

(An Autonomous Institute under VTU, Belagavi)
SEMESTER END EXAMINATIONS FEB 2025

Course:	MATHEMATICS-1 FOR ME STREAM		
Course Code:	BMATM101	Stream: ME	
Max Marks:	100	Duration:	03 Hours

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

Module –1			Marks	CO	RBTL
Q1	a	Find the angle between the radius vector and tangent vector of the curve $r = a(1 - \cos\theta)$.	6	1	L2
	b	With usual notation prove that, $\tan \phi = r \frac{d\theta}{dr}$.	7	1	L3
	c	Find the radius of curvature of the curve $y = a \log \left[\sec \left(\frac{x}{a} \right) \right]$.	7	1	L4
Module –2					
Q2	a	Find the area between the parabolas $y^2 = 4ax$ and $x^2 = 4ay$.	6	2	L2
	b	Evaluate $\int_0^1 \int_x^{\sqrt{x}} xy dy dx$ by changing the order of integration.	7	2	L3
	c	Prove that $\beta(m, n) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$.	7	2	L3
Module – 3					
Q3	a	Determine the solution of differential equation $(y \cos x + \sin y + y)dx + (\sin x + x \cos y + x)dy = 0$	6	3	L1
	b	A body in air at 25°C cools from 100°C to 75°C in 1 minute. Find the temperature of the body at the end of 3 minutes	7	3	L3
	c	Find the orthogonal trajectories of the family of curves $\frac{x^2}{a^2} + \frac{y^2}{b^2 + \lambda} = 1$, where λ is a parameter.	7	3	L2
OR					
Q4	a	Find the orthogonal trajectories of the family $r^n \cos n\theta = a^n$, where a is the parameter.	6	3	L1
	b	Solve $\frac{dy}{dx} + y \cot x = \cos x$.	7	3	L3
	c	Find the general solution of $yp^2 + (x - y)p - x = 0$.	7	3	L2

Module – 4

Q5	a	Find the general solution of $(D^3 + 6D^2 + 11D + 6)y = 0$.	6	3	L2
	b	Solve $(D^2 - 4D + 4)y = e^{2x} + \cos 2x + 4$.	7	3	L3
	c	Solve $(D^2 + 1)y = \sec x$ by Method of Variation of Parameters.	7	3	L3

OR

Q6	a	Find the general solution of $(4D^4 - 8D^3 - 7D^2 + 11D + 6)y = 0$.	6	3	L2
	b	Solve: $\frac{d^2y}{dx^2} - 4y = \cosh(2x - 1) + 3^x$.	7	3	L3
	c	Solve : $(2x + 1)^2 y'' - 6(2x + 1)y' + 16y = 8(2x + 1)^2$.	7	3	L3

Module – 5

Q7	a	Find the rank of the matrix $\begin{bmatrix} 0 & 1 & -3 & -1 \\ 1 & 0 & 1 & 1 \\ 3 & 1 & 0 & 2 \\ 1 & 1 & -2 & 0 \end{bmatrix}$.	6	4	L2
	b	Solve by Gauss Seidel method of $10x + y + z = 12$, $x + 10y + z = 12$, $x + y + 10z = 12$	7	4	L3
	c	Using Modern mathematical tool write a Program/Code to find the largest Eigen value and corresponding Eigen vector for the given matrix $A = \begin{pmatrix} 1 & -3 & 3 \\ 3 & -5 & 3 \\ 6 & -6 & 4 \end{pmatrix}$.	7	5	L5

OR

Q8	a	Find the largest Eigen value and the corresponding Eigen vector of the matrix by using the power method (Perform 4 iterations) $A = \begin{bmatrix} 25 & 1 & 2 \\ 1 & 3 & 0 \\ 2 & 0 & -4 \end{bmatrix}$ by taking the initial vector as $[1 \ 0 \ 0]^T$.	6	4	L2
	b	Solve by Gauss Jordhan Method of $x + y + z = 10$, $2x - y + 3z = 19$, $x + 2y + 3z = 22$	7	4	L3
	c	Using Modern mathematical tool write a Program/Code to test the consistency of the equation $x + 2y - z = 1$, $2x + y + 5z = 2$, $3x + 3y + 4z = 1$.	7	5	L5

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Module – 4					
Q5	a	Evaluate $\int_{-c}^c \int_{-b}^b \int_{-a}^a (x^2 + y^2 + z^2) dz dy dx$	6	3	L2
	b	Derive the relation between Beta and Gamma function of $\beta(m, n) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$.	7	3	L3
	c	Evaluate $\int_0^\infty \int_0^\infty e^{-(x^2+y^2)} dx dy$ by changing in to polar coordinates	7	3	L3
OR					
Q6	a	Find the area of ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ by double integration	6	3	L2
	b	Show that $\int_0^{\pi/2} \frac{d\theta}{\sqrt{\sin\theta}} \times \int_0^{\pi/2} \sqrt{\sin\theta} = \pi$	7	3	L3
	c	Evaluate $\int_0^1 \int_x^{\sqrt{x}} xy dy dx$ by changing the order of integration.	7	3	L3
Module – 5					
Q7	a	Find the rank of matrix $\begin{bmatrix} 2 & -1 & -3 & -1 \\ 1 & 2 & 3 & -1 \\ 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & -1 \end{bmatrix}$	6	4	L2
	b	Use Gauss Seidel method to solve the system of equations $x + y + 54z = 110$, $27x + 6y - z = 85$, $6x + 15y + 2z = 72$.	7	4	L3
	c	Using Modern mathematical tool, write a program/code to find largest Eigen value and the corresponding Eigen vector for $A = \begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$	7	5	L5
OR					
Q8	a	Find the largest Eigen value and corresponding Eigen vectors for the Matrix $A = \begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$ taking $X^{(0)} = [1, 1, 1]^T$ as initial vector.	6	4	L2
	b	Solve the system of equations by Gauss Elimination method $x + y + z = 9$, $x - 2y + 3z = 8$, $2x + y - z = 3$	7	4	L3
	c	Using Modern mathematical tool, write a program/code to test the consistency of equations $x + 2y - z = 1$, $2x + y + 5z = 2$, $3x + 3y + 4z = 1$.	7	5	L5



SJC INSTITUTE OF TECHNOLOGY

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SEMESTER END EXAMINATIONS FEB 2025

Course:	Applied Physics for ME Stream			
Course Code:	BPHYM102	Stream: ME		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.
3. Formula Handbook will be provided.

	Module - 1		Marks	CO	RBTL
Q1	a	Define Miller indices and Mention the procedure to find miller indices of crystal plane.	6	1	L1
	b	Define unit cell. Explain the Seven different types of crystal systems with neat diagrams and Derive an expression for interplanar spacing in terms of miller indices.	8	1	L2
	c	Calculate the atomic packing factor for SC and BCC structures.	6	1	L3
Module - 2					
Q2	a	Define young's modulus, rigidity modulus and bulk modulus. Mention their expressions.	6	2	L1
	b	Derive the relation between Y, n and σ with usual notation.	8	2	L3
	c	Consider a steel wire of radius 0.13 mm and length 2m. If the wire is rigidly fixed at one and loaded at the other with a mass of 1.5 kg the extension observed is 2 mm. Calculate the Young's Modulus of the material of the wire. ($g = 10\text{ms}^{-2}$)	6	2	L3
Module - 3					
Q3	a	Mention the working principle of Atomic force Microscope (AFM) and any four applications of it.	6	3	L1
	b	Explain the construction and working of Scanning Electron Microscope with the help of neat diagram	8	3	L2
	c	A beam of monochromatic x-rays is diffracted by NaCl crystal with a glancing angle of 12° for first order. Calculate the wavelength of x-rays if interplanar spacing of the crystal is 2.82\AA .	6	3	L3
OR					

Q4	a	Define Nano materials and Nano composites? Mention different types of Nano materials.	6	3	L1
	b	Explain the Principle, Construction and working of X-ray Photoelectron Spectroscopy and mention its applications.	8	3	L2
	c	Describe the construction and working of Transmission electron microscope	6	3	L3
Module – 4					
Q5	a	Define Mach number and Mach angle. Mention the characteristics of shock waves.	6	2	L1
	b	Derive the expressions for equivalent force constant for Springs in series and Parallel.	8	2	L3
	c	In a Reddy Shock tube experiment, the time taken by shock waves to travel between the two sensors is $180\mu\text{sec}$. If the distance between the two sensors is 100mm. calculate the Mach number. Assume that speed of sound is 340m/sec.	6	2	L3
OR					
Q6	a	Define resonance and discuss the sharpness of resonance.	6	2	L1
	b	Explain the construction and working of Reddy's Shock tube with the help of neat diagram. Give any two applications of shock waves.	8	2	L2
	c	A mass of 100 kg is mounted on 4 springs each of which has spring constant $4 \times 10^3 \text{ N/m}$. The motor moves only in vertical direction. Find the natural frequency of the system.	6	2	L3
Module – 5					
Q7	a	Mention the application of Cryogenics in Aerospace.	6	4	L1
	b	Explain the liquefaction of oxygen by cascade process.	8	4	L3
	c	In a diffraction grating experiment the laser light undergoes second order diffraction for diffracting angles 1.48° . The grating constant $d = 5 \times 10^{-5} \text{ m}$ and the distance between the grating and screen is 1m. Determine the wavelength of LASER light used in the experiments.	6	5	L4
OR					
Q8	a	Mention any six applications of thermoelectric materials.	6	4	L1
	b	Derive an expression for Thermo EMF in terms of temperatures of hot and cold junctions.	8	4	L3
	c	In series resonance experiment a 100mF capacitor connected in series with a coil having a resistance of 50ohm, resonates at 1800Hz. Identify the inductance of the coil used in the resonance circuit.	6	5	L4



SJC INSTITUTE OF TECHNOLOGY

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SEMESTER END EXAMINATIONS FEB 2025

Course:	Applied Physics for CSE Stream			
Course Code:	BPHYS102	Stream: CSE		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.
3. Formula Handbook will be provided.

