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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fifth Semester B.Sc CS Degree Examination, November 2018  
BCS5B08 – Computer Organization & Architecture  
(2015 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

**Section -- A**

**Question 1 to 10. Answer ALL questions. Each carries ONE mark**

1. Expand CISC.
2. The CPU register that holds the instruction fetched from memory is called \_\_\_\_\_.
3. The prefix form of the expression  $A+B*C-D/C$  is \_\_\_\_\_.
4. What is SIMD?
5. Define hit ratio.
6. Define addressing mode.
7. \_\_\_\_\_ bus is unidirectional.
8. What is cache memory?
9. Define arithmetic pipeline.
10. What is serial communication?

(10 x 1=10 Marks)

**Section – B**

**Question 11 to 15. Answer ALL questions. Each carries TWO marks**

11. Differentiate between direct and indirect address.
12. Write short note on common bus system.
13. List out the phases of instruction cycle.
14. What do you mean by interrupt service routine?
15. Differentiate between memory mapped I/O and isolated I/O.

(5 x 2=10 Marks)

**Section – C**

**Question 16 to 23. Answer any FIVE questions. Each carries FOUR marks**

16. Explain the processor registers with their functions.
17. Explain instruction formats.
18. Explain RISC characteristics.
19. Explain three-segment instruction pipeline.
20. Explain divide overflow.
21. Explain the various modes of data transfer with peripherals.
22. Explain set-associative mapping.
23. Explain the use of array processor.

(5 x 4=20 Marks)

**Section - D**

**Question 24 to 31. Answer any FIVE questions. Each carries EIGHT marks**

24. Explain the functional units of computer.
25. Describe asynchronous data transfer.
26. Explain multiplication and division of floating-point numbers.
27. Explain data transfer and data manipulation instructions.
28. Explain Direct Memory Access.
29. Discuss various auxiliary memory devices.
30. Explain memory management hardware.
31. Explain the design of basic computer.

**(5 x 8 = 40 Marks)**

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fifth Semester B.Sc CS Degree Examination, November 2018  
BCS5B09 – Java Programming  
(2015 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

Part A

Answer all questions. Each question carries 1 mark.

1. Which is the default layout manager for instances of the panel class?  
a) GridLayout    b) BorderLayout    c) FlowLayout    d) CardLayout
2. Which of the following is not related to exceptions in java?  
a) throws    b) final    c) finally    d) throw
3. The keyword *this* is related to  
a) creation of object    b) allocating memory  
c) marking memory for deletion    d) refers to the current object
4. Which of the following is not true?  
a) a method cannot return an object    b) goto is a valid keyword in java  
c) command line arguments are permitted in a java application  
d) protected is an access specifier in java
5. Which is not true w.r.to java?  
a) Date is a class in java    b) Calendar is not a class in java  
c) URL is a class in java    d) Currency is a class in java
6. ActionEvent is generated in the following cases except  
a) a button is pressed    b) a list item is double clicked  
c) a menu item is selected    d) division by zero occurs
7. Key listener interface is implemented by ..... class  
a) Focus Adapter    b) Window Adapter    c) Mouse Adapter    d) KeyAdapter
8. Which is not a valid method associated with applets?  
a) update()    b) goto()    c) paint()    d) start()
9. Which keyword is used to prevent inheritance in java?  
a) goto    b) constant    c) final    d) abstract
10. Which of the following statements is not true?  
a) static blocks are allowed in java    b) Chained exceptions are allowed in java  
c) Index Out Of Bounds Exception is an exception in java  
d) Class Not Found Exception is a not checked exception in java

(10 x 1 = 10 marks)

### Part B

Answer all questions. Each question carries 2 marks.

11. Explain the creation of objects and invocation of methods by defining a class Circle Shape, two of its objects circle1, circle2 and method find Area( ).
12. What is the relevance of paint( ) method in applet?
13. What is a parameterized constructor? Give example.
14. What is the significance of using static variables in java programs?
15. What is array Index Out Of Bounds Exception in java?

