CBCS SCHEME

USN | | | | | | | | | | BCS401

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
Analysis and Design of Algorithms

Time: 3 hrs.   Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Define algorithm Explain asymptotic notations Bigh oh, Big omega and Big theta notations.	08	L2	CO1
	b.	Explain the general plan for analyzing the efficiency of a recursive algorithm. Suggest a recursive algorithm to find factorial of number. Derive its efficiency.	08	L3	CO1
	c.	If $t_1(n) \in O(g_1(n))$ and $t_2(n) \in O(g_2(n))$ then show that $t_1(n) + t_2(n) \in o(\max \{ g_1(n), g_2(n)\})$	04	L2	CO1
		OR			
Q.2	a.	With a neat diagram explain different steps in designing and analyzing algorithm.	08	L2	CO1
	b.	Write an algorithm to find the max element in an array of n elements. Give the mathematical analysis of this non- recursive algorithm.	08	L3	CO1
	c.	With the algorithm derive the worst case efficiency for selection sort.	04	L3	CO1
		Module – 2			
Q.3	a.	Explain the concept of divide and conquer. Design an algorithm for merge sort and derive its time complexity.	10	L3	CO2
	b.	Design an algorithm for insertion algorithm and obtain its time complexity. Apply insertion sort on these elements. 89, 45, 68, 90, 29, 34, 17	10	L3	CO2
		OR			
Q.4	a.	Design an algorithm for Quick sort. Apply quick sort on these elements. 5, 3, 1, 9, 8, 2, 4, 7.	10	L3	CO2
	b.	Explain Strassen's Matrix multiplication and derive its time complexity.	10	L2	CO2
		Module – 3			
Q.5	a.	Define AVL trees. Explain its four rotation types.	10	L2	CO3
	b.	Design an algorithm for Heap sort. Construct bottom – up heap for the list 15, 19, 10, 7, 17, 16.	10	L3	CO4
		OR			
Q.6	a.	Design Horspool's Algorithm for string matching Apply Horspool algorithm to find pattern BARBER in the test: JIM_SAW_ME_IN_A_BARBERSHOP.	10	L3	CO4
	b.	Define heap. Explain the properties of heap along with its representation.	10	L2	CO3

Module – 4

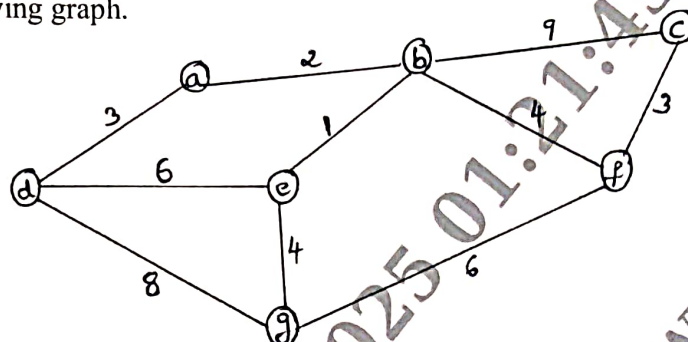| Q.7	a.	Construct minimum cost spanning tree using Kruskal's algorithm for the following graph.	10	L3	CO4

Fig. 7(a)

	b.	What are Huffman trees? Construct the Huffman tree for the following data	10	L3	CO4

Character	A	B	C	D	-
Probability	0.4	0.1	0.2	0.15	0.15

i) Encode the text ABAC ABAD
ii) Decode the code100010111001010

OR

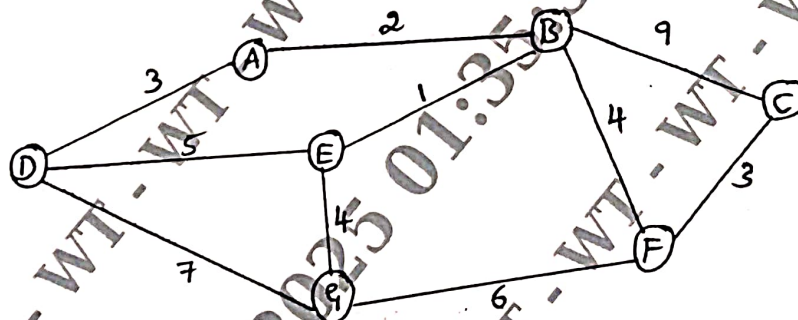| Q.8	a.	Apply Dijkstra's algorithm to fine single source shortest path for the given graph by considering A as the source vertex.	10	L3	CO4

Fig.8 (a)

