

S.No. 2256

08 UCAE 09

(For the candidates admitted from 2008-2009 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective III – EMBEDDED SYSTEMS

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is an Embedded Computing System?
2. List the examples of small scale embedded system applications.
3. Define port with example.
4. What is synchronous communication?
5. List the structural elements of C program.
6. What is Data Structure? List some elements of the data structure.

7. What is RTOS? List any three functions of RTOS.

8. What are Semaphores?

9. What are the elements contained in the ICE?

10. Write down the approaches used in software embedded system development process.

PART B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) List out the characteristics and Constraints of the Embedded System.

Or

(b) Write short note on memory Devices.

12. (a) Briefly explain Timers and Counters.

Or

(b) Write notes on the Advantages and disadvantages of Parallel Port Devices with examples.

13. (a) Write a brief note on Queue and its functions.

Or

(b) Describe the preprocessor directives.

14. (a) Explain the goals of RTOS services.

Or

(b) Write notes on principles of RTOS.

15. (a) Describe the Hardware elements in an Embedded System.

Or

(b) Write a brief note on the components of the project management.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write a detailed note on DMA and DMAC.

17. Describe Parallel Port Device Drivers in detail with a neat diagram.

18. Explain the different types of decision making and looping statements in C with examples.

19. Write a detailed account on I/O Subsystems.

20. Explain ICE in detail with its block diagram.

18. Write a note on the steps in planning tests.
19. Describe use case scenario of content based website.
20. Explain the voices involved in metrics.

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08 UCAE 07/
08 UCSE 04/
08 UISE 06

(For the candidates admitted from 2008-2009 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective — SOFTWARE TESTING

(Common for Computer Science/Information Science)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Why is testing strategy essential?
2. How will you set up test environment in regression automation?
3. How to identify tasks to be performed in test estimation?
4. Write about RUP.

5. How to develop test design?

6. What are the objectives of performance testing?

7. Define active monitoring.

8. What is blind spot?

9. What are the tools used for web testing?

10. Define any two commonly known attacks.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write about boundary value analysis.

Or

(b) Why Automation is done?

12. (a) Write a note on compute size based on complexities.

Or

(b) Define : DET, FTR and RETs.

13. (a) How to do acceptance testing? Explain.

Or

(b) Write a short note on taking the team together.

14. (a) Describe Beta testing with neat diagram.

Or

(b) Explain complex application limit visibility.

15. (a) List any five characteristics of web application and challenges in web application.

Or

(b) List the common reasons for software failure.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe briefly about test case design techniques for functional aspect.

17. Explain software engineering best practices.

19. Discuss on the properties, events and methods of flex grid control.

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20. Describe the following in detail :

- (a) File system controls
- (b) The file system objects.

(For the candidates admitted from 2008–2009 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

VISUAL PROGRAMMING

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is a form?
2. Write any four properties of a text box.
3. Define variable.
4. Write the use of input boxes.
5. What is meant by static array in VB?
6. What is a record?
7. Write the use of with statement with an example.

8. What is control array?

9. Write the feature of clip controls property.

10. What is meant by binary files?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions by choosing either (a) or (b).

11. (a) How do you start a new project in VB?
Explain with an example.

Or

(b) Differentiate input boxes and message boxes with an example output.

12. (a) Explain the properties of picture boxes and rich text boxes.

Or

(b) Write the nested If-then statement in detail with an example.

13. (a) Explain how to write a simple function in VB.

Or

(b) Write about the new array-based string handling functions with example.

14. (a) Describe in detail about adding and removing controls in a control array.

Or

(b) How do you access windows functions? Explain.

15. (a) Explain dragging and dropping operations for controls.

Or

(b) Explain the operations of sequential files.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE out of Five questions.

16. Explain the following controls with its properties :

(a) Text boxes

(b) Labels

(c) Command buttons

(d) Image controls.

17. Discuss controlling the program flow with determinate loops and indeterminate loops.

18. Describe in detail about one-dimensional arrays in visual basic.

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08 UCAS 05/ 08 UCCSS 05/ 08 UISS 05

(For the candidates admitted from 2008-2009 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

SBEC V – HTML AND WEB DESIGN

(Common for B.Sc. (C.S & I.S))

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define List.
2. What are tr and td?
3. Define Frame.
4. What is Inline Style?
5. List the types of compression schemes.
6. What is Cell Padding?

7. Define Hypertext,

8. Write the syntax for <div> tag.

9. Write the syntax for <input> tag.

10. List any two video formats.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write short note on Unordered list with examples.

Or

(b) How to format tables in HTML? Explain.

12. (a) Discuss about Frameset Element.

Or

(b) Explain how to format text using style sheet.

13. (a) Explain how to select a graphics format.

