

# SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at 'A' Grade (3rd Cycle) By NAAC)

Tiruchirappalli – 2.

## QUESTION BANK FOR

B.C.A STUDENTS

2017-2018



DEPARTMENT OF COMPUTER APPLICATIONS

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**16 SCCCS1/16SCCCA1/16SCCIT2**  
**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\*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\*5=25)**

Answer ALL questions.

11. (a) Write 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.

Or

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

Or

- (b) Write short notes on character arrays.

14. (a) What is union in C? Write 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.

### **SECTION C-(3\*10=30)**

Answer any THREE questions.

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

17. Explain in detail about looping control structures in 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.

**RCCS 10 CA 1/RCCS 10 CS 1/RCCS 10 SD 1**

**B.sc/B.C.A.DEGREE EXAMINATION,NOV- 2016.**

**Part III-Computer science/Computer Applications/Software Development-Major**

**PROGRAMMING IN C**

**Time:Three hours**

**Maximum:75 marks**

**SECTION A-(10x2=20)**

**Answer All questions.**

1. Write a short note on history of C.
2. Write any two importance of C.
3. Write a short note on Ternary operator.
4. Definr putchar.
5. What is Arrays?
6. Define String.
7. Write any two advantages of Pointers.
8. Define Union.
9. Write a short note on Circular Linked list.
10. Define File Inclusion.

**SECTION B-(5x5=25)**

**Answer All question.**

11. (a) Elaborate note on Data types in C with example.  
Or  
(b)Discuss about Mathematical functions with example.
- 12.(a) Elaborate note on Nested If with example.  
Or  
(b) Write a brief note on Switch statement with example.
- 13 (a) Write a C program to print the number in Ascending and Descending Order.  
Or  
(b)Discuss in detail about a String functions with example.

14. (a) Write a brief note on Structure with example.

Or

(b) Write the output of the program to reverse a string using pointers.

15. (a) Write a brief note on Dynamic memory allocation with example.

Or

(b) Explain in detail about the pre-processor with example.

**SECTION C-(3x10=30)**

**Answer any three questions.**

16. Discuss in detail about C operators with example.

17. Elaborate note on looping statement with example.

18. Write a brief note on Category of functions with example.

19. Discuss about File management in C with example.

20. Explain in detail about linked list and its types with example.

**BCA DEGREE EXAMINATION– APRIL 2017**

**PROGRAMMING IN C++**

**SUB CODE: 16SCCCA2**

**MAX MARKS:75**

**CLASS: BCA**

**TIME: 3 Hrs**

**SECTION-A**

**(10X2=20)**

**ANSWER ALL QUESTIONS.**

1. What is a variable in C++? How is it declared?
2. What is scope resolution operator?
3. Define object.
4. Define copy constructor.
5. Explain pointer in C++.
6. Define virtual function.
7. What are manipulators?
8. What is a file?
9. Explain containers.
10. What are the structured Components of STL?

**SECTION-B**

**(5 X 5 = 25)**

**ANSWER ALL QUESTIONS.**

11. a) Explain the loop statements in C++.

**(OR)**

b).What is friend function? Explain with an example.

12. a) Explain the constructor with an example.

**(OR)**

b) What is operator overloading? Write a program for overloading Unary operator.

13. a) What is meant by Inheritance? Explain multiple inheritances with example.

**(OR)**

b) What is Virtual function? Write the syntax with example.

14. a) Write short notes on function template.

**(OR)**

b). Explain exception handling with syntax and example.

15. a) Write short notes on Standard template library.

**(OR)**

b) Write a C++ program to concatenate two string.