(5x 2 = 10 marks)

### Part C (short essays)

Answer any five questions. Each question carries 4 marks.

16. Show how recursion can be implemented in a java program with the help of a program for finding the factorial of a given number.
17. What are the uses of abstract classes and abstract methods in java?
18. Explain java.net package and its applications in java.
19. Explain the relevance of interface in java using an example program.
20. Explain the steps of execution of an applet including its program structure using a sample program for an applet to draw a line and circle.
21. Explain the Java ResultSetMetaData Interface with an example.
22. Explain any two looping structures in java.
23. Explain precedence of operators in java and list the operators in java in the order of precedence. Give suitable examples for showing how precedence works.

(5x 4 = 20 marks)

### Part D (Essays)

Answer any five questions. Each question carries 8 marks.

24. Explain String and String Buffer class.
25. Explain how super keyword is useful in java programming.
26. Explain method overloading and method overriding in java with example.
27. Write a program to create a file storing 26 alphabets and to read the same data from the file.
28. Write a program to handle mouse clicked, mouse pressed, mouse moved events using awt and applet.
29. Write notes on a) import statement and package b) Math class
30. Explain the terms – throws, throw, try-catch.
31. Explain the access specifiers and access protection in java.

(5x 8 = 40 marks)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fifth Semester B.Sc CS Degree Examination, November 2018  
BCS5B10 – Web Programming Using PHP  
(2015 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

**I. Answer all questions. Each question carries 1 mark..**

- 1. Expand PHP.
- 2. What is a dynamic web page?
- 3. URL stands for .....
- 4. Write an example for client side scripting language?
- 5. The attribute to specify destination page in anchor tag is....
- 6. The CSS property to set text formatting style is .....
- 7. ....is the tag to specify internal CSS.
- 8. Name a web server.
- 9. Name two form methods.
- 10. .... is the html tag for line break.

(10×1=10 marks)

**II. Answer all questions. Each question carries 2\*marks**

- 11. What is the use of mysql\_query function?
- 12. What are logical operators in PHP?
- 13. Explain <img> in HTML.
- 14. What is the use of <script> tag.
- 15. What is a web server?

(5×2=10 marks)

**III. Answer any 5 questions. Each question carries 4 marks**

- 16. Explain lists in html.
- 17. Explain different methods to add style sheets in CSS.
- 18. Short note on AJAX.
- 19. Explain object oriented concepts in PHP.
- 20. Explain links in HTML and give suitable example.
- 21. Give short note about any 4 events in JavaScript.
- 22. Give short note on array(), list() and for each() php array constructs.
- 23. Write a php program to perform user login with user name and password checking.

(5×4=20 marks)

**IV. Answer any 5 questions. Each question carries 8 marks**

- 24. Explain branching and looping statements in PHP.
- 25. Explain various dialog boxes in java script with example.
- 26. Explain different PHP functions for mySQL operations.
- 27. Explain table creation and formatting tags in HTML with suitable examples.
- 28. Explain various CSS positioning properties.
- 29. Explain frames and frameset in HTML.
- 30. Explain operators in JavaScript.
- 31. Design a website for your college. Use features like links, lists, frames, tables and forms

(5×8=40 marks)

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(Pages : 2)

Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE  
Fifth Semester B.Sc CS Degree Examination, November 2018  
BCS5B11 – Principles of Software Engineering  
(2015 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

**PART A****Answer all questions****Each question carries 1 mark**

1. Define Software Engineering.
2. Define Process and Product.
3. What is meant by Maintainability of Software?
4. Define Use Case.
5. What is Feasibility Study?
6. What is coupling?
7. What is Requirement Validation?
8. What is meant by Projection of a system?
9. Define Unit Testing.
10. Define Data Dictionary.