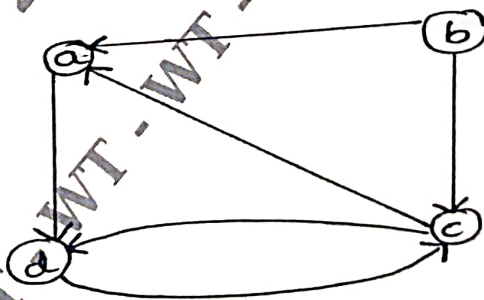|	b.	Define transitive closure of a graph. Apply Warshall's algorithm to compute transitive closure of a directed graph.	10	L3	CO4

Fig.8 (b)

Module – 5

Q.9	a.	Explain the following with examples. i) P problem ii) NP problem ii) NP-Complete problem iv) NP – Hard problem	10	L2	CO5
	b.	What is backtracking? Apply backtracking to solve the below instance of sum of subset problem. S = { 1, 2, 5, 6, 8} and d = 9.	10	L3	CO6
OR					
Q.10	a.	Illustrate N Queen's problem using backtracking to solve 4 – Queens problem.	10	L2	CO6
	b.	Using Branch and Bound method solve the below instance of Knapsack Problem.	10	L3	CO6

Item	Weight	Value
1	4	40
2	7	42
3	5	25
4	3	12

Capacity = 10

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Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
Microcontrollers

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the major design rules to implement the RISC design philosophy.	08	L2	CO1
	b.	Differentiate between RISC and CISC processors.	04	L2	CO1
	c.	Explain ARM core data flow model, with neat diagram.	08	L2	CO1
		OR			
Q.2	a.	With the help of bit layout diagram, explain Current Program Status Register (CPSR) of ARM.	08	L2	CO1
	b.	With an example, explain the pipeline in ARM.	05	L2	CO1
	c.	Discuss the following with diagrams: (i) Von-Neuman architecture with cache (ii) Harvard architecture with TCM	07	L2	CO1
		Module – 2			
Q.3	a.	Explain the different data processing instructions in ARM.	08	L2	CO2
	b.	Explain the different branch instructions of ARM.	04	L2	CO2
	c.	Explain the following ARM instructions: (i) MOV r_1, r_2 (ii) ADDS r_1, r_2, r_4 (iii) BIC r_3, r_2, r_5 (iv) CMP r_3, r_4 (v) UMLAL r_1, r_2, r_3, r_4	08	L2	CO2
		OR			
Q.4	a.	Explain the different load store instructions in ARM.	08	L2	CO2
	b.	With an example, explain full descending stack operations.	07	L2	CO2
	c.	Develop an ALP to find the sum of first 10 integer numbers.	05	L3	CO2
		Module – 3			
Q.5	a.	List out basic C data types used in ARM. Develop a C program to obtain checksums of a data packet containing 64 words and write the compiler output for the above function.	08	L2	CO3
	b.	Explain the C looping structures in ARM.	08	L2	CO3
	c.	Explain pointer aliasing in ARM.	04	L2	CO2

		OR			
Q.6	a.	With an example, explain function calls in ARM.	08	L2	CO3
	b.	Explain register allocation in ARM.	07	L2	CO3
	c.	Write a brief note on portability issues when porting C code to ARM.	05	L2	CO3
		Module – 4			
Q.7	a.	Explain the ARM processor exceptions and modes, vector table and exception priorities.	10	L2	CO4
	b.	Explain the interrupts in ARM.	10	L2	CO4
		OR			
Q.8	a.	Explain the ARM firmware suite and red hat redboot.	10	L2	CO4
	b.	Explain the sandstone directory layout and sandstone code structure.	10	L2	CO4
		Module – 5			
Q.9	a.	Explain the basic architecture of a cache memory and basic operation of a cache controller.	10	L2	CO5
	b.	With a neat diagram, explain a 4 KB, four way set associative cache.	10	L2	CO5
		OR			
Q.10	a.	Explain the write buffers and measuring cache efficiency.	08	L2	CO5
	b.	Explain the cache policy.	12	L2	CO5

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Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
Advanced Java

