

**Biotechnology (BT)** 

### **General Aptitude (GA)**

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: -1/3).

Q.1	The ratio of boys to girls in a class is 7 to 3.	
	Among the options below, an acceptable value for the total number of students in the class is:	
(A)	21	
(B)	37	
(C)	50	
(D)	73	

Q.2	A polygon is convex if, for every pair of points, P and Q belonging to the polygon, the line segment PQ lies completely inside or on the polygon. Which one of the following is <u>NOT</u> a convex polygon?
(A)	
(B)	
(C)	जलम् मरमम् व्यवन्त्र
(D)	

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## Biotechnology (BT)

Q.3	Consider the following sentences:	
	<ul> <li>(i) Everybody in the class is prepared for the exam.</li> <li>(ii) Babu invited Danish to his home because he enjoys playing chess.</li> </ul>	
	Which of the following is the CORRECT observation about the above two sentences?	
(A)	(i) is grammatically correct and (ii) is unambiguous	
(B)	(i) is grammatically incorrect and (ii) is unambiguous	
(C)	(i) is grammatically correct and (ii) is ambiguous	
(D)	(i) is grammatically incorrect and (ii) is ambiguous	



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## Biotechnology (BT)



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Biotechnology (BT)

Q.5	is to <i>surgery</i> as <i>writer</i> is to	
	Which one of the following options maintains a similar logical relation in the above sentence?	
(A)	Plan, outline	
(B)	Hospital, library	
(C)	Doctor, book	
(D)	Medicine, grammar	



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#### **Biotechnology (BT)**

Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: -2/3).

Q.6	We have 2 rectangular sheets of paper, M and N, of dimensions 6 cm x 1 cm each. Sheet M is rolled to form an open cylinder by bringing the short edges of the sheet together. Sheet N is cut into equal square patches and assembled to form the largest possible closed cube. Assuming the ends of the cylinder are closed, the ratio of the volume of the cylinder to that of the cube is
(A)	$\frac{\pi}{2}$
(B)	$\frac{3}{\pi}$
(C)	$\frac{9}{\pi}$
(D)	3π

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		10000			S
	Р	5,400		5,860	
	Q		25	10,000	-
	Details of prices of of cost of item P to between the mark calculated as the ra (Profit % = $\frac{\text{Sell}}{\text{The discount on ite}}$	two items P and cost of item Q i ed price and th tio of the differe ling price-Cost Cost em Q, as a percer	d Q are presen is 3:4. Discour- ne selling prio nce between s $\times$ 100). ntage of its ma	ted in the above tab t is calculated as th ce. The profit po- selling price and cos arked price, is	le. The ratio le difference ercentage is t, to the cost
(A)	25				
(B)	12.5				
(C)	10				
(D)	5				

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**Biotechnology (BT)** 

Q.8	There are five bags each containing identical sets of ten distinct chocolates. One chocolate is picked from each bag. The probability that at least two chocolates are identical is
(A)	0.3024
(B)	0.4235
(C)	0.6976
(D)	0.8125

Q.9	Given below are two statements 1 and 2, and two conclusions I and II. Statement 1: All bacteria are microorganisms. Statement 2: All pathogens are microorganisms. Conclusion I: Some pathogens are bacteria. Conclusion II: All pathogens are not bacteria. Based on the above statements and conclusions, which one of the following options is logically CORRECT?
(A)	Only conclusion I is correct
(B)	Only conclusion II is correct
(C)	Either conclusion I or II is correct.
(D)	Neither conclusion I nor II is correct.

Q.10	Some people suggest anti-obesity measures (AOM) such as displaying calorie information in restaurant menus. Such measures sidestep addressing the core problems that cause obesity: poverty and income inequality. Which one of the following statements summarizes the passage?
(A)	The proposed AOM addresses the core problems that cause obesity.
(B)	If obesity reduces, poverty will naturally reduce, since obesity causes poverty.
(C)	AOM are addressing the core problems and are likely to succeed.
(D)	AOM are addressing the problem superficially.

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**Biotechnology (BT)** 

## **Biotechnology (BT)**

Q.1 – Q.17 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: -1/3).

