

R5872

Sub. Code

9BV1G1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2021

First Semester

Software Development/Fashion Technology

LIFE COPING SKILLS

(Common for B.Voc., Fashion Tech/B.Voc., Software Development)

(CBCS – 2019 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is low self-system?
2. Define personality.
3. What is goal?
4. Indicate any two importance of goal setting.
5. What is failure?
6. What is anger?
7. What is lateness problem?
8. What do you mean by stress management?
9. Define team work.
10. What is communication?

Part B

(5 × 5 = 25)

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

11. (a) Explain the factors influence of self-esteem.
Or
(b) Highlight the characteristics of self-concept.
12. (a) Bring out the steps of goal setting.
Or
(b) List out the obstacles of goal setting.
13. (a) How to overcome fear?
Or
(b) Bring out the coping with failure?
14. (a) How to manage stress? Explain any two methods.
Or
(b) Describe the importance of time management.
15. (a) Write a short note on questioning.
Or
(b) Explain the significance of communication.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the elements and characteristics of personality.
17. Elucidate the various types of goals.
18. Explain the causes and impact of depression.
19. Explain the kinds of stress.
20. Explain the essential qualities of working as a team.

R5879

Sub. Code

9BS1C1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2021

First Semester

Software Development

FUNDAMENTAL OF C PROGRAMMING

(CBCS – 2019 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. List out various functional components present in a computer System.
2. What is the use of flow charts in programming language?
3. What are the different ways used for declaring constants in C program?
4. Write down various types of type conversion.
5. What is the use of ternary operator in C?
6. What do you mean by exit controlled loop statement?
7. Can array be used for storing elements of different types?
8. Write down any four string handling functions.
9. Differentiate call by value from call by reference.
10. What do you mean by pointer?

Part B

(5 × 5 = 25)

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

11. (a) Discuss about various processes of program development.

Or

- (b) Discuss about various features of C programming language.

12. (a) Discuss about the structure of a simple C program.

Or

- (b) Write a C program to compute compound interest.

13. (a) Write a C program to find the given number is palindrome or not.

Or

- (b) Discuss about various formatted input/output functions in C.

14. (a) Write a C program to find the given number is present in an array or not.

Or

- (b) Discuss about various operations to be performed on String.

15. (a) How will you pass array to functions?

Or

- (b) Discuss about pointer expressions with suitable example.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about programming language paradigm.
 17. Write a C program find possible roots of quadratic equation.
 18. Explain about various decision making statements supported by C.
 19. Write a C program to compute the multiplication of two matrices.
 20. Write a C program to find ncr and npr using recursion.
-

R5880

Sub. Code

9BS1C2

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2021

First Semester

Software Development

**FUNDAMENTALS OF DIGITAL COMPUTER AND
PROGRAMMING**

(CBCS – 2019 onwards)

Time : Three Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. Convert the binary number 1010_2 into decimal number.
2. Perform addition operation of two hexadecimal numbers $23_{16}+18_{16}$
3. Develop the truth table for two input OR gate.
4. State the Demorgan's Theorems in equations form.
5. Draw the logic circuits for $X=AB+CDE$
6. What is Don't care condition?
7. Write the function of demultiplexer
8. Draw the logic diagram of getting D (difference) and B (Borrow) as output using EX-OR gate and on AND gate.
9. What are primitive data types?
10. What is structured programming?

Part B

(5 × 5 = 25)

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

11. (a) Convert the Hexadecimal number $B44B_{16}$ Into decimal number.

Or

- (b) Convert the decimal number 0.6875 into Octal number.

12. (a) Write a note on Hamming Error Correction Code.

Or

- (b) Minimize the expression
 $X = A\bar{B}C + \bar{A}BC + \overline{ABC} + \overline{ABC}$ using Boolean Algebra techniques.

13. (a) Simplify the following expression to minimum sum-of-products using the Karnaugh Map method

$$X = \bar{A}(BC + \bar{B}\bar{C}) + A(BC - \bar{B}\bar{C})$$

Or

- (b) Design a logic circuit for the logic expression
 $X = A + B\{C + D(B + \bar{C})\}$

14. (a) What is the purpose of demultiplexer, Explain 1 line to 4 line demultiplexer

Or

- (b) Determine the logic required to decode the binary number 1101_2 by producing a HIGH indication on the output.

15. (a) Write a procedure to insert a node in the second position of doubly linked list.

Or

- (b) Write a program to perform insertion sort using arrays

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Implement the following expression with logic gates
 - (a) $AB + BCD + EFGH$
 - (b) $(A+B)(C+D+E)(F+G+H+I)$
17. Explain any one Universal Building Block.
18. Develop a logic circuit with four input variables that will produce a 1 output when any three and only three input variables are is using AND-OR logic.
19. Explain BCD adder.
20. Write a program to read characters from key board and store it in a text file.

R5881

Sub. Code

9BS3C1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2021

Third Semester

Software Development

FUNDAMENTALS OF OPERATING SYSTEMS

(CBCS – 2019 onwards)

Time : Three Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. Define Operating System.
2. What is a File System?
3. Define Process.
4. What is Dead Lock?
5. What is Fixed Partition?
6. Define Virtual Memory?
7. What is GUI?
8. Define Encryption.
9. Write any two advantages of UNIX.
10. Write any two commands related to directory in UNIX

Part B

(5 × 5 = 25)

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

11. (a) Write short notes on booting.

