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Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2020

BCSS5B08 – Computer Organization & Architecture

(2018 Admission onwards)

Time: 3 hours Max. Marks: 80

PART A

Answer all questions.

Each question carries *one* mark.

1. What is the need for registers ?
2. What is virtual memory ?
3. What are floating point numbers ?
4. What is micro program ?
5. What you mean by addressing mode ?.
6. What is meant by data transfer instructions?
7. What are interrupt ?
8. What are instruction codes ?
9. What is volatile memory ?
10. What do you mean by effective address ?
11. Expand SISD.
12. What is the purpose of stack pointer ?

(12x1=12 Marks)

PART B

Answer all questions.

Each question carries *two* marks

13. What is the need of the addressing modes ?
14. What are the advantages of pipelining ?
15. Distinguish between physical address and logical address ?
16. Mention the advantages of the cache memory ?
17. Discuss the principle behind the Booths algorithm.
18. Explain the procedure to initiate DMA by the CPU.
19. Compare between CISC and RISC.

(7x2=14 Marks)

PART C

Answer any *six*.
Each question carries *five* marks

20. Explain the basic operational concepts of a computer.
21. Explain the floating point representation of a number.
22. Explain the concept of virtual memory.
23. Differentiate static RAM and dynamic RAM.
24. Briefly explain about I/O controllers.
25. Distinguish direct and indirect addressing modes with example.
26. Explain the organization of ROM.
27. Explain various instruction formats.

(6x5=30 Marks)

PART D

Answer any *three*.
Each question carries *eight* marks

28. Discuss about general register organization.
29. What are the various mapping techniques used in cache memory ? Explain any two.
30. Draw necessary diagrams and explain the control signal generation using hardwired control.
31. Discuss about vector processing.
32. Discuss about asynchronous data transfer.

(3x8=24 Marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2020

BCSS5B09 – Java Programming

(2018 Admission onwards)

Time: 3 hours Max. Marks: 80

PART A

Answer all questions.

Each question carries *one* mark

1. Purpose of CLASSPATH in java is

   a) to specify the location of .exe file b) to specify the location of .class file

   c) to define boolean variables d) to access private members

2. Which of these is used as default for a member of a class if no access specifier is used explicitly for it?

   a) private b) public c) friendly d) protected

3. Java provides an alternative way for multiple inheritance using

   a) pointers b) interface

   c) platform independence d) private variables

4. implements is a keyword in java related to

   a) protected variables b) static variables

   c) bytecode d) interfaces

5. javac converts java source file to .....

   a) byte code class files b) machine code

   c) .java files d) .exe files

6. Which is an exit controlled looping structure in java progrmming?

   a) for loop b) do..while loop c) while loop d) Nested if

7. The exception class is in ____ package

   a) java.errors b) java.io c) java.lang d) java.util

8. The term not related to exception handling in java

   a) final b) finally c) throws d) throw

9. Which keyword in java is suitable for preventing method overriding in classes?

   a) final b) abstract c) new d) this

10. The following features, except ----- , is provided in java drectly.

    a) Hierarchical inheritance b) Single inheritance

    c) Multiple inheritances d) Multilevel inheritance

11. Callable statement in JDBC is related to

    a) define a new object b) access the database stored procedure

    c) free the unused memory d) connect with ODBC

12) Which of the following is related to thread in java programs

a) defining a static block b) implementing Runnable interface

c) defining a private member d) invoking a constructor

(12x1=12 marks)

PART B

Answer all questions.

Each question carries *two* marks

13 Write about the encapsulation in java.

14 Write any two methods associated with *String* class and its examples.

15 What is a package in java? Give example.

16 Write a java program showing the use of *if-else-if*.

17 Distinguish between the keyword *public* and *private* in java.

18 Show the use of keyword *new* in java with example.

19 What is an *abstract* method in java? **(7x2=14 marks)**

PART C

Answer any *six* questions.

Each question carries *five* marks

20 Explain how to create threads in java. Give example.

21 Explain method overloading in java with an example.

22 Explain single level inheritance in java with an example.

23 What is a JDBC prepared statement? Give example.

24 Explain the structure of an applet with an example?

25 Explain the different uses of the keyword *super* in java with example.

26 Describe the use of *try..catch* in java with example.

27 Explain the handling of *Arithmetic Exception* in java with an example.

(6x5 =30 marks)

PART D

Answer any *three* questions.

Each question carries *eight* marks

28 Explain different types of constructors in java with example.

29 Explain the use of *this* keyword in java with example.

30 Discuss different JDBC statement interfaces to interact with databases with the help of examples.

31 Write a java program to define a class Circleshape with instance variable radius value and a method FindArea( ) to calculate the area of circle. Instantiate three circles with different values of radius from the Circleshape and print area of each of these objects.

32 Give a detailed account of AWT.

(3x8=24 marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2020

BCSS5B10 – Web Programming Using PHP

(2018 Admission onwards)

Time: 3 hours Max. Marks: 80

Part – A
Answer *all* questions
Each question carries One mark.

1. Write any three looping statements in PHP
2. Any HTML program will start execution from _____ tag.
3. What is the purpose of comments in PHP?
4. The founder of HTML is
5. _____ is multi branch selection statement.
6. Expand HTML and PHP
7. What is WAMP?
8. What tag is used to list items in HTML?
9. Write the syntax of image tag in HTML.
10. What are the advantages of Javascript.
11. What are the tags used in Table structure in HTML
12. Expand AJAX.

(12 x 1=12 Marks)

Part – B
Answer *all* questions
Each question carries Two mark.

