Reg. No. : ....

Name : ....

VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Improv.)
Examination, April 2019
(2014 Admission Onwards)
Core Course
6B18BCA : DATA MINING AND DATA WAREHOUSING

Time : 3 Hours   Max. Marks : 40

SECTION – A

1. **One** word answer.   (8×0.5=4)

    a) _____ is the process of extracting data for warehouse from various sources.

    b) The problem of finding hidden structure in unlabeled data is called _____

    c) Group of similar objects that differ significantly from others is called _____

    d) The cuboid that holds the lowest level of summarization is called _____

    e) Data mining refers to mining _____ from data.

    f) Market basket analysis is a typical example of _____

    g) STING is a _____ based method of clustering.

    h) Write the full form of CART.

SECTION – B

Write short notes on **any seven** of the following questions.   (7×2=14)

2. What is maximal frequent set ?

3. Write the partition algorithm.

4. Define cluster.

5. What are features of STIRR ?

P.T.O.

6. Define over-fit.

7. Explain different types of temporal data.

8. What is snowflake schema ?

9. Write about spatial mining.

10. What is meant by ETL ?

11. Explain DM application in crime detection.

SECTION – C

Answer **any four** of the following questions. (4×3=12)

12. What are additive properties of Cluster features ?

13. Explain the splitting indices.

14. What are the issues in DM ?

15. Discuss the decision tree construction algorithms.

16. What is bottom-up cubing algorithm ?

17. Describe the working of Pincer- Search algorithm.

SECTION – D

Write an essay on **any two** of the following questions. (2×5=10)

18. Explain data warehouse architecture.

19. Discuss different data mining techniques.

20. Explain apriori algorithm.

21. Explain : a) CLARANS b) ROCK.

_____
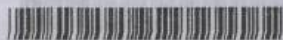
K19U 0185

Reg. No. : ....

Name : ....

VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Improv.) Examination, April 2019
(2014 Admission Onwards)
CORE COURSE (Elective)
6B19BCA – E01 : Information Security

Time : 3 Hours   Max. Marks : 40

SECTION – A

1. **One** word questions.   (8×0.5=4)

   a) In computer security, _____ means that computer system assets can be modified only by authorized parities.

   b) _____ is a program that can modify other programs by a copy of the virus program, which can go on to infect other programs.

   c) _____ changes the location of the symbols, instead of substituting one symbol for another.

   d) We can combine the additive and multiplicative ciphers to get _____

   e) What is the preprocess step before key expansion in a compression ?

   f) _____ refers to the situation in which two or more different keys can create the same ciphertext from the same plaintext.

   g) OAEP stands for _____

   h) _____ and _____ are the two keys used for asymmetric encryption.

SECTION – B

Write short notes on **any seven** of the following questions.   (7×2=14)

2. Define the term Virus.

3. Write short note on integrity.

P.T.O.

4. Discuss stream ciphers, in brief.

5. Explain vigenere cipher.

6. List and explain the objectives of information security.

7. Explain any two design criteria of DES.

8. What is the factoring problem in RSA ?

9. Write short note on timing attack.

10. What is message authentication ?

11. Describe different attacks on digital signature.

SECTION – C

Answer **any four** of the following questions.   (4×3=12)

12. Write short on Steganography.

13. Explain different substitution ciphers.

14. Explain different types of DES function.

15. Differentiate between linear and differential cryptanalysis.

16. Explain the key generation process in RSA algorithm.

17. List the various security services provided by digital signature.

SECTION – D

Write an essay on **any two** of the following questions.   (2×5=10)

18. Explain digital signature schemes.

19. Discuss the two broad categories of traditional symmetric key ciphers with focus on different cipher cryptanalysis.

20. Explain the structure of DES.

21. Explain the computational aspects of RSA algorithm.

_____

K19U 0187

VI Semester B.C.A. Degree (CBCSS-Reg./Supple./Improv.) Examination,
April 2019
(2014 Admission Onwards)
Core Course (Elective)
6B19BCA : E03 : MOBILE COMMUNICATIONS

