objecti	ive Question			
A1:1	170	12170	Organic solvent acetone denatures proteins by	3.0	1.00
A1:1 A2:2 A3:3 A4:4 Objective Question 171 22171			(1) Disrupting hydrophobic core (2) Altering net charge of protein		
A2 : 2			(3) Breaking covalent bonds (4) Disrupting inherent symmetry		
A3:3			A1:1		
Objective Question The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1:1 A2:2 A3:3 A4:4 Objective Question T2 12172 Which one of the following does NOT assist protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase A1:1 A2:2 A3:3			A2:2		
Cobjective Question			A3:3		
12 12 12 12			A4:4		
The Levinthal paradox is related to (1) Enzyme kinetics (2) Metabolic pathways (3) Protein folding (4) Protein transport A1:1 A2:2 A3:3 A4:4 Objective Question 172 Variable Protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase A1:1 A2:2 A3:3					
(3) Protein folding (4) Protein transport	171	12171	The Levinthal paradox is related to	3.0	1.00
(3) Protein folding (4) Protein transport			(1) Enzyme kinetics (2) Metabolic pathways		
A1:1 A2:2 A3:3 A4:4 Objective Question 172					
A2:2 A3:3 A4:4 Objective Question 172 Value of the following does NOT assist protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase (4) Topoisomerase A1:1 A2:2 A3:3					
Objective Question T2			A1:1		
Objective Question T72 12172 Which one of the following does NOT assist protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase (4) Topoisomerase A1:1 A2:2 A3:3			A2:2		
Objective Question T72			A3:3		
Which one of the following does NOT assist protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase A1:1 A2:2 A3:3			A4:4		
Which one of the following does NOT assist protein folding? (1) GroEL/GroES (2) DnaJ/DnaK (3) Protein disulfide Isomerase (4) Topoisomerase A1:1 A2:2 A3:3					
(3) Protein disulfide Isomerase (4) Topoisomerase A1:1 A2:2 A3:3	172	12172	Which one of the following does NOT assist protein folding?	3.0	1.00
A1:1 A2:2 A3:3			(1) GroEL/GroES (2) DnaJ/DnaK		
A2:2 A3:3			(3) Protein disulfide Isomerase (4) Topoisomerase		
A2:2 A3:3					
A3:3			A1:1		
			A2:2		
A4:4			A3:3		
Objective Overtion			A4:4		

20/24,	, 6:52 PM	5_Live_BET_E_1-200.html		
173	12173	. The amino acid glycine is always present in	3.0	1.00
		(1) Type 1 β -turn (2) Type 2 β -turn		
		(3) α – helix (4) Random coil		
		(i) idilatin con		
		A1:1		
		A2:2		
		A3:3		
		A3:3		
		A4:4		
Object 174	tive Question		3.0	1.00
.,.		In α – helices, hydrogen bonds are formed in the polypeptide backbone between the –C=O group of the first amino acid and the		
		(1) -NH group of the fifth amino acid (2) -NH group of the fourth amino acid		
		(3) —C=O group of the fifth amino acid (4) —C=O group of the fourth amino acid		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	tive Question			
175	12175	The number of base pairs present per helical turn in B-DNA is	3.0	1.00
		(1) 12 (2) 14.8		
		(3) 10.5 (4) 16		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object 176	tive Question		3.0	1.00
. , 0		Molecular Dynamics does NOT involve calculations of	3.0	1.00
		(1) Interatomic charges (2) Force constants for bonded atoms		
		(3) Quantum mechanics (4) Lennard-Jones potential		
		A1:1		
		A2.2		
		A2:2		

		A3:3		
		A4:4		
	ive Question		la o	
177	12177	Alphafold is a protein folding algorithm based on	3.0	1.00
		(1) <i>ab initio</i> methods (2) statistical linear regression		
		(3) threading (4) machine learning		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
178	12178	For phylogenetic analysis, which of the following is correct?	3.0	1.00
		(1) BLAST alignments are necessary for performing phylogenetic analysis		
		(2) The multiple sequence alignments should ideally be trimmed to edit out the non- aligning regions before phylogenetic analysis		
		(3) Phylogenetic analysis is not effective for highly similar protein sequences		
		(4) Phylogenetic analysis can only be done for proteins from organisms within the same phyla		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Object	ive Question			
179	12179		3.0	1.00
		The following BLAST statistic does NOT change for same pair-wise alignments with different query databases;		
		(1) E-value (2) BIT-score		
		(3) E-value and BIT-score (4) E-value and identity		
		A1:1		
		A2:2		
		A3:3		
		A4:4		