**SECTION-C**

**(10 X 3 = 30)**

**ANSWER ANY THREE QUESTIONS.**

16. Explain the concept of function in C++ with syntax and example.

17. What is class in C++? Explain with syntax and example program.

18. Explain virtual base class with example program.

19. Discuss in details of file processing in C++.

20. Explain the phases in object oriented development.

**\*\*\*\*ALL THE BEST\*\*\*\*\***



**Subject code:RCCS 10 CA 7**

**B.C.A DEGREE EXAMINATION,APRIL 2016**

**PartIII-Computer Applications\_Major**

**COMPUTER GRAPHICS AND MULDIMEDIA**

**PART\_A(10\*2=20)**

**Answer ALL Qusetions.**

- 1.What is PHIGS?
- 2.Define:Frame buffer.
- 3.List the methods for character generation.
- 4.Mention various fill style.
- 5.What is composite transformation?
- 6.What are the types of scaling?
- 7.What is the need for multimedia?
- 8.Define Quick ring.
9. Expand
  - a)JPEG b)TIFF
10. Define:Iconic interface.

**PART\_B(5\*5=25)**

**Answer ALL Questions**

11. a) Write short note on:
  - (i) keyboard      (ii) mouse.

Or

  - (b)Explain briefly about hard copy device.
- 12.a) What are the attributes of line?Explain.

Or

  - (b) Write short note on bundled text and marker attributes.
- 13.a) Explain about reflection with example.

Or

(b) Prove that two successive translations are additive.

14.a) Discuss briefly about the standards for video connectors.

Or

(b) Write a short note on evolution of MPC.

15.a) Discuss briefly about image standards.

Or

(b) Write a short note on multimedia authoring tools.

**PART C\_(3\*10=30)**

16. Explain in detail about working of raster scan systems.

17. How a line segment can be drawn using Bresenham's algorithm? Explain.

18. With the definition of transformation, describe the various basic transformations in detail.

19. Discuss in detail about the architecture of Quicktime.

20. Explain the process of video capturing in detail.

**RCCS 10 CA5\RCCS10CS5**

**B.C.A./B.SC DEGREE EXAMINATIONS, APRIL2017**

**Part III – Comp.Application/comp.science/inf.Tech/ Software Development.-Major**

**DATA STRUCTURES AND ALGORITHMS.**

TIME :Three hours                      Maximum:75 marks

**PART-A(10\*2=20)**

**ANSWER ALL QUESTIONS**

1. What is stack?
2. Write the procedure for add the item into stack.
3. Define Tree.
4. What is an AOV Network?
5. What is algorithm?
6. Write an Algorithm for straight forward maximum and minimum
7. Write note on High Level description of job sequencing algorithm.
8. Write the procedure for general Greedy Method.
9. What is Back tracking?
10. What do you mean chromatic Number of the Graph.

**PART B-(5\*5=25)**

**Answer all questions.**

11. (a) Write an algorithm for ADD Q and Delete Q with example.  
or  
(b). Write Short notes on linked stacks and Queues.
12. (a)explain various Binary tree traversal.  
or  
(b).Write short note on Breadth First search algorithm

13.(a) Explain Recursive Binary Search algorithm

Or

(b). write the procedure for finding maximum and minimum value.

14.(a) Write short notes on Knapsack problem with example.

Or

(b) Explain about optimal storage on tapes.

15.(a) Explain Recursive Back tracking Algorithm.

Or

(b) Write short Notes on N-Queen problem.

### **PART C –(3\*10=30)**

**Answer any THREE questions.**

16. Write the procedure for Infix to postfix Notation with example.

17. Explain Kruskal algorithm for Minimum cost Spanning Tree.

18. Briefly Explain about Pseudocode convention.

19. Describe about job sequencing with deadlines.

20. Explain about sum of subset problem

**RCCS 10CA6/RCCS 10 CS 6**  
**B.C.A/B.SC.DEGREE EXAMINATION,**  
**NOV 2013**  
**Part III –Computer Application /Computer Science-Major**  
**DATABASE SYSTEMS**

**Time:Three hours**

**Maximum:75 marks**

**Part A            (10\*2=20)**

**Answer the questions**

1. What do you mean by schema?Mention its types?
2. Who are called Naïve users ?
3. Define Tuple Variable.
4. What do you mean by primary key?
5. List any two set operations in sql.
6. What do you mean by Rollback word?
7. Define “Entity”.
8. Define Storing Entity set.
9. What do you mean by lossy decomposition?
10. Name any four normal forms.