	Module - 1		Marks	CO	RBTL
Q1	a	Define Wave function and Probability density. Mention the properties of wave function.	6	1	L1
	b	State the Heisenberg's Uncertainty. Show the non-existence of electron inside the nucleus.	8	1	L2
	c	An electron is bound in one dimensional potential well of width 0.12mm. Find its energy values in the ground state and first two excited states in ev and also find the de Broglie wavelength for ground state.	6	1	L3
Module - 2					
Q2	a	Define a bit and qubit mention the properties of Qubit	6	2	L1
	b	Explain the CNOT gate operation on four different input states with truth table, matrix representation.	8	2	L3
	c	Operate Pauli matrices on the states $ 0\rangle$ and $ 1\rangle$.	6	2	L3
Module - 3					
Q3	a	Brief the requisites of the Laser	6	3	L1
	b	Derive an expression for energy density at thermal equilibrium in terms of Einstein coefficients.	8	3	L3
	c	Identify the wavelength of the laser using the concept of diffraction with given data grating constant $d=5.08 \times 10^{-3}$ cm, $\theta=1.60$ for 2 nd order diffraction.	6	5	L4
OR					
Q4	a	Based on the refractive index profile and number of modes the fiber supports, discuss the any two types of optical fibers with neat schematic diagrams?	6	3	L3
	b	Describe the construction & working of Semiconductor diode Laser with suitable diagram.	8	3	L3

	c	Identify the acceptance angle and Numerical Aperture of a given optical fiber with given data of mean diameter of the circle is 2.45 cm for distance between output end of optical fiber and screen is 4 cm.	6	5	L4
Module – 4					
Q5	a	Discuss the Success Quantum free Electron theory of Metals	6	4	L2
	b	Explain Hall effect and Derive an expression for Hall voltage and Hall coefficient.	8	4	L3
	c	Find the relaxation time of conduction electrons in a metal of resistivity 1.54×10^{-8} ohm-m, if the metal has 5.8×10^{28} conduction electrons per m^3	6	4	L3
OR					
Q6	a	Discuss the limitations of classical free electron theory	6	4	L1
	b	Define Fermi Factor? Discuss the variation of fermi factor with temperature and energy.	8	4	L3
	c	Calculate the probability of an electron occupying energy an energy level 0.02eV above Fermi level at 200K, 300K and 400K in a material.	6	4	L3
Module – 5					
Q7	a	Write a note on High temperature Superconductors	6	4	L1
	b	What is Superconductivity? Explain BCS theory of super conductivity.	8	4	L3
	c	A superconducting Tin has a critical temperature of 3.7K at zero magnetic fields and a critical field of 0.0306 Tesla at 0 K. Evaluate the critical field at 1K and 2K.	6	4	L5
OR					
Q8	a	Describe Type I and Type II superconductors	6	4	L1
	b	Explain the temperature dependence of resistivity for metals and superconductors.	8	4	L3
	c	A Lead material works as superconductor at temperature of 7.26K. If the constant characteristic field of the material at 0K is $8 \times 10^5 \text{ Am}^{-1}$. Evaluate the magnetic in the Lead at 2K and 5K.	6	4	L5



SJC INSTITUTE OF TECHNOLOGY

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SEMESTER END EXAMINATIONS FEB 2025

Course:	Elements of Mechanical Engineering			
Course Code:	BEMEM103	Stream: ME		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

	Module - 1		Marks	CO	RBTL
Q1	a	Describe any two emerging trends in the energy sector and their impact on Mechanical Engineering.	5	1	L1
	b	What are Shape Memory Alloys (SMAs)? Discuss their working principle and applications	7	1	L2
	c	Compare and contrast the advantages and limitations of Fiber Reinforced Composites.	8	1	L3
Module - 2					
Q2	a	A cylindrical workpiece of 50 mm diameter needs to be reduced to 40 mm using a lathe. Describe the step-by-step procedure, including the required lathe operations	5	2	L1
	b	Explain the concept of 3D printing and its significance in modern manufacturing.	7	2	L2
	c	A welded joint in a pipeline has failed under cyclic loading. Investigate potential reasons for failure and suggest strategies to improve weld quality.	8	2	L3
Module - 3					
Q3	a	Explain the process of steam formation and describe the different types of steam	5	3	L1
	b	Discuss the advantages and disadvantages of using steam in power generation and industrial heating applications.	7	3	L2
	c	Analyze the working principle of a 4-stroke petrol engine with a labeled diagram,	8	3	L3
OR					
Q4	a	Define refrigeration effect and explain the working principle of a Vapor Compression Refrigeration System	5	3	L1
	b	Explain the significance of the Ton of Refrigeration (TR) in selecting air conditioning systems for commercial building	7	3	L2
	c	Compare the properties of commonly used refrigerants and discuss their environmental impact	8	3	L3

Module – 4

Q5	a	Define mechanical power transmission and explain the different types of gear drives with neat sketches	5	4	L1
	b	Compare the advantages and disadvantages of helical gears over spur gears in industrial applications.	7	4	L2
	c	In a compound gear train, Gear A (input) has 20 teeth, Gear B (meshed with A) has 40 teeth, Gear C (on the same shaft as B) has 25 teeth, and Gear D (meshed with C) has 50 teeth. Determine the overall velocity ratio.	8	4	L3

OR

Q6	a	Explain the history and evolution of electric drives in transportation.	5	4	L1
	b	Compare the performance characteristics of Electric Vehicles (EVs) and Internal Combustion Engine Vehicles (ICEVs) based on torque delivery, efficiency, and emissions.	7	4	L2
	c	Compare series and parallel Hybrid Electric Vehicles (HEVs) in terms of efficiency, power distribution, and fuel economy.	8	4	L3

Module – 5

Q7	a	Define Mechatronics and mention its key components	5	5	L1
	b	Compare open-loop and closed-loop control systems with suitable examples. Discuss their advantages and limitations	7	5	L3
	c	A temperature control system in an industrial furnace operates in a closed-loop configuration. Identify the basic elements of its control system and explain their functions	8	5	L4

OR

Q8	a	Define a robot and describe its basic structure with a neat diagram	5	5	L1
	b	Classify robots based on their power sources and applications. Provide examples of each category.	7	5	L3
	c	Analyze the merits and demerits of humanoid robots in human-assistive applications	8	5	L4



SJC INSTITUTE OF TECHNOLOGY

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SEMESTER END EXAMINATIONS FEB 2025

Course:	Problem Solving through Programming			
Course Code:	BPSPS103	Stream: CSE		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

		Module - 1	Marks	CO	RBTL
Q1	a	What is a variable? Mention any three rules to define a variable.	4	1	L1
	b	Explain the structure of a C program with a suitable example.	8	1	L2
	c	Mention the basic data types in C language. Develop a C program to print the size of basic data types using size of () operator.	8	1	L3
		Module - 2			
Q2	a	Differentiate between break and continue statement.	4	2	L1
	b	Explain relational operators with suitable example.	8	2	L2
	c	Develop a C program to find all the roots of the quadratic equation for non-zero coefficients. Display the results along with suitable messages.	8	2	L3
		Module - 3			
Q3	a	Briefly define the storage classes in C.	4	3	L1
	b	Mention the elements of user defined functions. Explain any one in detail.	6	3	L2
	c	Develop user defined functions to perform the following (i) Read the matrices (ii) Multiply two matrices (iii) Display the matrices Write a C program to multiply two matrices using the above functions.	10	3	L3
		OR			
Q4	a	Define recursion. How to find the factorial of n using recursion?	4	3	L1
	b	What is an array? Explain the declaration and initialization of two-dimensional arrays with suitable example.	6	3	L2

	c	Build a program in C to compute GCD and LCM of Two numbers using Euclid's Algorithm and recursion.	10	3	L3
Module – 4					
Q5	a	Define string. Mention the string handling functions.	4	4	L1
	b	What is a pointer? Write a C program to perform multiplication of two numbers using pointers.	6	4	L2
	c	Develop a C program to read a string and check whether it is PALINDROME or not without using built in functions.	10	4	L3
OR					
Q6	a	Show the declaration and initialization of a pointer.	4	4	L1
	b	Explain any three string handling functions in C.	6	4	L2
	c	Develop a C program to swap two number using pointers and functions.	10	4	L3
Module – 5					
Q7	a	What is a structure? Show the declaration of a structure with suitable example.	4	5	L1
	b	Differentiate between structures & unions.	6	5	L2
	c	Build a structure to read, write and compute average marks of the students. List the students scoring above and below the average marks for a class of n students.	10	5	L3
OR					
Q8	a	What is a union? Show the declaration of a union with suitable example.	4	5	L1
	b	Explain various modes in which file can be opened for processing.	6	5	L2
	c	Develop a C program that reads integers from a file, computes their sum, and writes the sum to another file.	10	5	L3



SJC INSTITUTE OF TECHNOLOGY

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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Introduction to Electronics and Communication Engineering			
Course Code:	BESC104C	Branches: CSE, AI&DS & CSD		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

Q. No.	Module - 1		Marks	CO	RBTL
Q1	a	List and discuss different types of amplifiers.	6	1	L1
	b	Interpret the block diagram of the regulated DC power supply with the functions of each block.	6	1	L2
	c	Construct the full wave bridge rectifier with filter and draw input and output waveforms.	8	1	L3
Module - 2					
Q2	a	List the parameters and characteristics of op-amp.	6	1	L1
	b	With the condition for oscillation, infer the ladder network oscillator.	6	1	L2
	c	Construct op-amp as an integrator and differentiator.	8	1	L3
Module - 3					
Q3	a	State and prove Demorgan's theorem for 2 input variables	6	1	L2
	b	Interpret the JK flip-flop with the truth table.	6	2	L2
	c	Convert the following i. $(FACE)_{16} = (?)_8$ ii. $(1011.1011)_2 = (?)_{10}$ iii. $(989)_{10} = (?)_2$ iv. $(1010010101.00110011)_2 = (?)_{16}$	8	2	L3
OR					
Q4	a	State and prove any three Boolean laws.	6	2	L2
	b	Perform the following i. $(1000100)_2 - (1010100)_2$ using 2's complement ii. $(4564)_{10} - (6754)_{10}$ using 10's complement	6	2	L2
	c	Construct a full adder using two half adders with a truth table and obtain the expression sum and carry.	8	2	L3

Module – 4					
Q5	a	Explain elements of embedded systems.	6	3	L2
	b	Outline the difference between a microcontroller and a microprocessor	6	3	L2
	c	Compare and contrast the embedded systems over a general computing system.	8	3	L3
OR					
Q6	a	Discuss the classifications of embedded systems.	6	3	L2
	b	Compare the RISC and CISC processors.	6	3	L2
	c	Identify the different embedded systems in washing machines with a neat block diagram explaining their functions.	8	3	L3
Module – 5					
Q7	a	Define the following w.r.t communication: i. Multiplexing ii. Noise iii. Channel	6	4	L1
	b	Explain the function of each block in detail with a neat diagram of the communication system.	6	4	L2
	c	Analyze the characteristics of radio wave propagation based on sky and ground waves.	8	4	L4
OR					
Q8	a	Define modulation, and list the need for modulation.	6	4	L1
	b	Compare the advantages of digital communication over analog communication.	6	4	L2
	c	Analyze the various digital modulation techniques used in digital communication and sketch the waveforms.	8	4	L4



SJC INSTITUTE OF TECHNOLOGY

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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Introduction to C Programming			
Course Code:	BESC104E	Branches: AE, AS & ME		
Max Marks:	100	Duration:	03 Hours	

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

Q. No.	Module - 1		Marks	CO	RBTL
Q1	a	List and Explain any two input and output devices.	4	1	L2
	b	Briefly summarize the Basic Structure of C Program with an Example.	8	1	L2
	c	Define an Identifier? Apply the rules to construct an Identifier and Identify the following as valid/invalid Identifiers. i) num2 ii) \$num12 iii) 199_space iv) _apple	8	1	L3
Module - 2					
Q2	a	What is type conversion? Classify the two different types of conversion with an example for each.	6	2	L1
	b	List and Explain any four operators used in C language with an example for each.	8	2	L2
	c	Develop a C Program to find the largest of three numbers using ternary operator.	6	2	L3
Module - 3					
Q3	a	Show how break and continue statements are used in a C program with a code snippet.	4	3	L1
	b	Develop a C program to find the roots of quadratic equation for non-zero co-efficient using else-if ladder.	8	3	L3
	c	Define Storage class? Identify the different types of storage classes supported by C.	8	3	L2
OR					
Q4	a	Write a C program to find sum of Natural numbers from 1 to N using for loop	4	3	L1
	b	Briefly summarize the differences between while loop and do-while loop with a syntax and example.	8	3	L3

	c	Define Recursion. Build the recursive code to find the factorial of a given number.	8	3	L2
Module – 4					
Q5	a	Define an array? Outline how to declare and initialize one dimensional array with an example.	6	4	L2
	b	Develop a C program to search an integer from N numbers in ascending order using binary searching technique.	8	4	L3
	c	Construct a C program to find the largest element in an array of elements.	6	4	L3
OR					
Q6	a	How elements are stored in two-dimensional array with an example?	4	4	L2
	b	Develop a C program that reads N integer numbers and arrange them in ascending order using Bubble Sort technique.	8	4	L3
	c	Build a C program to find the transpose of a given matrix	8	4	L3
Module – 5					
Q7	a	Define Pointer. How the declare and initialize pointer with syntax and Example?	4	5	L2
	b	Define string? Illustrate any three string manipulation functions with an example for each.	8	5	L3
	c	Develop and simplify a C program to compute sum and mean of all elements in array of N real numbers using pointers.	8	5	L4
OR					
Q8	a	Develop a C program to check whether a string is palindrome or not.	4	5	L2
	b	Construct a C program to read and display 'n' student details like name, USN, IA marks and Grade using structures.	8	5	L3
	c	Analyze how structure is different from union with an example.	8	5	L4



