

**B.C.A. SEM-II (2014 Course) CBCS : WINTER - 2018**  
**SUBJECT: COMPUTER ORGANIZATION & ARCHITECTURE**

Day : Wednesday  
Date : 14/11/2018

**W-2018-1828**

Time : 10.00 AM TO 01.00 PM  
Max.Marks : 100

**N.B.**

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

**SECTION – I**

- Q.1** What do you mean by combinational circuit? Explain the full adder and half adder in detail. (15)
- Q.2** Describe the functioning of 4 to 1 line multiplexer with help of circuit diagram and truth table. (15)
- Q.3** Draw the block diagram of 4 bit binary adder-subtractor and explain the functioning of it. (15)
- Q.4** What is instruction cycle? Explain with the help of flow chart. (15)
- Q.5** Discuss various instruction formats. Give suitable example for each. (15)
- Q.6** What is asynchronous data transfer? Describe it with strobe-control method and hand-shaking method. (15)
- Q.7** Write short notes on any two of the following. (15)
- a) Binary Counter
  - b) Register transfer language
  - c) RISC

**SECTION – II**

- Q.8** Solve the following. (20)
- a)  $110011 * 111$
  - b)  $10101010 - 00110011$
  - c) Solve using stack:  $[(3+2) + 5 (4 * 5)]$
  - d) Find 2's complement : 10101010
  - e)  $(10101111)_2 = (?)_{16}$
- Q.9** Sequential circuit has two D flip flops A and B, one input x and one output y. The flip flop input equations and circuit output are as follows. (20)
- $D_A = Ax + Bx'$   
 $D_B = A'x + x$   
 $y = Ax + Bx'$
- a) Draw the logic diagram of the circuit.
  - b) Tabulate state table.
  - c) Draw the state diagram.
- Q.10** What is associative memory? Discuss functioning of associate memory with help of match logic in detail. (20)

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**B.C.A. SEM-II (2014 Course) CBCS : WINTER - 2018**  
**SUBJECT: APPLIED DATABASE MANAGEMENT CONCEPTS USING ORACLE**

**Day:** Friday  
**Date:** 16/11/2018

**W-2018-1829**

**Time:** 10.00 AM TO 01.00 PM  
**Max. Marks: 100**

**N.B:**

- 1) Attempt **ANY FOUR** questions from Section-I and **ANY TWO** questions from Section-II.
- 2) Solve both sections in the **SEPARATE** answer book.
- 3) Figures to the right indicate **FULL** marks.

**SECTION-I**

- Q.1** Explain CODD's Rules in detail with an example. (15)
- Q.2** What is SQL? Explain DDL, DML, and DQL in detail. (15)
- Q.3** What is oracle functions? Explain oracle functions with suitable example. (15)
- Q.4** Explain the following terms. (15)
- a) Subqueries
  - b) Index
  - c) View
  - d) Pattern Matching
  - e) Primary Key
- Q.5** What is Exception Handling? Explain it with an example and also explain how to handle exception in Oracle. (15)
- Q.6** Explain Arithmetic, Logical and Relational Operators of SQL with an example. (15)
- Q.7** What is Sequence? Explain in detail Create, modify and drop sequence in Oracle. (15)

**SECTION-II**

- Q.8** Write a PL/SQL block of code to accept number from users to check whether it is prime or not. (20)
- Q.9** Consider the following entities and their relationships.  
Movie (mvno, mvname, releaseyear)  
Actor (actno, actname)  
Movie\_Actor (mvno, actno)  
Movie and Actor are related with many to many relationship  
Write SQL statements of the following:
- a) Create above table with proper constraints. (04)
  - b) Insert 5 records in each table (03)
  - c) Count the number of movies in which 'John' has acted. (03)
  - d) Find all actors of movie 'Army'. (03)
  - e) Find all movies of actor name 'Steve' which were released in the year 1975. (03)
  - f) Print actor wise list of movies along with release year and movie name. (02)
  - g) Display Actor name with number of movie acted. (02)
- Q.10** Explain the following in detail with suitable example.(ANY TWO) (20)
- a) Trigger
  - b) Joins
  - c) Control Statements

**B.C.A. SEM-II (2014 Course) CBCS : WINTER - 2018**

**SUBJECT : C PROGRAMMING – II**

Day : Monday  
Date : 19/11/2018

**W-2018-1830**

Time : 10.00 AM TO 01.00 PM  
Max. Marks : 100

**N. B. :**

- 1) Attempt **ANY FOUR** questions from Section – I and attempt **ANY TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