Q.1	Coronavirus genome consists of
(A)	double-stranded DNA
(B)	double-stranded RNA
(C)	negative-sense single-stranded RNA
(D)	positive-sense single-stranded RNA

Q.2	The enzyme that transcribes the eukaryotic genes encoding precursor ribosomal RNAs (pre-rRNAs) of 28S, 18S and 5.8S rRNAs is
(A)	RNA polymerase I
(B)	RNA polymerase II
(C)	RNA polymerase III
(D)	RNA polymerase IV

Q.3	Number of unrooted trees in a phylogeny of five sequences is
(A)	3
(B)	15
(C)	105
(D)	945

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**Biotechnology (BT)** 

Q.4	Which one of the following methods is used to test the significance of a predicted phylogeny?
(A)	Bootstrap
(B)	Maximum likelihood
(C)	Maximum parsimony
(D)	Minimum evolution

Q.5	The Cartesian coordinates $(x, y)$ of a point $A$ with polar coordinates $\left(4, \frac{\pi}{4}\right)$ is
(A)	$\left(\sqrt{3}, 2\sqrt{2}\right)$
(B)	$(2, 2\sqrt{3})$
(C)	$(2\sqrt{2},\sqrt{3})$
(D)	$(2\sqrt{2}, 2\sqrt{2})$

Q.6	The order of genes present in a chromosome is as follows.
	L M NOPQ
	Which one of the following rearrangements represents a paracentric inversion?
(A)	L O N M P Q
(B)	LM NPOQ
(C)	L M M N N O P Q
(D)	L M N O P Q

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Q.7	Which one of the following statements is INCORRECT about hybridoma production?
(A)	Hybridoma cells can use hypoxanthine and thymidine
(B)	DNA synthesis in myeloma cells is blocked by aminopterin
(C)	Hybridoma cells are made to produce polyclonal antibodies
(D)	Polyethylene glycol is used to fuse myeloma cells to B-cells

Q.8	$\frac{d}{dx} \left[ \ln(2x) \right]$ is equal to
(A)	$\frac{1}{2x}$
(B)	$\frac{1}{x}$
(C)	$\frac{1}{2}$
(D)	x

Q.9	Which one of the following techniques/tools is NOT used for inserting a foreign gene into a cell?
(A)	DNA microarray
(B)	Electroporation
(C)	Gene gun
(D)	Microinjection

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Q.10	Under standard temperature $(T)$ and pressure $(P)$ conditions, $128g$ of an ideal gas molecule $A$ occupies a volume of $1L$ . The gas molecule $A$ obeys the relationship $RT = 0.25PV$ . $R$ and $V$ are universal gas constant and ideal gas volume, respectively. The molecule $A$ is
(A)	CO <sub>2</sub>
(B)	$H_2$
(C)	$N_2$
(D)	O <sub>2</sub>

Q.11	CRISPR-Cas system is associated with
(A)	adaptive immunity in eukaryotes
(B)	adaptive immunity in prokaryotes
(C)	innate immunity in eukaryotes
(D)	innate immunity in prokaryotes

Q.12	The process by which intracellular macromolecules are supplied for lysosomal degradation during nutrient starvation is
(A)	apoptosis
(B)	autophagy
(C)	phagocytosis
(D)	pinocytosis

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#### **Biotechnology (BT)**

Q.13 The process and instrumentation diagram for a feedback control strategy to maintain the level (h) of a liquid by regulating a value (V) in a tank is shown below.  $F_1$  is inlet liquid flow rate,  $F_2$  is outlet liquid flow rate, LT is the liquid level transmitter, LC is the liquid level controller,  $h_{sp}$  is the setpoint value of the liquid level,  $h_m$  is the measured value of the liquid level and  $P_V$  is the value pressure.  $P_V$  $F_1$  $h_m$ L(h  $F_2$ The manipulating variable(s) is/are (A)  $F_1$  only **(B)**  $F_2$  only (C)  $h_m$  and  $P_V$  only (D)  $h_{sp}$  and  $P_V$  only

Q.14	A protein without its prosthetic group is known as
(A)	apoprotein
(B)	hemoprotein
(C)	holoprotein
(D)	lipoprotein

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#### **Biotechnology (BT)**

Q.15	The enzyme which adds phosphate group to the free 5' terminus of a DNA sequence is
(A)	adenosine kinase
(B)	alkaline phosphatase
(C)	polynucleotide kinase
(D)	terminal deoxynucleotidyl transferase

Q.16	Which one of the following is CORRECT about microbial growth medium?
(A)	Luria-Bertani broth is a synthetic medium
(B)	Nutrient broth is a defined medium
(C)	Sabouraud dextrose agar is a differential medium
(D)	Trypticase so <mark>y agar is a complex medium</mark>

Q.17	The cellular process which utilizes RNA-induced silencing complex to block gene expression is		
(A)	RNA editing		
(B)	RNA interference		
(C)	RNA polyadenylation		
(D)	RNA splicing		

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**Biotechnology (BT)** 

Q.18 – Q.19 Multiple Select Question (MSQ), carry ONE mark each (no negative marks).