SJC INSTITUTE OF TECHNOLOGY

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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Introduction to Internet of Things		
Course Code:	BETC105A	Branches: CSE, CSD, AI&DS	
Max Marks:	100	Duration:	03 Hours

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

Q. No.	Module - 1		Marks	CO	RBTL
Q1	a	Why is networking important in today's digital world? List out 2 advantages and disadvantages of networking.	6	1	L1
	b	Explain various network topologies with suitable diagram.	8	1	L2
	c	Build a timeline highlighting the major milestones in the evolution of IoT from its inception to the present day.	6	1	L3
Module - 2					
Q2	a	Define sensor and actuator. When is it more appropriate to use a sensor instead of an actuator in a system? Provide an example to explain your reasoning.	6	2	L1
	b	Explain with neat diagram, the functional blocks of typical sensor node in IoT.	8	2	L2
	c	Identify the importance of sensorial deviations that leads to large effect in details.	6	2	L3
Module - 3					
Q3	a	List out the characteristics of Bluetooth and WiFi.	6	3	L1
	b	Infer offload location and offload decision making.	8	3	L2
	c	Build the offsite processing topologies in IoT.	6	3	L3
OR					

Q4	a	What are the different considerations for IoT design? Show the importance of each consideration.	6	3	L1
	b	Explain briefly the different data formats found in IoT network.	8	3	L2
	c	Construct different processing topologies in detail.	6	3	L3
Module – 4					
Q5	a	Define the term "cloud computing" and recall any two real-world examples of its usage. List its primary features and benefits.	6	4	L1
	b	List out and explain types of virtualization	8	4	L2
	c	Explain the importance and role of Cloud Sim and Green Cloud simulators in IoT-based system testing. List out the advantages of Cloud simulators.	6	4	L5
OR					
Q6	a	What is virtualization? List out the advantages of virtualization.	4	4	L1
	b	Explain below given service models: Software-as-a-service Platform-as-a-service Infrastructure-as-a-service	10	4	L2
	c	Construct the architecture of a sensor-cloud platform and explain the role of each actor involved in it.	6	4	L3
Module – 5					
Q7	a	What is Vehicular IoT and list its three main architectural layers. Recall the advantages of Vehicular IoT and name any three.	6	5	L1
	b	Explain the architecture of the AmbuSens system in healthcare IoT. Outline the function of each layer in detail.	8	5	L2
	c	Categorize the types of machine learning used in IoT analytics. Explain how supervised and unsupervised learning differ in processing IoT data.	6	5	L4
OR					
Q8	a	List the layers of healthcare IoT architecture and identify the primary function of each layer.	6	5	L1
	b	Explain a three-tier architecture for Fog-FISVER in a smart IoT transportation system.	8	5	L2
	c	Compare the advantages and risks of healthcare IoT systems.	6	5	L4



SJC INSTITUTE OF TECHNOLOGY

(An Autonomous Institute under VTU, Belagavi)

FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Waste Management		
Course Code:	BETC105H	Branches: AE, AS & ME	
Max Marks:	100	Duration:	03 Hours

Note:

1. Answer ONE question from each MODULE and Question 1 & 2 is compulsory.
2. Any missing Data can be suitably assumed.

Q. No.	Module - 1				Marks	CO	RBTL	
Q1	a	Define Hazardous waste. List four characteristics that make waste hazardous.				6	1	L1
	b	Briefly explain physical and chemical characteristics of solid waste.				6	1	L2
	c	Estimate the moisture content of 100kg sample of solid waste with the following composition. Also estimate energy content on dry weight basis and ash free basis. Take Ash content as 7%.				8	1	L5
		Component	% by mass	% Moisture	Energy Content KJ/Kg			
		Food waste	15	70	4650			
		Paper	45	6	16750			
		Cardboard	10	5	16300			
		Plastic	10	2	32600			
		Garden Trimmings	10	60	6500			
Wood		5	20	18600				
Tincans	5	3	700					
Module – 2								
Q2	a	State the advantages of a door-to-door collection system.				4	2	L1
	b	Explain with a neat sketch Hauled container system and its advantage and disadvantages.				8	2	L2
	c	Distinguish between incineration and pyrolysis.				8	2	L4
Module – 3								
Q3	a	Define resource recovery. Name two waste-to-energy technologies.				4	3	L1
	b	Explain the factors that governs the selection of site for sanitary landfilling				8	3	L2
	c	Develop a comprehensive post closure- plan for a landfill site.				8	3	L4

OR					
Q4	a	What is leachate? What are the primary components of landfill gas?	4	3	L1
	b	Explain the control of gases and leachates in landfill with a neat diagram.	8	3	L2
	c	Identify opportunities for recycling and reusing materials on a construction site.	8	3	L4
Module – 4					
Q5	a	Name four categories of biomedical waste.	4	4	L1
	b	Describe the potential environmental impacts of improper biomedical waste disposal	8	4	L2
	c	Assess the effectiveness of current safety protocols for handling biomedical waste	8	4	L5
OR					
Q6	a	What are some key considerations for transporting biomedical waste within a healthcare facility?	4	4	L1
	b	Describe the process of autoclaving and its effectiveness in sterilizing waste.	8	4	L2
	c	Analyze the challenges of implementing effective waste segregation in a busy hospital environment.	8	4	L5
Module – 5					
Q7	a	Define refurbishment in the context of electronics	4	5	L1
	b	Explain how circular economy principles can be applied to e-waste management.	8	5	L2
	c	Compare and contrast the environmental impacts of different e-waste disposal methods.	8	5	L4
OR					
Q8	a	List the strategies for reducing e-waste.	4	5	L1
	b	Describe the concept of "closing the loop" in e-waste management.	8	5	L2
	c	Assess the potential of reuse and refurbishment to reduce the demand for new electronics.	8	5	L4



SJC INSTITUTE OF TECHNOLOGY

(An Autonomous Institute under VTU, Belagavi)

FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	COMMUNICATIVE ENGLISH		
Course Code:	BENG106	Stream: All the Branches	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the **OMR** sheet.
4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	What is the primary purpose of an oral presentation? a) To entertain the audience b) To impress with visuals c) To convey information clearly and effectively d) To use complex vocabulary	1	3	L1
2.	What is the recommended way to maintain audience interest during a presentation? a) Use a monotone voice b) Include interactive elements and visuals c) Read directly from the slides d) Speak very quickly to save time	1	3	L1
3.	Which of the following is NOT a good practice for a presentation? a) Making eye contact with the audience b) Speaking loudly and clearly c) Using excessive filler words (e.g., "um," "like") d) Practicing your presentation beforehand	1	3	L1
4.	How should you handle a question from the audience that you don't know the answer to? a) Ignore the question b) Admit you don't know and offer to follow up later c) Provide an unrelated answer d) Pretend to know and guess	1	3	L1
5.	What should be avoided in a PowerPoint presentation? a) Simple visuals b) Long paragraphs of text c) Bullet points d) Graphs and charts	1	3	L1
6.	Which area of communication is most affected by Mother Tongue Influence? a) Vocabulary building b) Pronunciation and accent c) Sentence construction d) Writing skills	1	3	L1

7.	Which of the following strategies can help reduce Mother Tongue Influence? a) Avoiding speaking the target language b) Listening and practicing correct pronunciation c) Memorizing native-language vocabulary d) Writing only in the mother tongue	1	3	L1
8.	Why does Mother Tongue Influence occur? a) Due to lack of knowledge of grammar rules. b) Because of language transfer from the native language. c) From poor vocabulary retention. d) Due to inability to hear the new language.	1	3	L1
9.	A common example of MTI in Indian speakers of English is: a) Rolling the 'r' sound excessively. b) Substituting 'v' for 'w' sounds or vice versa. c) Using 'th' as a hard sound instead of soft. d) All of the above	1	3	L1
10.	Which practice is most effective to neutralize Mother Tongue Influence? a) Listening to native speakers and repeating after them. b) Using complex vocabulary frequently. c) Avoiding second-language conversations. d) Focusing only on writing skills.	1	3	L1
11.	In communication some people do not talk much question even less and agree with opposing opinions. Such communications called _____ a) Assertive style b) Passive style c) Passive aggressive style d) Aggressive style	1	1	L2
12.	Which of the following are the key elements of communication? a) Communication is a two way process b) There has to be a message c) Commonness of understanding d) All of these	1	1	L1
13.	Ratan Tata was born on _____ a) 28 December 1937 b) 28 January 1940 c) 28 May 1935 d) 28 August 1937	1	1	L2
14.	Tata Institute of Fundamental Research is situated in _____ a) Bangalore b) Mumbai c) Delhi d) Madras	1	1	L1
15.	Positive body language _____ a) Quite reliable b) Quite unreliable c) Both a and b d) None of these	1	1	L1
16.	Which of the following statements explain interpersonal skills? a) The skills that a person uses to interact with other people b) People skills or communication skills c) Only communication skill d) All of these	1	1	L1
17.	Which of the following is not a function of a nonverbal communication? a) Nonverbal behavior creates a negative impact on the listener b) A non-verbal message simplifies a verbal message c) A nonverbal message complements a verbal message d) A non-verbal message keeps the listener connected to the speaker's words	1	1	L1

37.	Nurses have a difficult job, _____? a) haven't they b) have they c) don't they d) do they	1	2	L1
38.	Choose which part of speech the highlighted word is: She was wearing really beautiful earrings. a) Adjective b) Adverb c) Noun d) pronoun	1	2	L1
39.	What is the antonym of "scarce"? a) Abundant b) Rare c) Limited d) Few	1	2	L1
40.	46. Choose the synonym of "timid": a) Bold b) Shy c) Confident d) Outgoing	1	2	L1
41.	The name that has been used for the accent usually used for teaching the pronunciation of the British English is _____ a) Referred pronunciation b) Received pronunciation c) Reply pronunciation d) None of these	1	2	L2
42.	The purity of English language is lost due to _____ a) Influence of elders b) Mother tongue influence c) Both a and b d) None of these	1	2	L2
43.	At present standard English accent is considered as the English spoken by the people of _____ a) South east England b) India c) South Africa d) Australia	1	2	L1
44.	In phonetics RP is an abbreviation of _____ a) Remain prompt b) Received prompt c) Remain pronunciation d) Received pronunciation	1	2	L2
45.	Any vocal organ that takes part in the production of the speech sound is called _____ a) Artificial b) Articulator c) Pronunciation d) Symbols	1	2	L1
46.	The following are the articulators used to produce the speech sound except _____ a) Nose b) Lips c) Teeth d) Eyes	1	2	L1
47.	In phonetics the standard symbols used for the transcription are called _____ a) IPL b) IPA c) APL d) BPL	1	2	L1
48.	IPA is the abbreviation of _____ a) International phone alphabet b) Internal phonetic alphabet c) International phonetic alphabet d) Institutional phonetic alphabet	1	2	L1
49.	Using standard symbols for standard sounds is known as _____ a) Translate b) Transcription c) Trans d) Trans place	1	2	L1
50.	A transcription denotes the speech sound of a letter or a word is enclosed within brackets _____ a) slash // b) curly {} c) angle <> d) parentheses ()	1	2	L2



