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Fourth Semester B.C.A. Degree Examination, July 2023

Career Related First Degree Programme Under CBCSS

Group2(b) – Computer Applications

Core Course

CP 1443 — WEB PROGRAMMING

(2021 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A
[Very Short Answer Type]

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

1. What is W W W ?
2. Describe Image Handling in HTML.
3. What is CGI?
4. Describe HTML DOM.
5. What is CSS?
6. Explain the concept of Footer Tag.
7. What is the Box model in CSS?
8. Describe Variable in Java Script.
9. Write the purposes of Arrays in Java Script.
10. What is XML?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B
[Short Answer]

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

11. Differentiate Client Side Scripting and Server side scripting.
12. What is HTTP?
13. Explain Forms in HTML.
14. Define Navigation Tag.
15. What are the SPAN and DIV tags?
16. Define XSLT style sheet.
17. Explain objects in JavaScript.
18. What do you know about Event Handling in Java Script?
19. Explain XML Schemas.
20. Write the components of DHTML.
21. Explain the concept of DHTML CSS.
22. Describe XML Document Structure.

(8 × 2 = 16 Marks)

SECTION – C
[Short Essay]

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

23. Illustrate Lists in HTML.
24. Explain Table Handling in HTML.
25. Briefly explain Frames in HTML.
26. Describe semantic elements in HTML 5.

27. Explain basic HTML 5 tags.

28. What are the types of Style Sheets.

29. Describe data types in Java Script.

30. Illustrate features of Java Script.

31. Differentiate HTML and DHTML.

(6 × 4 = 24 Marks)

SECTION – D
[Short Essay]

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

32. Explain origin and evolution of HTML. **Also describe** basic tags.

33. Illustrate the purpose of CSS with **suitable program**.

34. Describe Event handling mechanisms **in Java Script**.

35. Explain Control Structures in Java Script.

(2 × 15 = 30 Marks)

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Fourth Semester B.C.A. Degree Examination, July 2023

Career Related First Degree Programme under CBCSS

Group2(b) - Computer Applications

Core Course

CP 1444 : DATAMINING AND WAREHOUSING

(2021 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A

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

1. What is called data?
2. KDD stands for _____
3. What database models can OLAP adopt?
4. Define frequent patterns.
5. Association rule mining can be viewed as _____ and _____
6. What is the use of partitioning?
7. What are the approaches of free pruning?
8. Define neural network.

P.T.O.

9. What is the use of partitioning in cluster analysis?

10. What are the types of outlier?

(10 × 1 = 10 Marks)

SECTION – B

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

11. Define Data warehouse.

12. What is Fact Constellation?

13. What is the use of data extraction?

14. What is the use of Apriori algorithm?

15. What are closed item sets?

16. Define association rule.

17. What is called classification?

18. What is Perception-based classification?

19. How to calculate error rate?

20. Define Cluster.

21. What are the disadvantages of K-means algorithm?

22. What is the use of parametric method?

(8 × 2 = 16 Marks)

SECTION – C

[Short Essay]

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

23. Write shop notes on machine learning.

24. Differentiate OLTP and OLAP.

25. What are the major issues in data mining?

26. Explain Market Basket Analysis.

27. Discuss on FP Growth Approach for Mining Frequent Item sets.

28. Explain the general approach of Classification.

29. Write short notes on lazy learners.

30. Discuss about K-means Centroid-Based Technique.

31. What are the requirements for cluster analysis?

(6 × 4 = 24 Marks)

SECTION – D

[Long Essay]

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

32. Explain OLAP Multi-Dimensional Models.

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

34. Explain rule based classification with example.

35. Explain outlier and its detection methods in detail.

(2 × 15 = 30 Marks)

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Fourth Semester B.C.A./B.Sc. Degree Examination, July 2023

Career Related First Degree Programme under CBCSS

Computer Applications / Physics and Computer Applications

CP 1442 / PC 1472 : PYTHON PROGRAMMING

(2021 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A

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

1. What is datatype conversion?
2. Define enumerate() function.
3. Write the syntax of delete command in Python.
4. What is an iterator in Python?
5. How do you retrieve a cookie in Python?
6. How are exceptions handled in Python?
7. What are some common use cases for regular expressions in Python?
8. What is search() function?
9. Differentiate between mkdir() and chdir().
10. Write the syntax for renaming a file.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

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

11. **What are** nested if statements?

12. **Differentiate** between logical and arithmetic operators.

13. **How can** HTTP headers be set and modified in **Python** using the requests **library?**

14. **What is** a generator in Python? How is it different from a normal function?

15. **What is** transaction control in Python, and how is it used to ensure data consistency?

16. **When should** assertions be used in Python?

17. **How are classes** defined in Python?

18. **How is data hiding** achieved in Python?

19. **Write a Python** function that takes a list of integers as input and returns the sum **of all even numbers** in the list.

20. **How can you** create and use your own modules and packages in a Python **program?**

21. **What is the purpose** of the 'return' statement in Python functions?

22. **Write a short note** on list datatype in Python.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Write a short note on string operations.

24. Explain input/output functions in Python.

25. How can a class be used as a decorator in Python? Provide an example.

26. What is the difference between the GET and POST methods in Python? How are they used in web development?

27. What are the different types of inheritance in Python?

28. How do you implement polymorphism in Python and what are some examples?

29. Explain operator overloading in Python with the help of examples.

30. Briefly explain different types of function arguments.

31. Illustrate date and time modules in detail.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Describe the different types of loops available in Python.

33. Compare and contrast the key features and functionalities of database programming and CGI programming. Discuss the advantages and limitations of each technology in different software development scenarios.

34. Compare and contrast different approaches to exception handling in Python by highlighting their advantages and limitations.

35. Describe the file handling methods in Python.

(2 × 15 = 30 Marks)

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Fourth Semester B.C.A/B.Sc. Degree Examination, July 2023

Career Related First Degree Programme Under CBCSS

Computer Applications/Physics and Computer Applications

CP 1441/PC 1471 : SOFTWARE ENGINEERING

(2021 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A (Very Short Answer Type)

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

1. What is Decision Tree?
2. Write any two techniques used for Project Planning and Control.
3. What is Software Engineering?
4. Describe purpose of SRS.
5. What is State Chart Diagram?
6. Explain Function Oriented Design.
7. Describe Spiral Model.
8. Write a note on Gantt Chart.
9. Explain PERT.
10. Write a note on Unit Testing.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B (Short Answer)

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

11. Explain CORBA.
12. What do you know by COCOMO?
13. List the benefits of incremental Model.
14. Write the purpose of Agile Development Models.
15. Explain Water Fall Model.
16. What is the function of Feasibility Study?
17. Explain the overview of design process.
18. Describe Project Estimation Techniques.
19. What are the advantages of Prototyping model?
20. Write a note on Requirements Gathering and Analysis.
21. What is Data Dictionary?
22. Give overview of SA/SD Methodology.

(8 × 2 = 16 Marks)

SECTION – C (Short Essay)

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

23. What do you know about structured Analysis?
24. What is Code review?
25. Explain the concept of Debugging.
26. Differentiate Cohesion and Coupling.
27. Describe Client server Architectures.
28. How do you estimate the cost of a Software?
29. Illustrate evolution and significance of SE.
30. Explain types of Software Development Projects.
31. Briefly explain Software Project Management.

(6 × 4 = 24 Marks)

SECTION – D (Long Essay)

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

32. Illustrate SRS with examples.

33. Describe Class Diagram with suitable examples.

34. Make a comparison of different life cycle models.

35. Illustrate emerging trends in Software Engineering.

(2× 15 = 30 Marks)