Time : 3 Hours   Max. Marks : 40

SECTION – A

1. Answer **all** questions.

   a) _____ layer is responsible for routing packets.

   b) _____ is the expansion of DSSS.

   c) The pattern of channel usage in FHSS is

   d) The multiple access protocol that segments space into cells/sectors is

   e) An IEEE standard for Bluetooth is

   f) Expand the term TDMA.

   g) _____ is a mobile scripting language.

   h) Data rate of IEEE 802.11a is   (8×0.5=4)

SECTION – B

Answer **any 7** questions of the following. **Each** question carries **2** marks.

2. What do you mean by polling ?

3. Define term Hertzian dipole.

4. What do you mean by delay spread ?

5. Write structure of a WML document.

P.T.O.

6. What do you mean by guard spaces ?

7. What do you mean by dwell time ?

8. What do you mean by IP in IP encapsulation ?

9. Write features of radio layer in Bluetooth architecture.

10. Write properties of a signal.

11. What are the functionalities of MAC layer ?   **(7×2=14)**

SECTION – C

Answer **any four** questions. **Each** question carries **3 marks**.

12. What do you mean by agent advertisements ?

13. Write short note on WAP architecture.

14. Compare DSSS and FHSS.

15. Write short note on frame format of IEEE 802.11 MAC packet structure.

16. Write short note on GPRS transmission plane protocol reference model.

17. Explain functional architecture of a GSM system.   **(4×3=12)**

SECTION – D

Answer **any two** questions. **Each** question carries **5 marks**.

18. Explain various layers of a simplified network reference model.

19. Compare TDMA and CDMA techniques.

20. Explain handover procedure in cellular network systems.

21. Explain various transactions of WTP.   **(2×5=10)**

——————————

Reg. No. : ....

Name : ....

VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Improv.) Examination, April 2019
(2014 Admission Onwards)
Core Course (Elective)
6B20BCA-E05 : NETWORK PROGRAMMING

Time : 3 Hours   Max. Marks : 40

SECTION – A

1. Answer **all** questions.

   a) When an error occurs in a Unix function (such as one of the socket functions), the global variable _____ is set to a positive value indicating the type of error.

   b) The maximum size of an IPv4 datagram is _____ bytes.

   c) The IPv6 socket address is defined by including the _____ header.

   d) The _____ function is used by a TCP client to establish a connection with a TCP server.

   e) The _____ function assigns a local protocol address to a socket.

   f) Expansion of TCP is _____.

   g) setsockopt requires a _____ flag value to turn on options.

   h) Functions return either the local protocol address associated with a socket.

   (8×0.5=4)

SECTION – B

Answer **any 7** questions of the following. **Each** question carries **2** marks.

2. What do you mean by web server ?

3. What do you mean by three way handshake ?

4. What are various byte manipulation functions in C ?

5. What is the purpose of socket function ?

P.T.O.

6. State various functions to implement echo server.

7. What do you mean by protocols ?

8. What is the use of str_echo() function ?

9. How tp_connect function works ?

10. Write a error handling statement in network communication.

11. What is a domain name server ?   (7×2=14)

SECTION – C

Answer **any four** questions. **Each** question carries **3 marks**.

12. Write code for implementation of a TCP time-of-day client.

13. Write short note on TCP.

14. Write short note on Standard TCP/IP services.

15. Compare various Socket Address Structures.

16. Write Program to determine host byte order.

17. Explain how a normal start up and termination of a server host can be performed.   (4×3=12)

SECTION – D

Answer **any two** questions. **Each** question carries **5 marks**.

18. Explain TCP connection establishment and termination.

19. Short note on various name and address conversion methods.

20. Explain TCP socket options.

21. Write code to implement echo client-server.   (2×5=10)

_____

Reg. No. : ....