Q.18	Which of the following layer(s) is/are formed from the inner cell mass of the blastocyst?
(A)	Ectoderm
(B)	Endoderm
(C)	Mesoderm
(D)	Trophectoderm

Q.19	Which of the following cell organelle(s) is/are surrounded by a single phospholipid membrane?
(A)	Golgi apparatus
(B)	Lysosome
(C)	Mitochondria
(D)	Nucleus

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**Biotechnology (BT)** 

#### Q.20 – Q.25 Numerical Answer Type (NAT), carry ONE mark each (no negative marks).

Q.20	The sum of the infinite geometric series $1 + \frac{1}{3} + \frac{1}{3^2} + \frac{1}{3^3} + \dots$ (rounded off to
	one decimal place) is

Q.21	Three balls, colored in blue, green and red, are successively transferred			
	box A to box B in the order BLUE-GREEN-RED. The probability of a reverse			
	transfer of the balls to the box A in the same order (rounded off to two decimal			
	places)			
	is			

Q.22	Decimal reduction time of a bacterial strain is 20 min. Specific death rate
	constant in $min^{-1}$ (rounded off to two decimal places) is

Q.23	The value of $\lim_{x\to 0} \left[ \frac{x - \sin 2x}{x - \sin 5x} \right]$ (rounded off to two decimal places) is
------	--

A system consists of two reactors, connected by a valve. The first reactor ( <i>R</i> 1)		
contains an ideal gas A of volume 5 L and the second reactor (R2) has an ideal		
gas B of volume 10 L. Initially, the value is closed and pressure P in R1 and		
R2 are 9 and 6 atm, respectively. Later, when the valve is opened, the system		
reaches equilibrium. If the temperature $T$ of both the reactors is maintained		
constant, the final equilibrium pressure in <i>atm</i> of the system is		

Q.25	The enzyme $\alpha$ -amylase used in starch hydrolysis has an affinity constant $(K_m)$			
val the	value of $0.005 M$ . To achieve one-fourth of the maximum rate of hydrolysis,			
	the required starch concentration in <i>mM</i> (rounded off to two decimal places)			
	is			

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**Biotechnology (BT)** 

Q.26 – Q.34 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: -2/3).



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**Biotechnology (BT)** 

Q.27	Match enzymes in Group I with their corresponding industrial application in Group II.	
	Group I	Group II
	P. Amylase	1. Laundry detergent
Q. Invertase 2. Fruit juice clarification		2. Fruit juice clarification
	R. Pectinase	3. Liquefaction of sucrose
	S. Xylanase	4. Pulp and paper processing
(A)	P-2, Q-3, R-4, S-1	
(B)	P-1, Q-3, <b>R-2, S-4</b>	
(C)	P-1, Q-2, <b>R-3</b> , <b>S</b> -4	SUN 6
(D)	P-1, Q-4, R-2, S-3	

Q.28	Match separation methods in Group I with associated properties in Group II.		
Group I		Group II	
	P. Centrifugation	1. Density	
	Q. Dialysis	2. Diffusivity	
	R. Solvent extraction	3. Size	
	S. Ultrafiltration	4. Solubility	
(A)	P-4, Q-2, R-1, S-3		
(B)	P-3, Q-1, R-2, S-4		
(C)	P-1, Q-3, R-2, S-4		
(D)	P-1, Q-2, R-4, S-3		

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Q.29	Match the autoimmune diseases in Group I with the corresponding primarily affected organ in Group II.			
	Group I	Group II		
	P. Hashimoto's disease	1. Brain		
	Q. Juvenile diabetes	2. Pancreas		
	R. Multiple sclerosis	3. Skeletal muscle		
	S. Myasthenia gravis	4. Thyroid		
(A)	P-1, Q-2, R-3, S-4			
(B)	P-3, Q-1, R-2, S-4			
(C)	P-4, Q-2, R-1, S-3			
(D)	P-1, Q-2, R-4, S-3			
and and a second				

