S.B. Arts & KCP/BSC I Sem/ Computer Science / I Internal Test 2021-22

TIME: 1 HOUR | MAX. MARKS: 30

SUBJECT: Computer Fundamentals & Programming in C | DATE: 8/12/2021

Q 1 Answer any FIVE of the following **2 X 5 = 10**

1. What is meant by Computer?
2. Define RAM & ROM
3. What is meant by Algorithm?
4. List various types of Computer
5. What is meant by Pseudo Code?
6. List the characteristics of Computer System

Q 2 Answer any TWO of the following **5 X 2 = 10**

7. Explain with neat diagram Basic Organization of a Digital Computer
8. Write the difference between RAM & ROM
9. Briefly explain Functionalities of a computer

Q 3 Answer any ONE the following **10 X 1 = 10**

10. Describe Generation of computers
11. Define Flowchart? Briefly explain different symbols of flowchart

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First Internal Test for Bsc III – 2021-22

Hours 1 **Max 20**

Answer these questions:(PART A) **(3x2=06)**

Q1) Define Pointer ?

Q2) Define malloc and calloc ?

Q3) Define primitive and non- primitive Data structure ?

Answer these questions: (PART B)

Q4) Difference between Array and Pointer ? **(4X1=04)**

Q5) Write a program to find the biggest of three number . **(5X1=05)**

Q6) Explain Bubble sort with an Example **(5X1=05)**

End

S.B.A.KCP/BSC V Sem/ Computer Science / I Internal Test 2020-21

TIME: 1 HOUR **MAX. MARKS: 20**

DATE: 8/12/2021 **SUBJECT: RDBMS**

Q 1 Answer any TWO of the following **2 X 2 = 4**

1. What is DBMS? List any two application of DBMS
2. Define DDL Command.
3. What is meant by Normalization?

Q 2 Answer any ONE of the following **1 X 6= 6**

4. Explain levels of data abstraction with suitable example
5. Describe Transaction Management

Q 3 Answer any ONE the following **1 X 10 = 10**

6. Explain significant differences between a file-processing system and a DBMS
7. What are the basic goals of DBU & DBA

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First Internal Test for Bsc V (Paper II) – 2021-22

Hours 1 **Max 20**

Answer these questions:(PART A) **(3x2=06)**

Q1) Define Class, Object and Method in Java ?

Q2) Define Abstraction and Encapsulation in Java?

Q3) List 4 Features of Java and Explain ?

Answer these questions: (PART B)

Q4) Explain public static void main(String args[]) in Java. **(4X1=04)**

Q5) Difference between Abstraction and Encapsulation in Java **(5X1=05)**

Q6) Difference between Procedural and Object Oriented Programming ? (5X1=05)

End

Q.III Answer any one of the following **(10x1=10)**

10. Write a detail note on following with an example a) nested if b) for c)while
11. Write a detailed note on string and its functions

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SBKCP/BSC III SEM /Data Structure /II Internal Test 2021-22

Time: 3 Hour **Max. Marks :80**

Answer any TEN of the following **(10x2=20)**

1) Define Data Structure.
2) What are the four basic operation of Data Structure?
3) What is recursion?
4) Define Linear Search.
5) How pointer variable can be declared and initialized?
6) Define sorting? List out different sorting techniques.
7) What are the different types of queue
8) What is dynamic memory allocation?
9) What is structure?
10) What is merge sort?
11) Define Linked list
12) Define Null Pointer

Answer any Five of the following **(5x4=20)**

13) Differentiate between static and dynamic memory allocation.
14) Write a program to compute factorial of a number using recursive function.
15) Write a note on memory allocation functions
16) Distinguish between primitive and Non primitive data structure. Give an example for each.
17) Explain Merge Sort Algorithm
18) Differentiate between calloc( ) and malloc( )
19) Explain the various applications of stack.

Answer any Four of the following **(4x10=40)**

20) What is stack? Write a c program to perform stack operations.
21) Explain the concept of bubble sort technique with an example.
22) a)Convert the following infix expression to postfix expressions
(i) B * C – D + E / F / (G + H) (ii) (A+B)*(C+D) $ (A+B)
23) What is searching? Write a C program to search an element using Binary search.
24) Evaluate the postfix expression AC – AB + * where A=10.6 B=6.2 and C =8.4
25) Write an algorithm to insert and delete an element in a queue
26) Write a C program to sort n number in an ascending order using Quick Sort technique.

