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B5N23443 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2023

BCS5B08 – Computer Organization & Architecture

(2019 Admission onwards)

Time: 2 ½ hours Max. Marks: 80

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

1. What is shift register?
2. Define instruction cycle.
3. Explain computer registers.
4. What are major parts of CPU?
5. What do u meant by addressing mode?
6. What is edge triggering?
7. Define memory access time.
8. What are different stack operations?
9. What is DMA?
10. What is virtual memory?
11. What do mean by physical address?
12. What is hit ratio?
13. Write two example of optical storage device.
14. What is SIMD?
15. What is pipelining?

PART – B

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

16. Explain working of ring counter.
17. What is cache memory ? Explain important cache mapping techniques.
18. Describe microprogrammed control.
19. Explain general register organization.
20. Explain I/O interface.
21. Illustrate memory hierarchy.
22. Describe instruction pipeline.
23. Describe vector processing and vector processors.

PART - C

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

24. Explain with an example, the Booth's algorithm for binary multiplication.
25. How are instructions are classified? Explain.
26. List different addressing modes. Explain in detail.
27. Write an essay about Flynn's taxonomy of parallel processing.

2 x 10 = 20 Marks

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2023

BCS5B09 – Java Programming

(2019 Admission onwards)

Time: 2 ½ hours Max. Marks: 80

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

1. Write two significant differences between an *applet* and a java application program.
2. Write one method associated with *String Buffer* and demonstrate it using java code.
3. Demonstrate the *ternary operator* in java with example.
4. *Boolean* variables in java are useful during comparisons. Justify.
5. What is the use of *continue* in looping in java? Show a sample code.
6. Describe the process of running a java program.
7. Discuss the relevance of JRE in java programming?
8. What is the use of Buffered Stream class in java?
9. Demonstrate the use of *final* keyword in java.
10. Discuss the use of Integer wrapper class in java.
11. What is the syntax and usage of *finalize* in java.
12. What is the relevance of wait() in java threads?
13. Discuss the syntax and usage of draw () val() method in applets?
14. Describe the use of gc() method.
15. Discuss any one method in *Mouse Listener* interface.

PART – B

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

16. Show the use of *array* and exception mechanism in java if an index outside the limit of array is accessed.
17 Explain the different types of *constructors* in java.
18 Demonstrate how *sleep( )* and *join( )* work during multithreading. Write a sample program.
19 Discuss *method overriding* in java with an example.
20 Demonstrate how *throw* and *throws* work using a sample java program.
21 Describe the general structure of a java program and steps in executing the same.
22 Develop an *applet* demonstrating the *paint()* method.
23 Write a java program to declare two rectangle *objects* and find area of each.

PART - C

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

24. Demonstrate the use of *super* keyword in dealing with constructor, variable and methods with the help of a java program.
25 Demonstrate the use of *interfaces* in java using a sample program.
26 'Static class variable in java is shared among all instances of the class, while instance variables have separate values for each object'. Justify. Demonstrate using a program.
27 Explain the steps of JDBC connection to a MySQL database and querying the table in the database.

2 x 10 = 20 Marks

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2023

BCS5B10 – Web Programming Using PHP

(2019 Admission onwards)

Time: 2 ½ hours Max. Marks: 80

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

1 Explain onBlur JavaScript event.

2 How do we declare variables in PHP.

3 Discuss different variable scopes in PHP.

4 Differentiate echo and print.

5 How do we declare variables in JavaScript.

6 What is the specialty of foreach () function in PHP?

7 Explain with syntax the mysqli_connect () function.

8 What is the specialty of dot (.) operator in PHP.

9 Name the DML commands in MySQL and explain anyone.

10 What are the features of MySQL?

11 What is the use of size attribute in select tag?

12. Explain the alert ( ) and prompt ( ) functions in Java Script.

13. What is a function? write the syntax of defining a function in PHP.

14. Differentiate radio button and checkbox in HTML.

15. What is a list item marker? Name the list item markers of un-ordered list.

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

16. Briefly explain any four Keyboard events in JavaScript.

17. Compare GET and POST method in PHP.

18. Briefly explain any four string functions in PHP.

19. Briefly explain about different types of links in HTML.

20. How do you write user defined functions in JavaScript? Explain with an example.

21. Explain the different ways to include the CSS with HTML.

22. What is MySQL? Explain the different Data types supported by MySQL.

23. What is an Array? Briefly explain different types of Arrays in PHP.

PART- C

Answer any *two* questions.
Each question carries Tenmarks.