Q.30	Match hypersensitivity types in Group I with their corresponding condition in Group II.		
	Gr	oup I	Group II
	P. 7	Гуре I	1. Erythroblastosis fetalis
	Q.	Type II	2. Host reaction to bee venom
	R. 1	Type III	3. Systemic lupus erythematosus
	S. 7	Type IV	4. Tuberculin reaction
(A)	P-2, Q-3, R-1, S-	-4	
(B)	P-3, Q-1, R-4, S-	-2	
(C)	P-2, Q-3, R-4, S-	-1	
(D)	P-2, Q-1, R-3, S-	-4	

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**Biotechnology (BT)** 

Q.31	Which of th function are	ions of plant hormones and their associated	
		Hormone	Function
		P. Abscisic acid	Breaks seed dormancy
	-	Q. Auxin	Induces cell division
		R. Ethylene	Stimulates ripening of fruits
		S. Gibberellin	Promotes seed dormancy
(A)	P and R only	/	
(B)	P and S only	,	
(C)	Q and R onl	у	UN IO
(D)	Q and S only	y	

Q.32	Which one of the following tools is used to compare all the possible six-open reading frames of a given nucleotide query sequence with all the available six-open reading frames of the nucleotide sequence database?	
(A)	BLASTN	
(B)	BLASTX	
(C)	TBLASTN	
(D)	TBLASTX	

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#### **Biotechnology (BT)**

Q.33	<ul> <li>In Neurospora crassa, a mutation in the poky gene results in a slow growth phenotype (poky). The results of four crosses are given below.</li> <li>(1) wild-type ♀ × wild-type ♂ → All progeny are wild-type</li> <li>(2) wild-type ♀ × poky ♂ → All progeny are wild-type</li> <li>(3) poky ♀ × wild-type ♂ → All progeny are poky</li> <li>(4) poky ♀ × poky ♂ → All progeny are poky</li> <li>Which one of the following explains the inheritance mode of poky?</li> </ul>
(A)	Episomal inheritance
(B)	Mendelian inheritance
(C)	Mitochondrial inheritance
(D)	X-linked inheritance

Q.34	Tertiary structure of a protein consisting of $\alpha$ -helices and $\beta$ -strands can be determined by
(A)	circular dichroism spectroscopy
(B)	mass spectrometry
(C)	nuclear magnetic resonance spectroscopy
(D)	UV spectroscopy

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**Biotechnology (BT)** 

#### Q.35 – Q.38 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q.35	Which of the following statement(s) is/are CORRECT about Agrobacterium tumefaciens?
(A)	It contains tumor inducing plasmid
(B)	It causes crown gall disease in dicotyledonous plants
(C)	It is a Gram-positive soil bacterium
(D)	It is used in generating transgenic plants

Q.36	Which of the following antimicrobial agent(s) is/are growth factor analog(s)?
(A)	5-Fluorouracil
(B)	Isoniazid
(C)	Sulfanilamide
(D)	Tetracycline

Q.37	Which of the following chemical messenger(s) is/are derivative(s) of tryptophan?
(A)	γ-amino butyric acid
(B)	Indole acetic acid
(C)	Melatonin
(D)	Serotonin

Q.38	Which of the following nucleus/nuclei is/are NMR active?
(A)	<sup>1</sup> H
(B)	<sup>13</sup> C
(C)	<sup>16</sup> O
(D)	<sup>32</sup> S

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**Biotechnology (BT)** 

Q.39 – Q.55 Numerical Answer Type (NAT), carry TWO mark each (no negative marks).

Q.39 In a Mendel's dihybrid experiment, a homozygous pea plant with round yellow seeds was crossed with a homozygous plant with wrinkled green seeds. F<sub>1</sub> intercross produced 560 F<sub>2</sub> progeny. The number of F<sub>2</sub> progeny having both dominant traits (round and yellow) is \_\_\_\_\_.