**SECTION – I**

- Q. 1** List and describe bitwise operators in 'C' with example. (15)
- Q. 2** What is pointer? List and describe various operators can be used with pointer. (15)
- Q. 3** What is FILE? Describe different modes of file opening and its impact on reading and writing into file. (15)
- Q. 4** What is macros? List available macros and describe use of any three among them. (15)
- Q. 5** What do you know about user defined data type? Describe use of struct keyword in it. (15)
- Q. 6** What do you know about recursive function? Comment on when to use such functions with example. (15)
- Q. 7** Write note on **ANY THREE** of the following: (15)
- a) <stdio.h>
  - b) Functions in graphics library
  - c) Generic pointer
  - d) Use of enum keyword

**SECTION – II**

- Q. 8** Write a function to compare two string. Use this function to sort strings accepted by using command line arguments. (20)
- Q. 9** Write a program to design a structure to represent a Student with properties roll\_no, name, class and subjects allocated to him; use to create array of ten students and display list of them. (20)
- Q.10 a)** Write a program to read a text file and print contents of it. (10)
- b)** Illustrate use of union with suitable example. (10)

**B.C.A. SEM-II (2014 Course) CBCS : WINTER - 2018**  
**SUBJECT : FINANCIAL MANAGEMENT & ACCOUNTING**

Day : Thursday  
Date : 22/11/2018

Time : 10.00 AM TO 01.00 PM  
Max. Marks : 100

**W-2018-1831**

**N.B.**

- 1) Attempt any **FOUR** questions from Section – I.
- 2) Attempt any **TWO** questions from Section – II.
- 3) Answers to both the sections should be written in the **SAME** answer book.
- 4) Assume suitable data if necessary.

## SECTION - I

**Q.1** Discuss in detail the scope and nature of Financial Management. **(15)**

**Q.2** Journalise the following transactions (15)

<b>Date</b> <b>January,</b> <b>2014</b>	<b>Particulars</b>	<b>Amount</b> <b>(Rs.)</b>
01	Rajat started business with cash	10,00,000.00
05	Took loan from HDFC Bank	5,00,000.00
08	Purchased goods from Shyam on credit	2,00,000.00
15	Deposited cash in bank	5,00,000.00
17	Paid Rent via cheque	50,000.00
18	Withdrew goods for personal use	10,000.00
19	Distributed goods as free samples	10,000.00
21	Withdrew cash from Bank	5,000.00
25	Returned goods to Shyam	50,000.00
27	Paid Shyam in full and final settlement	1,40,000.00

**Q.3** Explain the concept of inventory management and EOQ. (15)

**Q.4** Based on the following information prepare a flexible budget for (15)  
production of 5000 units and 7000 units per month.  
Production Capacity 10,000 units per month

Particulars	Per Unit (Rs.)
Direct material	05
Direct labour	08
Variable O/H	02
Fixed O/H (Rs. 10,000 fixed)	05
Total cost per unit	20

**Q.5** Discuss in detail concept of : **(15)**

**a) Contribution**
**b) Margin of Safety**

**Q.6** Explain advantages as well as limitations of Long Term sources of Finance. (15)

**Q.7** Write short notes on any **TWO**: (15)

- a) Profitability Index
- b) Budgetary Control
- c) Financial Plan

**P.T.O.**

## SECTION – II

- Q.8** From the following information prepare a Trading, Profit and Loss Account, for the year ending 31.03.2015 and Balance sheet as on that date. **(20)**

### Trial Balance as on 31.03.2015

Particulars	Debit (Amount Rs.)	Credit (Amount Rs.)
Cash	10,00,000.00	
Bank	5,00,000.00	
Furniture and Fixtures	1,00,000.00	
Computer	50,000.00	
Plant and Machinery	2,00,000.00	
Debtors	50,000.00	
Capital		18,00,000.00
Creditors		1,00,000.00
Rent	40,000.00	
Salary	60,000.00	
Opening Stock	50,000.00	
Purchases	1,00,000.00	
Sales		2,00,000.00
Commission		50,000.00
	<b>21,50,000.00</b>	<b>21,50,000.00</b>

Adjustment:

1. Closing Stock as on 31.03.2015 Rs. 20,000.00.
2. Prepaid Rent Rs.10,000.00.
3. Outstanding Salary Rs. 10,000.00.
4. Depreciate Plant and Machinery at 10%.
5. Write off bad debts Rs. 5,000.00.

- Q.9** Discuss the various accounting concepts and conventions in brief. **(20)**

- Q.10** a) Explain the advantages and limitations of variance analysis. **(10)**

- b) Discuss in detail the concept of working capital. **(10)**

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