Objective Question 12190					
Which one of the following statements is correct? (1) T-COFFEE is a multiple sequence alignment tool (2) In a multiple sequence alignment, single columns in the alignments can be insertions (3) Phylogenetic algorithms do not need multiple sequence alignments before drawing phylogeny (4) BLAST is the most accurate multiple sequence alignment algorithm A1:1 A2:2 A3:3 A4:4 ONjertive Question (3) BLAST (4) PSI-BLAST (4) PSI-BLAST A1:1 A2:2 A3:3 A4:4 Objective Question IX2 Which one of the following is an example of a global alignment algorithm? (4) PSI-BLAST A1:1 A2:2 A3:3 A4:4 Objective Question IX2 Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4	Object				
Comparison	180	12180	Which one of the following statements is correct?	3.0	1.00
insertions (3) Phylogenetic algorithms do not need multiple sequence alignments before drawing phylogeny (4) BLAST is the most accurate multiple sequence alignment algorithm All:1 A2:2 A3:3 A4:4 Which one of the following is an example of a global alignment algorithm? (1) Smith-Waterman (2) Needleman-Wunsch (3) BLAST (4) PSI-BLAST Al:1 A2:2 A3:3 A4:4 Objective Question Which one of the following statements is correct? (1) Artificial intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks Al:1 A2:2 A3:3 A4:4 A4:4 A4:4 A5:4 A7:4 A7			(1) T-COFFEE is a multiple sequence alignment tool		
drawing phylogeny (4) BLAST is the most accurate multiple sequence alignment algorithm A1:1 A2:2 A3:3 A4:4 Which one of the following is an example of a global alignment algorithm? (1) Smith-Waterman (2) Needleman-Wunsch (3) BLAST (4) PSI-BLAST A1:1 A2:2 A3:3 A4:4 Objective Question US2 12182 Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4					
A1:1					
Objective Question Salar			(4) BLAST is the most accurate multiple sequence alignment algorithm		
Objective Question Which one of the following is an example of a global alignment algorithm? (1) Smith-Waterman (2) Needleman-Wunsch (3) BLAST (4) PSI-BLAST A1:1 A2:2 A3:3 A4:4 Objective Question Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			A1:1		
Objective Question 181			A2:2		
Objective Question Sample			A3:3		
Note			A4:4		
Note	Object	ive Ouestion			
Objective Question A1:1 A2:2 A3:3 A4:4 Objective Question Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			Which one of the following is an example of a global alignment algorithm?	3.0	1.00
Objective Question A1:1 A2:2 A3:3 A4:4 Objective Question Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			(1) Smith-Waterman (2) Needleman-Wunsch		
A1:1 A2:2 A3:3 A4:4 Objective Question 182					
A2 : 2 A3 : 3 A4 : 4 Objective Question 182			(4) F3FBLA31		
A3:3 A4:4 Objective Question 182 12182 Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			A1:1		
Objective Question 182 12182 Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			A2:2		
Objective Question 182 12182 Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			A3:3		
Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			A4:4		
Which one of the following statements is correct? (1) Artificial Intelligence is a type of Machine Learning (2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4	Object	ive Question			
(2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4	182	12182	Which one of the following statements is correct?	3.0	1.00
(2) Machine Learning is a type of Deep Learning (3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4			(1) Artificial Intelligence is a type of Machine Learning		
(3) Neural Networks are a type of Machine Learning (4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4					
(4) Machine Learning is a type of Artificial Neural Networks A1:1 A2:2 A3:3 A4:4					
A1:1 A2:2 A3:3 A4:4					
A2:2 A3:3 A4:4			(4) Machine Learning is a type of Artificial Neural Networks		
A3:3 A4:4			A1:1		
A4:4			A2:2		
			A3:3		
Objective Question			A4:4		
	Object	ive Question			

183	12183	The researchers are interested in solving the structure of a given protein through X-ray diffraction crystallography. Which one of the following types of proteins is likely to be more difficult to crystallize? (1) Protein with positively charged residues on the surface (2) Protein with hydrophobic patches on the surface (3) Protein with intrinsically disordered regions (4) Protein with no post-translational modifications A1:1 A2:2 A3:3	3.0	1.00
	ive Question			
184	12184	BLAST is popular tool to search for sequences similar to a given sequence (query) against a given database, and it often sorts resulting matches according to the e-value. Which one of the following statements is INCORRECT with respect to this e-value? (1) Its value depends on the length of the query sequence (2) Its value depends on the size of the database (3) It reduces exponentially as the pairwise alignment score increases (4) If the e-value approaches zero, the probability that the alignment occurred by chance is greater A1:1 A2:2 A3:3 A4:4	3.0	1.00
	ive Question			
185	12185	Johne's disease in ruminants is caused by (1) Mycobacterium bovis (2) Mycobacterium tuberculosis (3) Mycobacterium avium paratuberculosis (4) Mycobacterium orygis A1:1 A2:2 A3:3	3.0	1.00

