S–2945	Sub. Code
	23VSD1C1

B.Voc. DEGREE EXAMINATION, APRIL 2024

First Semester

Software Development

FUNDAMENTALS OF C PROGRAMMING

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List out any four keywords in C program.
2. What is operators?
3. Write a for loop to print from 10 to 1.
4. Write a if else statement syntax with example program.
5. How do character array is declared?
6. Define strings.
7. What is an function prototype?
8. Define bit fields.
9. What is pointer in C program?
10. What is the purpose of ftell ()?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Discuss in detail about important features of C language.

Or

(b) Write a C program to print the factorial of a given number.

12. (a) Explain about do-while statement with example program.

Or

(b) How do you reading and writing a character from keyboard? Give example program.

13. (a) Explain about dynamic arrays with example.

Or

(b) How do you declaration and initialization of string variables with example program?

14. (a) Write a short notes on user defined functions.

Or

(b) Explain about array of structures.

15. (a) Explain about pointer increments and scale factors.

Or

(b) Write a short note on opening and closing file.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Briefly explain about any five operators in C program with example.

17. Describe in detail about decision making and branching with example program.

18. Explain about string handling functions with example program.

19. Explain about all types of arguments and return values.

20. Discuss in detail about pointers and structures.

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S–2946

Sub. Code
23VSDA1

B.Voc. DEGREE EXAMINATION, APRIL 2024

Software Development

Allied – FUNDAMENTALS OF DIGITAL COMPUTERS AND PROGRAMMING

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What are the types of number systems?
2. Define hardware and software.
3. Write the Boolean laws.
4. Define demultiplexers.
5. What is decoder?
6. Define binary number system.
7. What are the unsigned binary number?
8. Define flip-flop.
9. What is an algorithms?
10. Define flow charts.

Part B (5 × 5 = 25)

Answer **all** questions choosing either (a) or (b).

11. (a) Write an technical evolution number system.

Or

(b) Describe in detail about octal number system.

12. (a) Explain about the Karnaugh simplifications.

Or

(b) Disucss in detail about NAND and NOR implementation.

13. (a) Write a short note party generator checkers.

Or

(b) Explain about read only memory.

14. (a) Describe about the 2's complement arithmetic.

Or

(b) Illustrate with arithmetic logic unit.

15. (a) How to develop algorithms for solving simple problems?

Or

(b) Explain about advantages of flowcharts.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Briefly explain about the gray code.

17. Illustrate sum of product method with neat diagram.

18. Explain about encoder with neat diagram.

19. Disucss in detail about clocked RS flip-flop.

20. Describe in detail about flowcharts for selection and iterative programming structures.

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S–2947

Sub. Code
23VSD2C1

B.Voc. DEGREE EXAMINATION, APRIL 2024

Second Semester

Software Development

WEB TECHNOLOGY

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. Define URL.
2. State about DNS.
3. What is Dynamic HTML?
4. Mention the basic tags in HTML.
5. What is Inline Style?
6. Write the steps to create CSS style sheets.
7. Define function in Java script.
8. What is meant by scripting language?
9. Distinguish server side and client side scripting.
10. Define document write and written.

Part B (5 × 5 = 25)

Answer **all** the questions, choosing either (a) or (b).

11. (a) Narrate the hardware and software requirements for Web Server.

Or

(b) Differentiate static web page and dynamic web page.

12. (a) Illustrate how to handle images using HTML.

Or

(b) Write a HTML code for which represents the score of a Hockey game games in which the team names have their respective team colors. The score of the leading/winning team should appear larger and in a different font than the losing team.

13. (a) Elucidate the Font and text element properties and values used in CSS.

Or

(b) Write an HTML document to display the following title as per the given description using CSS:

Title:"Ministry of Human Resource and Development (MHRD)"

Font Name: Cooper Black, Style: Bold Italics, Color: Green

14. (a) Explain about control structures in JavaScript.

Or

(b) Write a Java script program to create user registration form.

15. (a) Write a JavaScript to find factorial of a number.

Or

(b) Narrate How to integrate XML with database? Explain with examples.

Part C $(3 \times 10 = 30)$

Answer any **three** questions.

16. Illustrate about (a) WWW (b) HTTP (c) DNS (d) ISP with suitable example.

17. Explain about tables and formatting Forms in HTML

18. Elucidate the objectives of using Cascading style sheet? Briefly explain about linking of external Style sheets and fixing the backgrounds..

19. Write a JavaScript code which checks the contents entered in a forms text element. If the text entered is in the lower cases convert to upper case.

20. Discuss about structuring of XML document using schema and DTD with suitable example.

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S–2948	Sub. Code 23VSDA2

B.Voc. DEGREE EXAMINATION, APRIL 2024

Software Development

Allied — OPERATIONS RESEARCH

(CBCS – 2023 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. Define Operations Research.
2. List the two features of OR.
3. Write a note on LPP.
4. State about slack variable.
5. What is the use of Hungarian Method?
6. Define the objective of the travelling sales man problem.
7. Define degeneracy in a transportation problem.
8. Mention about unbalanced transportation problem.
9. State about event slack in PERT/CPM.
10. Define Forward Pass computation Method.

Part B (5 × 5 = 25)

Answer **all** the questions, choosing either (a) or (b).

11. (a) Illustrate the limitations of Simplex method.

Or

(b) Elucidate the scope of Operations Research.

12. (a) Solve the following LPP using Graphical method

Maximize $Z = 3x_1 + 2x_2$

Subject to the constraints

$-2x_1 + x_2 \leq 1,\ x_1 \leq 2,\ x_1 + x_2 \leq 3$ and $x_1, x_2 \geq 0$.

Or

(b) Narrate the procedure for forming a LPP method.

13. (a) Elucidate the mathematical formulation of assignment problem.

Or

(b) Describe about the Vogel's Approximation Method.

14. (a) Illustrate about initial feasible solution.

Or

(b) Elucidate briefly about Degeneracy in TP.

15. (a) Differentiate PERT and CPM.

Or

(b) An assembly is to be made from two parts *X* and *Y*. Both parts must be turned on a lathe. *Y* must be polished whereas *X* need not be polished. The sequence of activities, together with their predecessors, is given below.

Activity	Description	Predecessor Activity
A	Open work order	–
B	Get material for X	A
C	Get material for Y	A
D	Turn X on lathe	B
E	Turn Y on lathe	B, C
F	Polish Y	E
G	Assemble X and Y	D, F
H	Pack	G

Draw a network diagram of activities for the project.

Part C $(3 \times 10 = 30)$

Answer any **three** questions.

16. Explain the various phases in study of Operation Research.

17. Solve the following linear programming problem by-using two-phase simplex method, Maximize $Z = 5x_1 + 8x_2$ Subject to the constraints $3x_1 + 2x_2 \geq 3, x_1 + 4x_2 \geq 4$, $x_1 + x_2 \geq 5$ and $x_1, x_2 \geq 0$.

18. Find the transportation cost for the following by using row-minima method.

	A	B	C	D	E	F	G	Supply
A	5	6	4	3	7	5	4	7000
B	9	4	3	4	3	2	1	4000
C	8	4	2	5	4	8	3	10000
Demand	1500	2000	4500	4000	2500	3500	3000	

19. Find the optimum solution to the Transportation problem supply and demand and cost elements are

	Warehouse				
Factory	W1	W2	W3	W4	Supply
F1	15	25	45	5	6
F2	65	5	35	55	9
F3	35	3	65	15	16
Demand	15	8	7	14	

20. Describe about Rules for AOA and AON Network Construction.

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