**Part B            (5\*5=25)**

**Answer the questions**

11. (a). Discuss about the drawbacks of file processing system.  
Or  
(b).Write down the function of Database administrator.
12. (a). Describe the project and union operation in Relational algebra.  
Or  
(b).Write a note on Aggregate functions in Relational Algebra.
13. (a). Explain the following clauses in SOL queries select,from,where.

Or

- (b). Give a brief account on Authorization in SQL.

14. (a).What is an attribute ?Briefly discuss on its types.

Or

- (b).Write a note on mapping cardinalities.

15. (a).Describe the Boyce-codd normal form.

Or

- (b).What do you mean by multivalued dependencies? Discuss.

**Part C (3\*10=30)**

**Answer any three questions**

16. Write a brief account on Database Languages.
17. Discuss in detail the Database schema.
18. Describe the set operations in SQL.
19. Discuss about queries on one relation and queries on several relations in query by example
20. Write a note on:
- (a) Multivalued Dependencies
  - (b) Fourth normal form

**Computer Application/Computer Science**  
**BCA DEGREE EXAMINATION– NOV 2016**  
**SOFTWARE ENGINEERING**

**SUB CODE:MBECA1:1/10/MBECS1:1/10 MAX MARKS:75**

**CLASS: BCA**

**TIME: 3 Hrs**

**SECTION-A**

**(10X2=20)**

**ANSWER ALL QUESTIONS.**

1. Define software Engineering.
2. Write a short note on trivial projects?
3. What is COCOMO?
4. Write any two major factors that influence software cost
5. What is Transition Tables?
6. Define Petri net.
7. Differentiate Structure chart Vs Flow chart.
8. Define HIPO
9. What is Debugging?
10. Write short note Stress tests.

**SECTION-B**

**(5 X 5 = 25)**

**ANSWER ALL QUESTIONS.**

11. a) Explain in detail about Programming Team structure with example.

**(OR)**

- b).Discuss in detail about Software size factors with example.

12. a) Elaborate note on Prototype Life Cycle Model with example.

**(OR)**

- b) Discuss in detail about Project Structure with example.

13. a) Write a brief note on Formal specification techniques with example.

**(OR)**

b) Elaborate note on Fundamental design concepts with example.

14. a) Discuss about Design techniques with example.

**(OR)**

b).Explain in detail about documentation guidelines with example.

15. a) Elaborate note on Managerial aspects of software maintenance.

**(OR)**

b) Explain in detail about Quality assurance with example.

### **SECTION-C**

**(10 X 3 = 30)**

#### **ANSWER ANY THREE QUESTIONS.**

16. Discuss in detail about Quality and productivity factors with example.

17. Explain in detail about Software cost estimation techniques with example.

18. Elaborate note on Cohesion and Coupling with example.

19. Explain in detail about Design notations with example.

20. Discuss in detail about Unit testing and debugging with example.

**\*\*\*\*ALL THE BEST\*\*\*\*\***



**B.Sc/B.C.A DEGREE EXAMINATION, APRIL 2016**

**PartIII-Computer Application-Major**

**COMPUTER NETWORKS (RCCS 10CA9/RCCS 10 CS9)**

**SECTION-A(10\*2=20)**

Answer ALL Questions

1. Define MAN.
2. Write a short note on protocol.
3. Define PSTN.
4. Differentiate Radio transmission Vs Microwave Transmission.
5. Define Parity bit.
6. Write a short note on ARQ.
7. Differentiate Datagram subnet Vs Virtual circuit.
8. Define Congestion.
9. Write a short note on Name Servers.
10. Define URL.

