BCA

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Reg. No. : .....

Name : .....

Fourth Semester B.C.A. Degree Examination, July 2024

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1443 : WEB PROGRAMMING

(2021 Admission onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A (Very short answer type)

(One word to maximum of **one** sentence. Answer **all** questions)

1. Define 'web site'.

2. Expand the term HTML.

3.
 tag is used for ————————.

4. Header tag in HTML 5 is used for ————————.

5. Define the use of aside tag.

6. Write the use of CSS.

7. Javascript does not have data type. True/False.

8. trim() function in Javascript is used for ————————.

9. DHTML stands for ————————.

10. XML elements are case insensitive. True/False.

(10 × 1 = 10 Marks)

SECTION – B (Short Answer)

(Not to exceed one paragraph.

Answer any **eight** questions. Each question carries **2** marks)

11. Define the term internet.

12. What is URL?

13. Write the use of noframe tag.

14. Write the role of footer tag.

15. What is the use of div tag?

16. What do you mean by external CSS?

17. Write a note on variables in Java script.

18. Write the use of popup boxes in Javascript.

19. Write a short note on events in Javascript.

20. Write a note on schemas of XML.

21. Write in short about DHTML Javascript.

22. Write a detailed note on server-side scripting.

(8 × 2 = 16 Marks)

SECTION – C (Short essay)

(Not to exceed **120** words, answer any **six** questions.

Each question carries **4** marks)

23. Discuss the basic syntax of HTML document.

24. Write a note on frames with suitable example.

25. Discuss HTML 5 Canvas with suitable example.

26. List and explain list properties in CSS.

27. Discuss various Text Alignments in CSS.

28. Write a detailed note on Java script validation.

29. Explain math object in Javascript.

30. How can we display Raw XML Documents? Explain.

31. Explain the difference between HTML and DHTML.

(6 × 4 = 24 Marks)

SECTION – D (Long essay)

(Answer any **two** questions. **Each** question carries **15** marks)

32. Explain tables in HTML with the support of example.

33. Discuss in detail background images in style sheets.

34. Write a detailed note on Javascript DOM.

35. Describe XML document with CSS in detail.

(2 × 15 = 30 Marks)

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Reg. No. : .....

Name : .....

Fourth Semester B.C.A. Degree Examination, July 2024

Career Related First Degree Programme under CBCSS

Group 2 (b) – Computer Applications

Core Course

CP 1444 : DATAMINING AND WAREHOUSING

(2021 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **all** questions. Each carries **1** mark.

1. What are the basic forms of data for mining applications?

2. To remove noise and inconsistent data by ————.

3. Define Metadata.

4. Give an example for frequent itemset mining.

5. ———— and ———— are process steps of Apriori algorithm.

6. What is the use of Transaction Reduction?

7. What is the two-step process of classification?

8. PBC stands for ————————.

9. What are the types of hierarchical method of clustering?

10. What is the use nonparametric method?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Each carries **2** marks.

11. What do you mean by data mining?

12. What is the use of data mart?

13. Define audio data mining.

14. What is an association rule in data mining?

15. What is the use of correlation measure?

16. What is the use of Hash based technique?

17. What is called decision tree induction?

18. Define support vector machine.

19. Define lazy learners.

20. What is outlier?

21. What is the use of cluster analysis?

22. What are the advantages of K-Medoids clustering?

(8 × 2 = 16 Marks)

SECTION – C (Short essay)

Answer any **six** questions. Each carries **4** marks.

23. What are the technologies involved for mining?

24. Discuss the operations of OLAP.

25. What are the differences between database and data warehouse?

26. Discuss about frequent item sets.

27. Explain Partitioning and hash based technique.

28. Describe framework for discriminative frequent pattern–based classification.

29. Explain SVM when the data are linearly separable.

30. Write short notes on associative Classification.

31. Write short notes on Semi-Supervised Classification.

(6 × 4 = 24 Marks)

SECTION – D (Long essay)

Answer any **two** questions. Each carries **15** marks.