Or

- (b) Write the history of operating system.

12. (a) What are the activities related to process management in operating system?

Or

(b) Explain the prerequisites of dead lock.

13. (a) Discuss the single contiguous allocation.

Or

(b) Elaborate on paging mechanism.

14. (a) What are the components of GUI? Explain.

Or

(b) Write short notes on virus.

15. (a) Explain the architecture of UNIX.

Or

(b) Elaborate on the “Is” command with its options.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Elaborate on the functions of operating system.

17. Discuss in detail about Inter-process communication.

18. Explain virtual memory management.

19. Give a detail account on protection mechanisms.

20. Describe the file system of UNIX.

R5882

Sub. Code

9BS5C1

B.Voc DEGREE EXAMINATION, NOVEMBER – 2021

Fifth Semester

Software Development

PROGRAMMING WITH JAVA

(CBCS – 2019 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What do you mean by objects and classes?
2. Define Tokens in Java.
3. What is the purpose of final variables?
4. State the syntax for Multidimensional Array.
5. Define Applets in Java.
6. List down the Event handling methods in Java.
7. Write down the syntax for “Throw” statement with suitable example.
8. Define Synchronization.
9. What is the purpose of stream classes?
10. Define JDBC.

Part B

(5 × 5 = 25)

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

11. (a) Elucidate the basic concepts of object-oriented programming.

Or

- (b) What is a Token? List the various types of tokens supported by Java.

12. (a) What is a Constructor? Explain with suitable program, how do we invoke a constructor.

Or

- (b) Describe in detail about overriding methods in Java.

13. (a) Write a Java program to execute a simple Applet.

Or

- (b) Discuss briefly about the methods in the Graphics Class.

14. (a) Explain with suitable example, what are compile time errors.

Or

- (b) Write short notes on Thread Priority.

15. (a) Analyze the reader classes of Java. IO package with suitable illustration.

Or

- (b) How will the database connectivity take place in java? Explain with appropriate programming example.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe in detail about operators and expressions used in java programming with neat sketch.
17. Explain in detail, on various types of inheritance in java with neat illustration.
18. Discuss in detail on the life cycle of applet with suitable example.
19. Elucidate the exception handling using catch block and throw block in java, using program.
20. Write a java program, to explain the data input stream and output stream classes.

R5883

Sub. Code

9BS5E1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2021

Fifth Semester

Software Development

OPTIMIZATION TECHNIQUES

(CBCS – 2019 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are predictive models?
2. List down the application areas of Linear Programming.
3. What is transportation problem in LPP?
4. Define basic feasible solution.
5. Which are the two steps of graphical method?
6. How do you solve graphical method in operation research?
7. Define PERT.
8. What are the five major processes of project management?
9. How do we calculate total elapsed time in Job Sequencing?
10. What are the types of Job Sequencing Problem?

Part B

(5 × 5 = 25)

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

11. (a) Define optimization. List down the advantages and limitations of optimization techniques for an application.

Or

- (b) Write down the format to illustrate Mathematical formulation of the problem using LPP.
12. (a) Solve the problem using Northwest Corner Rule.

	D_1	D_2	D_3	D_4	Supply
Source A_1	3	1	7	4	300
A_2	2	6	5	9	400
A_3	8	3	3	2	500
Demand	250	350	400	200	1200

Or

- (b) Elucidate the objectives of Assignment Problem.
13. (a) What is the procedure to graphically solving the LPP? Explain briefly.

Or

- (b) Solve the following LPP graphically :

Maximize : $Z = 3x + 4y$

Subject to the constraints :

$x + y \leq 4,$

$x \geq 0,$

$y \geq 0.$

14. (a) Discuss about forward pass computation in PERT Analysis.

Or

- (b) List down the steps involved in determining critical path for an activity.
15. (a) What are the various types of job sequencing processes? Explain briefly.

Or

- (b) Write short notes on Johnson's Algorithm for job sequencing.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Use simplex method to solve the following LP problem :

Maximize : $Z = 3x_1 + 5x_2 + 4x_3$

S.T. constraints : (a) $2x_1 + 3x_2 \leq 8$ (b) $2x_2 + 5x_3 \leq 10$,
(c) $3x_1 + 2x_2 + 4x_3 \leq 15$ and $x_1, x_2, x_3 \geq 0$.

17. Solve the following LP using Hungarian method :

Operators

		1	2	3	4
Tasks	A	20	28	19	13
	B	15	30	31	28
	C	40	21	20	17
	D	21	28	26	12

18. Use graphical method to solve the following LP problem :

Maximize $Z = 15x_1 + 10x_2$

S.T. constraints : (a) $4x_1 + 6x_2 \leq 360$ (b) $3x_1 + 0x_2 \leq 180$
(c) $0x_1 + 5x_2 \leq 200$ and $x_1, x_2 \geq 0$.

19. What is CPM? Describe in detail about steps in CPM with appropriate example.
20. A company has to process five items on three machines : A, B and C processing times are given in following table :

Item	A_i	B_i	C_i
1	4	4	6
2	9	5	9
3	8	3	11
4	6	2	8
5	3	6	7

Find the sequence that minimizes the total elapsed time.
