F–9476	Sub. Code
	9VSD2C1

B.Voc. DEGREE EXAMINATION, APRIL 2023.

Second Semester

Software Development

WEB TECHNOLOGY

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Virtual network.

2. Define ICMP.

3. What is network information center?

4. What are the features of E-mail?

5. Define tags.

6. What is formatting text?

7. Write a syntax of switch structure.

8. Define conditional operator.

9. What is event handler?

10. What is XML?

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

11. (a) What are the different methods of assigning physical address to a computer?

Or

(b) How does the address resolution protocol work?

12. (a) Write a short note on E-Commerce.

Or

(b) Explain about trivial file transfer protocol.

13. (a) Write a short note on text styling.

Or

(b) Explain about linking images.

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

Or

(b) Discuss in detail about break and continue statement with example.

15. (a) Explain about onclick and onload.

Or

(b) Write a short note on structuring data in XML.

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Part C (3 × 10 = 30)

Answer any **three** questions.

16. Describe the three parts of an IP address.

17. Explain about domain name system.

18. Briefly explain about different types of tags in HTML.

19. Describe in detail about logical operators with example.

20. Discuss in detail about document type definition.

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B.Voc. DEGREE EXAMINATION, APRIL 2023.

Second Semester

Software Development

Allied – MATHEMATICS OPTIMIZATION TECHNIQUES

(CBCS – 2019 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. Define degenerate solution.

2. State the existence theorem.

3. What is an assignment problem?

4. Give two applications in health care administration of assignment problem.

5. Define input process.

6. What do you understand by steady and transient state?

7. What is critical path?

8. How are the time estimate make in the PERT model?

9. Give an example of a sequencing model.

10. What is "No passing" rule in a sequencing algorithm?

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

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

Maximize $Z = 2x_1 + 3x_2 + x_3$

Subject to the constraints :

$4x_1 + 3x_2 + x_3 = 6$; $x_1 + 2x_2 + 5x_3 = 4$; $x_1, x_2 \geq 0$.

Or

(b) Describe the general rules for writing the dual of a LPP.

12. (a) Solve the graphical method.

Maximize $Z = -3x_1 + 4x_2$

Subject to

$x_1 + x_2 \leq 4$
$2x_1 + 3x_2 \geq 18$ and $x_1, x_2 \geq 0$

Or

(b) Solve the assignment problem :

	1	2	3
I	9	26	15
II	13	27	6
III	35	20	15
IV	18	30	20

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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 10 per 8 hour day, what is the requirement repairman's expected idle time each day? How many jobs are ahead of the average set just brought in?

Or

(b) In a public telephone booth the arrivals are on the average 15 per hour. A call on the average takes 3 minutes. If there is just one phone. Find (i) Expected of the number of callers in the booth at any time (ii) the proportion of the time the booth is expected to be idle.

14. (a) Distinguish between PERT and CPM.

Or

(b) The following table gives the activities of a construction project and duration.

Activity :   1-2   1-3   2-3   2-4   3-4   4-5

Duration :   20   25   10   12   6   10

(i) Draw the network for the project.

(ii) Find the critical path.

15. (a) Write the Johnson's algorithm for n jobs through machines.

Or

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(b)   In a factory, there are six jobs to perform, each of which should go through 2 machines A and B, in the order A, B. The processing timing (hrs) for the jobs is given here. You are required to determine the sequence for performing the jobs that would minimize the total elapsed time T. What is the value of T?

Job :	J₁	J₂	J₃	J₄	J₅	J₆
Machine A :	1	3	8	5	6	3
Machine B :	5	6	3	2	2	10

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

Answer any **three** questions.

16.   Use simplex method to solve the following LPP

Maximize $Z = 4x_1 + 10x_2$

Subject to

$2x_1 + x_2 \leq 50; \ 2x_1 + 5x_2 \leq 100; \ 2x_1 + 3x_2 \leq 90$
$x_1, x_2 \geq 0$

17.   A department head has four tasks to be performed and three sub ordinates, the subordinates differ in efficiency. The estimate of the time, each subordinates would take to perform is given below in the matrix. How should he allocate the tasks one to each man, so as to minimize the total man hours?

Men

Task	1	2	3
I	9	26	15
II	13	27	6
III	35	20	15
IV	18	30	20

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18. In a railway marshalling yard, goods train arrive at a rate of 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 36 minutes. Calculate the following, (a) the mean queue size (time length) and (b) the probability that the queue size exceeds 10. If input of trains increases to an average 33 per day.