13. What is a variable? Write its significances.
14. What is a program? Write down the parts of a typical HTML program.
15. Why do we use while and do-while statements?
16. What is an arithmetic expression? Brief the rules of evaluation of arithmetic expression
17. Explain the usages of echo() in PHP.
18. What is the role of web server in web programming?
19. What is the use of alert() in javascript.

(7 x 2 = 14 Marks)

Part – C

Answer *any Six* questions

Each question carries Five mark.

20. Discuss about various operators in php. Explain with examples.
21. With the help of neat flow chart, write a PHP program to find the sum of fibinaucci numbers within 100.
22. Write HTML Code for a student registration form.
23. Briefly describe the onLoad(), onClick(), onBlur() funtions in javascript.
24. What are the string functions in PHP? Explain with examples.
25. Explain the functionality of break and continue statements with examples.
26. Write any 3 string functions in PHP with examples.
27. What is a connection string. How it is constructed?

(6 x 5 = 30 Marks)

Part – D

Answer *any Three* questions

Each question carries Eight mark.

28. Write a detailed note on Control structures in PHP.
29. Write any four mySql commands with suitable examples?
30. Write a PHP program to insert and display students details using database.
31. Write a program to perform employee registration form with all validations.
32. Write a program to check the given year is leap year or not.

(3 x 8 = 24 Marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science Degree Examination, November 2020

BCSS5B11 –Computer Networks

(2018 Admission onwards)

Time: 3 hours Max. Marks: 80

PART A

Questions 1 to 12. Answer all questions. Each question carries *one* mark.

1. What is Data Communication?
2. Define Wide Area Network with example.
3. What is a Multi-drop Connection?
4. What are Analog and Digital Signals?
5. What is Bit Length?
6. What is Media Access Control?
7. Define Framing. Why is it needed?
8. What is Cyclic Redundancy Check?
9. What is IPv6 Addressing?
10. CHAP stands for .....
11. What is NIS?
12. Define PAP.

(12x1=12 Marks)

PART B

Questions 13 to 19. Answer all questions. Each question carries *two* marks

13. Explain Full Duplex Mode of Data Flow?
14. Describe Encapsulation and De-capsulation in Protocol Layering?
15. What are Composite Signals? Explain with example.
16. Explain Shannon Capacity.
17. Briefly describe EIA-232 Interface.
18. What is POP3? Explain with example.
19. Explain DHCP.

(7x2=14 Marks)

PART C

Questions 20 to 27. Answer any *six*. Each question carries *five* marks

20. Explain various fundamental characteristics of a Data Communication System in detail.
21. What is Transmission Impairment? What are the causes of Impairment?
22. Explain Polling with a neat diagram.
23. Explain the Single Bit Error Correction technique with example.
24. Explain various retransmission strategies in sliding window protocol
25. Explain Stop-and-Wait Protocol with example
26. With a neat diagram explain CSMA / CD method for Network Collision.
27. Explain the architecture of DNS with a neat diagram

(6x5=30 Marks)

PART D

Questions 28 to 32. Answer any *three*. Each question carries *eight* marks

28. Explain various Line Coding techniques for Digital-to-Digital Conversion.
29. Explain ISO OSI reference model
30. What is switching? Discuss various methods for switching.
31. What is Segment in TCP? Explain the format of a TCP Segment.
32. Write short notes on
    a) Piggybacking
    b) SCTP
    c) Connection Oriented Services
    d) Distance Vector Multicast Routing Protocol

(3x8=24 Marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Computer Science (Open Course) Degree Examination, November 2020

BCSS5D01 – Office Automation

(2018 Admission onwards)

Time: 2 hours Max. Marks: 40

PART A

Answer *all* questions.

1. A word processor is a .....

   a)Application software b)system software c) middleware d)spyware

2. The feature used for mailing same content to many people in Microsoft word is .....

   a) alignment b)paragraphing c)page borders d)mail merge

3. A form is used for .....purpose

   a)creating data base entries b)interacting with backend c)creating a document file d)creating a report

4. Joomla is used for .....

   a)journal listing b) web site development c)document preparation d)computation

5. A query is created using .....

   a) query designer b)query manager c) query language d)tables

6. A table in a database is used for .....

   a)storing many records b) storing a single record c)creating a form d)updating a form

7 Impress is a .....software

   a)data manipulation software b)word processing software c)presentation software d)database designer

8. Spelling and grammar tool is used for .....

   a) grammar correction b)alignment correction c)pagination correction d)macro editing

9. LAN stands for

   a)Large Area Network b) Long Area Network

   c)Local Area Network d)Light Area Network

10. Autocrrect feature is used to .....

    a) Correcting Spelling b)Correcting Grammar c)Correcting Spacing d)All the above

(10 x 1 = 10 marks)

PART B

Answer *all* questions.

11. Define client- server.
12. Differentiate between Notebook and Netbook.
13. Write a note on macros.
14. Write a note on formulas and functions in spreadsheet. Give examples.
15. Write four essential features of representation software.

(5 x 2 = 10 marks)

PART C

Answer any *five* questions.

16. Explain various storage devices and their features.
17. What is an operating system. Explain various functions of an operating system.
18. Explain steps in mail merge.
19. Compare and contrast open office writer and M.S Word.
20. Explain how pivot table is useful in spread sheets.
21 What is the importance of a work sheet in a spread sheets.
22. Write the steps required to create a slide in open office impress.
23. Explain MPEG standard.

(5 x 4 = 20 marks)