Name : ....

VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Improv.)
Examination, April 2019
(2014 Admission Onwards)
Core Course
6B21BCA : SYSTEMS SOFTWARE

Time : 3 Hours
Max. Marks : 40

SECTION – A

Answer **all** questions. **Half** mark **each**.

1. a) _____ phase is concerned with construction of target language statements in language processing.

   b) The syntax of a literal is _____

   c) The problem of forward reference is handled using _____ in single pass translation.

   d) The number of addressing modes supported in 8088 microprocessor is _____

   e) Memory binding is an association between _____ and _____

   f) _____ language processor does not generate a target program.

   g) _____ object record contains binary image of the code and data generated by the language translator.

   h) The process of isolating lexical units of a sequence is called _____

SECTION – B

Answer **any 7** questions. **2** marks **each**.

2. What is system software ?

3. What are the components of programming language specification ?

4. What are the basic facilities of assembly language ?

P.T.O.

5. What are the different kinds of macro expansions ?

6. Specify the scope rules of a block-structured language.

7. What is linker ?

8. What are the different steps in the execution of a program ?

9. What are the different types of statements in a macro definition ?

10. What are the aspects of compilation ?

11. What are search and allocation data structures ?
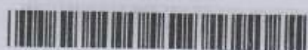
SECTION – C

Answer **any 4** questions. **3 marks each.**

12. Write a note on data structures used for language processing.

13. Discuss about different advanced macro facilities.

14. Write an algorithm for second pass of two-pass assembler.

15. Explain the features of programming languages.

16. Classify the programs based on their relocatability.

17. Explain ambiguity in grammars with an example.

SECTION – D

Answer **any 2** questions. **5 marks each.**

18. Discuss about different language processing activities.

19. Explain the design of a macro assembler.

20. Discuss about optimizing transformations used in compilers.

21. Explain LL(1) parser with an example.

K19U 0183

Reg. No. : ....

Name : ....

**VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Improv.)
Examination, April 2019
(2014 Admission Onwards)
Core Course
6B17 BCA : WEB TECHNOLOGY**

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. Answer the following questions in **one** word. (8×0.5=4)

   a) Javascript is a case sensitive language :
      a) True
      b) False

   b) The string function in PHP which is used to find the length of the string is
   _____

   c) CGI stands for _____

   d) In CGI, most form elements are implemented using the _____ tag.

   e) The statement used to print in PHP is _____

   f) In Javascript, an _____ box is used to give a warning message to the users.

   g) The _____ helps the browser to display a horizontal line in HTML document.

   h) _____ element is used to underline a text.

SECTION – B

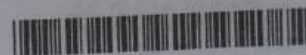Write short notes on **any seven** of the following questions. (7×2=14)

2. Write the code for inserting an image to the web page.

3. Explain about the role of a webserver.

4. What is the role of the attribute "BgColor" ?

P.T.O.

5. Write the syntax for radio button.

6. What is the use of strcmp( ) in PHP ?

7. What is the use of mysql – connection in PHP ?

8. How will you generate an "Alert" in Javascript ?

9. List any four "WINDOW" methods in Javascript.

10. What does CGI program store ?

11. What do you mean by client side programming ?

SECTION – C

(4×3=12)

Answer **any four** of the following questions :

12. What are the different types of flow control statements in PHP ?

13. Which are the important logical operators used in Javascript ? Explain with an example program.

14. Explain about different types of arrays used in PHP with examples.

15. Describe forms in HTML.

16. Differentiate GET and POST methods.

17. Discuss images and links in HTML.

SECTION – D

(2×5=10)

Write an essay of **any two** of the following questions.

18. Design an application form with suitable controls and buttons. Make it dynamic using scripts.

19. Explain the various string functions in PHP.

20. Discuss tables in HTML.

21. In CGI, discuss encoding and decoding of form data.

———————