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SEAT No. :

P2139

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[5803]-501

T.Y. BBA(CA)

**CA - 501 : CYBER SECURITY
(2019 Pattern) (Semseter - V)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Attempt any EIGHT of the following (out of TEN) :

[8 × 2 = 16]

- a) What is CyberCrime?
- b) What is Digital Forensic?
- c) What are the two categories of CyberCrime?
- d) What is reconnaissance?
- e) What is cyber stalking?
- f) Define attack vector?
- g) What is Phishing?
- h) What is Public-Key certification in Digital Signature?
- i) Define denial - of - service (DOS) attack.
- j) What is the difference between Virus and Worm?

Q2) Attempt any FOUR of the following (out of FIVE) :

[4 × 4 = 16]

- a) Explain in brief each type of Intellectual property.
- b) Why do we need cyber laws in India?
- c) What is cyber forensics explain in details?
- d) What is proxy server? Also write the purpose of it.
- e) Explain different types of credit card frauds.

P.T.O.

Q3) Attempt any FOUR of the following (out of FIVE) : **[4 × 4 = 16]**

- a) Explain the different real life example of CyberCrime.
- b) What is Domain Name? Explain with example.
- c) Explain how botnets can be used as a fuel to Cybercrime.
- d) Describe active and passive attacks in details.
- e) What is SQL injection? Explain different methods to prevent SQL injection attack.

Q4) Attempt any FOUR of the following (out of five) : **[4 × 4 = 16]**

- a) Explain organizational guidelines for internet usage.
- b) Define virus. Discuss the types of viruses.
- c) Discuss how emails are used in Forensics analysis.
- d) What is CIA? Discuss three concept of CIA model.
- e) What are the challenges to Indian Law and Cybercrime scenario in India?

Q5) Wrie a short note on any Two of the following (out of THREE) : **[2 × 3 = 6]**

- a) The ITA 2000 sections 65, 66 and section 67.
- b) Social media marketing.
- c) Data Diddling.



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[5803]-502

T.Y. B.B.A. (Computer Application)

CA - 502 : OBJECT ORIENTED SOFTWARE ENGINEERING

(2019 Pattern) (Semseter - V) (CBCS)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*

Q1) Attempt any Five of the following :

[5 × 2 = 10]

- a) List any two advantages and disadvantages of waterfall model.
- b) What is the use of section 9 in SRS format.
- c) Define Role Names.
- d) What is meant by Inception.
- e) Define forking.
- f) What is realization.
- g) List the types of inheritance.

Q2) Attempt any four of the following :

[4 × 4 = 16]

- a) Describe the coad and yourdon method in detail.
- b) Draw a collaboration diagram for ATM system.
- c) Explain UML architecture.
- d) What is object orientation? State various reasons for why object orientation.
- e) What is class diagram. Explain with Notations.

P.T.O.

Q3) Attempt any four of the following : **[4 × 4 = 16]**

- a) Draw the deployment diagram for railway reservation system.
- b) What is meant by Iterative development state it's various advantages.
- c) Define sequence diagram. Explain different kind of it's notations.
- d) What is association. Explain any two terms in association.
- e) Define the following terms
 - i) Transition
 - ii) Concurrency
 - iii) Actor
 - iv) Navigation.

Q4) Attempt any four of the following : **[4 × 4 = 16]**

- a) Explain generalization relationship along with stereotype.
- b) Write short note on Type and Roles.
- c) Explain understanding requirement of object oriented analysis.
- d) Explain which diagrams are called as on interaction diagram. Explain with example.
- e) What is package? Explain it with import and export stereotypes.

Q5) Attempt the following : **[12]**

- a) Construct a design element for point of the sale terminal management system that can be used for buying and selling of goods in the retail shop. When the customer arrives at the post check point with the items to purchase, the cashier records each item price and add the item information to the running sales transaction. The description and price of the current items are displayed. On completion of the item entry the cashier informs the sales totals and tax to the customer. The customer chooses payment type (cash, cheque, credit/debit) After the payment is made the system generates a receipt and automatically updates the inventory, the cashier handovers the receipt to the customer.

Consider above situation draw the following UML diagram.

- i) Use case diagram.
- ii) Activity diagram.
- iii) Class diagram.



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[5803]-503

B.B.A. (CA)

CA - 503 : CORE JAVA

(2019 Pattern) (Semseter - V)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*

Q1) Attempt any Eight :

[8 × 2 = 16]

- a) What is JDK? How to build and run java program?
- b) Explain Static keyword.
- c) What is use of classpath?
- d) What is collection? Explain collection frame work in details.
- e) What is the use of Reader and Writer class?
- f) What is the use of layout manager?
- g) What is difference between paint () and repaint ().
- h) Explain Access modifiers used in Java.
- i) Define keyword throw.
- j) Define polymorphism.

Q2) Attempt any four :

[4 × 4 = 16]

- a) Explain features of Java.
- b) What is difference between constructor and method? Explain types of constructors.
- c) Differentiate between interface and abstract class.
- d) Explain the concept of exception and exception handling.
- e) Explain try and Catch with example.