Or

(b) Explain how to insert graphics in HTML with examples.

14. (a) Write a note on thumbnail graphics.

Or

(b) How to include alternate text for graphics?

15. (a) Discuss any three user forms in HTML.

Or

(b) How to use frames for layout? Explain with examples.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe about HTML forms and formatting with examples.

17. Explain about formatting paragraphs using style sheets.

18. Explain how to arrange elements on a page with examples.

19. Discuss about navigational aids in detail.

20. Explain how to include audio and video in HTML with examples.

S.No. 2249

08 UCA 15/
08 UCS 12

(For the candidates admitted from 2008 – 2009 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

WEB TECHNOLOGY

(Common for – Computer Science)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. Give the neat sketch UDP packet format.
2. Define Checksum.
3. Define the terms :
 - (a) Website
 - (b) Webpage.
4. Define Multimedia.
5. Define JavaBeans.
6. Define CORBA.

7. What is the need for dynamic webpage?

8. Describe the Modern trends in ASP.

9. What are the XML Parsers?

10. Give the need for a Standard.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) Discuss the concept of IP address.

Or

(b) Explain briefly about the TCP packet format.

12. (a) What are differences between FTP and TFTP?

Or

(b) Explain the concept Remote login using TELNET.

13. (a) Write short notes on Forms in HTML.

Or

(b) Give the importance of JVM when the compilation of java program.

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14. (a) Write down advantages of EDI.

Or

(b) Explain in detail about the concept of CORBA.

15. (a) Write the basics of XML.

Or

(b) Explain in detail about Java Remote method invocation

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

16. Discuss the importance of Active and Passive open.

17. Explain in detail Web Browser Architecture.

18. Discuss in detail about the lifecycle of a Servlets. Why are Servlets platform independent?

19. Briefly explain about Distributed Component Object Model.

20. SGML is mother of all Markup language. Discuss.

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12 UCAE 07/12 UCSE 06

(For the candidates admitted from 2012-2013 onwards)

B.C.A./B.Sc. (C.S) DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective — SOFTWARE PROJECT MANAGEMENT

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What do you mean by a programme brief?
2. Define Portfolio.
3. What is a Prototype?
4. Define forward pass.
5. Mention the main approaches of risk identification.
6. Write any two categories of cost.
7. Define planned value.

8. Write the advantages of Time and materials contracts.

9. Mention the categories of Decisions.

10. Define Inspection.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a note on Requirement Specification.

Or

(b) Explain Quantifying benefits.

12. (a) Describe about waterfall model.

Or

(b) Discuss about the activity float.

13. (a) Write a note on framework for dealing with risk.

Or

(b) How to create critical paths? Discuss.

14. (a) Write a note on cost monitoring.

Or

(b) What are the stages in contract placement? Discuss.

15. (a) Discuss about the methods of improving motivation.

Or

(b) Write a note on the formal methods of assessing the software quality.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the cost-benefit evaluation techniques.

17. Explain about the objectives of activity planning.

18. Explain in detail about Resource and categories of Resources.

19. Discuss about the fixed price contracts.

20. Briefly discuss about organizational structures.

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08 UCAE 08/08 UCSE 05/
08 UISE 08

(For the candidates admitted from 2008-2009 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – E-COMMERCE

(Common for Computer Science/Information Science)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the objectives of commerce net?
2. What are the operations are used to access and manage data in the X-500 directory?
3. Define internet.
4. What is web?
5. What is an EDIFACT message?
6. Define data element.

7. What are the different types of cryptographic system?

8. What is a process?

9. What is the role of trusted third parties?

10. Define electronic data message.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the benefits of EDI.

Or

(b) Explain about mail user agent.

12. (a) Explain the essential components of an intranet.

Or

(b) Write short notes on EDI.

13. (a) Explain about EAN system.

Or

(b) Explain ATM technology.

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14. (a) Explain about internet security.

Or

(b) Explain some of the change management strategies.

15. (a) Write short notes on the web servers.

Or

(b) Explain briefly about domain name registration.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain in detail about communication media.

17. Discuss the framework of electronic commerce through JAVA.

18. Explain the structure of an UN/EDIFACT interchange.

19. Write a detailed note on e-cash.

20. Discuss the laws for E-Commerce in India.

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S.No. 2507

12 UCAE 06/12 UCSE 05

(For the candidates admitted from 2012-2013 onwards)

B.C.A./B.Sc (CS) DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – E-COMMERCE

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. What is e-commerce? Explain briefly.
2. Define a business model.
3. What is Telnet? Explain briefly.
4. Explain WAIS.
5. Explain business model of ELBEE service.
6. Explain UseNet Newsgroup briefly.
7. Name the three different phase of digital payment system.

