F–8603	Sub. Code
	9VSD2C1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022.

Second Semester

Software Development

WEB TECHNOLOGY

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is internetworking?

2. Define repeater.

3. What is DNS server?

4. Define mailbox.

5. What are the features of HTML?

6. Define header tag.

7. Write syntax of do while structure.

8. Define logical operators.

9. Define event onload.

10. What is DTD?

Part B (5 × 5 = 25)

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

11. (a) Explain the process of message transfer between two components.

Or

(b) What is the purpose of the time to live field of the IP datagram header?

12. (a) Explain about history of WWW.

Or

(b) Write a short note on E-mail.

13. (a) Explain about editing HTML.

Or

(b) Discuss in detail about nested and ordered list.

14. (a) Explain about while structure with example.

Or

(b) Write a syntax switch structure with example.

15. (a) Explain about form processing with onfocus and onblur.

Or

(b) Write a short note on XML namespace.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Describe the various fields in the IP datagram header.

17. Briefly explain about file transfer protocol.

18. Explain about tables and formatting.

19. Discuss in detail about assignment operator with example.

20. Explain about event onmouse move and onmouseout.

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F–8604	Sub. Code
	9VSD2A1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022.

Second Semester

Software Development

Allied – MATHEMATICS – OPTIMIZATION TECHNIQUES

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. What is an infeasible solution and how does it occur?

2. State the fundamental theorem of duality.

3. Write down the mathematical formulation of an assignment problem.

4. How will you convert a maximization assignment problem into minimization one?

5. Define queue discipline.

6. What do you understand by the service channels?

7. Define total float.

8. Expansion of CPM and PERT.

9. Define idle time on a machine.

10. What is sequencing?

Part B $(5 \times 5 = 25)$

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

11. (a) Formulate the dual of the following LPP.

Maximize $Z = 5x_1 + 3x_2$

Subject to the constraints

$3x_1 + 5x_2 \leq 15,$
$5x_1 + 2x_2 \leq 10,$
$x_1 \geq 0$ and $x_2 \geq 0$

Or

(b) Explain the simplex procedure to solve a LPP.

12. (a) Use graphical method to solve the LPP.

Maximize $Z = 2x_1 + 4x_2$

Subject to the constraints,

$x_1 + 2x_2 \leq 5,$
$x_1 + x_2 \leq 4$ and
$x_1, x_2 \geq 0$

Or

(b) Solve the assignments problem.

	A	B	C	D
I	1	4	6	3
II	9	7	10	9
III	4	5	11	7
IV	8	7	8	5

13. (a) A TV repairman finds that the time spent on his jobs has an exponential distribution with mean 30 minutes. If he repair sets in the order in which they came in, and if the arrival of sets is approximately poisson with an average rate of loper 8 hour day, What is repairman's expected idle time each day? How many jobs are ahead of the average set just brought in?

Or

(b) Explain about customer's behaviour.

14. (a) Draw a network diagram for the following data.

Activity	A	B	C	D	E	F	G	H	I	J
Preceding Activities	none	A	A	B	A	B,E	C	D,F	G	H,I

Or

(b) Write down the major rules of network construction.

15. (a) We have 5 jobs, each of which must go through the two machines A and B in the order AB. Processing times in hours are given the table below.

Job	:	1	2	3	4	5
Machine A	:	5	1	9	3	10
Machine B	:	2	6	7	8	4

Determine a sequence for the 5 jobs that will minimize the elapsed time.

Or

(b) A book binder has one printing press, one binging machine and the manuscripts of a number of a different books. The time required to perform the printing and binding operations for each books total time required to turn out all the books.

Job	:	1	2	3	4	5	6
Printing time (hrs)	:	1	3	8	5	6	3
Binding time (hrs)	:	5	6	3	2	2	10

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

Answer any **three** questions.

16. Obtain the dual problem of the following primal problem.

Minimize $Z = x_1 - 3x_2 - 2x_3$

Subject to the constraints,

$3x_1 - x_2 + 2x_3 \leq 7;$
$2x_1 - 4x_2 \geq 12;$
$-4x_1 + 3x_2 + 8x_3 = 10;$
$x_1 \geq 0$ and $x_2 \geq 0, x_3$ is unrestricted.

17. A department head has four subordinates and 4 tasks to be performed. The subordinates differ in efficiency and the tasks differ in their intrinsic difficulty. His estimate of the time each man would task to perform each task. Give matrix below.

	Men			
Task	E	F	G	H
A	18	26	17	11
B	13	28	14	26
C	38	19	18	15
D	19	26	24	10

How should the tasks be allocated one to a man, so as to minimize the total man-hours?

18. In a railway marshalling yard, goods train arrives at a rate 30 trains per day. Assume that the inter arrival time follows an exponential distribution and the service time distribution is also exponential with an average of 36 minutes calculate.

    (a) The probability that the yard is empty

    (b) Average queue length assuming that the line capacity of the yard is 9 times.

19. Construct the network diagram having the following constraints:

    A < D, E; B, D < F; C < G; B, G < H; F, G < I

    Find also the minimum time completion of the project, when the time (in day) of completion of each tasks is as following:

Task :	A	B	C	D	E	F	G	H	I
Time :	23	8	20	16	24	18	19	4	10

20. Solve the following sequencing problem when passing out is not allowed

Machine (Time in hours)

Item	A	B	C	D
I	15	5	4	15
II	12	2	10	12
III	16	3	5	16
IV	17	3	4	17

F–8605	Sub. Code
	9VSD3C1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022.

Third Semester

Software Development

OPERATING SYSTEMS

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define operating system functions.

