SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at 'A' Grade (3rd Cycle) By NAAC)
Tiruchirappalli – 2.

QUESTION BANK FOR

B.Sc INFORMATION TECHNOLOGY

2017-2018

DEPARTMENT OF INFORMATION TECHNOLOGY

CONTENT

S.No.4160 **16SCC IT 1**

(For candidates admitted from 2016-2017 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016.

Part III - Information Technology – Major

INTRODUCTION TO INFORMATION TECHNOLOGY

Time : Three hours Maximum : 75 marks

PART A – (10 x 2 = 20)

Answer ALL questions.

1. Define : digital computer.
2. List out any communication device.
3. List any two pointing devices.
4. What is meant by user interface?
5. Give any two applications of spread sheet.
6. Define : Database.
7. Define : LAN,WAN and MAN.
8. What is meant by procedural language?
9. How p-2-p communication works?
10. List the importance of system analysis and design.

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Discuss types of computer.

Or

(b) Describe various buyes for I/O communication.

12. (a) Explain any one input devices in detail.

Or

(b) Discuss working principle of color printer

13. (a) What are the various features of MS-Excel.

Or

(b) Describe any one data storage device. Give its advantages.

14. (a) What are the components of multimedia?

Or

(b) Discuss various application of computer network

15. (a) Give syntax for while , do-while and for Statements.

Or

(b) Explain control statement in 'C' with Example.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Explain various peripheral devices in detail.

17. Discuss various types of operating system in detail.

18. Describe various applications of database system.

19. Discuss multimedia authoring tools with example.

20. Explain about various programming methods.

(For candidates admitted from 2016-2017 onwards)

B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2017.

Part III –Computer Application/ Computer Science/

Information Technology – Major

PROGRAMMING IN C

Time: Three hours Maximum : 75 marks

SECTION A – (10 x 2 = 20)

Answer ALL questions.

1. What are assignment operators?
2. Write any two relational expressions.
3. Write example code for output operation.
4. Define while loop.
5. What is character array?
6. Define user defined function.
7. Structure and Union-Differentiate.
8. Write example code to open a file in write mode.
9. What is preprocessor?
10. What is dynamic memory allocation?

SECTION B – (5 x 5 = 25)

Answer ALL questions.

11. (a)With suitable example, code write the uses of logical operators.

Or

(b) What are relational expressions? Explain them.

12. (a) What is else-if ladder? Give an example.

Or

(b) Write the syntax and use of switch-case with an example.

13. (a) Write a user defined function to find factorial of a number.

Or

(b) Write short notes on character arrays

14. (a) What is union is C? Writer union with employee details.

Or

(b) Write C program to create, open and close file in C.

15. (a)What are programming guidelines? List those guidelines.

Or

(b)Write a C program to illustrate the preprocessor in C.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Write in detail about various data types in C.

17. Explain in detail about looping control structures C.

18. Write a C program to illustrate any three string functions in C.

19. Discuss in detail about the usage of pointers in C.

20.Write a C program to create and display a Linked List.

S.No.1202 **RCCS 10 IT 6**

(For candidates admitted from 2010-2011 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2016

Part III - Information Technology – Major

COMPUTER NETWORKS

Time : Three hours Maximum : 75 marks

SECTION A – (10 x 2 = 20)

Answer ALL questions.

1. Define Chat room.
2. What is a broadcast network?
3. How much time is required to send 16 bits at a bit rate per 16 bits per second?
4. What is a multimode fiber?
5. List the common services provided by a data link layer.
6. Define Hamming distance.
7. What is a virtual circuit?
8. Define forwarding.
9. Expand TSAP.
10. What is the main difference between absolute and relative domain names?

SECTION B – (5 x 5 = 25)

Answer ALL questions.

11. (a) classify the interconnected processors by scale.

Or

(b) Explain the dynamic channel allocation methods for a common channel.

12. (a) Describe the cut away view of a coaxial cable.

Or

(b) Compare the properties of LED and semiconductor diodes.

13. (a) What are the three phases of the connection oriented service? Explain.

Or

(b) Discuss about the algorithm for generating checksum in polynomial method.

14. (a) Enumerate the conflict between fairness and optimality.

Or

(b) Describe the parts of a link state routing

15. (a) Write notes on the top level domains.

Or

(b) Enumerate the socket primitives for TCP.