SBKCP/BSC III SEM / Internal Test 2021-22

SUBJECT : SKILL ENHANCEMENT COURSE – INTERNET AND E-RESOURCE

Date : **Max. Marks : 20**

Answer any TEN of the following **(10x2=20)**

1. Define Internet
2. Expand WWW and URL
3. Mention the uses of Internet
4. What is E-mail?
5. Define Newsgroup.
6. Expand FTP and HTTP.
7. Mention the types of Internet Connections
8. Define Web Browser. Mention any two web browsers
9. What is Book Mark/favourite?
10. What do you mean by E-Resourse.
11. Define Hyperlink.

Answer any two of the following **(5x2=20)**

1. Explain the Advantages and Disadvantages of Email
2. Define URL with example
3. Mention the types of E-Resources

S.B.Arts & KCP/BSC V Sem/ Computer Science P-I / II Internal Test 2021-22

TIME: 3 HOUR | MAX. MARKS: 80

SUBJECT: Relational Database Management System | DATE:

Q. I. Answer any ten of the following **(10x2=20)**

1. Define RDBMS
2. What is RAID
3. Write the syntax for CREATE COMMAND
4. Define Attribute? Give example
5. What do you mean by entity, weak entity?
6. Expand DDL, DML, and TCL.
7. What do you mean by normalization?
8. What is 1 to 1 relationship?
9. What is Relational algebra?
10. What is Primary Key?
11. Explain Drop & Commit Command

Q.II . Answer any four of the following **(4x5=20)**

12. Explain three schema architecture with diagram.
13. What are the uses of database? Explain.
14. Explain all ER diagram notations.
15. What are the uses of normalization?
16. Explain 1NF with example.

Q.III . Answer any four of the following **(4x10=40)**

17. Explain all ACID properties.
18. Explain ER diagram for company database.
19. Define 2NF, 3NF & BCNF. Explain in detail with a suitable example.
20. Explain the following.
    a) SELECT b) UPDATE c) DELETE d) DROP e) ALTER
21. What is JOIN? Explain different types of SQL JOIN

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Second Internal Test for Bsc V (Paper II)

Hours 3hr **Max 80**

Answer any ten questions: (PART A) **(10x2=20)**

1. Define OOPS ?
2. What do you mean by a class ?
3. What is an object ?
4. What is JDK ?
5. What are literals ?
6. List down the data types in Java?
7. Define Encapsulation?
8. What are the static data members in java?
9. What are abstract classes?
10. What is Thread?
11. Define Method overloading?
12. What is an Applet?

Answer any six questions: (PART B) **(6x5=30)**

13. Write about the features of Java ?
14. Write a Java program to illustrate the use of constructors ?
15. Write short notes on method overloading in Java ?
16. Explain about various access specifiers used in Java.
17. What is AWT. Explain it with an example?
18. Explain about static data members and static methods in Java?
19. Write a note on "this" keyword?
20. Explain about the various built in exception handling classes in java?

Answer any Three questions: (PART C) **(3x10=30)**

21. Explain the control statements with an example in Java ?
22. Explain the concept of inheritance in Java with an example?
23. Explain the lifecycle of an applet with an example ?
24. What is a package? Explain it with example?
25. How to achieve Multiple inheritance in Java explain with an example ?

End

SBKCP/BSC II SEM / 1st Internal Test 2021-22

SUBJECT : Data Structure Using C

Time : 1Hr

Max. Marks : 30

Answer any Three of the following (2x3=6)

1. Define Data Structure?
2. Define Searching and List the types of Searching ?
3. What is the drawback of Simple Queue?
4. Convert Infix to Prefix and Postfix of the following Expression
   (A*B)/(C^D)

Answer any six of the following (4x 6=24)

1. Explain Classification of Date Structure
2. Explain Bubble Sort using following Data
   2.6, 9.1, 6.2, 4.8, 1.1, 6.3, 2.1
3. Explain Stack with Function ?
4. Explain Circular Queue ?
5. Write a program to find a search element in a list using Binary Search.
6. Convert the following in Prefix and Postfix Expression
   a) A^B/C*(E-F) b) X/Y*Z+A-B/C c) A*B/C+Z
7. Write an Algorithm for Conversion of an arithmetic expression from infix to postfix using Stack.