**(10 x 1 = 10 Marks)****PART B****Answer all questions****Each question carries 2 marks**

11. Why Requirement Specification is required in Software Development?
12. Explain Data Flow Modeling of Requirement Analysis.
13. Define Communicational Cohesion.
14. Briefly describe Design Walkthroughs.
15. Write a short note on White Box Testing.

**(5 x 2 = 10 marks)**

**PART C (Short Essays)**

**Answer any 5 questions**

**Each question carries 4 marks**

16. What are the characteristics of a Software Process?
17. Explain Prototyping Model of development with its merits and demerits.
18. Explain the Boundary Value Analysis Method to Generate Test Cases.
19. Discuss Consistency Checks in Design Process.
20. Discuss Object Oriented Analysis and Design Process.
21. What are the Characteristics of an SRS? Explain.
22. Write a note on Pair Programming.
23. Explain Pair Wise Testing Mechanism.

**(5 x 4 = 20 M)**

**PART D (Essays)**

**Answer any 5 questions**

**Each question carries 8 marks**

24. Explain the merits and demerits of Time boxing Model development with a neat diagram.
25. What are the various Feasibility Studies conducted in Software Development? Explain.
26. Illustrate Functional Specification with Use-Cases.
27. Explain Sequence and Collaboration Diagrams with suitable Examples.
28. Give a detailed account of Structured Design Methodology.
29. With a neat block diagram, illustrate the Incremental Coding Process.
30. Elaborate on Testing Process.
31. Illustrate Control Flow Based Testing and Mutation Testing.

**(5 x 8 = 40)**

## FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester BA/B.Sc Open Course Degree Examination, November 2018

BCS5D01 – Introduction to Computers &amp; Office Automation

(2015 Admission onwards)

Time: 2 hours

Max. Marks :40

**PART A**Answer *all* questions.

\_\_\_\_\_ is the native file format in Open Office

- a. .doc      b. .docx      c. .ods d. .xls

PDF stands for \_\_\_\_\_

- a. Printable Document Format  
b. Printable Document File  
c. Portable Document Format  
d. Portable Document File

\_\_\_\_\_ is a substitute for excel software

- a. MS-Word    b. Impress    c. Calc    d. Powerpoint.

Impress is a \_\_\_\_\_ s/w.

- a. Workbook    b. Presentationc. Drawing    d. Word Processing

\_\_\_\_\_ is a software which can be used for diagramming and flowcharts in Open Office.

- a. Draw      b. Flash      c. GIMP      d. MS-Paint

\_\_\_\_\_ provides the information about the file in Writer.

- a. Toolbar      b. Status bar      c. Layout      d. Zoom slider

\_\_\_\_\_ provides the preview of the fonts.

- a. Font size    b. Font Color    c. Font Name    d. Font List

\_\_\_\_\_ is the key combination used to redoing changes in Writer.

- a. Ctrl + Z      b. Ctrl + Y      c. Ctrl + R      d. Ctrl + V

Ctrl + F is used for \_\_\_\_\_ action in Open Office Writer.

- a. Undo      b. Redo      c. Find      d. Paste

Pick odd man out

- a. Calc      b. Excel      c. Impress      d. Writer

**(10 x 1 = 10 marks)****PART B**Answer *all* questions.

Define Network.

Give two examples for I/O devices.

What is the use of impress?

What do you mean by templates?

How to protect a file in MS Word?

**(5 x 2 = 10 marks)**

### PART C

Answer any *five* questions.

6. Explain different types of storage devices.
7. What is Mail Merge? Explain its steps.
8. Explain any four mathematical functions available in Calc.
9. Explain use of Slide layouts.
10. Give a detailed account of multi lingual word processing.
11. Explain how to create a new presentation? Also explain the different presentation slide views in PowerPoint.
12. Explain the different parts of Word Window and Views in MS Word.
13. Explain any four functions of an Operating System.

(5 x 4 = 20 marks)