SECTION C – (3 x 10 =30)

Answer any THREE Questions.

16. List and explain the properties of home networks that distinguish it from other networks.

17. Compare satellite communication with fiber communication.

18. Describe a 1 bit sliding window protocol.

19. Explain the Dijkstra's algorithm to compute the shortest path.

20. Discuss about the basic working model of web.

S.No.4165 **RCCS 10 IT 6**

(For candidates admitted from 2010-2011 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

Part III - Information Technology – Major

COMPUTER NETWORKS

Time : Three hours **Maximum : 75 marks**

PART A – (10 x 2 = 20)

Answer ALL questions.

1. What do you mean by distributed system?
2. Mention any two applications of Internet.
3. What is a frequency?
4. Draw the basic sketch of electromagnetic spectrum.
5. What is an error?
6. Write the working principle of ARQ protocol.
7. Compare and contrast non adaptive and adaptive algorithm.
8. How to control congestion?
9. What is the purpose of socket?
10. What is the purpose of user agent?

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Mention any two uses of computer networks.

Or

(b) Explain the protocols and networks in the TCP/IP model.

12. (a) Explain the concepts of twisted pair and coaxial cable

Or

(b) Discuss any two communication satellites.

13. (a) Write a short note on error control.

Or

(b) Discuss about a protocol using GobackN

14. (a) Describe the concept of link state routing.

Or

(b) Write a short note on fragmentation.

15. (a) Explain the transport service primitives in transport layer.

Or

(b) Describe the message format in electronic mail.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Explain the following:

(a) LAN

(b) WAN

(c) MAN

17. Write a brief note on wireless transmission.

18. Explain sliding window protocol with an example.

19. Describe any two routing algorithm.

20. Explicate the transport services in transport layer.

S.No.4146 **MBEIT 1:1/MBEIT 1:1/10**

(For candidates admitted from 2008-2009 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

Part III - Information Technology – Major Based Elective

SOFTWARE ENGINEERING

Time : Three hours **Maximum : 75 marks**

PART A – (10 x 2 = 20)

Answer ALL questions.

1. Expand MBO.
2. Define validation.
3. Expand COCOMO.
4. What is meant by KDSI?
5. Define coupling.
6. What are transition tables?
7. Define data encapsulation.
8. Define DFD.
9. What do you mean by software maintenance?
10. Define verification.

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Describe the cost model of software life cycle.

Or

(b) Compare democratic and hierarchical team structure.

12. (a) Explain various factors that influence software costs.

Or

(b) Write a detail note on software maintenance costs.

13. (a) Discuss the format of software requirements specification.

Or

(b) What is meant by cohesion? Explain its types.

14. (a) Write short note on documentation guidelines.

Or

(b) Explain do's of good coding style.

15. (a) Give a brief note on unit testing and debugging.

Or

(b) What is meant by configuration management? Explain.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Explain size categories for software product.

17. Discuss various software cost estimation techniques.

18. Write a detail note on various state–oriented notations.

19. Illustrate design techniques in detail.

20. Give a detail note on software quality assurance plan and their functions.

S.No.1203 **RCCS 10 IT 8**

(For candidates admitted from 2010-2011 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2016

Part III - Information Technology – Major

COMPUTER GRAPICS AND MULTIMEDIA

Time : Three hours **Maximum : 75 marks**

PART A – (10 x 2 = 20)

Answer ALL questions.

1. Mention the components in CRT.
2. Name any two input device for graphics.
3. List any two properties of circle.
4. How to address a pixel?
5. Define Translation.
6. What is meant by Reflection?
7. Define Multimedia.
8. List any two benefits of multimedia.
9. What is an image?
10. Name any two file formats in audio.

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Explain the usage of Direct-view storage tubes.

Or

(b) Discuss on Hard-copy devices.

12. (a) Describe the DDA algorithm for line drawing.

Or

(b) Discuss the pattern fill attribute.

13. (a) How to rotate a two dimensional object?

Or

(b) What is meant by composite transformation?

14. (a) Mention the benefits of Multimedia.

Or

(b) Discuss the system components in Multimedia technology.

15. (a) How to in corporate still images in Multimedia.

Or

(b) Give the importance of sound.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Discuss on Random-scan display systems.