8. Mention the components in a three layer model used to compare payment scheme.

9. Explain the main goal of a portal in e-business.

10. Classify mobile payment solutions briefly.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) List out the E-commerce opportunities available for industries.

Or

(b) List out the advantages of E-commerce.

12. (a) What is meant by a protocol? Explain briefly.

Or

(b) Discuss about online marketing.

13. (a) Explain firewall with an example.

Or

(b) What is meant by phishing? Explain in detail.

14. (a) Narrate the payment methods of E-payment system.

Or

(b) Discuss the main security requirements for E. payment system.

15. (a) What are the advantages of M-commerce? Discuss in detail.

Or

(b) Write short notes on WAP.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

16. What are some of the unique features of e-commerce technology?

17. Discuss Internet Client server applications.

18. Discuss the key attributes of security architecture.

19. Bring out the technical solution to enhance transactions in payment systems.

20. Discuss the different generation in wireless communication.

S.No. 2251

08 UCAE 04

(For the candidates admitted from 2008–2009 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – II—MANAGEMENT INFORMATION
SYSTEM

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is MIS?
2. Who are all users of MIS?
3. What is “concept of corporate planning”?
4. What is organisational decision making?
5. What is information quality?
6. How information technology impacts MIS of a corporate?
7. What is production management?

8. What is marketing management?

9. What is use case model?

10. What is business process?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) How MIS is useful in attaining management effectiveness?

Or

(b) How planning is important? How MIS useful in planning?

12. (a) What is short range planning? Explain.

Or

(b) What is decision making process? Explain.

13. (a) Give the MIS development process model?

Or

(b) What organizational structure is required for development of MIS?

14. (a) How MIS will be useful in production management? Explain.

Or

(b) Explain the architecture of enterprise management system.

15. (a) Explain the process model of OOT in MIS.

Or

(b) List out the factors delaying the business process.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Justify the need for MIS for your institution.

17. How do you design a DSS model for your educational institution?

18. Explain the development process of MIS product for your educational institution.

19. How an MIS system will help in human resource management?

20. How client server architecture is relevant for an MIS system? Explain.

S.No. 2253

08 UCAE 06

(For the candidates admitted from 2008 – 2009 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective — COMPUTER GRAPHICS

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define pixel.
2. Define aspect ratio.
3. Define view port.
4. What is clipping?
5. What are the two representation of solid objects?
6. What is spline curve?
7. What are the classification of visible-surface detection algorithms?

8. What is the use of BSP-Tree method?

9. What is a color model?

10. Define complementary color.

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Explain DDA line drawing algorithm.

Or

(b) Explain the various line attributes.

12. (a) Explain 2D geometric transformation.

Or

(b) Describe the two-dimensional viewing functions.

13. (a) Explain how curved surfaces are handles in graphics.

Or

(b) Write short notes on Blobby objects.

14. (a) Discuss on A-Buffer method.

Or

(b) Discuss briefly Wire Frame methods.

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15. (a) Explain about YIQ color model.

Or

(b) Write short notes on CMY color model.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Discuss midpoint circle algorithm in detail.

17. Explain the following :

(a) Point clipping

(b) Line segment clipping.

18. Discuss the various 3D display methods and its working principle.

19. Describe the depth sorting algorithm.

20. Explain RGB color model with a neat diagram.

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S.No. 2468

12 UCAE 04/
12 UCSE 09

(For the candidates admitted from 2012 – 2013 onwards)

B.C.A./B.Sc. (CS) DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – MOBILE COMPUTING

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is SDMA?
2. Define slotted ALOHA.
3. What are the subsystems of GSM system?
4. Define roaming.
5. Mention the basic classes of handovers.
6. Define broadcast disk.
7. What is frequency hopping spread spectrum?
8. List the different modes of HIPERLAN2 networks.

9. What is mobile node?

10. What is dynamic host configuration protocol?

PART B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Write short notes on FDMA.

Or

(b) Discuss about the polling.

12. (a) Write notes on tele services of GSM.

Or

(b) Describe the various security services offered by GSM.

13. (a) Discuss about the basic architecture of the UTRAN.

Or

(b) Write notes on DVB data broadcasting.

14. (a) What are the disadvantages of wireless LANs?

Or

(b) Describe the motivation for WATM.

15. (a) Explain the architecture of cellular IP.

Or

(b) Write notes on characteristics of deploying application over 2.5G/3G wireless links.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain in detail about cellular system.

17. Describe the system architecture of DECT.

18. Discuss about the advantages and disadvantages of GEO.

19. Briefly explain about the BRAN.

20. Explain in detail about mobile TCP.

(6 pages)
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08 UMCE 03

(For the candidates admitted from 2008-2009 onwards)

B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Mathematics (CA)

Elective — OBJECT ORIENTED PROGRAMMING
WITH C++

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define classes with an example.
Classes -யை எடுத்துக்காட்டுடன் வரையறு.
2. Define tokens.
Tokens -யை வரையறு.
3. Write the general form of class declaration.
The general form of class declaration-ஐ எழுதுக.

