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B.C.A. DEGREE EXAMINATION, MARCH/APRIL 2016.

(Regular)

(Examination at the end of Third Year)

Part II

PROGRAMMING WITH JAVA

(Regulation 2010–2011)

Time : Three hours　　　　　　　Maximum : 100 marks

Answer ALL the following questions.

SECTION A— (10 × 2 = 20 marks)

1. (a) What is JRE?

    (b) Write the syntax of switch statement.

    (c) Define recursion.

    (d) Define class.

    (e) What is an abstract class?

    (f) Write any two differences between while and do-while statement.

    (g) Define exception.

(h) Define thread.

(i) What is the use of print stream?

(j) What is dead lock?

SECTION B — (4 × 20 = 80 marks)

2. (a) Explain the features of Java language.

(b) Explain in detail about Java virtual machine.

Or

(c) Write about the operators in Java.

(d) Explain the while statement with an example program.

3. (a) Define an array. Write a java program for multiplication of two matrices.

(b) Explain about method overloading.

Or

(c) Define inheritance. Write about different types of inheritance with examples.

(d) Define constructor. Write a Java program for copy constructor.

4. (a) Write a Java program for implementing the methods of math class.

(b) Explain how the packages are created in Java.

Or

(c) What are the steps involved in developing and testing an applet?

(d) Write a Java program for implementing interfaces.

5. (a) Explain in detail about exception handle mechanism in Java.

(b) Explain about thread life cycle with a neat labeled diagram.

Or

(c) Write a Java program to establish the connection to a data table in oracle from a Java program.

(d) Explain in detail about file input stream.

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B.C.A. DEGREE EXAMINATION, MARCH/APRIL 2016.

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Part II

WEB TECHNOLOGIES

(Regulation 2010–11)

Time : Three hours   Maximum : 100 marks

SECTION A – (10 × 2 = 20 marks)

Answer ALL the following questions.

Each question carries 2 marks

1. (a) What are HTML tags?

    (b) What is a MIME?

    (c) What is a style sheet class?

    (d) What is web browser?

    (e) What are the different operators used in Javascript?

(f) What is SMTP.

(g) What XML elements?

(h) What is an Applet?

(i) What is a Database?

(j) What is DHTML?

SECTION B – (4 × 20 = 80 marks)

Answer ALL the following questions.

Each question carries 20 marks.

2. (a) Explain the structure of an HTML document with an example.

(b) Discuss LISTS in HTML.

Or

(c) Explain about forms.

(d) Write short notes on XHTML.

3. (a) Explain in line style sheets.

(b) Write short notes on layers.

Or

(c) Explain Mathematical functions in Javascript.

(d) What are the basic rules for Javascript?

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4. (a) Discuss Rollover buttons.

(b) What are the advantages of XML.

Or

(c) Explain opening a new window in DHTML.

(d) Discuss about document object model.

5. (a) Discuss Tables versus frames.

(b) Write short notes on web servers.

Or

(c) Explain HTTP sessions.

(d) Explain MOD – Perl.

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Time : Three hours   Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1.   (a) What is an OS?

(b) Specify any one operation of OS.

(c) What is efficiency?

(d) What is time sharing OS?

(e) What is a process?

(f) Define short term scheduler.

(g) What is demand paging?

(h) What is compaction?

(i) What is a file?

(j) What do you mean by encryption?

SECTION B — (4 × 20 = 80 marks)

Answer ALL questions.

2. (a) Specify the goals of an OS.

   (b) Explain batch processing and multiprogramming systems.

   Or

   (c) Explain about "threads".

   (d) Write about interacting processes.

3. (a) Explain preemptive scheduling.

   (b) Differentiate between static and dynamic memory allocation.

   Or

   (c) Explain contiguous memory allocation.

   (d) Explain paging.

4. (a) Explain page replacement policies.

   (b) Write about shared pages.

   Or

   (c) Explain file organization.

   (d) Write about file protection.

5. (a) Specify the goals of protection and security.

   (b) Briefly write about security attacks.

   Or

   (c) Write short notes on :

   (i) Password security

   (ii) Access control matrix.

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B.C.A. DEGREE EXAMINATION, MARCH/APRIL 2016

(Regular)

(Examination at the end of Third Year)

Part II

DATA COMMUNICATIONS

(Regulation 2010-2011)

Time : Three hours   Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1.   (a)   What is a protocol?

       (b)   What is demultiplexing?

       (c)   What are the components of data communication?

       (d)   What is DDNS?

       (e)   What is Peer-to-Peer process?

       (f)   What is Gateway?

       (g)   What is HTTP?

       (h)   Define wireless communication.

       (i)   Write about electronic mail.

       (j)   Define URL.

SECTION B — (4 × 20 = 80 marks)

Answer ALL questions.

2.　(a)　Explain in detail OSI model.

　　(b)　Explain analog and digital signals.

Or

　　(c)　Write about addressing.

　　(d)　Explain different network topologies.

3.　　(a)　Explain about serial transmission mode.

　　(b)　Explain digital-to-analog conversion.

Or

　　(c)　Explain different types of multiplexing.

　　(d)　Write short notes on spread spectrum.

4.　(a)　Explain about twisted pain cable.

　　(b)　Write short notes on backbone networks.

Or

　　(c)　Give the advantages and disadvantages of optimal fiber.

　　(d)　Briefly explain cellular telephony.

5.　(a)　Explain domain name space.

　　(b)　Write about DNS messages.

Or

　　(c)　Explain briefly file transfer protocol.

　　(d)　Write short notes on WWW.

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B.C.A. DEGREE EXAMINATION, MARCH/APRIL 2016.

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Part II

SOFTWARE ENGINEERING

(Regulation 2010–11)

Time : Three hours   Maximum : 100 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. (a) Define software engineering.

   (b) Limitations of waterfall model.

   (c) Define risk.

   (d) Differentiate between '+' and '*' in a DFD.

   (e) Define reliability.

   (f) White box testing.

   (g) What is object oriented design?

   (h) What is S/W quality?

(i) What is PSP?

(j) What is a debugger?

SECTION B — (4 × 20 = 80 marks)

Answer ALL questions.

2. (a) Explain software development life cycle.

Or

(b) Briefly explain :

(i) Iterative enhancement

(ii) Prototyping.

3. (a) Explain the metrics for project size estimation.

(b) Write briefly about project planning.

Or

(c) Explain COCOMO.

4. (a) Define coupling and cohesion. Explain about various levels of coupling and cohesion.

Or

(b) Explain about structured analysis.

5. (a) Explain about CASE tools.

Or

(b) Write about :

(i) Unit testing

(ii) Black-box testing

(iii) Debugging

(iv) Integration testing

(v) System testing.