19. A project consists of the following activities and time estimates (days)

Activity	Least time	Greatest time	Most likely
1-2	3	15	6
1-3	2	14	5
1-4	6	30	12
2-5	2	8	5
2-6	5	17	11
3-6	3	15	6
4-7	3	27	9
5-7	1	7	4
6-7	2	8	5

(a) Draw the network diagram.

(b) What is the probability that the project will be completed in 27 days?

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20. Determine the optimal sequence of jobs that minimize the total elapsed time based on the following information processing time on machines is given in hours and passing is not allowed.

Job :	A	B	C	D	E	F	G
Machine M₁ :	3	8	7	4	9	8	7
Machine M₂ :	4	3	2	5	1	4	3
Machine M₃ :	6	7	5	11	5	6	12

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B.Voc. DEGREE EXAMINATION, APRIL 2023

Fourth Semester

Software Development

COMPUTER NETWORKS ADMINISTRATION

(CBCS – 2019 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1. What is data communication?

2. What is routing?

3. What is OSI?

4. What is protocol?

5. What is wireless LAN?

6. How to working wireless LAN?

7. Define IPV4.

8. What is encryption?

9. What is network management?

10. Define authentication.

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

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

11. (a) What are needs for computer networks?

Or

(b) Explain about routing concepts.

12. (a) Write a short note on data link layer.

Or

(b) Write a short note on transport layer.

13. (a) Explain about X.25 protocol

Or

(b) What are the components of wireless LAN's?

14. (a) Explain about confidentiality with symmetric encryption.

Or

(b) Write a short note on hash functions.

15. (a) Write a short note on authorization.

Or

(b) Explain about administrative model in network management.

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Part C (3 × 10 = 30)

Answer any **three** questions.

16. Briefly explain about classification of computer networks.

17. Explain about OSI reference model.

18. Briefly explain about LAN topologies.

19. Describe in detail about network security.

20. Explain about network management.

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Sixth Semester

Software Development

CORPORATE GROOMING AND FINISHING SKILLS

(CBCS – 2019 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   How to improve self confidence?

2.   Define professional.

3.   What is your work etiquette?

4.   Define proximity.

5.   How would dressing right impact your image?

6.   Why are our services so undervalued?

7.   When is this supplier going to call?

8.   Define office skills.

9.   How to type efficiently?

10. Define report writing?

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

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

11. (a) Explain about professionalism.

Or

(b) Discuss about self confidence.

12. (a) What are the rules of etiquette? Explain.

Or

(b) Write a short note on table manners.

13. (a) Discuss in detail about house keeping skills.

Or

(b) Explain about spatial utility habits.

14. (a) Explain about reception and greeting.

Or

(b) How to preparation to hold office meetings?

15. (a) How to write minutes? Explain.

Or

(b) What are the preparation methods for reports? Explain.

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

Answer any **three** questions.

16. Discuss about rational versus emotional decisions.

17. Explain about

    (a) Kinesics

    (b) Proximity

18. Explain about office files and personal computer or laptop management.

19. Briefly explain about front office skills.

20. Explain about report for media.

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B.Voc. DEGREE EXAMINATION, APRIL 2023

Sixth Semester

Software Development

Elective – SOFTWARE PROJECT MANAGEMENT

(CBCS – 2019 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part A   (10 × 2 = 20)

Answer **all** questions.

1.   Define project.

2.   Define process.

3.   What is an project plan?

4.   Define estimate time.

5.   What is an process estimate?

6.   Define prototyping.

7.   What is an requirement engineering?

8.   Define specifications.

9.   List any two characteristics of risk.

10. What are the major sources of risk?

Part B (5 × 5 = 25)

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

11. (a) Write a characteristics of software.

Or

(b) Explain about management function in software.

12. (a) Explain about project scope.

Or

(b) What are the characteristics of project analysing?

13. (a) Explain about evolutionary model.

Or

(b) Discuss in detail about incremental delivery.

14. (a) Explain about software requirement specification.

Or

(b) Write a short note on expert judgement.

15. (a) What are different types of risk? Explain.

Or

(b) Write a short note on risk avoidance.

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Part C (3 × 10 = 30)

Answer any **three** questions.

16. Briefly explain about software process.

17. Discuss about

   (a) Estimating time and effort

   (b) Review plan

18. Describe in detail about V-process model.

19. Explain about COCOMO model.

20. Explain about resource planning and resource allocation.

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