SBKCP/BSC II SEM / 2nd Internal Test 2021-22

SUBJECT : Data Structure Using C

Time : 1Hr Max. Marks : 30

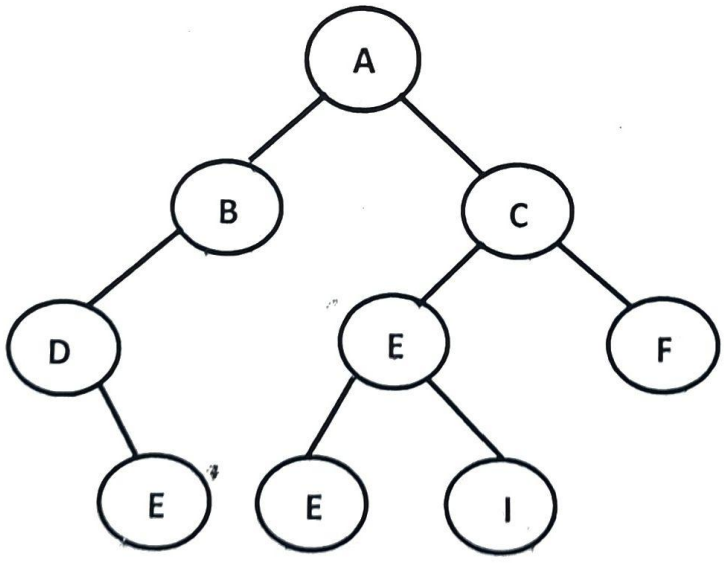
Answer any Three of the following (2x3=6)

1. Define Null pointer and External Pointer with respect to linked List.?
2. List the advantages and disadvantages of singly linked list.?
3. What are self-referential structures?
4. What is recursion?

Answer any six of the following (4x 6=24)

1. Write a recursive program to find the nth Fibonacci number?
2. Differentiate between Calloc and Malloc
3. Explain with a neat figure, to delete a node at END of linked list.
4. Write a C function to Insert the beginning of singly linked list.
5. Construct a Binary Search Tree for following Elements

   12 ,7 ,9 ,19 , 5 , 10
6. Define : (i) Forest (ii) Degree of a node (iii) Path (iv) Depth with example
7. Write the result after traversing the following tree in inorder , preorder and postorder



END

SBAKCP/BSC IV Sem/ Computer Science / I Test 2021-22

Operating System

Time: 1 Hour **Max. Marks : 20**

Q. 1 Answer any THREE of the following **3 X 2 = 6**

1. What is Operating System ?
2. What is batch System ?
3. What is a Process ?
4. What is meant by Context Switch ?

Q. 2 Answer any ONE of the following **1 X 4 = 4**

5 .Explain Different Types of OS ?
6. Explain Process Life Cycle in OS ?

Q. 3 Answer any ONE of the following **1 X 10 = 10**

7. Define Deadlock ? Explain Necessary Conditions for Deadlock ?
8. System with five Processes Po through P4 and three resources of type A,B,C. Resource type A has 10 instances, B has 5 instances and type C has 7 instances. Suppose at time to following of the system has been taken :

Process	Allocation			Max		
	A	B	C	A	B	C
Po	0	1	0	7	5	3
P1	2	0	0	3	2	2
P2	3	0	2	9	0	2
P3	2	1	1	2	2	2
P4	0	0	2	4	3	3

a) What will be the content of the Need Matrix ?
b) Is the System in a Safe State ? If Yes then what is the safe Sequence?

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Second Internal Test for Bsc IV - 2021-22

Hours 3hr Operating Systems **Max 80**

Answer any ten questions: (PART A) **(10x2=20)**

1. What is an operating system?
2. Explain time sharing operating system?
3. Define critical section?
4. Define semaphores.
5. Define Swapping?
6. Define race condition.
7. What is External Fragmentation?
8. What do you mean by Compaction?
9. What is deadlock?
10. What are different methods for handling deadlocks?

Answer any Four questions: (PART B) **(4x5=20)**

1. Explain OS structure?
2. Explain about multiprogramming and time sharing operating system?
3. What is a process ?explain different process states
4. Explain Round Robin scheduling algorithm with example
5. Explain about first fit, best fit, worst fit, next fit algorithms?

Answer any Four questions: (PART C) **(4x10=40)**

1. Consider the following five processes, with the length of the CPU burst time given in milliseconds. Process Burst time P1- 10, P2- 29, P3- 3, P4- 7, P5- 12 Consider the First come First serve (FCFS), Non Preemptive Shortest Job First(SJF), Round Robin(RR) (quantum=10ms) scheduling algorithms. Illustrate the scheduling using Gantt chart. Explain the font properties.
2. Explain the basic concepts of segmentation in detail.
3. What are the 3 solutions to critical section problem?
4. Suppose the head of a moving- head disk with 200 tracks, numbered 0 to 199, is Currentlyserving a request at track 143 .If the queue of requests is kept in FIFO order: 86, 147, 91, 177, 94, 150, 102, 175, 130. What is the total head movement to satisfy these requests for the following Disk scheduling algorithms.
   (a)FCFS (b) SCAN (c) SSTF (d) C- SCAN
5. Explain Reader –Writer Problem and write algorithm .