24. What are the different conditional statements and looping statements used in PHP? Expla each with Examples.

25. Explain in detail about various types of selectors in CSS.

26. How do you create a query in PHP? How do you fetch the dataset? Discuss the three fetc functions in detail with example program

27. Explain the following.

    (a) Operators in JavaScript (5)

    (b) Built in functions in JavaScript (5)

2 x 10 = 20 Marks

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2023

BCS5B11 – Computer Networks

(2019 Admission onwards)

Time: 2hours Max. Marks: 60

PART A

Answer all questions. Each question carries two (2) marks, Ceiling 20 Marks

1. Define wired and wireless transmission media.
2. Differentiate Data Terminal Equipment and Data Communication Equipment Interfaces.
3. List any two interfaces provided by protocols.
4. Distinguish Single Bit Errors and Burst errors.
5. Define the concept of Interleaving.
6. Explain the Line Discipline Concept in the Data Link Layer.
7. Describe Datagram Networks.
8. Compare and Contrast the Bridge and Repeater
9. Define Connection-Oriented and Connection Less Services.
10. List any four functions of the Transport Layer in Networks.
11. Discuss Recursive and Iterative Queries in Application Layer.
12. Expand Post-Office-Protocol.

PART B

Answer all questions. Each question carries Five (5) Marks. Ceiling 30 Marks.

13. Illustrate TCP/IP Reference Model with a neat block diagram.
14. Enumerate the components of a data communication system.
15. Explain the concept of Error-Correcting Codes. List any two error-correcting codes.
16. Identify the need for routing algorithms in networks. Discuss any two routing algorithms.
17. With the help of a block diagram explain Network Address translation (NAT) process.
18. Explain the User Datagram Protocol and Stream Control Transmission Protocol.
19. Enumerate various flow characteristics to attain Quality of Service in networks.

PART C

Answer any one (1) question. Each question carries ten (10) Marks.

20. Explain the following

i) Bluetooth ii) Congestion in networks

iii) Port Numbers iv) Domain Names v) File Transfer Protocol

21. Expand the following

i) Polling ii) IPv4

iii) Process to Process Delivery iv) Trivial File Transfer Protocol

v) Cryptography.

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2023

(Open Course)

BCS5D01 – Office Automation

(2019 Admission onwards)

Time: 2 hours Max. Marks: 60

PART A

Answer all questions.

Each question carries two Marks. Ceiling 20 Marks

1. What is the purpose of the "Save As" function in MS Word? How is it different from "Save" function?
2. What is the importance of "page break" in Microsoft Word document?
3. Define DBMS
4. What are the field properties of a table in MS-ACCESS?
5. List auto sum (Σ) functions in MS-EXCEL
6. What is the significance of a formula in spread sheet cell? Give an example for a simple formula.
7. What is auto text tool in Word processor applications?
8. What is Content Management System (CMS)? Give an example.
9. What is Document Dictionary and how is it used in Word Processing?
10. What is meant by "slide layout" in a presentation?
11. What is the role of speaker notes in a presentation?
12. What are the components of Joomla front end?

PART B

Answer all questions.

Each question carries five Marks. Ceiling 30 Marks

13. Briefly explain the purpose of a chart in an electronic spread sheet. .
14. What is the purpose of queries in databases? How they are created?
15. Explain Pivot table and Pivot chart and when they are used?
16. How hyperlinks are used in presentation? How it benefits in interactivity and navigation?

17. Explain the role of speaker notes in presentation for a live presentation.

18. Explain the steps for inserting and configuring Joomla for web development.

19. Explain the concept of Mail Merge and its application in a word processor.

PART C

Answer any one.

Each question carries ten Marks

20. Describe the process of creating tables and working with forms in database management systems.

21. Describe the steps involved in page formatting in a word processor.

(1x10=10 Marks)