Q.40	A $0.1 mL$ aliquot of a bacteriophage stock having a concentration of
	$4 \times 10^9$ phages mL <sup>-1</sup> is added to 0.5 mL of E. coli culture having a
	concentration of $2 \times 10^8$ cells $mL^{-1}$ . The multiplicity of infection is

Q.41	If the area of a triangle with the vertices $(k, 0)$ , $(2, 0)$ and $(0, -2)$ is
	2 square units, the value of k is

Q.42	In a chemostat with a dilution rate of 0.8 $h^{-1}$ , the steady state biomass
	concentration and the specific product formation rate are $8 mol m^{-3}$ and
100	0.2 (mol product) (mol biomass) <sup>-1</sup> $h^{-1}$ , respectively. The steady state product
	concentration in <i>mol m<sup>-3</sup></i> is

Q.43	If the values of two random variables $(X, Y)$ are $(121, 360)$ , $(242, 364)$
	and $(363, 362)$ , the value of correlation coefficient between X and Y
	(rounded off to one decimal place) is

Q.44		(1	1	1	1)	
	The determinant of matrix $A =$	-1	1	1	1	ic
	The determinant of matrix $A =$	-1	-1	1	1	15
		1	1	1	3)	

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#### **Biotechnology (BT)**

Q.45 It is desired to scale-up a fermentation from 1*L* to 1000*L* vessel by maintaining a constant power-to-volume ratio. The small fermenter is operated at an agitator speed of 300 rotations per minute (*rpm*). If the value of scale up factor is 10, agitator speed in *rpm* (rounded off to the nearest integer) for the large fermenter is \_\_\_\_\_.

Q.46	The specific growth rate of a mold during exponential phase of its growth in
	a batch cultivation is 0.15 $h^{-1}$ . If the cell concentration at 30 h is 33 g $L^{-1}$ ,
	the cell concentration in $g L^{-1}$ (rounded off to the nearest integer) at $24h$ is

Q.47	A sedimentation tank of height 100 cm is used in a conventional activated
	sludge process to separate a suspension of spherical shaped granular sludge
	biomass of $0.5 mm$ diameter. The viscosity of the liquid is $1 cP$ . The
	difference in density between the suspended biomass and the liquid is
	$0.1 g \ cm^{-3}$ . If the biomass reach their terminal velocity instantaneously, the
1.1	biomass se <mark>ttling time in <i>min</i> (rounded off to two decima</mark> l places) is

Q.48	In a random mating population, Y and y are dominant and recessive
	alleles, respectively. If the frequency of Y allele in both sperm and egg is
	0.70, then the frequency of $Y/y$ heterozygotes (rounded off to two decimal
	places) is

Q.49	Calculate the following integral
	$\int_{0}^{\pi^{2}/4} \sin\sqrt{x}  dx = \underline{\qquad}.$

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#### Biotechnology (BT)

**Q.50** A feed stream  $(F_1)$  containing components A and B is processed in a system comprising of separation unit and a mixer as shown below in the schematic diagram. The mole fractions of the components A and B are  $x_A$  and  $x_B$ , respectively. If  $F_1 + F_2 = 100 \text{ kg } h^{-1}$ , the degrees of freedom of the system is \_\_\_\_\_.



Q.51	A batch cultivation of <i>E. coli</i> follows zeroth order Monod's growth kinetics. The cell growth is terminated when the residual dissolved oxygen concentration attains 10% of its saturation value and oxygen mass transfer coefficient $(k,a)$ reaches its maximum value $(80 h^{-1})$ . The saturation value
	of dissolved oxygen concentration is 0.007 $kg m^{-3}$ . If the maximum specific growth rate and yield coefficient $(Y_{x/o_2})$ are 0.2 $h^{-1}$ and
	1.5 $(kg \ cells)(kg \ O_2)^{-1}$ , respectively, then the final cell concentration in $kg \ m^{-3}$ (rounded off to two decimal places) at the end of the batch cultivation is

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#### **Biotechnology (BT)**

Q.52 Milk flowing through a stainless steel inner tube (40 mm inner diameter) of double tube-type heater is to be heated from 10 °C to 85 °C by saturated steam condensing at 120 °C on the outer surface of the inner tube. Total heat transferred (Q) is 146200 kcal  $h^{-1}$  and the overall heat transfer coefficient is 750 kcal  $h^{-1} m^{-2} °C^{-1}$ . The total length of the heating tube in m (rounded off to one decimal place) is \_\_\_\_\_.