2. What is batch system?

3. Define process.

4. What are necessary conditions of deadlocks?

5. What is virtual memory?

6. What is demand paging?

7. Define virus.

8. What is threats?

9. Define UNIX.

10. What is File System?

Part B (5 × 5 = 25)

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

11. (a) Discuss the objectives for file systems.

Or

(b) Explain about history of operating systems.

12. (a) Differentiate between process and threads.

Or

(b) Explain about necessary conditions of deadlock.

13. (a) Explain paging scheme for memory management.

Or

(b) Explain about contiguous memory allocation.

14. (a) Explain system protection with its goals.

Or

(b) Write a short note on encryption.

15. (a) Discuss various features of unix operating system.

Or

(b) Explain with an example how test command is used with files.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. What are different types of operating system? Explain them in detail.

17. Briefly explain about dead lock strategies.

18. Explain about virtual memory management systems.

19. Explain about requirements of windows based GUI.

20. Briefly explain about architecture of UNIX.

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F–8606

Sub. Code
9VSD3G2

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

Third Semester

Software Development

PROFESSIONAL ETIQUETTES

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is the meaning of business etiquette?
2. What is an example of etiquette?
3. Define fragrance.
4. What is a western dressing?
5. Write a behavior of holding doors.
6. How to visiting other officers?
7. Write an eating soup.
8. What are the mistakes in dinning?
9. Define hotel stay.
10. When is a person a bad guest?

Part B (5 × 5 = 25)

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

11. (a) What are the rules of etiquette?

Or

(b) How important employees are to a business?

12. (a) Write a short note on personal hygiene and shoes for grooming men.

Or

(b) What is good grooming and why is it important?

13. (a) Explain about receiving officers in your offices.

Or

(b) Discuss in detail about washroom and meeting etiquette.

14. (a) Explain about rationale for a dining etiquette.

Or

(b) Write a short note on cutlery awareness.

15. (a) Explain about buffet dining etiquette.

Or

(b) Write a short note on travel etiquette.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Describe in detail about business card.

17. Briefly explain about business casuals.

18. Briefly explain about workplace etiquette.

19. Discuss in detail about dining etiquette.

20. Discuss in detail about airplane etiquette.

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F–8607

Sub. Code
9VSD5G1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

Fifth Semester

Software Development

MIS AND EDI

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What do you mean by information technology?
2. Define information systems solution.
3. Define management information system.
4. What are characteristics of MIS?
5. What do you mean by EDI?
6. Define internet.
7. Define CRM.
8. What is Web Portal?
9. What is Server?
10. Define Cloud Concept.

Part B (5 × 5 = 25)

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

11. (a) Describe trends in the global business environment that have made information systems so important.

Or

(b) Explain about need of information technology in business.

12. (a) Write a short note on human resource in information systems.

Or

(b) Explain about decision support systems.

13. (a) Explain about EDI standards.

Or

(b) Explain about FTP based messaging.

14. (a) Discuss in detail about strategies for marketing in e-commerce.

Or

(b) Write a short note on post paid e-payment system.

15. (a) Explain about virtualization technique.

Or

(b) Discuss in detail about HDFS.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Explain about solving business problems with information systems.

17. Briefly explain about financial information systems.

18. Discuss in detail about EDI architecture.

19. Describe in detail about strategies for purchasing and support activities in e-commerce.

20. Explain about cloud computing.

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F–8608	Sub. Code
	9VSD5C1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022.

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. Define tokens.
2. What is variable?
3. Define class.
4. What is string?
5. Which classes and interfaces does applet class consist?
6. What is the difference between applications and applets?
7. Define thread.
8. Define the term static method.
9. What is output stream?
10. Define JDBC.

Part B (5 × 5 = 25)

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

11. (a) State five features of Java.

Or

(b) Explain about decision making and branching with example program.

12. (a) Explain about method overloading with example program.

Or

(b) Discuss in detail about arrays in java.

13. (a) Explain about life cycle of an applet.

Or

(b) Give the attributes of applet tag.

14. (a) Write a short note on exception and error classes.

Or

(b) Discuss in detail about dead lock.

15. (a) Explain about data input stream.

Or

(b) Discuss in detail about ODBC connection.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Explain about decision making and looping with example program.

17. Briefly explain about constructors in java with example program.

18. Explain about event handling methods with example program.

19. Describe in detail about complete life cycle of thread.

20. Briefly explain about input stream and output stream classes with example program.

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F–8609	Sub. Code
	9VSD5E1

B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

Fifth Semester

Software Development

Elective: SOFTWARE ENGINEERING

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define software engineering.
2. What is verification?
3. Define use case.
4. What is requirement specifications?
5. What is cohesion?
6. Define software design.
7. What is testability.
8. Define coding.
9. What is software task?
10. What is reuse software?

Part B (5 × 5 = 25)

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

11. (a) Explain about iterative waterfall model.

Or

(b) Discuss in detail about spiral model.

12. (a) Write a metrics for project size estimation.

Or

(b) Write a short note on SRS.

13. (a) Different between cohesions and coupling.

Or

(b) Write a short note on state chart diagram.

14. (a) Write a short note on unit testing

Or

(b) Explain about debugging.

15. (a) Explain about different characteristics of CASE tools.

Or

(b) Discuss in detail about estimation of maintenance cost.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Briefly explain about emergence of software engineering.

17. Explain about COCOMO with example.

18. Discuss in detail about oriented software design.

19. Explain about,

    (a) Black box testing

    (b) White box testing

20. Explain about computer aided software engineering

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