End

S.B.Arts & KCP/BSC IV Sem/ Computer Science (SEC)/ I Internal Test 2021-22

TIME: 1 HOUR

MAX. MARKS: 10

DATE: 30/06/2022

SUBJECT: Multimedia Technology

Q I Answer any TWO of the following 5 X 2 = 10

1. What are different types of multimedia .explain with neat diagram?
2. Explain in details the pre-processing technique in OCR
3. List out the differences between serif and sans-serif fonts and give examples of each

SBKCP/BSC IV SEM / II Internal Test 2021-22

SUBJECT: SKILL ENHANCEMENT COURSE – MULTIMEDIA TECHNOLOGY

Date: 23/08/2022 **Max. Marks: 40**

Answer any four of the following **(10x4=20)**

1. Define video editing. Write about two types of video editing techniques.
2. Explain about 3D drawing and rendering
3. Write the difference between MIDI versus Digital audio
4. What are the different types of text element used in multimedia Presentation?
5. Describe principles of animation.
6. Describe video and digital movie tools.

S.B.Arts & KCP/BSC VI Sem/ Computer Science (Paper I)/ I Internal Test 2021-22

TIME: 1 HOUR | MAX. MARKS: 20

DATE: 30/06/2022 | SUBJECT: DC&CN

Q I Answer any TWO of the following 2 X 2 = 4

1. What is mean by Data Communication?
2. Define Topology?
3. What is Attenuation

Q II Answer any ONE of the following 1 X 6= 6

4. What are the different types of networks? Explain in detail.
5. What is Shannon capacity for Noisy Channel

Q III Answer any ONE the following 1 X 10 = 10

6. Explain the OSI reference model with neat diagram
7. Describe about Transmission Modes with neat diagram

P-II

SBAKCP/BSC VI Sem/ Computer Science / I Test 2021-22

Time: 1 Hour — Web Technology — Max. Marks : 20

Q. 1 Answer any THREE of the following **3 X 2 = 6**

1. Define Internet. List any two applications of Internet
2. Define Web Browser.
3. Define URL. Give example
4. Define MIME.

Q. 2 Answer any ONE of the following **1 X 4 = 4**

5. What is HTML? Explain its Structure ?
6. Explain about various text formatting Tags
7. Explain Lists in HTML with example
8. Explain Applet Life Cycle.

Q. 3 Answer any ONE of the following **1 X 10 = 10**

9. Explain the font properties. Write an HTML code to demonstrate font properties.
10. What is CSS? Explain the ways by which CSS is included in the web page.
11. What is Java Script ? Explain the benefit and limitation of Java Script.

SBKCP/BSC VI SEM Paper-I / Data Communication & Computer Networks

II Internal Test 2021-22

Computer Science P-I

Time: 3 Hour **Max. Marks: 80**

Answer any ten of the following **(2x10=20)**

1) Define Computer Network.
2) What is LAN?
3) What is framing?
4) Define Error detection and correction.
5) What are the responsibilities of data link layer?
6) What is a switch?
7) What is TCP?
8) Define Multiplexing.
9) Define Protocol?
10) Define HDLC
11) Compare connectionless service & connection oriented service.
12) Define Packet

Answer any four of the following **(4x5=20)**

13) Explain TCP/IP model
14) What is Hamming Code? Elaborate with example.
15) Differentiate between TDM and FDM
16) Write the difference between circuit and packet switching
17) Explain wireless LAN
18) Write the advantages and disadvantages of BUS topology

Answer any four of the following **(4x10=40)**

19) Discuss about OSI reference model with neat sketch.
20) Explain guided media.
21) Explain leaky bucket algorithm and Token bucket algorithm.
22) Define ALOHA? Explain types of ALOHA.
23) Write short notes on following
    a) Ethernet
    b) CRC

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Second Internal Test for Bsc VI (Paper II)-2021-22

Hours 3hr Web Technology **Max 80**

Answer any ten questions: (PART A) (10x2=20)

1. Define Internet. List any two applications of Internet
2. Define Web Browser.
3. Define URL. Give example
4. Define MIME.
5. What is AWT ?
6. What are the Advantage of Applet ?
7. What are the different operation used in JavaScript ?
8. List out the Perl Variables ?
9. What is Scalar Variable in Perl ?
10. What is XML and CGI ?

Answer any Four questions: (PART B) (4x5=20)

1. What is HTML? Explain its Structure ?
2. Explain about various text formatting Tags
3. Explain Lists in HTML with example
4. Explain Applet Life Cycle.
5. Explain Advantages of CGI ?

Answer any Four questions: (PART C) (4x10=40)

1. Explain the font properties. Write an HTML code to demonstrate font properties.
2. What is CSS? Explain the ways by which CSS is included in the web page.
3. What is Java Script ? Explain the benefit and limitation of Java Script.
4. Write Perl Program for array creation and accessing its elements.
5. A) Explain the Servlet architecture
   B) Difference between Servlet and CGI

End