

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)

B.C.A. Sem-II :SUMMER- 2022

SUBJECT : COMPUTER ORGANIZATION & ARCHITECTURE

Day : Monday

Date : 6/6/2022

S-18759-2022

Time : 10:00 AM-01:00 PM

Max. Marks : 60

N.B.:

- 1) **Q. No. 4** from Section –I is **COMPULSORY**.
- 2) Answer any **TWO** questions from Questions **1, 2 & 3** in **Section –I**.
- 3) Answer any **TWO** questions from Questions **5, 6 & 7** in **Section –II**.
- 4) Figures to the right indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.

SECTION-I

- Q.1** a) What are different types of addressing modes? Explain six addressing modes with proper example. (06)
b) With the help of proper diagram, discuss Memory Hierarchy. (06)
- Q.2** a) Construct and discuss 3 x 8 decoder with the help of 2x4 decoder. (06)
b) Explain various instruction formats with the help of examples. (06)
- Q.3** a) Discuss term Machine Language, Assembly Language and Assembler. (06)
b) Explain instruction cycle with the help of flow chart. (06)
- Q.4** Write short notes on any **THREE** of the following: (12)
a) Flip Flop
b) Bus and Memory Transfer
c) Peripheral Devices
d) Types of interrupts
e) Number system

SECTION-II

- Q.5** a) Draw the circuit diagram and tabulate the truth table. (06)
 $(BC' + A'D)(AB + CD')$
b) Prove $A + A'B + A'B'C + A'B'C'D = A + B + C + D$ (06)
- Q.6** Solve the following: (12)
a) Simplify the following Boolean function using K-map
 $F(A, B, C, D) \sum(0, 2, 4, 5, 6, 7, 8, 10, 13, 15)$
b) $10010 * 111$
c) $10000010 - 01010101$ using 2's complement method.
- Q.7** A sequential circuit with two D flip-flops A and B, two inputs x and y and one output z is specified by the following input equations: (12)
 $D_A = x'y + xA$
 $D_B = x'B + yA'$
 $Z = xA + yB'$
a) Draw logic diagram
b) Derive the state diagram
c) Derive the state table

* * * *

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)
B.C.A. Sem-II :SUMMER- 2022
SUBJECT : DBMS-I

Day : Wednesday
Date : 8/6/2022

S-18760-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) Q.4 from Section – I is **COMPULSORY**.
 - 2) Answer **ANY TWO** questions from Q.1, 2, 3 in Section – I
 - 3) Answer **ANY TWO** questions from Q.5, 6, 7 in Section – II
 - 4) All questions carry **EQUAL** marks.
 - 5) Draw neat and labelled diagrams **WHEREVER** necessary.
 - 6) Answers to both the sections should be written in **SAME** answer book.
-

SECTION – I

- Q.1** Define Database. Explain an architecture of database with a neat labelled diagram. (12)
- Q.2** Define Data Model. Explain the different types of data models with relevant examples. (12)
- Q.3** What is normalization? Explain normalization techniques using functional dependencies with relevant examples. (12)
- Q.4** Write short notes on the following **ANY THREE**: (12)
- a) Functions of Database Administrator
 - b) DBMS interfaces
 - c) Strong Entity Vs Weak Entity
 - d) ACID properties of transaction
 - e) Shadow paging

SECTION – II

- Q.5** Draw an Entity Relationship Diagram for the following scenario. The book club has members. The club sells books to its members. The members places orders for books, which the book club fulfills. Each order contains one or more than one books. The books are written by author(s). The publisher publishes the book. An author can write more than one book and a book can have more than one author. A book is published by a publisher, but a publisher publishes many books. A member can place more than one order. The member also can choose not to place an order. The book club sells many books. (12)
- Q.6** Answer the following: (12)
- a) Discuss Wait-die and Wound-wait protocols for deadlock prevention.
 - b) Explain strict two phase locking and conservative two-phase locking protocol.
- Q.7** Explain the various types of file organization. (12)

* * *

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)
B.C.A. Sem-II :SUMMER- 2022
SUBJECT : C PROGRAMMING-II

Day : Friday
Date : 10/6/2022

S-18761-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) Q. No. 4 is **COMPULSORY**.
 - 2) Answers any **TWO** questions from Q. No. 1, 2, 3 from Section – I.
 - 3) Answers any **TWO** questions from Q. No. 5, 6, 7 from Section – II.
 - 4) Figure to the right indicate **FULL** marks
 - 5) Answers to both sections should be written in **SAME** answer book.
-

SECTION - I

- Q.1** What is two – dimensional array? Explain its syntax and memory (12)
representation with relevant example.
- Q.2** What is linked list? Explain various operations performed on linked list. (12)
- Q.3** What is meant by stack? State its applications and operations in detail. (12)
- Q.4** Write short notes on any **THREE** of the following: (12)
- a) Abstract Data Type
 - b) Bubble sort technique
 - c) Array operations
 - d) Binary tree