Time: 3 hrs.   Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

			M	L	C
Module – 1					
Q.1	a.	What is Collection Framework? Explain the methods define by the collection interface.	7	L2	CO1
	b.	Demonstrate ArrayList class collection with example.	7	L2	CO1
	c.	Explain how collections can be accessed using an iterator with example.	6	L2	CO1
OR					
Q.2	a.	Explain the following map classes: i) HashMap ii) TreeMap.	10	L2	CO1
	b.	What are comparators? Write a comparator program to sort accounts by last name.	10	L3	CO1
Module – 2					
Q.3	a.	Explain the string comparison functions with suitable program.	6	L2	CO2
	b.	Explain the following built in methods with respect to StringBuffer class: i) capacity( ) ii) delete( ) iii) replace( ) iv) append( ) v) substring( )	7	L2	CO2
	c.	Write a Java program that demonstrates any four constructors of string class.	7	L3	CO2
OR					
Q.4	a.	Write a Java program to remove duplicate characters from a given string and display the resultant string.	7	L3	CO3
	b.	Explain character extraction functions in string class.	7	L2	CO2
	c.	Explain constructors in Java string builder class.	6	L2	CO2

Module – 3

Q.5	a.	Explain the difference between AWT and Swing. What are two key features of swing and explain.	6	L2	CO3
	b.	What is JLabel class? Explain with example of any three constructors and methods of JLabel class.	7	L2	CO3
	c.	Write a Java program in swing event handling applications that creates 2 buttons ALPHA and BETA and displays the text "Alpha pressed" when Alpha button is clicked and "Beta pressed" when beta button is clicked.	7	L3	CO3

OR

Q.6	a.	What is JPanel class? Explain the constructors of Jpanel class and give a suitable example.	6	L2	CO3
	b.	What is JCheckBox class? Explain the constructors of JCheckBox class and give a suitable example.	7	L2	CO3
	c.	What is JFrame class? Explain constructors and methods of JFrame class.	7	L2	CO3

Module – 4

Q.7	a.	Explain the life cycle of servlet.	6	L2	CO4
	b.	Write a Java servlet program to display the name, USN and total marks by accepting student detail.	7	L3	CO4
	c.	Describe the core interfaces that are provided in Javax.Servlet.http package.	7	L3	CO4

OR

Q.8	a.	What is JSP? Explain the various types of JSP tags with example.	10	L2	CO4
	b.	What are cookies? How cookies are handled in JSP? Write a JSP program to create and read a cookie.	10	L2	CO4

Module – 5

Q.9	a.	What are database drivers? Explain the different JDBC driver types.	10	L2	CO5
	b.	Describe the various steps of JDBC with code snippets.	10	L2	CO5

OR

Q.10	a.	Write any two syntax of established a connection to a database.	6	L2	CO5
	b.	What is connection pooling? Explain connection pooling with a neat diagram with snippets.	7	L2	CO5
	c.	Describe the following concepts: i) Callable statement ii) Transaction processing.	7	L2	CO5

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BCS403

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
Database Management Systems

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the types of attributes with example.	4	L2	CO1
	b.	Define database. Explain the main characteristics of the database approach.	8	L2	CO1
	c.	Show the ER diagram for an EMPLOYEE database by assuming your own entities (minimum 4) attributes and relationships, mention cardinality ratios wherever appropriate.	8	L3	CO2
		OR			
Q.2	a.	Describe the three schema architecture.	4	L2	CO1
	b.	Explain the component models of DBMS and their interaction with the help of diagram.	8	L2	CO1
	c.	Design ER diagram for a university database by assuming your own entities (4). Mention primary key , constraints and relationships.	8	L3	CO2
		Module – 2			
Q.3	a.	Explain relational model constraints.	6	L2	CO1
	b.	Explain the characteristics of relations with suitable example for each.	6	L2	CO1
	c.	Considering the following schema : Sailors (sid , sname , rating , age) Boats (bid , bname , color) Reserves (sid , bid , day) Write a relational algebra queries for the following : i) Find the names of sailors, who have reserved red and a green boat. ii) Find the names of sailors who have reserved a red boat. iii) Find the names of sailors who have reserved a red or green boat. iv) Find the names of sailors who have reserved all boats.	8	L3	CO1
		OR			
Q.4	a.	Explain the steps to convert the basic ER model to relational Database schema.	6	L2	CO1
	b.	Explain Unary relational operations with example.	6	L2	CO1

