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1B2N21660   (Pages : 2)   Reg. No:...........................

Name: ....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester BVOC SD/BVOC AUTO Degree Examination, March 2021

GEC2MT06 – Numerical Skills

(2020 Admission onwards)

Time: 2 ½ hours   Max. Marks: 80

PART – A

Answer *all* questions.
Each question carries **Two** mark.
Ceiling -25 Marks

1. Define statistics.
2. Convert the given hexadecimal numbers into decimal numbers.

   a) B6C7   b) 64AC
3. State idempotent law in Boolean algebra.
4. Simplify (CD+A) +BCD+AC.
5. What is the function of a decoder. Explain.
6. What is frequency distribution. Explain.
7. Differentiate between odd and even parity.
8. Define Karnaugh map.
9. What are universal gates?
10. What are multiplexers?
11. Define harmonic mean.
12. Perform 2's complement subtraction. 00110 - 00010.
13. Differentiate between minterms and maxterms.
14. Draw the truth table of EX-NOR gate.
15. Define SR latch.

PART – B
Answer *all* questions.
Each question carries **Five** marks.
Ceiling -35 Marks

16. Explain the characteristics of statistics.

17. Discuss any two error detection methods.

18. State and prove DeMorgan's theorems.

19. Differentiate between EX-OR and EX-NOR gates.

20. Explain BCD to 7-segment decoder.

21. Minimize the expression $F(A,B,C,D) = \pi M (3,7,6,9,11,12)$ in both SOP and POS for

22. Write short notes on a) Mean b) Median c) Mode

23. Distinguish between half adder and full adder.

PART - C
Answer any *two* questions.
Each question carries **Ten** marks.

24. Discuss any two number systems along with rules for converting from one nu

    system to another.

25. Using Boolean algebra technique, simplify the expression $ABC + \overline{(AB)C} + AC$ as mu

    possible and realize the result using universal gates.

26. Draw the truth table and the logic diagram of the following gates.

    a) AND b) OR c) NAND d) NOR

27. Explain different types of flip flops in detail.

                                                                    2 x 10 =

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Name: ....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester BVOC AUTO/BVOC SD Degree Examination, March/April 2021

GEC2EG04 – Ways With Words : Literatures in English

(2020 Admission onwards)

Time: 2 hours   Max. Marks: 60

Part A
Answer the following questions in two or three sentences.
2 marks each

1. How does the poet use 'lark' as a symbol in the sonnet?

2. What are three examples of personification in the second stanza of "To Autumn" by John Keats?

3. What is city money? How is city money expected to help the poor people?

4. What are the exceptions of furniture that the speaker talks about?

5. What does the poet mean when he says 'good bye' in "Once upon a Time."

6. Where was Jerome's father when he died?

7. Why was Mary Maloney giggling by the end of the story?

8. What was Mum's reaction to dumping the old car?

9. How many types of bore are there?

10. What is Scientology?

11. Who are Colonial Dames?

12. What is catastrophism?

(ceiling 20 marks)

Part B
Answer the following questions in a paragraph :
Each question carries 5 Marks

13. Figures of speech in Shakespeare's "Sonnet 29"?

14. "Ode to Autumn" is one of the thematically rich odes of English literature. Discuss.

15. Write a paragraph on the generation conflict in "The Times They Are A-Changin"

16. What is the theme of a shocking accident?

17. Write a paragraph on Mum's shopping day. "It Used to be Green Once".

18. Justify the title of the poem "Once upon a time"

19. In 'Lamb to the Slaughter', was the murder premeditated or a 'crime of passion'?

(ceiling 30 marks)

Part C

Write an essay on any one of the following in about 200 words

20. Evaluate the poem Sonnet 29 as a sonnet

21 What picture of grandmother do you get from the poem "The House of My Childhood"?

(1x10 = 10m

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Name: ....

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Voc in Software Development Degree Examination, March 2021

SDC2IT06 – Programming in Java

(2020 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

PART – A

Answer *all* questions.
Each question carries **Two** mark.
Ceiling -25 Marks

1 Explain JRE And JVM.

2 What are wrapper classes in Java ?

3 Explain constructor in java.

4 What is a final variable ?

5 What is the advantage of a package in Java ?

6 What is a finally block?

8 What are the advantages of multithreading ?

9 What is the difference between this() and super() in java?

10 Write the difference between sleep() and wait() methods in java?

11 What is AWT ?

12 What is JDBC

13 Define socket?

14 What is a frame?

15 Write any six AWT controls in Java.

PART – B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -35 Marks

16   Explain the difference between static variables and instance variables

17   Differentiate abstraction and encapsulation? Explain abstract class.

18   Illustrate method overloading and method overriding.

19   Explain the join() methods of the class Thread.

20   Explain the life-cycle of an applet.

21   Write a program to retrieve values from a database.

22   Explain how multiple catch blocks are included in a java program?

23   Write notes on

      i) Container   ii) Component.

PART - C

Answer any *two* questions.

Each question carries **Ten** marks.

24   Write the control structures in Java.

25   Explain how Java supports exception handling?

26   In how many ways can a thread be created in Java? Explain and give examples.

27   Explain JDBC architecture and different types of driver available.

$2 \times 10 = 2$

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Name: ....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Voc in Software Development Degree Examination, March/April 2021

SDC2IT05 – Data Structures

(2020 Admission onwards)

Time: 2 ½ hours   Max. Marks: 80

PART – A
Answer *all* questions.
Each question carries Two mark.
Ceiling -25 Marks

1. Define data structures?

2. What is the difference between linear and non-linear data structures?

3. What are the operations that can be performed on data structures?

4. Show the memory representation of 2-D array with an example?

5. What is an array? How arrays are represented in memory?

6. What are stacks? Write procedures for PUSH and POP operations?

7. What is a queue? How is a queue different from stack?

8. Define a graph? List different graph traversal techniques?

9. List the applications of trees?

10. What are the two algorithms to find minimum spanning tree?

11. Define Hashing?

12. What is the use of Dijkstra's algorithm?

13. Define Hashing.

14. Define AVL tree? Give example.

15. What is sorting?

PART – B

Answer *all* questions.
Each question carries **Five** marks.
Ceiling -35 Marks

16. What are sparse matrixes? Discuss various types of sparse matrices?

17. Write short notes on:

    a) Red-Black trees

    b) splay trees

18. Convert the infix expression a / b – c + d * e – a * c into postfix expression.

19. Distinguish singly linked list and doubly linked list?

20. Explain heap sort?

21. Describe queue implementation using linked list?

22. Explain binary search(in array)

23. Apply selection sort on the following elements:

$$\{21, 11, 5, 78, 49, 54, 72, 88\}$$

PART - C

Answer any *two* questions.
Each question carries **Ten** marks.

24. Explain Recursion with Tower of Hanoi?

25. Build an AVL tree with the following values:

    $\{15, 20, 24, 10, 13, 7, 30, 36, 25, 42, 29\}$

26. Explain single source shortest path problem with suitable example?

27. What is collision? Explain different collision resolution techniques with examples?

2 x 10 = 20 M