

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2022

BCS5B08 – Computer Organization &amp; Architecture

(2019 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

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

1. What is ring counter?
2. Differentiate between synchronous and asynchronous counter.
3. Explain instruction codes.
4. What is program interrupt?
5. What are logical instructions? Give an example.
6. Explain the function of timing and control unit.
7. What is DMA? Explain its merits and demerits?
8. What is hit/miss ratio ?
9. What are the different forms of ROM? Explain.
10. Explain serial asynchronous data transfer.
11. Explain about I/O instructions.
12. Explain design of control unit.
13. What is pipeline processing?
14. Explain symmetric multiprocessors.
15. What is meant by vector processor ?

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

16. Explain working of up/down asynchronous counter.
17. Describe general organization of a computer.
18. Explain different addressing modes.
19. Describe data manipulation instruction.
20. What is associative memory? Explain the block diagram of associative memory.
21. Explain the Serial-In-Serial-Out shift register.
22. Describe the structure of I/O interface?
23. Explain strobe control.

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

24. Explain the function and organization of micro programmed control unit.
25. Describe the classification of peripheral devices.
26. Explain different types of auxiliary memories.
27. Explain the basic parallel processing architecture and SISD, MISD, SIMD, MIMD structures.

**2 x 10 = 20 Marks**

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(Pages : 2)

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Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2022

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. What is an applet? Mention two of its characteristics.
2. Show how a String constructor is used.
3. What is type promotion in java? Give example.
4. What is a relational operator in java? Give example.
5. Why is *while* loop known as entry controlled loop.
6. Describe the process of running a java program.
7. What is JAR in java?
8. What is the relevance of Math class in java?
9. Threads priority can be set by the user. Justify.
10. How trim() method acts on String?
11. What are reserved sockets? Give example.
12. What is drawPolygon() method?
13. What is the significance of break keyword in java?
14. What is the use of ?: operator in java?
15. Distinguish between JRE and JVM.



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

16. Write a java program for inputting three integers and to find the largest of them.
- 17 Explain the usefulness of parameterized constructor in java programs.
- 18 Describe garbage collection in java.
- 19 Explain how constructors are overloaded in java with an example.
- 20 What is the significance of the keyword *finally* in java.
- 21 Describe the applet program structure and provide necessary description.
- 22 Explain the following – Proxy servers, DNS.
- 23 Demonstrate how String Buffer works in java.

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

24. What are the applications of static keyword in java? Explain each with an example.
- 25 Write a java program to implement multithreading.
- 26 Explain the structure of a java program.
- 27 Explain the architecture and components of JDBC.

**2 x 10 = 20 Marks**

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Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

**Fifth Semester B.Sc Computer Science Degree Examination, November 2022**

**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. Why do we use HTML 5?
2. How comments are written in HTML5?
3. What are Cascading Style Sheets?
4. What is the role of JavaScript in web programming?
5. Describe the difference between primitives and objects in JavaScript
6. What is an Immediately Invoked Function in JavaScript?
7. What is PHP?
8. Differentiate “==” and “===” operators in php.
9. What are Formal Parameters and Actual Parameters in php?
10. What are single quoted strings and double quoted strings?
11. Discuss str\_replace() and substr() with suitable examples.
12. What is foreach() function in php ?
13. What is MySQL?
14. Write a php-MySQL program segment for connecting two different databases in two different servers.
15. Discuss mysqli\_prepare() Function.



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

16. Compare HTML4 and HTML5
17. Explain various Form Controls in HTML5.
18. Explain different loops in JavaScript with examples.
19. Explain variables and constants in PHP
20. Write notes on GET and POST methods in php.
21. What are the various types of Array in php?
22. Explain `mysqli_fetch_array()`, `mysqli_fetch_object()` functions with suitable examples.
23. Explain various features of MySQL.

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

24. Explain various elements of HTML 5
25. Explain various types of selectors in CSS?
26. What are the different types of PHP variables?
27. Design a web page that accept username and password as input and authenticate the same from a given database in MySQL using php.

**2 x 10 = 20 Marks**

## FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

## Fifth Semester B.Sc Computer Science Degree Examination, November 2022

## BCS5B11 – Computer Networks

(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 meant by Protocol in Computer networks?
2. What are simplex and half-duplex modes in communication systems?
3. What is meant by internet?
4. What is Channel Capacity? How it differs from Bandwidth?
5. Define Data Compression.
6. What is meant by Polling?
7. Why logical addressing and port addressing are essential?
8. What is meant by Redundancy Check?
9. What is Multicasting and Broadcasting?
10. What is Network Address Translation?
11. Write notes on WWW and HTTP.
12. What is Symmetric Key Cryptography?

**PART B**

Answer all questions.

Each question carries *five* Marks. Ceiling 30 Marks

13. Discuss Time Division Multiplication and Wave Division Multiplication
14. Define Framing. Discuss any two methods for Framing.
15. Write notes on CSMA/CD and SCMA/CA.
16. Compare and Contrast pure ALOHA and slotted ALOHA, .
17. Discuss Shortest Path Routing with Dijkstra Algorithm.
18. Discuss Open Loop and Closed Loop congestion Control.
19. Discuss the TCP Header Format with a neat diagram

**PART C**Answer any *one*.Each question carries *ten* Marks.

20. Explain the OSI Reference Model with a neat block diagram.

21. Write notes on

a) SCTP      b) TFTP      c) SMTP      d) POP      e) SNMP  
(1x10=10 Marks)



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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fifth Semester B.Sc Computer Science Degree Examination, November 2022

(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. In order to insert a formula in an excel sheet, which menu item is to be clicked?
2. Define the following terms with respect to MS-WORD  
a) Spellcheck    b) Menu bar
3. How can we rename a worksheet in MS-EXCEL?
4. What is auto text tool in Word processor applications?
5. How BULLETED LISTS can be used in Power Point?
6. What is meant by layering art objects in presentations?
7. List auto sum (  $\Sigma$  ) functions in MS-EXCEL.
8. Define DBMS?
9. What are the field properties of a table in MS-ACCESS?
10. What is Content Management System (CMS)? Give an example.
11. What is template manager in Joomla?
12. How to protect a presentation by setting up a password?

**PART B**

Answer all questions.

Each question carries *five* Marks. Ceiling 30 Marks

13. Write steps to create a macro in MS-WORD.
14. Write steps to create a new database in MS-ACCESS?
15. Explain different types of charts in MS-EXCEL
16. Write short notes on animation feature in PowerPoint presentation.
17. Explain the steps for inserting and configuring Joomla for web development
18. Explain Pivot table and Pivot charts.
19. Explain the steps to insert recorded sound effects to a presentation.



**PART C**

**Answer any *one*.**

**Each question carries *ten* Marks.**

20. Explain mail merge and its uses. Illustrate with an example.
21. Explain the steps for creating a database application with form in which MS Access act as back end.

**(1x10=10 Marks)**