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Reg. No. : .....

Name : .....

Fifth Semester B.C.A. Degree Examination, December 2024

Career Related First Degree Programme under CBCSS

Group2(b)- Computer Applications

Core Course

CP 1541 : PHP AND MySQL

(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. ———— character is used to give single line comments in PHP.
2. Name any two superglobal variables.
3. ———— is the function used to check whether a data type is an integer or not.
4. What does the following statement output? echo gettype("4");
5. ———— function rewinds the pointer to the beginning of an array.
6. We can parse a string word by word using the ———— function.

P.T.O.

7. For using the mail() function to send mail, we need to set up a few directives in the ———————— file.

8. Which predefined variable do you use to find the name of the script?

9. Which function can return the current session's ID?

10. ———————— PHP function retrieves the text of a MySQL error message.

(10 × 1 = 10 Marks)

SECTION – B

(Short answer)

Not to exceed **one** paragraph, answer any **eight** questions. Each question carries **2** marks.

11. What are the rules for naming a variable in PHP?

12. What is $_ REQUEST?

13. What are pre-defined constants? Give example.

14. What do you mean by variable scope?

15. Explain the array functions array_merge() and shuffle.

16. What do you mean by type specifier? Give example.

17. How will you delete a cookie?

18. How to start a session in PHP?

19. With an example query, illustrate the use of LIKE operator.

20. How will you fetch records from 2 tables at once?

21. Explain conditional DELETE statement with an example.

22. What is die() in PHP?

(8 × 2 = 16 Marks)

SECTION – C

(Short essay)

Not to exceed 120 words, answer any **six** questions. Each question carries **4** marks.

23. Explain the benefits of PHP.

24. Explain the data types in PHP.

25. Explain with an example how to return values from a function in PHP.

26. How to create class and objects in PHP?

27. Explain the string functions strstr() and substr().

28. Explain inner join with an example.

29. Write down a simple connection script to connect PEP with MySQL.

30. Explain REPLACE command in MySQL.

31. Differentiate DAYOFWEEK() and WEEKDAY() functions.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Explain in detail, various operators used in PHP with syntax and examples.

33. Explain the concept of inheritance and method overriding with examples.

34. Explain with an example how to combine HTML and PHP code in a single form.

35. Explain various datatypes used in MySQL.

(2 × 15 = 30 Marks)

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Fifth Semester B.C.A. Degree Examination, December 2024

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1542 – CLOUD COMPUTING

(2021 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A

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

1. Name the major support technologies for cloud computing.

2. Write down the aim of cloud computing.

3. Enumerate the business requirements that leads to cloud computing.

4. Name the phase of CDLC where the actual formation and enablement of types of cloud solutions to a computing problem.

5. Which are the different parts of a cloud computing system?

6. Which are the types of services available with a cloud service provider?

7. Name the method where network resources are combine based on available bandwidth.

8. What do you mean by wine?

9. Expand DAS.

10. Define the term risk.

(10 × 1 = 10 Marks)

SECTION – B

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

11. What do you mean by public cloud?

12. How utility cloud computing services offers to businesses?

13. Illustrate cloud computing infrastructure.

14. Which are the four models including in CC-RM?

15. Explain Cloud Governance and Operations Model.

16. Cloud portability can be considered while designing cloud-based architectures. Justify.

17. Define the term Virtualization.

18. How will you tackle the challenges of virtualization?

19. Define the term Application Virtualization.

20. Today IT organizations are implementing tiered storage. Justify your answer.

21. Name the SRM tools.

22. Enumerate any two features of Ghost CFS.

(8 × 2 = 16 Marks)

SECTION – C

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

23. What cloud computing really is?

24. Explain the cloud computing types.

25. Write down the steps used by the managers to manages the lifecycle.

26. What are the responsibilities of cloud lifecycle working group?

27. Explain the types of Cloud Deployment Model.

28. Draw the diagrammatic representation of virtualization.

29. Write a short note on the need of server virtualization.

30. Discuss about various types of storage subsystem.

31. Write a note on NSU.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Explain cloud computing with its five features.

