41521/E210

Reg. No. ☐☐☐☐☐☐☐☐☐

V Semester B.C.A. 4 Degree Examination, Nov./Dec. - 2019
SOFTWARE ENGINEERING
(Regular)
Paper : BCA4

Time : 3 Hours   **Maximum Marks : 80**

Instructions to Candidates:

    1)   All sections are compulsory.

    2)   Draw neat diagrams whenever necessary.

SECTION - A

1.   Answer all the **TEN** full questions: (10×2=20)

    a)   What are any two challenges faced by software engineers?

    b)   Define a process framework.

    c)   What is the goal of requirement engineering? List the 3 main types of requirements.

    d)   What are system models? Mention the various system model types.

    e)   List any 4 characteristics of a good design.

    f)   Define cohesion and coupling in component level design.

    g)   What is the aim of Integration testing? List the types of Integration testing.

    h)   What is debugging? List any 2 debugging strategies.

    i)   What is a project risk and technical risk? Give an example for each.

    j)   What is software quality control?

SECTION - B

Answer any **FOUR** questions of the following: (4×5=20)

2.   Explain the different categories of software.

3.   Illustrate an activity diagram for a BANK ATM withdrawal use case.

4.   Define an architectural style. Explain the Data centered architecture with a neat diagram.

5.   Briefly explain any 5 Mc call's software quality factors.

6.   What is the role of an SQA (Software quality assurance) group?

P.T.O.

SECTION - C

Answer any **FOUR** questions of the following: (4×10=40)

7. Explain the following software process models with a neat diagram:

   a) Incremental model

   b) Prototyping model

8. Elaborate in detail the structure of a requirements document or a SRS.

9. Write in detail the golden rules to user interface design.

10. Write short notes on following concepts with respect to software Measurement:

    a)   Size-oriented and Function-oriented metrics

    b)   Object-Oriented metrics.

11. Explain in detail the RMMM plan in Risk management.

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41524/E240

Reg. No. ☐☐☐☐☐☐☐☐

V Semester BCA 4 Degree Examination, Nov./Dec. - 2019
PROGRAMMING WITH PYTHON
(Regular)
Paper : BCA4

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

        All sections are compulsory.

SECTION - A

1.   Answer the following questions.

(10×2=20)

    a)   What is python?

    b)   Define scalar & non scalar objects?

    c)   Define tuples?

    d)   Write an examples for mutable & immutable types?

    e)   What is heigher order function in programming?

    f)   Define testing & Debugging?

    g)   What you mean by Inheritance?

    h)   What is Exception?

    i)   What is regular expression?

    j)   What is Data base?

SECTION - B

Answer any **FOUR** the following

(4×5=20)

2.   Write a syntax to define functions in python? Write a python program to find largest of two numbers using function?

3.   Explain any five string methods with an example?

4.   Explain Blackbox & Glassbox testing?

5.   Write a python program to show draw shapes? (line, oval, rectangle)

6.   Write steps to connect database in python?

P.T.O.

SECTION - C

Answer any **FOUR** of the following. (4×10=40)

7. a) What is recursion explain with a program? (5)

    b) What is file? Explain any five file methods? (5)

8. Explain lists and dictionaries with example? (10)

9. a) Explain exception handling mechanism in python? (5)

    b) Write a python program to demonstrate use of try, except, finally? (5)

10. Explain any 10 widgets used in auI programming of python? (10)

11. a) Explain while & for loop statements in python? (5)

    b) Show how we can match & search characters using regular expression? (5)

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41523/E230

V Semester B.C.A. 4 Degree Examination, Nov./Dec - 2019
CYBER SECURITY
(Regular)
Paper : BCA4

Time : 3 Hours   Maximum Marks : 80

SECTION - A

1. Answer the following questions.   (10×2=20)

    a)   Define E-mail spoofing?

    b)   What is Data Diddling?

    c)   What is Botnets?

    d)   Define cyber stalking?

    e)   What is steganography?

    f)   List out the tips to prevent credit card Frauds.

    g)   How to secure the wireless Networks.

    h)   What is phishing.

    i)   Define cyber Forensis.

    j)   What is Homograph Attack?

SECTION - B

Answer the following questions (**any four**)   (4×5=20)

2. What is cyber security and how its is different from information security?

3. Explain Hacking Vs cracking.

4. Different between virus and worms.

5. What do you mean by application security? Name the two protocol used for Email security?

6. Define vendor challenges and user challenges for application security?

P.T.O.

SECTION - C

Answer the following questions (any four) (4×10=40)

7. What is cyber crime? Explain the classifications of cyber crime?

8. Explain firewall and working of firewall?

9. Briefly describe the phishing techniques?

10. How tunneling takes place in VPN? Explain the advantages of VPN?

11. Write a short notes

    a) Phishing methods   b) Social media market

    c) IT act 2000   d) Outside Attach

    e) Policy.

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32524/E240

Reg. No. ☐☐☐☐☐☐☐☐

V Semester B.C.A 3 Degree Examination, Nov./Dec. - 2019

COMPUTER NETWORK

(Repeater)

PAPER (BCA 3)

Time : 3 Hours

Maximum Marks : 80

SECTION-A

Answer any **TEN** of the following:

(10×2=20)

1. a) Mention the applications of computer network.

    b) What is MAN?

    c) What is topology? give example.

    d) What is the difference between circuit switching and packet switching?

    e) What is flow control?

    f) What is static and dynamic channel allocation?

    g) What is hamming code?

    h) What is Bluetooth?

    i) Mention the types of ethernet.

    j) What is Congestion?

    k) What is link state routing algorithm?

    l) Mention the transport service primitives.

SECTION - B

Answer any **FOUR** questions:

(4×5=20)

2. Explain TCP/IP Reference model with an neat diagram.

3. Explain Frequency division multiplexing?

4. Explain cyclic Redundancy check method for error detection with an example.

5. Explain flag bits with bit stuffing framing method.

6. Explain hierarchical routing algorithm.

7. Explain Three -way handshake in transport layer.

P.T.O.

SECTION- C

Answer any **FOUR** of the following: (4×10=40)

8. Explain OSI Reference model with a neat diagram.

9. Explain various types of transmission media in detail.

10. Explain GO- Back -N and selective Repeat sliding window protocol.

11. Explain the following:

    a) Leaky Bucket algorithm

    b) Pure and slotted ALOHA.

12. Write a note on:

    a) TCP and UDP

    b) Wireless LAN.