SJC INSTITUTE OF TECHNOLOGY

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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	COMMUNICATIVE ENGLISH		
Course Code:	BENG106	Stream: All the Branches	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the **OMR** sheet.
4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	In communication some people do not talk much question even less and agree with opposing opinions. Such communications called_____ <div> a) Assertive style b) Passive style c) Passive aggressive style d) Aggressive style </div>	1	1	L2
2.	Which of the following are the key elements of communication? <div> a) Communication is a two way process b) There has to be a message c) Commonness of understanding d) All of these </div>	1	1	L1
3.	Ratan Tata was born on _____ <div> a) 28 December 1937 b) 28 January 1940 c) 28 May 1935 d) 28 August 1937 </div>	1	1	L2
4.	Tata Institute of Fundamental Research is situated in _____ <div> a) Bangalore b) Mumbai c) Delhi d) Madras </div>	1	1	L1
5.	Positive body language _____ <div> a) Quite reliable b) Quite unreliable c) Both a and b d) None of these </div>	1	1	L1
6.	Which of the following statements explain interpersonal skills? <div> a) The skills that a person uses to interact with other people b) People skills or communication skills c) Only communication skill d) All of these </div>	1	1	L1
7.	Which of the following is not a function of a nonverbal communication? <div> a) Nonverbal behavior creates a negative impact on the listener b) A non-verbal message simplifies a verbal message c) A nonverbal message complements a verbal message d) A non-verbal message keeps the listener connected to the speaker's words </div>	1	1	L1

8.	Which of the following is NOT a aspect of paralinguistic? a) Facial expressions b) Rate of speech c) Pitch of voice d) Volume of voice	1	1	L1
9.	Body language refers to any kind of _____ or posture, including facial expressions which transmits a message to the observer a) Bodily language b) Bodily movement c) Bodily skill d) None of these	1	1	L2
10.	Our dress code is an example of _____ communication a) Verbal b) Nonverbal c) Written d) Spoken	1	1	L1
11.	What is the prefix in the word " <i>impossible</i> "? a) pos b) ible c) im d) ssible	1	2	L1
12.	Which of the following words contains a suffix? a) Misunderstand b) Happy c) Quickly d) Preheat	1	2	L1
13.	"Doctor : Hospital :: Teacher : ?" a) Class b) Laboratory c) School d) Office	1	2	L1
14.	"Cup : Saucer :: Pen : ?" a) Ink b) Pa c) Pencil d) Book	1	2	L1
15.	Which of the following is NOT a contraction? a) Can't b) Didn't c) Won't d) ATM	1		L1
16.	What does the abbreviation "etc." stand for? a) End to count b) Etc c) Every term close d) End term content	1	2	L1
17.	Choose the correct expansion for the abbreviation "DIY": a) Do It Yesterday b) Do It Yourself c) Drive In Ya d) Done in Year	1	2	L1
18.	Identify the tense used: The children were playing outside when it started raining. a) Past Continuous b) Past Perfect c) Present Continuous d) Future Continuous	1	2	L1
19.	Fill in the blank with the correct tense form: By next year, he _____ his degree. a) Will complete b) Has completed c) Will have completed d) Completes	1	2	L1
20.	Choose the correct option: I _____ to the market yesterday. a) Go b) Went c) Have gone d) Will go	1	2	L1
21.	The name that has been used for the accent usually used for teaching the pronunciation of the British English is _____ a) Referred pronunciation b) Received pronunciation c) Reply pronunciation d) None of these	1	2	L2
22.	The purity of English language is lost due to _____ a) Influence of elders b) Mother tongue influence c) Both a and b d) None of these	1	2	L2
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25.	Any vocal organ that takes part in the production of the speech sound is called _____ a) Artificial b) Articulator c) Pronunciation d) Symbols	1	2	L1

26.	The following are the articulators used to produce the speech sound except _____ a) Nose b) Lips c) Teeth d) Eyes	1	2	L1
27.	In phonetics the standard symbols used for the transcription are called _____ a) IPL b) IPA c) APL d) BPL	1	2	L1
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30.	A transcription denotes the speech sound of a letter or a word is enclosed within brackets _____ a) slash // b) curly {} c) angle <> d) parentheses ()	1	2	L2
31.	Choose the appropriate prepositions from the options given: [Q 21 to Q25] The consonant cluster that comes before the vowel sound syllable is called _____ a) Onset b) Coda c) Nucleus d) Rime	1	2	L1
32.	Virat Kohli received a Padma Shri _____ his exceptional performance in the field of cricket. a) for b) to c) by d) with	1	2	L1
33.	It is thirty past ten _____ my watch. a) in b) on c) by d) with	1	2	L1
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35.	A British woman was _____ the fifty-four victims of the disaster. a) Between b) among c) through d) since	1	2	L1
36.	Identify the suitable question tag for the given statement: [Q 26 to Q 27] You can't change the situation, _____? a) can't you b) can you c) could you d) couldn't you	1	2	L1
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42.	What is the recommended way to maintain audience interest during a presentation? a) Use a monotone voice b) Include interactive elements and visuals c) Read directly from the slides d) Speak very quickly to save time	1	3	L1
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48.	Why does Mother Tongue Influence occur? a) Due to lack of knowledge of grammar rules. b) Because of language transfer from the native language. c) From poor vocabulary retention. d) Due to inability to hear the new language.	1	3	L1
49.	A common example of MTI in Indian speakers of English is: a) Rolling the 'r' sound excessively. b) Substituting 'v' for 'w' sounds or vice versa. c) Using 'th' as a hard sound instead of soft. d) All of the above	1	3	L1
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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	COMMUNICATIVE ENGLISH		
Course Code:	BENG106	Stream: All the Branches	
Max Marks:	50	Duration:	1 Hour

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Q.NO.	Questions	Marks	CO	RBTL
1.	What is the prefix in the word "impossible"? a) pos b) ible c) im d) ssible	1	2	L1
2.	Which of the following words contains a suffix? a) Misunderstand b) Happy c) Quickly d) Preheat	1	2	L1
3.	"Doctor : Hospital :: Teacher : ?" a) Class b) Laboratory c) School d) Office	1	2	L1
4.	"Cup : Saucer :: Pen : ?" a) Ink b) Pa c) Pencil d) Book	1	2	L1
5.	Which of the following is NOT a contraction? a) Can't b) Didn't c) Won't d) ATM	1	2	L1
6.	What does the abbreviation "etc." stand for? a) End to count b) Etc c) Every term close d) End term content	1	2	L1
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8.	Identify the tense used: The children were playing outside when it started raining. a) Past Continuous b) Past Perfect c) Present Continuous d) Future Continuous	1	2	L1
9.	Fill in the blank with the correct tense form: By next year, he ____ his degree. a) Will complete b) Has completed c) Will have completed d) Completes	1	2	L1
10.	Choose the correct option: I ____ to the market yesterday. a) Go b) Went c) Have gone d) Will go	1	2	L1
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25.	A British woman was _____ the fifty-four victims of the disaster. a) Between b) among c) through d) since	1	2	L1
26.	Identify the suitable question tag for the given statement: [Q 26 to Q 27] You can't change the situation, _____? a) can't you b) can you c) could you d) couldn't you	1	2	L1
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28.	Choose which part of speech the highlighted word is: She was wearing really beautiful earrings. a) Adjective b) Adverb c) Noun d) pronoun	1	2	L1
29.	What is the antonym of "scarce"? a) Abundant b) Rare c) Limited d) Few	1	2	L1
30.	46. Choose the synonym of "timid": a) Bold b) Shy c) Confident d) Outgoing	1	2	L1
31.	The name that has been used for the accent usually used for teaching the pronunciation of the British English is _____ a) Referred pronunciation b) Received pronunciation c) Reply pronunciation d) None of these	1	2	L2
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44.	Tata Institute of Fundamental Research is situated in _____ a) Bangalore b) Mumbai c) Delhi d) Madras	1	1	L1
45.	Positive body language _____ a) Quite reliable b) Quite unreliable c) Both a and b d) None of these	1	1	L1
46.	Which of the following statements explain interpersonal skills? a) The skills that a person uses to interact with other people b) People skills or communication skills c) Only communication skill d) All of these	1	1	L1
47.	Which of the following is not a function of a nonverbal communication? a) Nonverbal behavior creates a negative impact on the listener b) A non-verbal message simplifies a verbal message c) A nonverbal message complements a verbal message d) A non-verbal message keeps the listener connected to the speaker's words	1	1	L1
48.	Which of the following is NOT a aspect of paralinguistic? a) Facial expressions b) Rate of speech c) Pitch of voice d) Volume of voice	1	1	L1
49.	Body language refers to any kind of _____ or posture, including facial expressions which transmits a message to the observer a) Bodily language b) Bodily movement c) Bodily skill d) None of these	1	1	L2
50.	Our dress code is an example of _____ communication a) Verbal b) Nonverbal c) Written d) Spoken	1	1	L1



SJC INSTITUTE OF TECHNOLOGY

(An Autonomous Institute under VTU, Belagavi)

FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	COMMUNICATIVE ENGLISH		
Course Code:	BENG106	Stream: All the Branches	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the **OMR** sheet.
4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	What is the prefix in the word " <i>impossible</i> "? a) pos b) ible c) im d) ssible	1	2	L1
2.	Which of the following words contains a suffix? a) Misunderstand b) Happy c) Quickly d) Preheat	1	2	L1
3.	"Doctor : Hospital :: Teacher : ?" a) Class b) Laboratory c) School d) Office	1	2	L1
4.	"Cup : Saucer :: Pen : ?" a) Ink b) Pa c) Pencil d) Book	1	2	L1
5.	Which of the following is NOT a contraction? a) Can't b) Didn't c) Won't d) ATM	1		L1
6.	What does the abbreviation "etc." stand for? a) End to count b) Etc c) Every term close d) End term content	1	2	L1
7.	Choose the correct expansion for the abbreviation "DIY": a) Do It Yesterday b) Do It Yourself c) Drive In Ya d) Done in Year	1	2	L1
8.	Identify the tense used: The children were playing outside when it started raining. a) Past Continuous b) Past Perfect c) Present Continuous d) Future Continuous	1	2	L1
9.	Fill in the blank with the correct tense form: By next year, he ____ his degree. a) Will complete b) Has completed c) Will have completed d) Completes	1	2	L1
10.	Choose the correct option: I ____ to the market yesterday. a) Go b) Went c) Have gone d) Will go	1	2	L1
11.	Choose the appropriate prepositions from the options given: The consonant cluster that comes before the vowel sound syllable is called ____ a) Onset b) Coda c) Nucleus d) Rime	1	2	L1