33. Write a note on CC-RM.

34. Write a note on pitfalls of Virtualization.

35. Explain the Risk Management process steps with suitable diagram.

(2 × 15 = 30 Marks)

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Fifth Semester B.C.A. Degree Examination, December 2024

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1543 : VISUAL PROGRAMMING

(2021 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A [Very Short Answer Type]

(One word to maximum **one** sentence, answer **all** questions)

1. What do you mean by deployment?
2. Name any two types of server controls.
3. What is a foreign key?
4. What is URL encoding?
5. Why HTTP is called a stateless protocol?
6. How do you allow sorting in Grid View?
7. What is a cookie?
8. List any two basic attribute of the List View control.
9. What are the two types of digital secure certificates?
10. What is a web application?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B [Short Answer]

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

11. Write any four types of style elements that you can use with a Grid View control

12. Write a method that retrieves the value of a cookie from the Http Request object

13. Name any two common application event.

14. What are the components of an HTTP URL?

15. Write note on master/Detail page.

16. Write a sample ASP code to implement file upload control.

17. Explain two methods to create a cookie.

18. Explain the working of a dataList control.

19. Write note on ViewState.

20. Explain how ASP.NET support users to change their password.

21. What is a LoginStatus control? Write its common attributes?

22. Briefly explain how to work with the data in a database without using a data adaptor.

(8 × 2 = 16 Marks)

SECTION – C [Short Essay]

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

23. Differentiate between a persistent cookie and a session cookie.

24. Explain three types of button controls in detail.

25. Explain how to request a secure connection in ASP.NET application.

26. What are the four ASP.NET features for maintaining state?

27. How to create a select statement with the Query Builder?

28. How a web server processes static web page?

29. Write note on Listitem objects.

30. Explain required field validator with suitable example.

31. Explain how you configure the select statement.

(6 × 4 = 24 Marks)

SECTION – D [Long Essay]

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

32. Write note on authentication and authorization in ASP.NET applications.

33. Explain the components of .NET Framework.

34. Explain how you use the ListViewcontrol.

35. Write note on session state.

(2 × 15 = 30 Marks)

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Fifth Semester B.C.A. Degree Examination, December 2024

Career Related First Degree Programme under CBCSS

Group2(b) – Computer Applications

Core Course

CP 1544 : DESIGN AND ANALYSIS OF ALGORITHMS

(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. ———— is a sequence of unambiguous instructions for solving a problem.

2. ———— is the symbol used to notate omega notation.

3. Initial value can be identified by inspecting the condition that makes the algorithm stop its recursive calls. True/False.

4. Divide-and-conquer is a form of recursive programming. True/False

5. What do you mean by feasible solution.

6. The ———— of a tree is defined as the sum of the weights on all its edges.

7. Applicability of dynamic programming to an optimization problem requires the problem to satisfy the ————.

8. In LC search, nodes are explored based on ————————.

9. Define key in terms of sorting.

10. Define NP problem.

(10 × 1 = 10 Marks)

SECTION – B [Short Answer]

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

11. What is sequential algorithm?

12. Define correctness of algorithm.

13. Write a note on Big O notation?

14. What are the three steps of divide and conquer method.

15. Differentiate feasible solution and optimal solution?

16. What do you mean by Spanning Tree?

17. Differentiate divide-and-conquer and dynamic programming.

18. What is the use of Floyd- Warshalls algorithm?

19. Define the term constraints in terms of back tracking.

20. What do you mean by sorting?

21. Difference between deterministic and non-deterministic algorithm

22. What are implicit and explicit constraints?

(8 × 2 = 16 Marks)

SECTION – C [Short Essay]

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

23. List and explain method to specify an algorithm.

24. Differentiate Best case and Worst Case complexities with support of an example.

25. Write a note on Binary Search.

26. Elaborate Greedy method.

27. Write a note on Kruskal's algorithm.

28. Write in detail about Dynamic programming techniques.

29. Write a note on Complexity of any four sorting algorithms.

30. What do you mean by Pivot in Quick sort? What are the conditions for choosing pivot?'

31. What are the features of Backtracking?

(6 × 4 = 24 Marks)

SECTION – D [Long Essay]

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

32. Discuss recursive algorithm with example.

33. Describe algorithm to find maximum and minimum in terms of divide-and-conquer method.

34. Write a detailed note on Knapsack problem with example.

35. Explain Merge Sort Algorithm in detail.

(2 × 15 = 30 Marks)