SECTION - II

- Q.5** What is a file? Explain different modes of a file. Write a C program to read (12)
data from the keyboard and write it to a file.
- Q.6** What is searching? Implement binary search technique using C code. (12)
- Q.7** a) Define queue. Write a C program to implement enqueue and dequeue operation (06)
on queue
- b) Define tree. Describe breadth first traversal technique of tree. (06)

*

*

*

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)

B.C.A. Sem-II : : SUMMER - 2022

SUBJECT : FINANCIAL ACCOUNTING

Day : Monday
Date : 13-06-2022

S-18762-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) **Q. No. 4 from Section – I is COMPULSORY.**
- 2) Attempt **ANY TWO** questions from Q. No. 1 to Q. No. 3 in **Section – I.**
- 3) Attempt **ANY TWO** questions from Q. No. 5 to Q. No. 7 in **Section – II.**
- 4) Figures to the right indicate **FULL** marks.
- 5) Both the sections should be written in **SAME** answer books.

SECTION - I

- Q.1** Define 'Financial Accounting'. Explain its scope and objectives. **(12)**
- Q.2** Define Accounting Principles. State and Explain the Accounting Concepts in detail. **(12)**
- Q.3** Explain the following:
- a) Meaning and Purpose of Trial Balance **(06)**
 - b) Importance and Utility of Journal **(06)**
- Q.4** Write short notes on **ANY THREE** of the following : **(12)**
- a) Branches of Accounting
 - b) Cash Book
 - c) Convention of Conservatism
 - d) Book Keeping
 - e) Purchase Book & Sales Book

SECTION - II

- Q.5** Journalize the following transactions in books of Sagar: **(12)**

Year 2022	
1 st March	Sagar invested Rs.1,00,000/- into business
10 th March	Sagar gave a cheque of Rs. 2,000/- to Nitin
11 th March	Purchased Stationery of Rs. 500
15 th March	Sold old office furniture for Rs. 800
26 th March	Gave loan to Suraj by cheque Rs. 20,000
28 th March	Sold goods on credit to Shyam worth Rs. 2,00,000

P.T.O.

- Q.6** From the following Trial Balance and addition information, prepare a Trading and Profit and Loss Account for the year ending 31st March 2022 and a Balance Sheet as on that date. **(12)**
- Trial Balance as on 31st March 2022

Particulars	Debit (Rs.)	Credit (Rs.)
Capital		20,000
Sundry Debtors	5,400	
Drawings	1,800	
Machinery	7,000	
Sundry Creditor		2,800
Wages	10,000	
Purchases	19,000	
Opening stock	4,000	
Bank Balance	3,000	
Carriage charges	300	
Salaries	400	
Rent and Taxes	900	
Sales		29,000
Total	51,800	51,800

Additional information:

- i) Closing stock Rs. 1,200
- ii) Outstanding Rent and Taxes Rs.100
- ii) Charge depreciation on Machinery @ 10 %
- iv) Wages prepaid Rs. 400

- Q.7** Write a detailed note on 'Computerized Accounting'. **(12)**

* * * * *

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)

B.C.A. Sem-II :SUMMER- 2022

SUBJECT : PRINCIPLES OF MANAGEMENT

Day : Wednesday

Time : 10:00 AM-01:00 PM

Date : 15-06-2022

S-18763-2022

Max. Marks : 60

N.B :

- 1) **Q. No. 5** from **Section – I** is **COMPULSORY**.
- 2) Solve **Any TWO** from **Q.No.1** to **Q. No.4** in **Section – I**.
- 3) Solve **Any TWO** from **Q.No.6** to **Q. No.8** in **Section – II**.
- 4) Figures to the right indicate **FULL** marks.
- 5) Answers to both sections should be written in **SAME** answer book.

SECTION - I

- Q.1** a) Define management. State different levels of management. (06)
- b) State in detail scope and importance of management. (06)
- Q.2** a) What is planning? Discuss steps in planning process. (06)
- b) State decision making process in detail. (06)
- Q.3** a) State in detail steps involved in process of organizing. (06)
- b) What do you mean by recruitment? What are the sources of recruitment? (06)
- Q.4** a) What is motivation? Discuss positive and negative motivation in business firm. (06)
- b) Define Leadership. What do you mean by authority and responsibility at business organization? (06)
- Q.5** Write short note on **ANY THREE** of the following: (12)
- a) Management audit
- b) Use of IT in controlling
- c) Decentralization
- d) Management by objectives

SECTION - II

- Q.6** What do you mean by delegation of authority? What kind of authorities delegates by manager? And how it will help them? (12)
- Q.7** Discuss in detail relationship between planning and controlling. (12)
- Q.8** ‘Contribution of Henry Fayol still guiding for effective and efficient utilization of resources.’ Discuss with suitable example. (12)