	c.	Consider the relation schema Employee database. EMPLOYEE (Fname ,Minit , Lname , SSn , Bdates , Address , Sex , Salary Super_SSn , Dno) DEPARTMENT (Dname , Dnumber , Mgr_SSn , Mgr_start_date) PROJECT (Pname , PNumber , Plocation , Dnum) WORKS_ON (Essn , Pno , Hours) DEPENDENT (Essn , Dependent_name , sex , Bdate , Relationship) Write relational algebra queries for the following : i) Retrieve the name and address of all employees who work for the 'Research' department. ii) List the names of all employees with 2 or more dependents. iii) Find the names of employees who work on all the projects controlled by department number 5. iv) List the names of employees who have no dependents.	8	L3	CO3
Module – 3					
Q.5	a.	What is the need for normalization? Explain second and third normal form with examples.	6	L2	CO4
	b.	Outline constraints in SQL.	6	L2	CO1
	c.	Identify the given Relation R(ABCDE) and its instance, check whether FDS given hold or not. Give reasons. i) $A \rightarrow B$ ii) $B \rightarrow C$ iii) $D \rightarrow E$ iv) $CD \rightarrow E$. 	A	B	C	D	E
---	---	---	---	---
a_1	b_1	c_1	d_1	e_1
a_1	b_2	c_1	d_1	e_1
a_2	b_2	c_1	d_2	e_3
a_2	b_3	c_3	d_2	e_2		8	L3	CO4
OR					
Q.6	a.	What is Multivalued dependency? Explain 4NF and 5NF with suitable example.	6	L2	CO4
	b.	Outline the informal design guidelines for relational schema.	6	L2	CO4
	c.	Consider relation R with following function dependency : EMPPROJ (SSn , Pnumber , Hours , Ename , Pname , Plocation) SSN , Pnumber → Hours, SSN → Ename Pnumber → Pname , Plocation. Is it 2NF? Verify? If no give reason.	8	L3	CO4

		Module – 4			
Q.7	a.	Consider the following schema for a company database : Employee (FName , LName , SSn , Adderss , Sex , Salary , Dno , Super_SSn) Department (Dname , Dnumber , mgr_SSn, mgr_st_date) Project (Pname , Pnumber , Plocation , Dnum) WORKS_on (Essn , Pno , Hours) DEPENDENT (Essn , Dependent name , Sex , Bdate, relationship). Write the SQL queries for the following : i) List the names of managers who have atleast one dependent (use correlated nested). ii) Retrieve the name of each employee who has a dependent with the same first name and is the same sex as the employee. iii) For each project retrieve the project number , project name and the number of employees who work on that project. iv) Retrieve the SSN of all employees who work on project number 1, 2 or 3. (Use 1N). v) Find the sum of the salaries of all employees of the 'Research' department as well as maximum salary , minimum salary , average salary in this department.	10	L3	CO3
	b.	Why concurrency control is needed? Demonstrate with an example.	10	L2	CO5
		OR			
Q.8	a.	Consider the following schedule. The actions are listed in the order they are scheduled and prefixed with the transaction name. S1 : T1 : R(X) , T2 : R(X) T1 : W(Y) , T2 : W(Y) , T1 : R(Y) , T2 : R(Y) S2 : T3 : W(X) , T1 : R(X) , T1 : W(Y) , T2 : R(Z) , T2 : W(Z) , T3 : R(Z) For each schedule answer the following : i) What is the precedence graph for the schedule? ii) Is the schedule conflict_serializable? If so what are all the conflicts equivalent serial schedules? iii) Is the schedule view serializable? If so what are all the view equivalent serial schedules?	10	L3	CO5
	b.	Explain triggers with example write a trigger in SQL to call a procedure "Inform_Supervisor" whenever an employees salary is greater than the salary of his or her direct supervisor in the COMPANY database.	10	L3	CO5
		Module – 5			
Q.9	a.	Describe the two – phase locking protocol for concurrency control provide example to illustrate how it ensures serializability in transaction schedule.	10	L2	CO
	b.	Explain the characteristics of NOSQL system.	10	L2	CO
		OR			
Q.10	a.	Explain binary locks and shared lock with algorithm.	10	L2	CO
	b.	Explain MongoDB data model, CRUD operations and distributed system characteristics.	10	L2	CO

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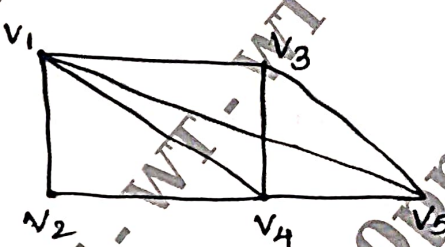
Fourth Semester B.E/B.Tech. Degree Examination, June/July 2025
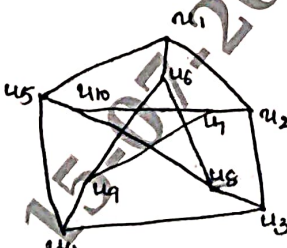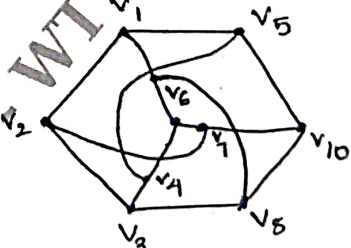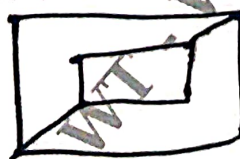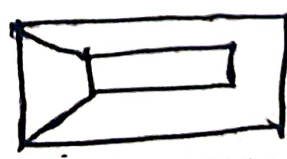## Graph Theory

