N

(Printed Pages 7)

(201217)   Roll No........................

B.C.A. - V Sem.

18023

B.C.A. Examination, Dec. 2017

Computer Network

(BCA-503)

(New Course)

Time : Three Hours]   *[Maximum Marks : 75*

Note : Attempt questions from **all** sections as per instructions.

Section-A

(Very Short Answer Questions)

Note : Attempt all the **five** questions. Each question carries **3** marks. Select the correct option from the given multiple choices for the following questions. $3 \times 5 = 15$

P.T.O.

1. Repeater operates in which layer of OSI model?   3

    (a) Application layer

    (b) Presentation layer

    (c) Physical layer

    (d) Transport layer

2. A networking device that forwards data packets along networks and acts as a central point of network is called-   3

    (a) Repeater

    (b) Router

    (c) Bridge

    (d) Hub

3. Multiplexing technique that shifts each signal to a different carrier frequency.   3

    (a) FDM

18023/2

(b) TDM

(c) Either a or b

(d) Both a and b

4. A local telephone network is an example of

a _____ network.   3

(a) Packet switched

(b) Circuit switched

(c) Both of the mentioned

(d) None of the mentioned

5. Which one of the following task is not done

by data link layer?   3

(a) Framing

(b) error control

(c) flow control

(d) Channel coding

18023/3   P.T.O.

N   **(Printed Pages 4)**

(201217)   Roll No. ....

BCA- V Sem.

18021
BCA Examination, Dec- 2017
Introduction to DBMS
(BCA-501)
(New)

Time : Three Hours]   *[Maximum Marks : 75*

Note : Attempt **all** questions as per the Instructions.

Section-A

Note : Attempt all **five** questions. Each question carries **three** marks.   5×3=15

1. Differentiate between DDL and DML.

2. List three main advantages of database approach.

3. What is relational algebra? Explain.

4. Briefly describe B tree.

5. Explain ER diagram.

P.T.O.

Section-B

Note : Attempt any **two** questions out of following 3 questions. Each question carries equal marks.   2×7.5=15

6. Discuss the three level architecture of DBMS.

7. Explain different collision resolution approaches in hashing.

8. What is strong and weak entity? Explain with example.

Section-C

Note : Attempt any **three** questions out of following 5 questions. Each question carries equal marks.   3×15=45

9. With respect to the relational data model, define and relate with example: primary key, foreign key, super key, candidate key and prime attribute.

10. Consider the following relations with underlined primary keys.

    PRODUCT (Pcode, Description, Stocking Date, QtyOnHand, MinQty, Price, Discount, VCode)

18021\2

VENDOR (VCode, Name, Address, Phone)

Here a vendor can supply more than one product but a product is supplied by only one vendor.

Write SQL queries for the following:

(i) List the names of all the vendors who supply more than one product.

(ii) List the details of the products whose prices exceed the average product price.

(iii) List the Name, Address and Phone of the vendors who are currently not supplying any product.

11. List advantages and disadvantages of Indexed sequential, B tree and B+ tree file organization.

12. Write short notes on:

(i) Functional dependency

(ii) Types of SQL queries

(iii) Transaction processing

18021\3

P.T.O.

13. Given the following tables:

DIRECTOR

DIR_NUM	DIR_NAME	DIR_DOB
100	Arvind Gaur	30/6/43
101	Faizal Alkazi	12/8/50
102	Anuradha Kapoor	21/9/62

PLAY

PLAY_CODE	PLAY-NAME	DIR-NUM
1001	Jivit ya Mrit	102
1002	Bade Bhai Saab	101
1003	Galib in Delhi	102
1004	Safarnama	100
1005	Aadhe Adhure	101
1006	Konark	101
1007	Adhoori Kahani	NULL

(i) Identify the Primary and Foreign keys of both the tables.

(ii) Do the tables exhibit Entity and Referential Integrity Constraints? Explain.

(iii) Draw the entity relationship diagram to show the relationship between director and play.

Specify the cardinality and participation constraints also.

18021\4

N

(Printed Pages 4)

(201217)   Roll No. ....

BCA - V Sem.

18022

B.C.A. Examination, Dec.- 2017

Java Programming and Dynamic Webpage

Design

(BCA-502)

(New Course)

Time : Three Hours]   *[Maximum Marks : 75*

Note : Attempt questions from **all** sections as per

instructions.

Section-A

(Very Short Answer Questions)

Note : Attempt all **five** questions. Each question

carries 3 marks. Very short answer is re-

quired.   3×5=15

1. Why java is called machine independent lan-

    guage?   3

P.T.O.

2. How will you create hyperlinks in web docu-

    ment? Write the code also.   3

3. Define the following with sample code-   3
    (i)   Encapsulation
    (ii) Abstraction.

4. Define Servlet life cycle.   3

5. Write down the various components of JSP. 3

Section-B

(Short Answer Questions)

Note : Answer any **two** questions out of the fol-

lowing three questions. Each question car-

ries 7½ marks. Short answer is required.

7½×2=15

6. What are cascading style sheets and how

    they are coded? Explain them with an ex-

    ample. https://www.ccsustudy.com   7½

7. Define Socket () & Server Socket () class in

    java networking. Write down their methods

    with an example.   7½

8. Differentiate between the following:

    (i)   Constructor and finalizer   3×2½=7½

    (ii) Method overloading and method over-

          riding

    (iii) Super and final keyword

18022\2

Section-C

(Long Answer Questions)

Note : Answer any **three** questions out of the following **five** questions. Each question carries 15 marks. Answer is required in detail. $15 \times 3 = 45$

9. (a) Java supports single inheritance. If there is a need to extend more than one class, how can this are achieved? Explain with sample code. 7

   (b) Define multithreading in java. What are the two ways to create a thread in java? Write down the code also. 8

10. (a) What is a string buffer? How does it differ from a string? Give three ways to create a string object. 8

    (b) What is the life cycle of an Applet? Illustrate common methods to create the applet. 7

11. (a) What is JDBC? Write different types of Java driver available for database connectivity? What are the steps of database connectivity in Java? 8

    (b) How will you define Socket? How many different types of socket you can create in java? Define also the methods & class of these different sockets. 7

12. (a) Define the following tags in HTML 8
    (i) <META>   (ii) <form>
    (iii) <FRAMESET>
    Also design a simple form that will accept user entry and display it.

    (b) What is an exception? What are the methods of handling exception in java? 7

13. (a) What is Servlet? Explain the life cycle of Servlet. Write a login page using servlet. 8

    (b) What is JSP? Write the difference between JSP & Servlet. Also some advantages of JSP. 7