12.	Virat Kohli received a Padma Shri _____ his exceptional performance in the field of cricket. a) for b) to c) by d) with	1	2	L1
13.	It is thirty past ten _____ my watch. a) in b) on c) by d) with	1	2	L1
14.	She went _____ a very difficult time. a) Over b) above c) across d) through	1	2	L1
15.	A British woman was _____ the fifty-four victims of the disaster. a) Between b) among c) through d) since	1	2	L1
16.	Identify the suitable question tag for the given statement: [Q 26 to Q 27] You can't change the situation, _____? a) can't you b) can you c) could you d) couldn't you	1	2	L1
17.	Nurses have a difficult job, _____? a) haven't they b) have they c) don't they d) do they	1	2	L1
18.	Choose which part of speech the highlighted word is: She was wearing really beautiful earrings. a) Adjective b) Adverb c) Noun d) pronoun	1	2	L1
19.	What is the antonym of "scarce"? a) Abundant b) Rare c) Limited d) Few	1	2	L1
20.	46. Choose the synonym of "timid": a) Bold b) Shy c) Confident d) Outgoing	1	2	L1
21.	What is the primary purpose of an oral presentation? a) To entertain the audience b) To impress with visuals c) To convey information clearly and effectively d) To use complex vocabulary	1	3	L1
22.	What is the recommended way to maintain audience interest during a presentation? a) Use a monotone voice b) Include interactive elements and visuals c) Read directly from the slides d) Speak very quickly to save time	1	3	L1
23.	Which of the following is NOT a good practice for a presentation? a) Making eye contact with the audience b) Speaking loudly and clearly c) Using excessive filler words (e.g., "um," "like") d) Practicing your presentation beforehand	1	3	L1
24.	How should you handle a question from the audience that you don't know the answer to? a) Ignore the question b) Admit you don't know and offer to follow up later c) Provide an unrelated answer d) Pretend to know and guess	1	3	L1
25.	What should be avoided in a PowerPoint presentation? a) Simple visuals b) Long paragraphs of text c) Bullet points d) Graphs and charts	1	3	L1
26.	Which area of communication is most affected by Mother Tongue Influence? a) Vocabulary building b) Pronunciation and accent c) Sentence construction d) Writing skills	1	3	L1

27.	Which of the following strategies can help reduce Mother Tongue Influence? a) Avoiding speaking the target language b) Listening and practicing correct pronunciation c) Memorizing native-language vocabulary d) Writing only in the mother tongue	1	3	L1
28.	Why does Mother Tongue Influence occur? a) Due to lack of knowledge of grammar rules. b) Because of language transfer from the native language. c) From poor vocabulary retention. d) Due to inability to hear the new language.	1	3	L1
29.	A common example of MTI in Indian speakers of English is: a) Rolling the 'r' sound excessively. b) Substituting 'v' for 'w' sounds or vice versa. c) Using 'th' as a hard sound instead of soft. d) All of the above	1	3	L1
30.	Which practice is most effective to neutralize Mother Tongue Influence? a) Listening to native speakers and repeating after them. b) Using complex vocabulary frequently. c) Avoiding second-language conversations. d) Focusing only on writing skills.	1	3	L1
31.	In communication some people do not talk much question even less and agree with opposing opinions. Such communications called _____ a) Assertive style b) Passive style c) Passive aggressive style d) Aggressive style	1	1	L2
32.	Which of the following are the key elements of communication? a) Communication is a two way process b) There has to be a message c) Commonness of understanding d) All of these	1	1	L1
33.	Ratan Tata was born on _____ a) 28 December 1937 b) 28 January 1940 c) 28 May 1935 d) 28 August 1937	1	1	L2
34.	Tata Institute of Fundamental Research is situated in _____ a) Bangalore b) Mumbai c) Delhi d) Madras	1	1	L1
35.	Positive body language _____ a) Quite reliable b) Quite unreliable c) Both a and b d) None of these	1	1	L1
36.	Which of the following statements explain interpersonal skills? a) The skills that a person uses to interact with other people b) People skills or communication skills c) Only communication skill d) All of these	1	1	L1
37.	Which of the following is not a function of a nonverbal communication? a) Nonverbal behavior creates a negative impact on the listener b) A non-verbal message simplifies a verbal message c) A nonverbal message complements a verbal message d) A non-verbal message keeps the listener connected to the speaker's words	1	1	L1



SJC INSTITUTE OF TECHNOLOGY

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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Indian Constitution		
Course Code:	BICO107	Branches: CSE, CSD, AI&DS, ME, AE & AS	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
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Q.NO.	Questions	Marks	CO	RBTL
1.	Chairman of the constituent assembly was ----- and ----- was the chairman of drafting Committee. a) Dr. Rajendra Prasad & Dr. B. R Ambedkar b) Dr. B. R. Ambedkar & Dr. Rajendra Prasad c) Pandit Jawaharlal Nehru & M.K. Gandhi d) Sardar Vallabhai Patel & Dr. S Radhakrisna	1	1	L1
2.	The date of commence of Indian Constitution is on a) 26 th November 1949 b) 26 th November 1945 c) 26 th January 1950 d) 16 th August 1947	1	1	L1
3.	Who was the chairman of drafting committee of Constitution of India? a) Dr. Rajendra Prasad b) Jawaharlal Nehru c) Dr. B. R. Ambedkar d) Sardar Vallabhai patel	1	1	L1
4.	The India Independence Act 1947 was passed by the a) Constituent assembly b) British Parliament c) Governor general of India d) Provincial Government	1	1	L1
5.	The Indian constitution is a) Based on conventions b) A brief document c) An evolved constitution d) Written and bulky document	1	1	L1
6.	The government of India Act 1935 provided for a) Dyarchy at the center b) Established of federal court c) Preamble d) Directive principles	1	1	L1
7.	The members of the constituent assembly to form constitution for India a) Were nominated by Vice-Roy of India b) Were nominated by the leaders of congress party and Muslim league c) Elected by the adult franchise d) None of the above	1	1	L1
8.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
9.	The Independence to India was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1
10.	Republic Day was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1
11.	Which is not a Fundamental Right? a) Right against exploitation b) Right to freedom of religion c) Right to strike d) Right to equality	1	1	L1

12.	India is referred to asunder the Indian Constitution? a) Country b) Hindustan c) India d) Bharat	1	1	L1
13.	Who quoted "Child of Today is Citizen of Tomorrow" a) Lokamanya Tilak b) Jawaharlal Nehru b) Dr. B. R. Ambedkar d) Gandhiji	1	1	L1
14.	The Preamble of the Constitution indicates a) Power to make laws b) The sovereign of Indian Constitution c) Power of Parliament to amend the constitution d) Sources of Constitution	1	1	L1
15.	Which important human right is protected under article 21 a) Right to equality b) Right to life and liberty c) Right to freedom of speech d) Right to religion	1	1	L1
16.	Article 19 provides a) 6 freedoms b) 7 freedoms c) 8 freedoms d) 5 freedoms	1	1	L1
17.	One of the salient features of our constitution is a) It is fully rigid b) It is fully flexible c) It is partly rigid and partly flexible d) None of these	1	1	L1
18.	Writ of Mandamus can be issued on the ground of a) Non-performance of public duties b) Unlawful Detention c) Unlawful occupation of public office d) None of these	1	1	L1
19.	Which is the language to be used in parliament a) Kannada b) Hindi c) English d) Both b & c	1	1	L1
20.	The fundamental rights of our country are derived from a) Britain constitution b) USA constitution c) Canada constitution d) Australian constitution	1	1	L1
21.	Which part of the Indian constitution deals with the Directive Principles of state policy? a) Part I b) Part II. c) Part III d) Part IV	1	1	L1
22.	Articles 36-51 of our constitution are related to which of the following? a) Fundamental Rights b) Fundamental duties c) DPSP d) Union Executive	1	1	L1
23.	By which amendment act of the constitution of India were Fundamental duties were given. a) 46 th b) 42 nd c) 40 th d) 44 th	1	3	L1
24.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
25.	The full form of NOTA is a) Non-operational Tax Act b) New Oriental Tax Act c) None of The Above d) All of the above	1	3	L1
26.	The main purpose of including directive principles of the state policy in the constitution of India is a) To check the arbitrary action of the government b) To establish a secular state c) To establish a welfare state d) To provide opportunities for the development	1	1	L1
27.	Parliament consist of a) Raj-sabha and Lok-sabha b) Raj-sabha, Lok-sabha and The president of India c) Raj-sabha, Lok-sabha, President and Vice President of Indi d) Raj-sabha, Lok-sabha and Speaker of Lok-sabha	1	2	L1
28.	The president of India is a) Nominated b) Appointed c) Selected d) Elected	1	3	L1
29.	What is the minimum age to become the Vice-President of India? a) 35 b) 45 c) 25 d) 30	1	3	L1
30.	The parliament consist of a) Two organs b) Three organs c) Four organs d)Five organs	1	3	L1
31.	Governor has no power to appoint a) A judge of high court b) Chief Minister c) Cabinet Minister d) Advocate General	1	2	L1

32.	The Budget session commences in the a) Third week of February b) Third week of March c) End of December d) First week of January	1	3	L1
33.	The council of ministers in the state shall be collectively responsible to a) Chief Minister b) Legislative assembly of the state c) Governor d) Chief Justice of High Court	1	3	L1
34.	The Governor of the state can be removed by the a) The Prime Minister b) The Chief Justice of the High Court on the state c) The President d) The Chief Minister of the state	1	2	L1
35.	Which of the following has the power of judicial review? a) High courts b) District courts c) Supreme courts d) Only Supreme and High Courts	1	2	L1
36.	The Chief Justice of Supreme court is selected by a) The President b) The Prime Minister c) The other Judges of Supreme court d) The Council of Ministers	1	2	L1
37.	Chief Minister is appointed by a) Prime Minister b) Governor b) Chief justice of High Court d) President	1	3	L1
38.	Who among the following forms the Advisory Committee of the Parliament? a) Speaker of Lok Sabha b) Vice-President of India c) Minister of parliamentary Affairs d) President of India	1	2	L1
39.	Who decides whether the bill is a Money bill or not? a) The president b) The speaker c) The Finance Minister d) The Finance Secretary	1	3	L1
40.	Lok-Sabha is known as a) Upper House b) Lower House c) Middle House d) All of the above	1	2	L1
41.	A person cannot be appointed as minister of state, unless he is a) Member of Lok-Sabha b) Member of Raj-Sabha c) Member of Legislative assembly of any state d) None of the above	1	3	L1
42.	Governor shall nominate to the Legislative council..... members a) 12 b) 7 c) 5 d) None of the above	1	2	L1
43.	The Governor in the state plays a dual role as an agent of the President and a) As the agent of Chief Minister in the state b) As the agent of the Chief Justice of India c) As the constitutional head of the state d) As the agent of the Prime Minister	1	2	L1
44.	Who will appoint the Chief Minister of a state? a) Prime minister of India b) Governor of the State c) cabinet minister of that state d) Congress working committee	1	3	L1
45.	Who will appoint the cabinet minister of a state? a) Chief minister of that state b) Governor of that state c) Cabinet minister of that state d) Congress working committee	1	3	L1
46.	When a state emergency is declared, all or any of the functions of the state government are assumed by the a) Governor b) President c) Prime minister d) Union cabinet	1	3	L1
47.	Creamy layer means a) Highly educated persons b) Persons holding high posts c) Highly cultured persons d) Persons having higher incomes	1	3	L1
48.	Election commission does not conduct election to a) The office of President b) The office of the Vice-President c) The office of the Speaker of Lok-sabha d) State legislature of Union Territory	1	3	L1
49.	The Chief Election commissioner is appointed by a) Chief Justice of India b) Planning commission of India c) Prime minister, on advice of cabinet d) President	1	3	L1
50.	Chief Minister of a state gives his resignation to the a) Governor of the state b) President of India c) Deputy Chief Minister of the state d) Chief justice of the High Court	1	3	L1