Time: 3 hrs. 　　　　　　　　　　　　　　　　　　Max, Marks:100

Note: *1. Answer any FIVE full questions, choosing ONE full question from each module.*
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
1	a.	Consider the following graph G Fig.Q1(a). Write : i) Open walk which is not a trail ii) Trial which is not a path iii) Closed walk which is a cycle iv) Closed walk which is a circuit but not a cycle v) Closed walk neither circuit nor cycle vi) Path of length 4. Fig.Q1(a)	6	L3	CO1
	b.	Define bipartite graph and complete bipartite graph can a bipartite graph have odd length cycles. Explain.	7	L1	CO1
	c.	Is there a simple graph with 1, 1, 3, 3, 3, 4, 6, 7 as the degree of vertices? Explain.	7	L3	CO1
		OR			
2	a.	Define spanning subgraph and induced subgraph. Draw a complete graph G with 5 vertices and spanning subgraph and induced subgraph of G.	6	L1	CO1
	b.	Verify the following : i) Fig.Q2(b)(i) 　　and 　Fig.Q2(b)(ii) are isomorphic. Fig.Q2(b)(i) 　　　　　　Fig.Q2(b)(ii) ii) Fig.Q2(b)(iii) 　and 　Fig.Q2(b)(iv) are not isomorphic. Fig.Q2(b)(iii) 　　　　　Fig.Q2(b)(iv)	7	L2	CO2
	c.	A simple graph with n vertices and k components can have at most $(n - k)(n - k + 1)/2$ edges.	7	L3	CO2

		Module – 2			
3	a.	By specifying the walk draw two Euler graphs and unicursal graph.	6	L2	CO1
	b.	If all the vertices in a connected graph G are of even degree, then show that G is Eulerian.	7	L3	CO2
	c.	Define and find union, intersection and ring sum of $K_{2,3}$ and $K_{3,3}$.	7	L1	CO2
		OR			
4	a.	i) Define reflexive relation, symmetric relation and transitive relation	6	L1	CO1
		ii) Draw a symmetric graph and complete asymmetric graph.		L2	CO1
				L2	CO2
	b.	Distinguish between Hamiltonian graph and Eulerian graph with two examples by specifying the walk.	7	L2	CO2
	c.	Prove that a connected graph G has an Euler circuit if and only if G can be decomposed into edge-disjoint cycles.	7	L3	CO2
		Module – 3			
5	a.	Prove that a tree with n vertices has n-1 edges.	6	L3	CO1
	b.	i) Prove that a graph is connected if and only if it has a spanning tree ii) Identify cut vertices if any in graph Fig.Q5(b)(i),Fig.Q5(b)(ii), Fig.Q5(b)(iii).	7	L3 L2	CO2 CO2

Fig.Q5(b)(i)   Fig.Q5(b)(ii)   Fig.Q5(b)(iii)

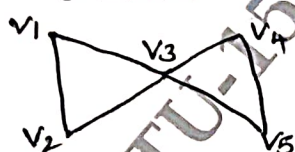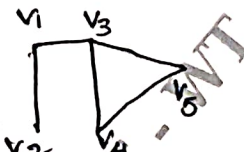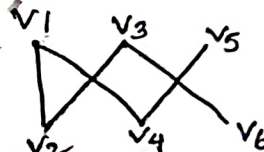|					
	c.	Show that for any graph G, the vertex connectivity cannot exceed the edge connectivity and edge connectivity cannot exceed the degree of the vertex with the smallest degree in G.	7	L3	CO3
		OR			
6	a.	Prove that a connected graph G is a tree if and only if there is one and only one path between every pair of vertices.	6	L3	CO2
	b.	Define a tree and forest. Prove that with two or more vertices in a tree, there are at last two pendent vertices.	7	L1	CO1
	c.	Show that a Hamiltonian path is a spanning tree. Draw all the spanning trees of the graph Fig.Q6(c).	7	L2	CO2
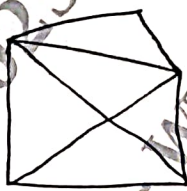
Fig.Q6(c)