4. Define constructor.

Constructor-யை வரையறு.

5. What do you mean by multiple inheritance?

Multiple Inheritance பற்றி நீ அறிவது என்ன?

6. Write the general form of operator function.

The general form of operator function-யை எழுதுக.

7. Write any two special characteristics of friend function.

Any two special characteristics of friend function-யை எழுதுக.

8. What is the use of copy constructor?

Copy constructor-ன் பயன் என்ன?

9. Write the general format of function template.

The general format of function template-யை எழுதுக.

10. What is the use of keyword try in exception handling mechanism?

In exception handling mechanism, keyword 'try'-ன் பயன் என்ன?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the enumerated data type in C++ with an example.

In C++, enumerated data type is used to define a set of named constants. It is used to represent a finite set of values.

Or

- (b) Explain the various if statement with suitable example.

The various if statement is used to execute a block of code if a condition is true. It is used to perform conditional execution.

12. (a) Explain member functions.

Member functions are functions that are associated with a class and can access the data members of the class.

Or

- (b) Explain constructors with example.

Constructors are special member functions that are used to initialize the data members of a class. They are called automatically when an object of the class is created.

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13. (a) Write a note on operator overloading.

Operator overloading is a feature of C++ that allows the user to define their own operators for user-defined data types. It is used to perform operations on objects of a class.

Or

- (b) Explain unary operator overloading with an example.

Unary operator overloading is used to define a single operator to perform operations on a single operand. It is used to perform operations on objects of a class.

14. (a) Discuss the rule for virtual function.

The rule for virtual function is that it must be declared in the base class and overridden in the derived class. It is used to perform operations on objects of a class.

Or

- (b) Explain friend function with an example.

Friend function is a function that is not a member of a class but has access to the private and protected data members of the class. It is used to perform operations on objects of a class.

15. (a) Explain the general form of class template with an example.

The general form of class template is used to define a class that can be instantiated with different data types. It is used to perform operations on objects of a class.

Or

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[P.T.O.]

(b) Write a C++ program to implement the 'try-catch' mechanism.

To implement the 'try-catch' mechanism-
கீழ்க்கண்ட C++ program எழுது.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss various types of operators in C++ with example.

In C++, various types of operators யை பற்றி
எடுத்துக்காட்டுடன் விவரதி

17. What are the two parts of class specification? Explain in detail.

Class specification-ன் இரண்டு பகுதிகள் யாவை?
விரிவாக விளக்குக.

18. Explain multilevel inheritance in detail with example.

Multilevel inheritance-யை எடுத்துக்காட்டுடன்
விரிவாக விளக்குக.

19. Explain copy constructor with an example.

Copy constructor பற்றி எடுத்துக்காட்டுடன் விளக்குக.

20. Write a note on basics of exception handling.

Basics of exception handling பற்றி குறிப்பு வரைக.

S.No. 2251

08 UCAE 04

(For the candidates admitted from 2008–2009 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – II—MANAGEMENT INFORMATION
SYSTEM

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is MIS?
2. Who are all users of MIS?
3. What is “concept of corporate planning”?
4. What is organisational decision making?
5. What is information quality?
6. How information technology impacts MIS of a corporate?
7. What is production management?

8. What is marketing management?

9. What is use case model?

10. What is business process?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) How MIS is useful in attaining management effectiveness?

Or

(b) How planning is important? How MIS useful in planning?

12. (a) What is short range planning? Explain.

Or

(b) What is decision making process? Explain.

13. (a) Give the MIS development process model?

Or

(b) What organisational structure is required for development of MIS?

14. (a) How MIS will be useful in production management? Explain.

Or

(b) Explain the architecture of enterprise management system.

15. (a) Explain the process model of OOT in MIS.

Or

(b) List out the factors delaying the business process.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Justify the need for MIS for your institution.

17. How do you design a DSS model for your educational institution?

18. Explain the development process of MIS product for your educational institution.

19. How an MIS system will help in human resource management?

20. How client server architecture is relevant for an MIS system? Explain.

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08 UCA 15/
08 UCS 12

(For the candidates admitted from 2008 – 2009 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

WEB TECHNOLOGY

(Common for – Computer Science)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. Give the neat sketch UDP packet format.
2. Define Checksum.
3. Define the terms :
(a) Website (b) Webpage.
4. Define Multimedia.
5. Define JavaBeans.
6. Define CORBA.