17. Explain the following line attributes
    (a) Type
    (b) Width
    (c) Color

18. Give the matrix representation for two dimensional transformations.

19. Explain the following multimedia platforms
    (a) Windows
    (b) Macintosh

20. What is the need for the data compression?

S.No.4167 **RCCS 10 IT 9**

(For candidates admitted from 2010-2011 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

Part III - Information Technology – Major

DATA BASE SYSTEMS

Time : Three hours **Maximum : 75 marks**

PART A – (10 x 2 = 20)

Answer ALL questions.

11. Define data mining.
12. How database differs from data file?
13. Name any two operations in relation algebra.
14. Give the purpose of Null Value.
15. When the query becomes complex?
16. Define schema.
17. Define Tuple.
18. What is meant by attribute?
19. Define normalization.
20. What is meant by atomic domain?

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Give the purpose of database systems.

Or

(b) Mention the duties of database administrators.

12. (a) Mention the structure of relational database

Or

(b) How to modify the data base?

13. (a) Discuss the following set operations.
    i. Union and
    ii. Intersection

Or

(b) What is meant by Authorization?

14. (a) Discuss on the Domain Relation calculus.

Or

(b) Draw the blocks used in E-R diagram.

15. (a) Explain the first normal form.

Or

(b) Discuss on the decomposition using multi-values dependencies.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Describe the history of database system.

17. Explain the select operation with an example.

18. How data base can be modified in SQL?

19. How redundancy can be controlled through normalization?

20. Discuss the design issues in E-R diagram.

S.No.4148 **MBEIT 2:1**

(For candidates admitted from 2008-2009 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

Part III - Information Technology – Major Based

Elective

DATA BASE SYSTEMS

Time : Three hours **Maximum : 75 marks**

PART A – (10 x 2 = 20)

Answer ALL questions.

1. Define data.
2. Give the purpose of the foreign key.
3. What are the three models available in database?
4. What is meant by null value?
5. Give an example for a query.
6. Define schema.
7. Name any two operations in relational calculus.
8. What is meant by authorization?
9. Define functional dependency.
10. What is meant by atomic domain?

PART B – (5 x 5 = 25)

Answer ALL questions.

11. (a) Give the important characteristics of database languages.

Or

(b) Mention the history of database systems.

12. (a) Discuss the usages of the select operation.

Or

(b) How the outer-joint operation works?

13. (a) How the delete request in carried out in SQL?

Or

(b) With examples discuss on the nested sub queries.

14. (a) Give the formal definition of the domain relations

relations calculus.

Or

(b) What is QBE? Explain.

15. (a) Discuss the first normal form.

Or

(b) Explain the concept of multi valued dependencies.

PART C – (3 x 10 =30)

Answer any THREE Questions.

16. Describe the process of querying transaction management.

17. Explain the operations:
    (a) Union
    (b) Set-difference

18. Discuss the data types in SQL.

19. With an example, discuss on the construction of E-R model.

20. How redundancy can be controlled through normalization?

S.No.4169 **MBEIT 3:2/10**

(For candidates admitted from 2010-2011 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

Part III - Information Technology – Major based

Elective

WEB DESIGN

Time : Three hours **Maximum : 75 marks**

SECTION A – (10 x 2 = 20)

Answer ALL questions.

1. Define Internet.
2. Name any two web browsers.
3. Mention the tag that is used to insert a picture in a document.
4. How to insert a comments in HTML document?
5. Give any two uses of forms.
6. What is frame?
7. Define Web page.
8. What is meant by inline styles?
9. Define namespace.
10. Expand DTD.

SECTION B – (5 x 5 = 25)

Answer ALL questions.

11. (a) What is web server? Explain.

Or

(b) Write note on web programmer's tool box.

12. (a) Give the structure of HTML document.

Or

(b) Explain lists and their types with example.

13. (a) Write any five uses of frameset.

Or

(b) Briefly explain forms and its attributes.

14. (a) Discuss elements of styles.

Or

(b) Give short notes on DHTML.

15. (a) Discuss about XML processors.

Or

(b) How to display XML document with CSS?

SECTION C – (3 x 10 =30)

Answer any THREE Questions.

16. Write a detail note on WWW.

17. Explain table tag and its elements with relevant example.

18. Write a HTML program to create an application form to join your college.

19. How external and Internal style sheets can be linked? Explain.

20. Discuss on XML document structure.