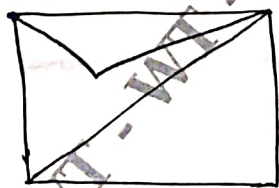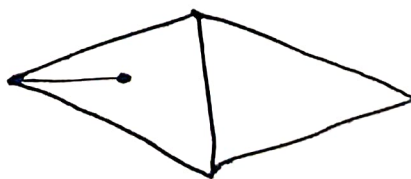|					
		Module – 4			
7	a.	i) State Kuratowski's theorem and draw Kuratowski's two graphs	6	L1	CO2
		ii) Draw planar graphs of : i) Order 5 and size 8 ii) Order 6 and size 12.		L3	CO2
	b.	Show that a connected planar graph with n vertices and e-edges has e-n+2 regions.	7	L3	CO2
	c.	Draw the geometric dual of graphs Fig.Q7(c)(i) and Fig.Q7(c)(ii).	7	L2	CO3

Fig.Q7(c)(i)   Fig.Q7(c)(ii)

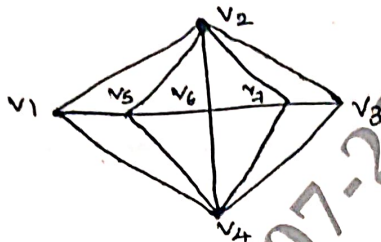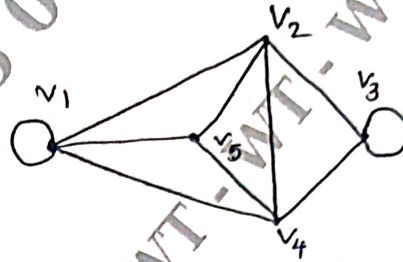|		OR			
8	a.	i) Show that Kuratowski's first graph K_5 is non planar	6	L2	CO2
		ii) Show that every connected simple graph G contains a vertex of degree less than 6.		L2	CO2
	b.	If G is a simple planar graph with at least three vertices then show that : (i) $e \leq 3n - 6$ ii) $e \leq 2n - 4$ if G is triangle free.	7	L3	CO2
	c.	Write down adjacency matrix, path matrix and circuit matrix for the given graphs Fig.Q8(c)(i) and Fig.Q8(c)(ii). Fig.Q8(c)(i) Fig.Q8(c)(ii)	7	L2	CO3
		Module – 5			
9	a.	Prove that a graph with at least one edge is 2-chromatic if and only if it has no circuits of odd length.	6	L3	CO2
	b.	Define chromatic number. Find chromatic polynomial of C_4 of length 4.	7	L2	CO3
	c.	State and prove 5 colour problems.	7	L3	CO2
		OR			
10	a.	Prove that every connected simple planner graph is 6-colourable.	6	L3	CO3
	b.	Define matching and complete matching. Find the two complete matching of : Fig.Q10(b)	7	L1	CO2
	c.	Define covering and minimal covering of a graph. Obtain two minimal covering from the given graph. Fig.Q10(c)	7	L2	CO3

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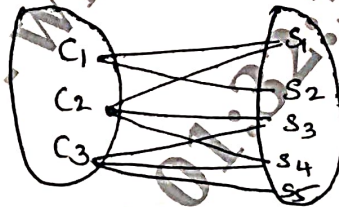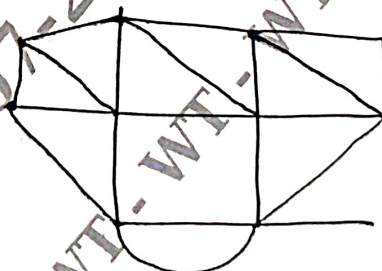
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Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025
Biology for Engineers (CSE)

Time: 3 hrs.   Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Define Cell. Explain function and structure of cell.	7	L2	CO1
	b.	List the various hormones and write the functions of them.	7	L2	CO1
	c.	Demonstrate the properties and function of lipids.	6	L3	CO1
		OR			
Q.2	a.	What are stem cells? Discuss the function of stem cells.	7	L2	CO1
	b.	List the vitamins and write the functions of them.	7	L2	CO1
	c.	Demonstrate the properties and function of nuclic acids.	6	L3	CO1
		Module – 2			
Q.3	a.	Define Biomolecule. List the classification of biomolecules with each one example in short in engineering application.	7	L2	CO2
	b.	Explain the applications of enzymes in biosensors and bio bleaching.	7	L2	CO2
	c.	What is DNA finger printing? Explain the process involved in DNA finger printing.	6	L3	CO2
		OR			
Q.4	a.	Explain the properties of cellulose as an effective water filter.	7	L2	CO2
	b.	List the properties of PHA and explain the engineering applications of PHA.	7	L2	CO2
	c.	Demonstrate whey as a protein.	6	L3	CO2
		Module – 3			
Q.5	a.	Define ECG. Explain in detail.	7	L2	CO3
	b.	How kidney will be used as a filteration system, explain with one type of dialysis example.	7	L2	CO3
	c.	Illustrate Brain as a CPU system.	6	L3	CO3