7. What is the need for dynamic webpage?

8. Describe the Modern trends in ASP.

9. What are the XML Parsers?

10. Give the need for a Standard.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) Discuss the concept of IP address.

Or

(b) Explain briefly about the TCP packet format.

12. (a) What are differences between FTP and TFTP?

Or

(b) Explain the concept Remote login using TELNET.

13. (a) Write short notes on Forms in HTML.

Or

(b) Give the importance of JVM when the compilation of java program.

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14. (a) Write down advantages of EDI.

Or

(b) Explain in detail about the concept of CORBA.

15. (a) Write the basics of XML.

Or

(b) Explain in detail about Java Remote method invocation

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

All questions carry equal marks.

16. Discuss the importance of Active and Passive open.

17. Explain in detail Web Browser Architecture.

18. Discuss in detail about the lifecycle of a Servlets. Why are Servlets platform independent?

19. Briefly explain about Distributed Component Object Model.

20. SGML is mother of all Markup language. Discuss.

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S.No. 2249

S.No. 2287

12 UCAE 08

(For the candidates admitted from 2012-2013 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective — ARTIFICIAL INTELLIGENCE AND
EXPERT SYSTEMS

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. List out the applications of AI.
2. What is a substitution?
3. Define Expert system.
4. What is called associative network?
5. What is graph?
6. Define the term branch-and-bound.
7. State the two major techniques for NL analysis in NLP.

8. Write about the basic characteristics of an expert system.

9. What are the features of biological neural networks?

10. What is pattern recognition?

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Explain the objectives of AI.

Or

(b) Write about the logical consequences.

12. (a) Write a brief note on reasoning.

Or

(b) Describe the features of knowledge representation languages.

13. (a) Briefly explain about the Bayes theorem.

Or

(b) Write the basic procedure for solving a problem in AI.

14. (a) Write a short note on speech recognition.

Or

(b) Describe the expert system tools.

15. (a) Discuss about the learning algorithms.

Or

(b) Explain the benefits of neural computing.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Write a detailed description on resolution.

17. Illustrate the network representation schemes.

18. Narrate the blind search techniques.

19. Explain in detail about the natural language processing.

20. Discuss about the different network architecture and their applications.

18. List the various types of interviews and narrate the objectives along with its merits and demerits.
19. What are the Do's & Don'ts for a group discussion?
20. How ICT enables presentation skills? Give examples.

S.No. 2288

12 UCAS 05/ 12 UCSS 04

(For the candidates admitted from 2012-2013 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Skill Based Elective – SOFT SKILLS
(Common for Computer Science)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Why 'Communication' need to be a two-way process?
2. Is communication an 'arts'? Give a specific example to substantiate your claim.
3. How to transform hearing into listening?
4. What do you mean by oral skills? Name a few.
5. What skills can be tested in an interview?

6. Brief on the attire aspects (What to wear?) for a job-interview.

7. List the skills that can be identified using GD.

8. Is the group in GD process a leader-less? Why is it so?

9. Is rehearsal essential for presentation? List the advantages of a rehearsed presentation.

10. Delivery is as important as preparation in presentation. Opine on the statement.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a detailed note on the various communication channels and their utility aspects.

Or

(b) Enumerate the differences between general communications from technical communication.

12. (a) What are the barriers to listening? Explain the ways to overcome the same.

Or

(b) Brief on the LSRW skills and suggest the right approach to develop these soft skills.

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13. (a) Write the answer for the most frequented question: "Tell me about yourself in about two minutes."

Or

(b) What are the factual inputs that you would require to prepare for an interview?

14. (a) Bring out the features of a well-designed GD process.

Or

(b) Delineate the strategies you adopt to successfully complete a GD.

15. (a) Winning-presentation is the most essential to clinch a deal. Do you agree?

Or

(b) Will rehearsal help you in improving your delivery? How would you improve your delivery?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write a detailed note on Technical communication.

17. What is body language? How does it communicate messages across participants?

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S.No. 2288

S.No. 2266

08 UCS 10

(For the candidates admitted from 2008 – 2009 onwards)

B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Computer Science

COMPUTER NETWORKS

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are the uses of the Internet for home users?
2. What do you mean by MAN and WAN?
3. Discuss on magnetic media.
4. What is radio transmission?
5. Write short note on flow control.
6. What is framing?

7. Explain shortest path routing.

8. Explain multicast routing.

9. Explain the term resolver.

10. Explain the term browser.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe home applications.

Or

(b) What is service primitives?

12. (a) Describe radiowave transmission.

Or

(b) What is finite state machine models? Explain.

13. (a) Discuss on one-bit sliding window protocol in detail.

Or

(b) What is finite state machine models? Explain.

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S.No. 2266

14. (a) Discuss on link state routing.

Or

(b) Discuss on message transfer.