Objecti	ive Question			
186	12186	Dual asting the beauty and the transfer of suits and details in a constant by	3.0	1.00
		Prolactin, the hormone that controls milk production is secreted by		
		(1) Anterior pituitary gland (2) Mammary gland		
		(3) Thyroid (4) Ovary		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
	ive Question			
187	12187	One health approach to address the challenge of Anti-microbial resistance involves	3.0	1.00
		addressing		
		(1) one disease at a time (2) metabolic disorder		
		Section 1 Section 2 Sectio		
		(3) nosocomial infections (4) zoonotic infections		
		A1:1		
		A2:2		
		A3:3		
		A4:4		
Objecti	ive Question			
188			3.0	1.00
		. Somatic cell cloning involves transfer of		
		(1) nucleus from ovum to somatic cell		
		(2) nucleus from somatic cell to ovum		
		(3) cytoplasm from somatic cell to ovum		
		(4) mitochondria from somatic cell to ovum		
		A1:1		
		A2:2		
		A2.2		
		A3:3		
		A4:4		
Object	ive Question			
189	12189		3.0	1.00

		Sperm productubules	ction is regulated by which	one (of the following cells of the seminiferous		
		(1) Basal la	mina propria	(2)	Leydig cells		
		(3) Beta ce		(4)			
				(-7			
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objecti	ive Question						
190	12190	Ozone depletio	on is caused by increase in th	ne leve	el of	3.0	1.00
		(1) H ₂ O Va	pors	(2)	Oxygen (O ₂)		
			luorocarbon (CFC)		SOCIETY CONTRACTOR		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
	12191					3.0	1.00
					ng method can be improved by various owing is NOT a recommended option for		
		(1) Mixing					
			air through the biomass				
		(3) Shreddi	ng the material to enhance t	he sui	rface area		
		(4) Adding	water to the biomass to incr	ease t	he water activity (a _w) > 1		
		A1:1					
		A2:2					
		A2 - 2					
		A3:3					
		A4:4					
	ive Question						
192	12192					3.0	1.00

		A bac					
		(1)	Bacillus megaterium	(2)	Thiobacillus ferrooxidans		
		(3)	Thermus aquaticus	(4)	Rhodopseudomonas capsulatus		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objecti 193	ive Question 12193					3.0	1.00
193	12193	Which	h of the following is NOT a gr	ound water re	emediation technology?	3.0	1.00
		(1)	Pump-and-Treat systems	(2)	Soil Vapour Extraction		
		(3)	Permeable Reactive Barriers	(4)	Sludge Treatment		
		A1:1					
		A2:2					
		A3:3					
		A4 : 4					
Object	ive Question						
194	12194		the theoretical oxygen demar ₂ 0 ₆) to CO ₂ and H ₂ O.	nd to complete	ely oxidize 1.67×10^{-3} M glucose solution	3.0	1.00
		(1)	321 mg/L O ₂	(2)	642 mg/L O ₂		
		(3)	162 mg/L O ₂	(4)	321 g/L O ₂		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Objects	ive Question 12195					3.0	1.00
195	12195		mass of CO ₂ would be prod O ₂ and H ₂ O?	luced if 100 g	m of butane (C ₄ H ₁₀) is completely oxidized	3.0	1.00
		(1)	606 gm	(2)	303 mg		
		(3)	303 gm	(4)	303 kg		
		A1:1					

		A2:2					
		A3:3					
		A4:4					
	ive Question						
196	12196		dia, which one of the following para toring?	mete	r is NOT a part of day-to-day Air Quality	3.0	1.00
		(1)	PM10	(2)	SO ₂		
		(3)	Pollen grains	(4)	NO ₂		
		A1:1 A2:2					
		A2:2					
		A3:3					
		A4:4					
	ive Question					10-	
197	12197	Which	n of the following is NOT a part of Inte	egrate	ed Solid Waste Management?	3.0	1.00
		(1)	Source Reduction	(2)	Recycling		
		(3)	Disposal	(4)	Crop Stubble Burning		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
198	12198	Naupi	ilus is a larval stage of			3.0	1.00
		(1)	Shark	(2)	Fish		
		(3)	Shrimp	(4)	Tortoise		
		A1:1					
		A2:2					
		A3:3					
		A4:4					
Object	ive Question						
199	12199					3.0	1.00

					_			
		Collag	gen is a source of					
		(1)	Gelatin		(2)	Agar		
		(3)	Glucosamine		(4)	Carbohydrate		
		A1:1						
		A2:2						
		A3:3						
		A4:4						
Object	ive Question							
200	12200	Whic	h of the following l	pioactive metabolite	s car	be isolated from sea cucumbers?	3.0	1.00
		(1)	Acrydine		(2)	Quinone		
		(3)	Saponine		(4)	Saffranin		
		A1:1						
		A2:2						
		A3:3						
		A4:4						