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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

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Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

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6.	Article 19 provides c) 6 freedoms b) 7 freedoms c) 8 freedoms d) 5 freedoms	1	1	L1
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9.	Which is the language to be used in parliament a) Kannada b) Hindi c) English d) Both b & c	1	1	L1
10.	The fundamental rights of our country are derived from a) Britain constitution b) USA constitution c) Canada constitution d) Australian constitution	1	1	L1
11.	Which part of the Indian constitution deals with the Directive Principles of state policy? a) Part I b) Part II. c) Part III d) Part IV	1	1	L1
12.	Articles 36-51 of our constitution are related to which of the following? a) Fundamental Rights b) Fundamental duties c) DPSP d) Union Executive	1	1	L1
13.	By which amendment act of the constitution of India were Fundamental duties were given. b) a) 46 th b) 42 nd c) 40 th d) 44 th	1	3	L1

34.	Who will appoint the Chief Minister of a state? a) Prime minister of India b) Governor of the State c) c) cabinet minister of that state d) Congress working committee	1	3	L1
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2.	Articles 36-51 of our constitution are related to which of the following? a) Fundamental Rights b) Fundamental duties c) c) DPSP d) Union Executive	1	1	L1
3.	By which amendment act of the constitution of India were Fundamental duties were given. c) a) 46 th b) 42 nd c) 40 th d) 44 th	1	3	L1
4.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
5.	The full form of NOTA is a) Non-operational Tax Act b) New Oriental Tax Act c) None of The Above d) All of the above	1	3	L1
6.	The main purpose of including directive principles of the state policy in the constitution of India is a) To check the arbitrary action of the government b) To establish a secular state c) To establish a welfare state d) To provide opportunities for the development	1	1	L1
7.	Parliament consist of a) Raj-sabha and Lok-sabha b) Raj-sabha, Lok-sabha and The president of India c) Raj-sabha, Lok-sabha, President and Vice President of Indi d) Raj-sabha, Lok-sabha and Speaker of Lok-sabha	1	2	L1
8.	The president of India is a) Nominated b) Appointed c) Selected d) Elected	1	3	L1
9.	What is the minimum age to become the Vice-President of India? a) 35 b) 45 c) 25 d) 30	1	3	L1
10.	The parliament consist of a) Two organs b) Three organs c) Four organs d) Five organs	1	3	L1
11.	Governor has no power to appoint a) A judge of high court b) Chief Minister c) Cabinet Minister d) Advocate General	1	2	L1
12.	The Budget session commences in the a) Third week of February b) Third week of March c) End of December d) First week of January	1	3	L1

13.	The council of ministers in the state shall be collectively responsible to a) Chief Minister b) Legislative assembly of the state c) Governor d) Chief Justice of High Court	1	3	L1
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15.	Which of the following has the power of judicial review? a) High courts b) District courts c) Supreme courts d) Only Supreme and High Courts	1	2	L1
16.	The Chief Justice of Supreme court is selected by a) The President b) The Prime Minister c) The other Judges of Supreme court d) The Council of Ministers	1	2	L1
17.	Chief Minister is appointed by a) Prime Minister b) Governor c) Chief justice of High Court d) President	1	3	L1
18.	Who among the following forms the Advisory Committee of the Parliament? a) Speaker of Lok Sabha b) Vice-President of India c) Minister of parliamentary Affairs d) President of India	1	2	L1
19.	Who decides whether the bill is a Money bill or not? a) The president b) The speaker c) The Finance Minister d) The Finance Secretary	1	3	L1
20.	Lok-Sabha is known as a) Upper House b) Lower House c) Middle House d) All of the above	1	2	L1
21.	A person cannot be appointed as minister of state, unless he is a) Member of Lok-Sabha b) Member of Raj-Sabha c) Member of Legislative assembly of any state d) None of the above	1	3	L1
22.	Governor shall nominate to the Legislative council..... members a) 12 b) 7 c) 5 d) None of the above	1	2	L1
23.	The Governor in the state plays a dual role as an agent of the President and a) As the agent of Chief Minister in the state b) As the agent of the Chief Justice of India c) As the constitutional head of the state d) As the agent of the Prime Minister	1	2	L1
24.	Who will appoint the Chief Minister of a state? a) Prime minister of India b) Governor of the State c) cabinet minister of that state d) Congress working committee	1	3	L1
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26.	When a state emergency is declared, all or any of the functions of the state government are assumed by the a) Governor b) President c) Prime minister d) Union cabinet	1	3	L1
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29.	The Chief Election commissioner is appointed by a) Chief Justice of India b) Planning commission of India c) Prime minister, on advice of cabinet d) President	1	3	L1
30.	Chief Minister of a state gives his resignation to the a) Governor of the state b) President of India c) Deputy Chief Minister of the state d) Chief justice of the High Court	1	3	L1
31.	Chairman of the constituent assembly was ----- and ----- was the chairman of drafting Committee. a) Dr. Rajendra Prasad & Dr. B. R Ambedkar b) Dr. B. R. Ambedkar & Dr. Rajendra Prasad	1	1	L1

	c) Pandit Jawaharlal Nehru & M.K. Gandhi d) Sardar Vallabhai Patel & Dr. S Radhakrishna			
32.	The date of commence of Indian Constitution is on a) 26 th November 1949 b) 26 th November 1945 26 th January 1950 d) 16 th August 1947	1	1	L1
33.	Who was the chairman of drafting committee of Constitution of India? a) Dr. Rajendra Prasad b) Jawaharlal Nehru Dr. B. R. Ambedkar d) Sardar Vallabhai patel	1	1	L1
34.	The India Independence Act 1947 was passed by the a) Constituent assembly b) British Parliament Governor general of India d) Provincial Government	1	1	L1
35.	The Indian constitution is a) Based on conventions b) A brief document An evolved constitution d) Written and bulky document	1	1	L1
36.	The government of India Act 1935 provided for a) Dyarchy at the center b) Established of federal court c) Preamble d) Directive principles	1	1	L1
37.	The members of the constituent assembly to form constitution for India a) Were nominated by Vice-Roy of India b) Were nominated by the leaders of congress party and Muslim league c) Elected by the adult franchise d) None of the above	1	1	L1
38.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
39.	The Independence to India was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1
40.	Republic Day was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1
41.	Which is not a Fundamental Right? a) Right against exploitation b) Right to freedom of religion c) Right to strike d) Right to equality	1	1	L1
42.	India is referred to asunder the Indian Constitution? a) Country b) Hindustan c) India d) Bharat	1	1	L1
43.	Who quoted "Child of Today is Citizen of Tomorrow" a) Lokamanya Tilak b) Jawaharlal Nehru c) Dr. B. R. Ambedkar d) Gandhiji	1	1	L1
44.	The Preamble of the Constitution indicates a) Power to make laws b) The sovereign of Indian Constitution c) Power of Parliament to amend the constitution d) Sources of Constitution	1	1	L1
45.	Which important human right is protected under article 21 a) Right to equality b) Right to life and liberty c) Right to freedom of speech d) Right to religion	1	1	L1
46.	Article 19 provides a) 6 freedoms b) 7 freedoms c) 8 freedoms d) 5 freedoms	1	1	L1
47.	One of the salient features of our constitution is a) It is fully rigid b) It is fully flexible c) It is partly rigid and partly flexible d) None of these	1	1	L1
48.	Writ of Mandamus can be issued on the ground of a) Non-performance of public duties b) Unlawful Detention c) Unlawful occupation of public office d) None of these	1	1	L1
49.	Which is the language to be used in parliament a) Kannada b) Hindi c) English d) Both b & c	1	1	L1
50.	The fundamental rights of our country are derived from a) Britain constitution b) USA constitution c) Canada constitution d) Australian constitution	1	1	L1



SJC INSTITUTE OF TECHNOLOGY

(An Autonomous Institute under VTU, Belagavi)

FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Indian Constitution		
Course Code:	BICO107	Branches: CSE, CSD, AI&DS, ME, AE & AS	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the **OMR** sheet.
4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	Governor has no power to appoint a) A judge of high court b) Chief Minister c) Cabinet Minister d) Advocate General	1	2	L1
2.	The Budget session commences in the a) Third week of February b) Third week of March c) End of December d) First week of January	1	3	L1
3.	The council of ministers in the state shall be collectively responsible to a) Chief Minister b) Legislative assembly of the state c) Governor d) Chief Justice of High Court	1	3	L1
4.	The Governor of the state can be removed by the a) The Prime Minister b) The Chief Justice of the High Court on the state The President d) The Chief Minister of the state	1	2	L1
5.	Which of the following has the power of judicial review? a) High courts b) District courts Supreme courts d) Only Supreme and High Courts	1	2	L1
6.	The Chief Justice of Supreme court is selected by a) The President b) The Prime Minister c) The other Judges of Supreme court d) The Council of Ministers	1	2	L1
7.	Chief Minister is appointed by a) Prime Minister b) Governor Chief justice of High Court d) President	1	3	L1
8.	Who among the following forms the Advisory Committee of the Parliament? a) Speaker of Lok Sabha b) Vice-President of India Minister of parliamentary Affairs d) President of India	1	2	L1
9.	Who decides whether the bill is a Money bill or not? a) The president b) The speaker The Finance Minister d) The Finance Secretary	1	3	L1
10.	Lok-Sabha is known as a) Upper House b) Lower House c) Middle House d) All of the above	1	2	L1
11.	A person cannot be appointed as minister of state, unless he is a) Member of Lok-Sabha b) Member of Raj-Sabha c) Member of Legislative assembly of any state d) None of the above	1	3	L1
12.	Governor shall nominate to the Legislative council..... members a) 12 b) 7 c) 5 d) None of the above	1	2	L1
13.	The Governor in the state plays a dual role as an agent of the President and a) As the agent of Chief Minister in the state b) As the agent of the Chief Justice of India	1	2	L1