15. (a) Describe routing in Ad HOC networks.

Or

(b) Explain the various message formats.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain OSI reference model in detail.

17. Describe the structure of the telephone system in detail.

18. Explain error-detecting codes with suitable example.

19. Give a brief discussion about transport service primitives.

20. Describe public-key algorithms in detail.

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S.No. 2266

08 UCS 10

(For the candidates admitted from 2008 – 2009 onwards)

B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Computer Science

COMPUTER NETWORKS

Time : Three hours

Maximum : 75 marks

SECTION-A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are the uses of the Internet for home users?
2. What do you mean by MAN and WAN?
3. Discuss on magnetic media.
4. What is radio transmission?
5. Write short note on flow control.
6. What is framing?

7. Explain shortest path routing.

8. Explain multicast routing.

9. Explain the term resolver.

10. Explain the term browser.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Describe home applications.

Or

(b) What is service primitives?

12. (a) Describe radiowave transmission.

Or

(b) What is finite state machine models? Explain.

13. (a) Discuss on one-bit sliding window protocol in detail.

Or

(b) What is finite state machine models? Explain.

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S.No. 2266

14. (a) Discuss on link state routing.

Or

(b) Discuss on message transfer.

15. (a) Describe routing in Ad HOC networks.

Or

(b) Explain the various message formats.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain OSI reference model in detail.

17. Describe the structure of the telephone system in detail.

18. Explain error-detecting codes with suitable example.

19. Give a brief discussion about transport service primitives.

20. Describe public-key algorithms in detail.

3

S.No. 2266

S.No. 2467

12 UCA 13/
12 UCSE 04

(For the candidates admitted from 2012 – 2013 onwards)

B.C.A./B.Sc. (CS) DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

PHP SCRIPTING LANGUAGE

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Write a brief note on destroying variables.
2. How will you use constant in PHP? Explain.
3. List out all the conditional statements.
4. Write short notes on while loop.
5. How will you sort arrays using built-in function?
6. What is the built-in function for Reversing Arrays?
7. How will you create and invoke functions? Explain briefly.

8. Write notes on writing files to data.

9. Write about database and tables.

10. List out error handling functions of MySQL.

PART B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write detail notes on basic development concepts.

Or

(b) Write a PHP script to demonstrate the use of all arithmetic operators.

12. (a) Explain the working of switch-case statement in detail.

Or

(b) Write a PHP script for building a factorial calculator.

13. (a) Discuss the method of storing data in arrays in detail.

Or

(b) Describe the working with Dates and Times with example.

14. (a) Explain the various Advanced OOP concepts of PHP.

Or

(b) Discuss the concept of Processing Directories in detail.

15. (a) Briefly discuss the PHP's PDO extension.

Or

(b) Write detail note on Anatomy of an XML Document.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the concept of Storing Data in Variables in PHP.

17. Explain the various loops of PHP in detail.

18. Describe the working with Array functions with an example.

19. Write detail notes on creating user-defined functions with an example.

20. Discuss the concept of Database and SQL in detail.

S.No. 2469

12 UCAE 05

(For the candidates admitted from 2012 – 2013 onwards)

B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – COMPILER DESIGN

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. What is a cross compiler?
2. State the rules to define regular expression.
3. What is the role of parser?
4. Define: Context-Free Grammar.
5. Find the postfix form for the following expression:
(A+B)/(C-D)
6. Define the term "Symbol Table".
7. What is phrase level error recovery?

8. Define: Activation Record.

9. What is input to code generator?

10. Define: Basic Block.

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) Explain the role and issues of Lexical Analyzer.

Or

(b) What is a transition diagram? Draw a transition diagram for identifier.

12. (a) What is meant by operator grammar? Give an example.

Or

(b) Explain about predictive parser with an example.

13. (a) Describe the syntax-directed translation for postfix form.

Or

(b) What is a syntax tree? Draw the syntax tree for the assignment statement

$a := b * (-c) + b * (-c).$

14. (a) Write short notes on block structured language.

Or

(b) What are the goals of error handler in a parser? Describe.

15. (a) Define: DAG. Give an example.

Or

(b) What are the characteristics of peephole optimization? Explain.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

All questions carry equal marks.

16. Write an algorithm for constructing a NFA from a regular expression and give an example.

17. What is a shift-reduce parser? Explain in detail the conflicts that may occur during shift-reduce parsing.

18. What are the four kinds of intermediate code? Explain with an example.

19. Explain about the plan of an error detection/corrector.

20. What are the techniques used for loop optimization? Explain.

S.No. 2471

12 UCAE 09/
12 UCSE 07

(For the candidates admitted from 2012–2013 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective – DATA MINING AND WAREHOUSING

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Data mining? Explain briefly.
2. Define confident.
3. What is meant by 'Apriori classification'?
4. What is Induction?
5. Define clustering with an example.
6. Define Density-based method.
7. What is web mining?