32. Explain the architecture of three tier data warehousing.

33. Explain Apriori algorithm for discovering frequent itemsets by Confined Candidate Generation.

34. Explain decision tree induction with example.

35. Explain requirements of basic clustering and its methods.

(2 × 15 = 30 Marks)

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Fourth Semester B.C.A./B.Sc. Degree Examination, July 2024

Career Related First Degree Programme under CBCSS

Group 2 (b)/ Group 2 (a) – Computer Applications/ Physics and Computer Applications

Core Course

CP 1442/ PC 1472 : PYTHON PROGRAMMING

(2021 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **all** questions. Each carries **1** mark.

1. What is membership operator?

2. Define dictionary comprehensions.

3. Write the syntax of update command in Python.

4. How do you create an iterator in Python?

5. What is the purpose of radio buttons in Python?

6. What is the syntax for raising an exception?

7. Explain the concept of anonymous functions in Python.

8. How are regular expressions used in Python?

9. What is a match() function?

10. What is an import statement?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Each carries **2** marks.

11. Write the syntax of for loop in Python.

12. What are the features of Python language?

13. What is datatype conversion?

14. What are HTTP headers in Python? What is their role in web development?

15. What is a nested function in Python? How is it different from a regular function?

16. State the difference between the commit and rollback commands in Python, and when would you use each one?

17. How are assertions defined in Python?

18. How are objects created in Python?

19. What is the difference between private and protected attributes and methods?

20. Write a Python function to check whether a given string is a palindrome or not.

21. Explain the concept of namespaces and scope in Python modules.

22. What are file pointers?

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Each carries **4** marks.

23. Briefly explain Python operators.

24. Write a short note on control statements.

25. Explain exception handling in database with the help of an example.

26. What is a class decorator in Python? How does it differ from a function decorator?

27. How does inheritance work in Python and how do you implement it?

28. What is polymorphism in Python and how is it useful?

29. What are some potential pitfalls of using destructors in Python?

30. Can you explain the process of creating and utilizing modules in Python?

31. Explain if else statement with examples.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. Each carries **15** marks.

32. Discuss different data types available in Python.

33. What are the key concepts involved in database programming? Discuss its importance in modern software development.

34. Discuss how to raise exceptions in Python programs with the help of examples.

35. Explain the concept of a function in Python.

(2 × 15 = 30 Marks)

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Fourth Semester B.C.A./B.Sc. Degree Examination, July 2024

Career Related First Degree Programme under CBCSS

Group 2(b) / Group 2(a) – Computer Applications / Physics and Computer Applications

Core Course

CP 1441/PC 1471 - SOFTWARE ENGINEERING

(2021 Admission onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A (Very short answer)

(**One** word to maximum of **one** sentence. Answer **all** questions)

1. What is MSPEC document?
2. What is Person-Month?
3. What is Code Walkthrough?
4. What is SRS?
5. Define AoE.
6. What is Critical path?
7. Explain any two advantages of evolutionary development model.
8. What is smoke testing?

9. What is coupling?

10. Function point metric was proposed by ————————.

(10 × 1 = 10 Marks)

SECTION – B (Short answer type)

(Not to Exceed **one** paragraph. Answer any **eight** questions.
Each question carries **2** marks)

11. What is communication Cohesion?

12. Explain any four users of SRS document.

13. Define CPM.

14. Explain any four characteristics of a good software design.

15. What is Layered design?

16. Write note on activity network.

17. What is control coupling?

18. Differentiate between classical and iterative Waterfall model.

19. Explain types of software maintenance.

20. What is customized software product?

21. Explain any two approaches to integration testing.

22. Write short note on CORBA.

(8 × 2 = 16 Marks)

SECTION – C (Short essay type)

(Not to exceed **120** words. Answer any **six** questions. Each question carries **4** marks.)

23. Write expressions to calculate effort and Tdev for basic Cocomo model.

24. Write short note on Pert chart.

25. Explain equivalence class Partitioning.

26. Write short note on prototyping model.

27. What is synchronous and asynchronous data flow?

28. Write note on feasibility study.

29. What is LOC? Explain any three shortcomings of LOC.

30. Write note on Function point metric.

31. Discuss SA/SD methodology.

(6 × 4 = 24 Marks)

SECTION – D (Long essay type)

(Answer any **two** questions. Each question carries **15** marks.)

32. Explain white box testing in detail.

33. Discuss RAD and v model in detail.

34. Explain project estimation technique in detail.

35. Explain class, activity and state diagram with suitable example.

(2 × 15 = 30 Marks)