	c) As the constitutional head of the state d) As the agent of the Prime Minister			
14.	Who will appoint the Chief Minister of a state? a) Prime minister of India b) Governor of the State c) cabinet minister of that state d) Congress working committee	1	3	L1
15.	Who will appoint the cabinet minister of a state? a) Chief minister of that state b) Governor of that state c) Cabinet minister of that state d) Congress working committee	1	3	L1
16.	When a state emergency is declared, all or any of the functions of the state government are assumed by the a) Governor b) President c) Prime minister d) Union cabinet	1	3	L1
17.	Creamy layer means a) Highly educated persons b) Persons holding high posts c) Highly cultured persons d) Persons having higher incomes	1	3	L1
18.	Election commission does not conduct election to a) The office of President b) The office of the Vice-President c) The office of the Speaker of Lok-sabha d) State legislature of Union Territory	1	3	L1
19.	The Chief Election commissioner is appointed by a) Chief Justice of India b) Planning commission of India c) Prime minister, on advice of cabinet d) President	1	3	L1
20.	Chief Minister of a state gives his resignation to the a) Governor of the state b) President of India c) Deputy Chief Minister of the state d) Chief justice of the High Court	1	3	L1
21.	Chairman of the constituent assembly was ----- and ----- was the chairman of drafting Committee. a) Dr. Rajendra Prasad & Dr. B. R Ambedkar b) Dr. B. R. Ambedkar & Dr. Rajendra Prasad c) Pandit Jawaharlal Nehru & M.K. Gandhi d) Sardar Vallabhai Patel & Dr. S Radhakrisna	1	1	L1
22.	The date of commence of Indian Constitution is on a) 26 th November 1949 b) 26 th November 1945 c) 26 th January 1950 d) 16 th August 1947	1	1	L1
23.	Who was the chairman of drafting committee of Constitution of India? a) Dr. Rajendra Prasad b) Jawaharlal Nehru c) Dr. B. R. Ambedkar d) Sardar Vallabhai patel	1	1	L1
24.	The India Independence Act 1947 was passed by the a) Constituent assembly b) British Parliament c) Governor general of India d) Provincial Government	1	1	L1
25.	The Indian constitution is a) Based on conventions b) A brief document c) An evolved constitution d) Written and bulky document	1	1	L1
26.	The government of India Act 1935 provided for a) Dyarchy at the center b) Established of federal court c) Preamble d) Directive principles	1	1	L1
27.	The members of the constituent assembly to form constitution for India a) Were nominated by Vice-Roy of India b) Were nominated by the leaders of congress party and Muslim league c) Elected by the adult franchise d) None of the above	1	1	L1
28.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
29.	The Independence to India was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1
30.	Republic Day was declared on a) June 3, 1947 b) August 15, 1947 c) November 26, 1949 d) Jan 26,1950	1	1	L1

31.	Which is not a Fundamental Right? a) Right against exploitation b) Right to freedom of religion c) Right to strike d) Right to equality	1	1	L1
32.	India is referred to asunder the Indian Constitution? a) Country b) Hindustan c) India d) Bharat	1	1	L1
33.	Who quoted "Child of Today is Citizen of Tomorrow" a) Lokamanya Tilak b) Jawaharlal Nehru b) Dr. B. R. Ambedkar d) Gandhiji	1	1	L1
34.	The Preamble of the Constitution indicates a) Power to make laws b) The sovereign of Indian Constitution c) Power of Parliament to amend the constitution d) Sources of Constitution	1	1	L1
35.	Which important human right is protected under article 21 a) Right to equality b) Right to life and liberty c) Right to freedom of speech d) Right to religion	1	1	L1
36.	Article 19 provides a) 6 freedoms b) 7 freedoms c) 8 freedoms d) 5 freedoms	1	1	L1
37.	One of the salient features of our constitution is a) It is fully rigid b) It is fully flexible c) It is partly rigid and partly flexible d) None of these	1	1	L1
38.	Writ of Mandamus can be issued on the ground of a) Non-performance of public duties b) Unlawful Detention c) Unlawful occupation of public office d) None of these	1	1	L1
39.	Which is the language to be used in parliament a) Kannada b) Hindi c) English d) Both b & c	1	1	L1
40.	The fundamental rights of our country are derived from a) Britain constitution b) USA constitution c) Canada constitution d) Australian constitution	1	1	L1
41.	Which part of the Indian constitution deals with the Directive Principles of state policy? a) Part I b) Part II. c) Part III d) Part IV	1	1	L1
42.	Articles 36-51 of our constitution are related to which of the following? a) Fundamental Rights b) Fundamental duties c) DPSP d) Union Executive	1	1	L1
43.	By which amendment act of the constitution of India were Fundamental duties were given. a) 46 th b) 42 nd c) 40 th d) 44 th	1	3	L1
44.	Who quoted "Freedom is my birth right"? a) Bal Gangadhar Tilak b) Jawaharlal Nehru c) Sardar Patel d) Gandhiji	1	1	L1
45.	The full form of NOTA is a) Non-operational Tax Act b) New Oriental Tax Act c) None of The Above d) All of the above	1	3	L1
46.	The main purpose of including directive principles of the state policy in the constitution of India is a) To check the arbitrary action of the government b) To establish a secular state c) To establish a welfare state d) To provide opportunities for the development	1	1	L1
47.	Parliament consist of a) Raj-sabha and Lok-sabha b) Raj-sabha, Lok-sabha and The president of India c) Raj-sabha, Lok-sabha, President and Vice President of Indi d) Raj-sabha, Lok-sabha and Speaker of Lok-sabha	1	2	L1
48.	The president of India is a) Nominated b) Appointed c) Selected d) Elected	1	3	L1
49.	What is the minimum age to become the Vice-President of India? a) 35 b) 45 c) 25 d) 30	1	3	L1
50.	The parliament consist of a) Two organs b) Three organs c) Four organs d) Five organs	1	3	L1



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FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Scientific Foundations of Health		
Course Code:	BSFH108	Branch: CSE,CSD,AI&DS,ME,AE,AS	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

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2. Answer all the **fifty** questions, each question carries one mark.
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4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	Individual personality is influenced by a) Experiences b) Environment c) Inherited characteristics d) All of these	1	1	L1
2.	Intellectual wellbeing refers to a) Learning new challenges b) Good self esteem c) Maintaining good interpersonal relations d) Developing compassion	1	1	L1
3.	Advantages of good health a) Reduces confidence b) Improves brain health and confidence c) Increased stress d) Reduces performance	1	1	L1
4.	Which are intimately related a) Disease and Health b) Body and Health c) Body and Mind d) Body and Spiritual vales	1	1	L1
5.	Psychosis is characterized by a) Loss of touch with reality b) Prolonged emotional reaction to a given stress c) Anxiety, fear, sadness, vague aches and pains d) All the above	1	1	L1
6.	Wellness is a) Positive approach b) Negative approach c) Positive or Negative approach d) Positive and Negative approach	1	1	L1
7.	The prime factor which influences psychological health is ----- a) Positive mindset b) Gloomy outlook c) Dim view d) All of the above	1	1	L1

8.	The following are the characteristics of positive stress a) It improves performance b) It feels exciting c) It motivates d) All of these	1	1	L1
9.	Which year did the world Health organization first express the right to health as a fundamental human right a)1946 b) 1952 c) 1987 d) 2000	1	1	L1
10.	A person who is able to serve himself, his nation and his community is called as a) Gangster b) Sick Person c) Healthy d) Saddest	1	1	L1
11.	As per WHO health is defined as a state of complete a) Physical wellbeing b) Mental wellbeing c) Social wellbeing d) Physical, Mental and social Wellbeing	1	1	L1
12.	Cleanliness, physical exercise, rest and sleep are a part of ----- a) Hygiene b) Social hygiene c) Personal hygiene d) None of the above	1	1	L1
13.	Which of the following vitamin helps in blood clotting? a) Vitamin-A b) Vitamin-C c) Vitamin-D d) Vitamin-K	1	2	L1
14.	In a healthy diet as per WHO the amount of salt to be consumed by a person per day is a) Less than 5g b) Less than 7 g c) Less than 10 g d) Less than 25 g	1	2	L1
15.	Hyper obesity value in terms of BMI a) >25 b) <25 c) >40 d) <40	1	2	L1
16.	Causes of Obesity and Overweight a) Energy imbalance b) Energy balance c)Energy imbalance between calories consumed & calories Expended d)None of the above	1	2	L1
17.	Common health consequences of overweight and body obesity are a) Cardio vascular disease b) Type 2 Diabetes c) Both A& B d) None of the above	1	2	L1
18.	What is the recommended daily water intake? a) 0.5 liters b)1 liter c) 2 liters d)4 liters	1	2	L1
19.	The source of antioxidants and minerals a) Vegetables and fruit b) Coke and pizza c) Mutton and meat d) Baked foods	1	2	L1
20.	Physical fitness is an index of a) Perfect height & weight ratio b) Perfect body structure c) Perfect body composition d) All the above	1	2	L1
21.	The benefits in eating a balanced diet a) Good health b) Good mood and energy c) Improved health and reduced illness d) All of these	1	2	L1
22.	Which of the following diseases have been associated with sedentary lifestyle? a) Colon cancer b) Stroke c) Cardiovascular disease d) All of these	1	2	L1
23.	Consumption of total fat should not exceed _____ of total energy a)30 % b) 20.5 % c) 25% d)35%	1	2	L1
24.	The formula used to calculate BMI is _____ a) Kg/m b) g/cm c)kg/m ² d)g/cm ²	1	2	L1

25.	Communication is a part of ----- skills a) Soft b) Hard c) Rough d) Short	1	3	L1
26.	Objectives of communication skill a) Active listening skills b) Aware of own communication barrier c) Both A and B d) None of these	1	3	L1
27.	While talking to friends you do not pay attention to the skills of ----- communication a) Written b) Oral c) Audio d) Visual	1	3	L1
28.	What are the steps to increase vocal clarity? a) Keep your language simple b) Feedback c) Slow down during conversation d) Both A and B	1	3	L1
29.	What is not a basic instinct of Human life? a) Self-preservation b) Sexual instinct c) Social instinct d) Making wealth and property all time	1	3	L1
30.	Which of the following social engineering changes the health behaviors? a) Banning the use of certain drugs b) Providing purified water to people c) Legalizations can be passed to make environment healthier d) All of these	1	3	L1
31.	How one can improve the communicate skills a) Listen with willingness b) Respond appropriately c) Provide feedback d) All of the above	1	3	L1
32.	Body language plays an important role in a) Communication b) Judgment c) Both A and B d) None of the above	1	3	L1
33.	Using abbreviations in communication leads to which type of communication barrier a) Language/ Linguistic b) Physical c) Cultural d) Organizational	1	3	L1
34.	Which can be used to overcome the communication barrier a) Using a translator b) By writing a letter c) Not communicating at all d) Using your own language	1	3	L1
35.	Negative characteristics of friendship include all of these except a) Oppressive b) Criticize in joking manner c) Solve problems together d) Unsupportive	1	3	L1
36.	Our Dress Code is an Example of a) Verbal b) Spoken c) Written d) Non-verbal	1	3	L1
37.	After drinking alcohol, consumption of this leads to death a) Morphine b) Opium c) Barbiturate d) All of these	1	4	L1
38.	When international day against drug abuse is celebrated? a) 26 th June b) 12 th March c) 14 th September d) 1 st December	1	4	L1
39.	Which is not the risk factor for addictive people? a) Aggressive behavior in childhood b) Lack of parental supervision c) Good social skills d) Poor social skills	1	4	L1

40.	What are the reasons for taking drugs? a) To feel good b) To feel better c) To do better d) All of the above	1	4	L1
41.	What states can do to avoid addiction a) Adding higher tax on sweetened beverages b) Benefits for organic fruits c) Availability of healthy food d) All of the above	1	4	L1
42.	What is defined to be a condition in which a person develops intense cravings for the substance inability to control their behaviors in regards to obtaining and using it? a) Use b) Abuse c) Addiction d) Dependence	1	4	L1
43.	Alcohol abuse and smoking share a window of vulnerability especially during a) Adolescence b) Adulthood c) Middle age d) Old age	1	4	L1
44.	Modes of horizontal transmission of disease except a) Contact b) Vector c) Common vehicle d) Genetic	1	4	L1
45.	Occurrence in the community of a number of cases of disease that is usually large or unexpected a) Endemic b) Epidemic c) Pandemic d) Infection	1	4	L1
46.	Which of the following increases your risk for type 2 diabetes? a) Not getting enough exercise b) Eating too much sugar c) Being overweight d) Both (a) and (c)	1	4	L1
47.	How infectious diseases such as cold and influenza most commonly spread? a) Breathing viruses in b) Hand to face contact c) Drinking infected water d) Eating contaminated food	1	4	L1
48.	Which of the following is the main cause for transmission of the Hepatitis virus? a) The bite of a mosquito b) Sharing drug needles c) Drinking contaminated water d) All of the above	1	4	L1
49.	Which one of the following is not a bacterial disease? a) AIDS b) Dengue c) Measles d) All of the above	1	4	L1
50.	Which of the following is not a hereditary disease? a) Hemophilia b) Hypertrichosis c) Encephalitis d) Thalassemia	1	4	L1