8. List out the goals of web search.

9. Define Data warehouse.

10. What is OLAP?

PART B — (5 × 5 = 25 marks)

Answer ALL questions with internal choice.

11. (a) Write a note on Data mining techniques.

Or

(b) Describe about Naive Bayes algorithm.

12. (a) Explain about decision tree in classification.

Or

(b) Discuss about classification software.

13. (a) Write a note on cluster-analysis.

Or

(b) Describe how to deal with large databases in cluster analysis.

14. (a) Explain about web content mining.

Or

(b) Write down the search engine functionality.

15. (a) Explain about Data Warehouse design.

Or

(b) Describe Data cube implementations.

PART C — (3 × 10 = 30 marks)

Answer any THREE out of Five questions.

16. Explain about 'Apriori algorithm' in detail.

17. Discuss about estimating predictive accuracy of classification methods.

18. Describe in detail about partitioned methods in cluster analysis.

19. Write a note on web structure mining in detail.

20. Explain about multidimensional view and data cube in OLAP.

S.No. 2472

12 UCAS 06/
12 UCSS 06

(For the candidates admitted from 2012 – 2013 onwards)

B.Sc. & B.C.A. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Skill Based Elective Course - FLASH

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Give two advantages of flash.
2. Define stage with an example.
3. What is the function of menu bar?
4. What is the use of Lasso tool?
5. What is pixel snapping?
6. What are the steps to format the text?
7. Define symbol.

8. What are the sound formats used in flash?

9. Define frame.

10. Define shape tweening.

PART B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Explain how flash works.

Or

(b) Discuss in detail about 'The Timeline'.

12. (a) Write short notes on menu bar.

Or

(b) Discuss in detail about grouping objects.

13. (a) Explain standard color palette.

Or

(b) Explain how to manipulate the text in flash.

14. (a) What are the types of symbols? Explain.

Or

(b) Explain about 'Adding videos in flash'.

15. (a) Write short notes on layers.

Or

(b) Explain about scenes.

PART C — (3 × 10 = 30 marks)

Answer any THREE out of Five questions.

16. Explain about the flash environment.

17. What are the viewing options in flash? Explain.

18. Describe about fill transform tool in flash.

19. Explain how to create a new symbol.

20. Explain about frame properties in flash.

S.No. 2474

08 UCS 11

(For the candidates admitted from 2008 – 2009 onwards)

B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Computer Science

MULTIMEDIA AND ITS APPLICATIONS

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define Full-Motion Video.
2. What is an abstract image?
3. Define Quantization.
4. List out any two color models.
5. Expand RIFF and TIFF.
6. What is the four character code for uncompressed video DIB data?

7. Define a Pen driver.
8. Give the formula to calculate voice recognition accuracy.
9. What is depth perception?
10. What are the data access methods in multimedia databases?
- PART B — (5 × 5 = 25 marks)
- Answer ALL the questions.
11. (a) Write a note on multimedia storage and retrieval.
- Or
- (b) Describe the Non-Lossy compression for images.
12. (a) Discuss about Adaptive Pulse code Modulation.
- Or
- (b) Briefly explain MPEG coding methodology.
13. (a) Explain RIFF MIDI file format.
- Or
- (b) Discuss TIFF structure in detail.
14. (a) Write about Flat panel display system.
- Or
- (b) List out the issues of colour printer technology.
15. (a) Mention some of the design challenges in adapting storage management techniques.
- Or
- (b) Discuss about the various multimedia inputs and outputs.
- PART C — (3 × 10 = 30 marks)
- Answer any THREE questions.
16. Explain Multimedia elements in detail.
17. Discuss about various colour characteristics and color models.
18. Describe the MIDI communication protocol.
19. Analyze the requirements and discuss the technologies used in full-motion video controllers.
20. Review some of the contemporary human factors involved in Virtual Reality.

S.No. 2258

08 UCAS 06/
08 UCSS 06/
08 UISS 06

(For the candidates admitted from 2008–2009 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

SBEC – WEB PROGRAMMING (JAVA SCRIPT AND
VB SCRIPT)

(Common for Computer Science, Information Science)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the need for Scripting language?
2. List any four Javascript keywords.
3. List any four arithmetic operators.
4. Define operators.
5. Define function.
6. List out any four Javascript global functions.

7. What does the number object represent?

8. Define date and time object.

9. What is meant by variables?

10. Define array.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Describe the memory life cycle in javascript.

Or

(b) Describe Multi subscripted array.

12. (a) Write a script that reads five integers and determines the largest and the smallest integers in the group.