		OR			
Q.6	a.	Briefly discuss the various bio engineering solutions for muscular dystrophy.	7	L2	CO3
	b.	Explain robotic arms for Prosthetic device.	7	L2	CO3
	c.	Illustrate eye as a camera system.	6	L3	CO3
		Module – 4			
Q.7	a.	Compare the process of photo synthesis to the functioning of photo synthesis to the functioning of photovoltaic cells.	7	L2	CO4
	b.	Super hydrophobic and self cleaning surfaces. Explain in detail.	7	L2	CO4
	c.	Write a note on Lotus leaf effect.	6	L3	CO4
		OR			
Q.8	a.	Compare HBOC's and PEC.	7	L2	CO4
	b.	How shark skin and swim suits are using biological concepts.	7	L2	CO4
	c.	Write a note on GPS technology.	6	L3	CO4
		Module – 5			
Q.9	a.	Explain in detail flow AI will be used in all disease diagnosis.	7	L2	CO5
	b.	Demonstrate bioremediation and biomining.	7	L3	CO5
	c.	Explain muscular system as a scaffold.	6	L2	CO5
		OR			
Q.10	a.	Explain in detail electrical nose in food science.	7	L2	CO5
	b.	Demonstrate bioprinting technique list all of them.	7	L3	CO5
	c.	Explain DNA origami and Bio computing.	6	L2	CO5

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Question Paper Version : A

Fourth Semester B.E./B.Tech./B.Design Degree Examination, June/July 2025
Universal Human Values

Time: 1 hr.]   [Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.

2. Use only **Black ball point pen** for writing / darkening the circles.

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.

5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

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1. Human values are essential for
   a) living in harmony with self, each other and nature
   b) making life easy
   c) living with friends and family
   d) making money to fulfill desires.

2. "Knowing" means having
   a) Self exploration   b) right understanding   c) evaluation   d) none of these

3. Each human being is co-existance of the _____ and _____.
   a) self, body   b) cost, value   c) mind, body   d) only body

4. Selecting and desiring are activities of
   a) body   b) self   c) material   d) mind

5. The problems in our relationship with various entities are due to our
   a) assumption   b) misunderstandings   c) difference   d) negligence

6. Value education ensures _____ and _____ in every human being.
   a) right understanding and right feeling   b) right value and moral
   c) right and wrong   d) right path and needs

7. Process of value education is of
   a) Self declaration   b) Self exploration   c) Self   d) None of these

8. The activity of desires, thoughts and expecting together is called as
   a) Imagination   b) Interaction   c) Conscious   d) None of these

9. Any entity that has the activity of recognizing and fulfillment only can be called as
   a) Material Entity   b) Physical   c) Physical identity   d) Self

10. An individual people aspiring for the universal human order will be
    a) more responsible socially & ecologically   b) more rich
    c) more powerful   d) more well - traveled

11. Values important for the relationship are many ; they may include
    a) Aggression   b) Competition   c) Integrity and character   d) Arrogance

12. Happiness means
    a) To be happy always   b) To be in the state of harmony
    c) To be joyful   d) To live happily always

13. "Samridhi" means
    a) fulfillness   b) Prosperity   c) Sacrifice   d) Joy

14. Value education leads a human being to
    a) Harmony   b) Peace   c) Prosperity   d) (a) & (b)

15. It is the first level of living
    a) Individual   b) Family   c) Society   d) Nature

16. Expression of thought is in the form of _____
    a) Behavior   b) Work   c) Realization   d) Behavior & Work

17. Our participation at different levels in the larger order is known as _____
    a) Behavior   b) Values   c) Efforts   d) None of these

18. Values are the outcome of realization and _____, which are always definite.
    a) Behavior   b) Work   c) Understanding   d) Beliefs

19. It is the fourth level of living
    a) Individual   b) Family   c) Society   d) Nature

20. Value education helps us to correctly identify our _____
    a) Goals   b) Aspirations   c) Desire   d) All of these

21. A harmonious world is created by values at 4 levels. These are _____
    a) Home , Family , Society , Country   b) Individual , Family, Society , Existence
    c) School , Home , Office , Temple   d) None of these