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Course Code:	BSFH108	Branch:	CSE, CSD,AI&DS,ME,AE,AS
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2.	Cleanliness, physical exercise, rest and sleep are a part of ----- a) Hygiene b) Social hygiene c) Personal hygiene d) None of the above	1	1	L1
3.	Which of the following vitamin helps in blood clotting? a) Vitamin-A b) Vitamin-C c) Vitamin-D d) Vitamin-K	1	2	L1
4.	In a healthy diet as per WHO the amount of salt to be consumed by a person per day is a) Less than 5g b) Less than 7 g c) Less than 10 g d) Less than 25 g	1	2	L1
5.	Hyper obesity value in terms of BMI a) >25 b) <25 c) >40 d) <40	1	2	L1
6.	Causes of Obesity and Overweight a) Energy imbalance b) Energy balance c) Energy imbalance between calories consumed & calories Expended d) None of the above	1	2	L1
7.	Common health consequences of overweight and body obesity are a) Cardio vascular disease b) Type 2 Diabetes c) Both A& B d) None of the above	1	2	L1
8.	What is the recommended daily water intake? a) 0.5 liters b) 1 liter c) 2 liters d) 4 liters	1	2	L1
9.	The source of antioxidants and minerals a) Vegetables and fruit b) Coke and pizza c) Mutton and meat d) Baked foods	1	2	L1
10.	Physical fitness is an index of a) Perfect height & weight ratio b) Perfect body structure c) Perfect body composition d) All the above	1	2	L1

11.	The benefits in eating a balanced diet a) Good health b) Good mood and energy c) Improved health and reduced illness d) All of these	1	2	L1
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14.	The formula used to calculate BMI is _____ a) Kg/m b) g/cm c) kg/m ² d) g/cm ²	1	2	L1
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37.	The prime factor which influences psychological health is ----- a) Positive mindset b) Gloomy outlook c) Dim view d) All of the above	1	1	L1
38.	The following are the characteristics of positive stress a) It improves performance b) It feels exciting c) It motivates d) All of these	1	1	L1
39.	Which year did the world Health organization first express the right to health as a fundamental human right a) 1946 b) 1952 c) 1987 d) 2000	1	1	L1
40.	A person who is able to serve himself, his nation and his community is called as a) Gangster b) Sick Person c) Healthy d) Saddest	1	1	L1

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44.	Which can be used to overcome the communication barrier a) Using a translator b) By writing a letter c) Not communicating at all d) Using your own language	1	3	L1
45.	Negative characteristics of friendship include all of these except a) Oppressive b) Criticize in joking manner c) Solve problems together d) Unsupportive	1	3	L1
46.	Our Dress Code is an Example of a) Verbal b) Spoken c) Written d) Non-verbal	1	3	L1
47.	After drinking alcohol, consumption of this leads to death a) Morphine b) Opium c) Barbiturate d) All of these	1	4	L1
48.	When international day against drug abuse is celebrated? a) 26 th June b) 12 th March c) 14 th September d) 1 st December	1	4	L1
49.	Which is not the risk factor for addictive people? a) Aggressive behavior in childhood b) Lack of parental supervision c) Good social skills d) Poor social skills	1	4	L1
50.	What are the reasons for taking drugs? a) To feel good b) To feel better c) To do better d) All of the above	1	4	L1



INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
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4. Darkening two circles for the same question makes the answer invalid.

Page **1** of **4**

10.	Which of the following social engineering changes the health behaviors? a) Banning the use of certain drugs b) Providing purified water to people c) Legalizations can be passed to make environment healthier d) All of these	1	3	L1
11.	Individual personality is influenced by a) Experiences b) Environment c) Inherited characteristics d) All of these	1	1	L1
12.	Intellectual wellbeing refers to a) Learning new challenges b) Good self esteem c) Maintaining good interpersonal relations d) Developing compassion	1	1	L1
13.	Advantages of good health a) Reduces confidence b) Improves brain health and confidence c) Increased stress d) Reduces performance	1	1	L1
14.	Which are intimately related a) Disease and Health b) Body and Health c) Body and Mind d) Body and Spiritual vales	1	1	L1
15.	Psychosis is characterized by a) Loss of touch with reality b) Prolonged emotional reaction to a given stress c) Anxiety, fear, sadness, vague aches and pains d) All the above	1	1	L1
16.	Wellness is a) Positive approach b) Negative approach c) Positive or Negative approach d) Positive and Negative approach	1	1	L1
17.	The prime factor which influences psychological health is ----- a) Positive mindset b) Gloomy outlook c) Dim view d) All of the above	1	1	L1
18.	The following are the characteristics of positive stress a) It improves performance b) It feels exciting c) It motivates d) All of these	1	1	L1
19.	Which year did the world Health organization first express the right to health as a fundamental human right a) 1946 b) 1952 c) 1987 d) 2000	1	1	L1
20.	A person who is able to serve himself, his nation and his community is called as a) Gangster b) Sick Person c) Healthy d) Saddest	1	1	L1
21.	How one can improve the communicate skills a) Listen with willingness b) Respond appropriately c) Provide feedback d) All of the above	1	3	L1
22.	Body language plays an important role in a) Communication b) Judgment c) Both A and B d) None of the above	1	3	L1
23.	Using abbreviations in communication leads to which type of communication barrier a) Language/ Linguistic b) Physical c) Cultural d) Organizational	1	3	L1

24.	Which can be used to overcome the communication barrier a) Using a translator b) By writing a letter c) Not communicating at all d) Using your own language	1	3	L1
25.	Negative characteristics of friendship include all of these except a) Oppressive b) Criticize in joking manner c) Solve problems together d) Unsupportive	1	3	L1
26.	Our Dress Code is an Example of a) Verbal b) Spoken c) Written d) Non-verbal	1	3	L1
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28.	When international day against drug abuse is celebrated? a) 26 th June b) 12 th March c) 14 th September d) 1 st December	1	4	L1
29.	Which is not the risk factor for addictive people? a) Aggressive behavior in childhood b) Lack of parental supervision c) Good social skills d) Poor social skills	1	4	L1
30.	What are the reasons for taking drugs? a) To feel good b) To feel better c) To do better d) All of the above	1	4	L1
31.	What states can do to avoid addiction a) Adding higher tax on sweetened beverages b) Benefits for organic fruits c) Availability of healthy food d) All of the above	1	4	L1
32.	What is defined to be a condition in which a person develops intense cravings for the substance inability to control their behaviors in regards to obtaining and using it? a) Use b) Abuse c) Addiction d) Dependence	1	4	L1
33.	Alcohol abuse and smoking share a window of vulnerability especially during a) Adolescence b) Adulthood c) Middle age d) Old age	1	4	L1
34.	Modes of horizontal transmission of disease except a) Contact b) Vector c) Common vehicle d) Genetic	1	4	L1
35.	Occurrence in the community of a number of cases of disease that is usually large or unexpected a) Endemic b) Epidemic c) Pandemic d) Infection	1	4	L1
36.	Which of the following increases your risk for type 2 diabetes? a) Not getting enough exercise b) Eating too much sugar c) Being overweight d) Both (a) and (c)	1	4	L1
37.	How infectious diseases such as cold and influenza most commonly spread? a) Breathing viruses in b) Hand to face contact c) Drinking infected water d) Eating contaminated food	1	4	L1
38.	Which of the following is the main cause for transmission of the Hepatitis virus? a) The bite of a mosquito b) Sharing drug needles c) Drinking contaminated water d) All of the above	1	4	L1
39.	Which one of the following is not a bacterial disease? a) AIDS b) Dengue c) Measles d) All of the above	1	4	L1

40.	Which of the following is not a hereditary disease? a) Hemophilia b) Hypertrichosis c) Encephalitis d) Thalassemia	1	4	L1
41.	As per WHO health is defined as a state of complete a) Physical wellbeing b) Mental wellbeing c) Social wellbeing d) Physical, Mental and social Wellbeing	1	1	L1
42.	Cleanliness, physical exercise, rest and sleep are a part of ----- a) Hygiene b) Social hygiene c) Personal hygiene d) None of the above	1	1	L1
43.	Which of the following vitamin helps in blood clotting? a) Vitamin-A b) Vitamin-C c) Vitamin-D d) Vitamin-K	1	2	L1
44.	In a healthy diet as per WHO the amount of salt to be consumed by a person per day is a) Less than 5g b) Less than 7 g c) Less than 10 g d) Less than 25 g	1	2	L1
45.	Hyper obesity value in terms of BMI a) >25 b) <25 c) >40 d) <40	1	2	L1
46.	Causes of Obesity and Overweight a) Energy imbalance b) Energy balance c) Energy imbalance between calories consumed & calories Expended d) None of the above	1	2	L1
47.	Common health consequences of overweight and body obesity are a) Cardio vascular disease b) Type 2 Diabetes c) Both A& B d) None of the above	1	2	L1
48.	What is the recommended daily water intake? a) 0.5 liters b) 1 liter c) 2 liters d) 4 liters	1	2	L1
49.	The source of antioxidants and minerals a) Vegetables and fruit b) Coke and pizza c) Mutton and meat d) Baked foods	1	2	L1
50.	Physical fitness is an index of a) Perfect height & weight ratio b) Perfect body structure c) Perfect body composition d) All the above	1	2	L1



SJC INSTITUTE OF TECHNOLOGY

(An Autonomous Institute under VTU, Belagavi)

FIRST SEMESTER B.E DEGREE SEMESTER END EXAMINATIONS, FEB 2025

Course:	Scientific Foundations of Health		
Course Code:	BSFH108	Branch: CSE,CSD,AI&DS,ME,AE,AS	
Max Marks:	50	Duration:	1 Hour

INSTRUCTIONS TO THE CANDIDATES

1. Use only **Black ball point pen** for writing/ darkening the circle
2. Answer all the **fifty** questions, each question carries one mark.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the **OMR** sheet.
4. Darkening two circles for the same question makes the answer invalid.

Q.NO.	Questions	Marks	CO	RBTL
1.	How one can improve the communicate skills a) Listen with willingness b) Respond appropriately c) Provide feedback d) All of the above	1	3	L1
2.	Body language plays an important role in a) Communication b) Judgment c) Both A and B d) None of the above	1	3	L1
3.	Using abbreviations in communication leads to which type of communication barrier a) Language/ Linguistic b) Physical c) Cultural d) Organizational	1	3	L1
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10.	What are the reasons for taking drugs? a) To feel good b) To feel better c) To do better d) All of the above	1	4	L1
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24.	Which are intimately related a) Disease and Health b) Body and Health c) Body and Mind d) Body and Spiritual vales	1	1	L1

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