Or

(b) Write a JavaScript to calculate the sum of digits using a loop.

13. (a) Write a recursive function to calculate the fibonacci value of a given number.

Or

(b) Write note on scope rules.

2 S.No. 2258

14. (a) Explain the document object model (DOM) hierarchy.

Or

(b) Write a note on math object and its methods.

15. (a) Describe the VB script control structures.

Or

(b) Illustrate the MsgBox function.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Write notes on the following.

(a) Arithmetic operators (5)

(b) Internet & WWW resources. (5)

17. Describe the various repetition structures with examples.

18. Write a script to find the number of occurrences of a given number in a set of stored numbers.

19. Explain string object and its methods with example.

20. Write a VB script to read a text and print it in reverse order. Also count and print the number of characters in it.

3 S.No. 2258

S.No. 2476

12 UCS 09

(For the candidates admitted from 2012-2013 onwards)

B.Sc DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Computer Science

RELATIONAL DATABASE MANAGEMENT
SYSTEMS

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Point out the primary goal of a DBMS.
2. What do you mean by physical schema?
3. What is indicated by Null values?
4. What do you mean by Transaction?
5. What is meant by Referential integrity?
6. Identify the purpose of authorization graph.
7. When a domain is said to be 'Atomic'?
8. When a functional dependency of the form $\alpha \rightarrow \beta$ is trivial?

9. What do you mean by Composite objects?
10. What are referred as DAG and SQL?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Compare DBMS with File system.

Or

- (b) Describe the different levels of data abstraction.

12. (a) How nested subqueries are handled? Explain.

Or

- (b) Describe the various aggregate functions associated with SQL.

13. (a) How new domains are created? Explain.

Or

- (b) Write Short notes on 'Assertions'.

14. (a) Describe about 'Dependency Preservation'

Or

- (b) Discuss the various pitfalls in Relational Database Design.

2

S.No. 2476

15. (a) How nested relations are handled? Explain.

Or

- (b) Compare object-oriented databases with object-relational databases.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the various functions of Database Administrator.

17. Describe the various set operations handled in SQL.

18. How Authentication can be handled? Explain.

19. Discuss in detail on "Third Normal form".

20. How Querying with example types can be handled? Explain.

3

S.No. 2476

S.No. 2252

08 UCAE 05/ 08 UCSE 08

(For the candidates admitted from 2008-2009 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Elective — COMPILER DESIGN
(Common for Computer Science)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is an Interpreter?
2. Define Macros.
3. What is Predictive Parsers?
4. What is Recursive-Descent Parsing?
5. Define : Symbol Table.
6. What is a Search Tree?
7. What is a Reporting Errors?

8. What is a Panic mode?
9. What is a Flow graph?
10. Define Finite Automata.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the structure of a compiler.
- Or
- (b) Discuss the Compiler-writing tools.
 12. (a) Give an account on Parsers.
- Or
- (b) How to construct SLR Parsing tables?

13. (a) Discuss the Data Structures for Symbol tables.

Or

- (b) What are the statements that alter the flow of control?

14. (a) Discuss the implementation of a simple stack allocation scheme.

Or

- (b) Describe the Syntactic-phase errors.

2

S.No. 2252

15. (a) Write a Short note on Machine model.
- Or
- (b) Explain the Peephole Optimization.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the role of the Lexical Analyzer.
17. Explain the Shift-Reduce Parsing with examples.
18. Explain the contents of Symbol Table.
19. Describe the implementation of Block-Structured Languages.
20. Explain the Code Generation from DAG's.

3

S.No. 2252

S.No. 2477

12 UCS 10

(For the candidates admitted from 2012-13 onwards)

B.Sc. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2015.

Sixth Semester

Computer Science

WEB DESIGNING

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Write about the text formatting tag.
2. Write the structure of HTML.
3. List down the features of CSS elements.
4. How can you format text in CSS?
5. Define static home page.
6. Comment on JVM.
7. Why do we need Java beans?

8. Expand RML.

9. Write about the basics of WAP.

10. How can the WAP stack works?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a note on features of HTML.

Or

(b) Explain about hyper links in HTML.

12. (a) Discuss briefly about the paragraphs in CSS.

Or

(b) Write a note on display graphics.

13. (a) Explain about the frames.

Or

(b) How will you create tables? List down the properties added to the tables.

14. (a) Write briefly about Java applet.

Or

(b) What are the significance of EDI? Explain it.

15. (a) Narrate briefly about XML parser.

Or

(b) Write briefly about the limitations of Mobile Devices.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write an example program for creating web page using HTML.

17. Write in detail about the special features of CSS.

18. Give an over view on DHTML.

19. Discuss in detail about the life cycle of Java Applet.

20. Explain in detail about WAP architecture.