22. To fulfill human aspirations _____ are necessary.
    a) Both values and skills   b) Values
    c) Skills   d) None of these

23. Values are the outcome of realization and understanding , which are always _____.
    a) Indefinite   b) Definite   c) Constant   d) Equilibrium

24. _____ means applicable to all the human beings irrespective of caste, creed , nationalities, religion , etc for all times and regions.
    a) Rational   b) Universal   c) Leading to harmony d) Consciousness

25. The first dimension of human being is ____
    a) Behavior   b) Work   c) Thought   d) Realization

26. Developed Nations are the live examples of ?
    a) Prosperity   b) Wealth   c) Happiness   d) Health

27. The Third dimension of human being is _____
    a) Behavior   b) Work   c) Thought   d) Realization

28. What is the emotional state of being happy?
    a) Happiness   b) Joy   c) Pleasure   d) All of these

29. When we set our goal in right direction with the help of right understanding, it is called ____
    a) Skill domain   b) Value domain   c) Prosperity   d) Development

30. Education has two domains : Value domain and skill domain. Which of the following is true?
    a) The value domain deals with the understanding part, while skill domain deals with the learning part.
    b) The value domain deals with learning part, while skill domain deals with the understanding part.
    c) Value domain conflicts with skill domain
    d) Value domain is the part of skill domain.

31. _____ means harmony within myself.
    a) Excitement   b) Happiness   c) Satisfaction   d) Pleasure

32. Prosperity can be achieved by _____.
    a) Relationship   b) Physical facility only
    c) Right understanding with physical facility d) None of these

33. Happiness is the state of ____
    a) Excitement   b) Harmony   c) Satisfaction   d) Pleasure

34. Continuous happiness and prosperity are the _____
    a) Impractical thought   b) Impossible desires
    c) Basic human aspirations   d) None of these

35. For prosperity, which of the following is not required?
    a) Appropriate assessment of the physical needs.
    b) Ensuring availability/production of more than required physical facility
    c) Knowing the need of physical facilities as limited
    d) Giving first priority to physical facilities in life.

36. The problems in our relationship with various entities are due to our
    a) Assumptions   b) Misunderstandings c) Difference   d) Negligence

37. Society means
    a) Family   b) All human beings c) Few individuals   d) None of these

38. The feeling of having more than required physical facility is _____
    a) Happiness   b) Prosperity   c) Satisfaction   d) Success

39. Basic requirements for fulfillment of aspirations of every human being with their correct priority are _____
    a) Right understanding, Relationship and Physical Facilities
    b) Physical Facilities, Relationship and Right understanding.
    c) Right understanding, Physical facilities and Relationship.
    d) Relationship, Right understanding and Physical Facilities.

40. Human consciousness is _____
    a) Giving weightage to physical facilities to the maximization of sensory pleasures to accumulation of wealth.
    b) Giving weightage to relationship to the inherent feelings and right understanding.
    c) Both
    d) None of these

41. _____ helps the human being to transform from animal consciousness to human consciousness.
    a) Right understanding b) Preconditioning c) Sensations   d) None of these

42. Our natural acceptance is to be in which category of people _____
    a) Suvidha Viheen Dukhi Daridra (SVDD)
    b) Suvidha Sampanna Dukhi Daridra (SSDD)
    c) Suvidha Sampanna Sukhi Samridh (SSSS).
    d) All of these

43. To which category a prosperous person belong?
    a) SVDD   b) SSDD   c) SSSS   d) None of these

44. Right understanding with physical facilities brings _____
    a) Deprivation   b) Mutual prosperity c) Mutual fulfillment d) None of these

45. The third basic requirement for transformation from animal consciousness to human consciousness is _____
    a) Mental discipline b) Sensory pleasure c) All of these   d) None of these

46. Right understanding of relationship means _____
    a) I am in harmony with everyone and everything.
    b) I am in conflict with everyone and everything
    c) I am in balance with everyone and everything
    d) I am detached from everyone and everything.

47. The fourth basic requirement for transformation from animal consciousness to human consciousness is _____
   a) Relationship   b) Detachment   c) Right understanding   d) Sensory pleasure

48. When we are in harmony with everything and everyone, we can be in ____
   a) Conflict   b) Imbalance   c) Detachment   d) Peace

49. The human goal at the level of nature is
   a) Prosperity   b) Co – existence   c) Fearlessness   d) Right understanding

50. Self exploration is a process which help us to find out "What I am and What I really want to be". Two mechanisms involved in self exploration are :
   a) Realization and understanding
   b) Natural and verifiable
   c) Natural acceptance and experimental validation
   d) Correctable and identifiable.

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