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Q3) Attempt any four :

[4 × 4 = 16]

- a) Write a Java program to display all the perfect numbers between 1 to n.
- b) Write a Java program to calculate area of circle, Triangle and Rectangle (Use Method over loading)
- c) Write a java program to accept n integers from the user and store them in on ArrayList collection. Display elements in reverse order.
- d) Write a Java program to count number of digits, spaces and characters from a file.
- e) Create an applet that display x and y position of the cursor movement using mouse and keyboard. (Use appropriate listener)

Q4) Attempt any four :

[4 × 4 = 16]

- a) How a Java program is structured? Explain data types.
- b) What is applet? Explain its types.
- c) Write a java program to count number of Lines, words and characters from a given file.
- d) Write a Java program to design email registration form. (Use swing components)
- e) Create a class Teacher (Tid, Tname, Designation, Salary, Subject). Write a java program to accept 'n' teachers and display who teach Java subject (Use Array of object)

Q5) Wrie short note any two :

[2 × 3 = 6]

- a) Define object.
- b) Define term finally block.
- c) What is package? Write down all the steps for package creation.



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SEAT No. :

P6847

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[5803]-504
B.B.A. (CA)
CA-504 : MONGO DB
(2019 Pattern) (Semester - V)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) All questions are compulsory.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*

Q1) Answer the following (any 8) :

[16]

- a) Define NOSQL database.
- b) List MongoDB data types.
- c) List MongoDB Tools.
- d) What is Document in MongoDB?
- e) Explain Aggregation in MongoDB?
- f) What are indexes in MongoDB?
- g) Write basic syntax of insert one () method.
- h) Write basic syntax of remove () method.
- i) What is embedding?
- j) Explain one_to_many relationship with example using References.

Q2) Answer the following (any 4) :

[16]

- a) Explain analogy between RDBMS & MongoDB.
- b) Explain Mongo shell commands with example :
 - i) Create database
 - ii) Delete database

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- c) Explain with syntax how to insert and save the documents.
- d) Write a note on MongoDB CRUD concerns. (Read and write operations).
- e) Explain applications of MOSQL database.

Q3) Answer the following (any 4) : **[16]**

- a) Explain the advantages of MongoDB.
- b) Explain MongoDB Architecture.
- c) Explain Types of Aggregation in detail.
- d) Write a note on MongoDB monitoring tools.
- e) Explain how to export and import data to and from MongoDB.

Q4) Solve the following : **[16]**

- a) Create a collection 'Shopping'.
- b) Create a new document in 'Shopping' collection having ID = 01.
- c) Write a command to show the details of 'Shopping'.
- d) Show the details of 'Shopping' by 'FIND' command.
- e) Display the details of 'Shopping' by 'FINDONE' command.
- f) Display the detail of 'Shopping' whose price is greater than 3000.
- g) Display ID, shopping item, price, use 'PRETTY()'.
- h) Display details of shopping having price 500 and delivery in 3 days.

Q5) Solve the following (any 2) : **[6]**

- a) Explain Backup and Recovery methods used for MongoDB.
- b) Why MongoDB is the best MOSQL database?
- c) Which languages can we use with MongoDB?



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SEAT No. :

P2142

[Total No. of Pages : 2

[5803]-505
BBA(CA)
CA-504 : PYTHON
(2019 Pattern) (Semester - V)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All question is compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Attempt any Eight of the following :

[8 × 2 = 16]

- a) What are the properties of a Dictionary?
- b) Write the use of an import statement with an example.
- c) Differentiate between Python list and NumPy array.
- d) What is scikit-learn?
- e) Write the definition of class method.
- f) Write the syntax of the Raise statement & explain it.
- g) List out Geometry Management methods.
- h) What is Tkinter in Python?
- i) Break and pass statement in Python.
- j) Write any two common exceptions in Python.

Q2) Attempt any Four of the following :

[4 × 4 = 16]

- a) What is Python? What are the benefits of using Python?
- b) Name any five built in modules in Python.
- c) Write in brief anonymous functions.
- d) What is inheritance? Write its benefits and syntax.
- e) Explain frame widget in Tkinter with an example.

P.T.O.

Q3) Attempt any Four of the following :

[4 × 4 = 16]

- a) What are lists and tuples? What is the key difference between the two?
- b) What are the common built in data types in Python?
- c) Which are built in exceptions in Python?
- d) Write the principles of keras.
- e) Write a Python program to display current date and time.

Q4) Attempt any Four of the following :

[4 × 4 = 16]

- a) Which are the built in exceptions in Python?
- b) Explain the features of pandas in Python?
- c) Define an abstract class shape and its subclass (square / circle). The subclass has an init function which takes an argument (length/radius) Both classes have an area & volume function which can print the area and volume of shape where the area of shape by default 0.
- d) Write a Python program to check whether a number is in a given range.
- e) Write a Python class to find the validity of a string of parentheses, '(', ')', '{', '}', '[', ']', ' '. These brackets must be closed in the correct order for example "()" and "() [] { }" are valid but "[)", "({[])" and "{ { { " are invalid.

Q5) Write a short note on Any Two of the following :

[2 × 3 = 6]

- a) Package
- b) Assertion
- c) Tuple