**SECTION\_B (5\*5=25)**

Answer ALL Questions

11. (a) Discuss in detail about Network Hardware with example.  
Or  
(b) Elaborate note on OSI reference model.
12. (a) Write a brief note on Radio Transmission with example.  
Or  
(b) Discuss in detail about Communication Satellites.
13. (a) Write a brief note on Data Link layer design issues.  
Or

(b) Discuss in detail about Sliding Window Protocol.

14. (a) Explain in detail about Internetworking with example.

Or

(b) Write a brief note on Quality of Service with example.

15. (a) Discuss in detail about DNS with example.

Or

(b) Elaborate note on SMTP.

### **SECTION –C (3\*10=30)**

Answer any THREE Question

16. Discuss in detail about Connection Oriented networks with example.

17. Write a brief note on Transmission media with example.

18. Explain in detail about Error detection and Correction with example.

19. Discuss in detail about Routing algorithm with example.

20. Elaborate note on World Wide Web with example.

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**B .C.A APRIL 2017.**

**PartIII-Computer Application-Major**  
**OPERATING SYSTEM(RCCS10CA10)**

Time: Three hours      Maximum:75 marks

**Part A-(10\*2=20)**

Answer All questions.

1. Explain the main purpose of an operating system.
2. What is I/O programming?
3. What is primary memory?
4. What is page fault?
5. Explain process.
6. What is job scheduling?
7. Explain device manager.
8. What is spooling?
9. Explain file system.
10. Explain MSDOS.

**PART B-(5\*5=25)**

Answer ALL questions.

- 11.(a) Explain the functions of an operating system.

Or

- (b)Write short notes on interrupt mechanism.

12. (a) Explain the concept of segmentation.

Or

- (b) Explain the overlay concept.

13. (a) Explain semaphore technique.

Or

- (b) Explain the reasons for deadlock.

14. (a) Write short notes on disk organization.

Or

(b) Explain I/O scheduler.

15. (a) What is directory system? Explain.

Or

(b) Explain file allocation methods.

**PART C-(3\*10=30)**

Answer any THREE questions.

16. Explain the evolution of an operating system.

17. Explain the paged memory allocation briefly.

18. Explain the Round Robin multiprogramming performance.

19. Explain I/O traffic controller.

20. Explain the detail of UNIX operating system in process management.

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**Computer Application/Computer Science**  
**BCA DEGREE EXAMINATION– NOVEMBER 2016**  
**PHP SCRIPTING LANGUAGES**

**SUB CODE:RCCS10CA8**

**MAX MARKS:75**

**CLASS: BCA**

**TIME: 3 Hrs**

**SECTION-A**

**(10X2=20)**

**ANSWER ALL QUESTIONS.**

1. What is meant by Constants?
2. What Array?
3. What is usage of Action attribute?
4. Write a note on Forms.
5. Write a note on Class.
6. Define the term Overloading.
7. Write a note on stat functions.
8. Write a note on flock functions.
9. What is AJAX.
10. Write syntax on Image string functions.

**SECTION-B**

**(5 X 5 = 25)**

**ANSWER ALL QUESTIONS.**

11. a) Write short notes on Switch Statement with example.

**(OR)**

- b).Write short notes on 'For' Loop with example.

12. a) Discuss about Check boxes.

**(OR)**

- b) Write short notes on Radio Buttons.

13. a) Discuss about function Overloading.

**(OR)**

b) Write short notes on Protected members.

14. a) How to open a file in PHP.

**(OR)**

b).How to read a character from a File?

15. a) How to draw lines in PHP?

**(OR)**

b) How to draw rectangles in PHP?

### **SECTION-C**

**(10 X 3 = 30)**

#### **ANSWER ANY THREE QUESTIONS.**

16. Explain different type of looping statements in PHP.

17. Explain hidden control in forms.

18. Explain object iteration in detail.

19. Explain cookies in detail.

20. Explain polygons in detail.

**\*\*\*\*ALL THE BEST\*\*\*\*\***