Q.53	A DNA solution of $50 \mu g m L^{-1}$ concentration gives an absorbance of 1.0 at
	$260 nm$ . An aliquot of $20 \mu L$ from a $50 \mu L$ purified plasmid solution is
	diluted with distilled water to a total volume of $1000\mu L$ . The diluted plasmid
	solution gives an absorbance of 0.550 at 260 nm. The concentration of the
	purified plasmid in $\mu g \ \mu L^{-1}$ (rounded off to two decimal places) is

Q.54	The possible number of <i>Sal</i> I restriction sites in a 9 kb double-stranded DNA, with all four bases occurring in equal proportion (rounded off to the nearest				
	integer) is				

Q.55	A bacterium produces acetic acid from ethanol as per the following reaction
1	$2CH_3CH_2OH + 2O_2 \rightarrow 2CH_3COOH + 2H_2O$
	The thermodynamic maximum yield of acetic acid from ethanol in $g g^{-1}$
	(rounded off to two decimal places) is

#### END OF THE QUESTION PAPER

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#### Graduate Aptitude Test in Engineering (GATE 2021)

#### Answer Keys and Marks for Subject/Paper: Biotechnology (BT)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	5	MCQ	GA	С	1	1/3
2	5	MCQ	GA	А	1	1/3
3	5	MCQ	GA	С	1	1/3
4	5	MCQ	GA	A	1	1/3
5	5	MCQ	GA	С	1	1/3
6	5	MCQ	GA	С	2	2/3
7	5	MCQ	GA	С	2	2/3
8	5	MCQ	GA	С	2	2/3
9	5	MCQ	GA	C OR D	2	2/3
10	5	MCQ	GA	D	2	2/3
1	5	MCQ	ВТ	D	1	1/3
2	5	МСQ	ВТ	A	1	1/3
3	5	MCQ	ВТ	В	1	1/3
4	5	MCQ	BT	A	1	1/3
5	5	MCQ	BT	D	1	1/3
6	5	MCQ	ВТ	В	1	1/3
7	5	MCQ	ВТ	С	1	1/3
8	5	MCQ	ВТ	В	1	1/3
9	5	MCQ	ВТ	Α	1	1/3
10	5	MCQ	вт	D	1	1/3

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
11	5	MCQ	BT	В	1	1/3
12	5	MCQ	BT	В	1	1/3
13	5	MCQ	ВТ	А	1	1/3
14	5	MCQ	BT	А	1	1/3
15	5	MCQ	ВТ	С	1	1/3
16	5	MCQ	BT	D	1	1/3
17	5	MCQ	ВТ	В	1	1/3
18	5	MSQ	ВТ	A; B; C	1	0
19	5	MSQ	ВТ	А; В	1	0
20	5	NAT	ВТ	1.5 to 1.5	1	0
21	5	NAT	ВТ	0.16 to 0.18	1	0
22	5	NAT	ВТ	0.10 to 0.13	1	0
23	5	NAT	ВТ	0.25 to 0.25	1	0
24	5	NAT	ВТ	7 to 7	1	0
25	5	NAT	ВТ	1.60 to 1.80	1	0
26	5	MCQ	ВТ	с	2	2/3
27	5	MCQ	ВТ	В	2	2/3
28	5	MCQ	ВТ	D	2	2/3
29	5	MCQ	ВТ	С	2	2/3
30	5	MCQ	ВТ	D	2	2/3
31	5	MCQ	ВТ	С	2	2/3
32	5	MCQ	ВТ	D	2	2/3
33	5	MCQ	ВТ	С	2	2/3

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
34	5	MCQ	BT	С	2	2/3
35	5	MSQ	BT	A; B; D	2	0
36	5	MSQ	BT	A; B; C	2	0
37	5	MSQ	BT	B; C; D	2	0
38	5	MSQ	ВТ	А; В	2	0
39	5	NAT	BT	315 to 315	2	0
40	5	NAT	BT	4 to 4	2	0
41	5	NAT	BT	0 to 0 OR 4 to 4	2	0
42	5	NAT	BT	2 to 2	2	0
43	5	NAT	ВТ	0.5 to 0.5	2	0
44	5	NAT	вт	8 to 8	2	0
45	5	NAT	ВТ	64 to 65	2	0
46	5	NAT	BT	13 to 14	2	0
47	5	NAT	ВТ	1.20 to 1.30	2	0
48	5	NAT	BT	0.41 to 0.43	2	0
49	5	NAT	ВТ	2 to 2	2	0
50	5	NAT	BT	6 to 6	2	0
51	5	NAT	BT	3.70 to 3.80	2	0
52	5	NAT	BT	23.0 to 24.0	2	0
53	5	NAT	BT	1.37 to 1.38	2	0
54	5	NAT	BT	2 to 2	2	0
55	5	NAT	BT	1.90 to 2.00	2	0