BCA

Reg. No. : ....

Name : ....

Fifth Semester B.C.A. Degree Examination, December 2023

Career Related First Degree Programme Under CBCSS

Group 2 (b) — Computer Applications

Core Course

CP 1541 : PHP AND MySQL

(2021 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION – A [Very Short Answer Type]

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

1. ——————— is the function used to check whether a variable is boolean or not.

2. The concatenation operator is represented by ——————— symbol.

3. Which is the function in PHP used to create a constant?

4. You can save the state between the function calls using ——————— statement.

5. Name two functions that gives the number of items in an array.

6. ——————— is used for finding the length of the string.

7. ——————— function breaks up a string into an array.

8. Which built-in associative array contains all values submitted as part of a file upload?

9. How can you end a session and erase all traces of it for future visits?

10. Which PHP function counts the number of records in a resultset?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B [Short Answer]

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

11. What is echo statement in PHP? Give the syntax.

12. What are superglobals? Give example.

13. What is the purpose of settype( )?

14. What is the use of combination assignment operators? Give example.

15. Explain the use of ternary operator with an example.

16. Explain the array functions array_push() and array_pop( ).

17. Explain the string function strpos( ).

18. Explain the use of getdate() function in PHP.

19. What are the five arguments used by the mail() function?

20. Mention the numeric data types in MySQL.

21. What is the use of LIMIT clause in an SQL query?

22. Explain conditional UPDATE with an example.

(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 use of switch statement in PHP with an example.

24. Explain with an example how to define and call functions in PHP.

25. Explain with example code how to create a simple file upload form.

26. Explain with example, how to set cookies.

27. With an example, explain how to store and access session variables.

28. Explain the use of ORDER BY clause in MySQL.

29. Explain subqueries in MySQL with an example.

30. Write a PHP script to create a table in MySQL.

31. Illustrate with a PHP script how to extract data from MySQL.

(6 × 4 = 24 Marks)

SECTION – D [Long Essay]

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

32. Explain various loops used in PHP with examples.

33. Explain different types of arrays in PHP.

34. Explain with example code how to redirect a user using header() function.

35. Using forms, insert data from PHP to MySQL.

(2 × 15 = 30 Marks)

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Fifth Semester B.C.A. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1542 – CLOUD COMPUTING

(2021 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION A — [Very Short Answer Type)

[**One** word to maximum of **one** sentence. Answer ALL questions]

1. Give two examples for cloud computing.

2. ———————— works on the management of how the likeness of the OS, middleware and programs procreated and assigned to a personal system or part of the server stack away.

3. ———————— cloud is also known as internal cloud or corporate cloud.

4. PaaS stands for ————————.

5. In cloud computing reference model, CEM stands for ————————.

6. Expand VMM in virtualization.

7. Name any two frameworks used in virtualization.

8. List three kinds of server virtualization.

9. NAS stands for —————.

10. Name any two file systems in Windows.

$(10 \times 1 = 10 \text{ Marks})$

SECTION B — [Short Answer]

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

11. Mention the five characteristics of cloud computing.

12. What is autonomic computing?

13. What is hybrid cloud?

14. Why do we need cloud computing?

15. What is Cloud Deployment Model?

16. Mention various cloud based solution architecture.

17. What do you mean by storage virtualization?

18. What are the limitations of server virtualization?

19. What is a private virtual disk?

20. What is Ghost file system?

21. What is Big Table?

22. What is risk management?

$(8 \times 2 = 16 \text{ Marks})$

SECTION C — [Short Essay]

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

23. Explain the basic components that are important in enabling the cloud computing concept.

24. Explain SOA with a diagram.

25. Differentiate private cloud and public cloud.

26. Explain the problems with cloud computing.

27. Explain various tiers in cloud computing reference model.

28. Explain application and management virtualization.

29. Explain the need for server virtualization,

30. Explain the benefits of virtual clustering.

31. Explain different types of data storage management tools.

(**6 × 4 = 24 Marks**)

SECTION D — [Long Essay]

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

32. Explain the pros and cons of cloud computing.

33. Explain various phases in Cloud Life Cycle Model.

34. With a diagram, explain the concept of virtualization. What are the reasons for using virtualization?

35. Explain the threats in cloud computing.

(**2 × 15 = 30 Marks**)

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Fifth Semester B.C.A. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1543 – VISUAL PROGRAMMING

(2021 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION A — [Very short answer type]

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

1. URL stands for?

2. What is CLR?

3. What do you mean by SSL strength?

4. Name any two web applications in Internet.

5. How do you add paging in Grid View?

6. Why cookieless session tracking introduce security risks?

7. Differentiate between a primary key and a unique key.

8. What is a round trip?

9. What is a web form?

10. Write any two template elements used by the ListView control.

<div align="right">(10 × 1 = 10 Marks)</div>

SECTION B — [Short Answer]

[Not to exceed **one** Paragraph, Answer **any eight** Questions

Each question carries **2** marks.]

11. Name any two attributes of the session state element in the web.config file.

12. Write note on PasswordRecovery control.

13. What happens when an ASP.NET page is requested?

14. Write note on inner join.

15. What are the components of a web application?

16. How to create a binding for HTTPS protocol?

17. Explain common text box attributes in detail.

18. How to provide sorting for a ListView control?

19. Write a method to deletes a persistent cookie.

20. Write any four types of columns elements that you can use with a GridView control.

21. What happens when a user clicks an ImageButton control?

22. Explain the working of ADO.NET components.

<div align="right">(8 × 2 = 16 Marks)</div>

SECTION C — [Short Essay]

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

23. How to provide paging for a ListView control.

24. Write not on common hyperlink attributes.

25. How can we avoid concurrency errors? Explain.

26. Explain the procedure to create a SqlDatasource control.

27. Write the common properties of list boxes and drop-down list control.

28. Write the syntax to add, delete and update data in a table.

29. Explain the working of a GridView control.

30. What is an image map? Write any two image map attribute.

31. Explain how we can deploy an ASP.NET application.

(6 × 4 = 24 Marks)

SECTION D — [Long Essay]

[Answer **any two** Questions. Each question carries **15** marks]

32. How to manage states? Explain in detail.

33. Explain how you update GridView data.

34. Explain the use of validation controls in detail.

35. How a dynamic web pages work?

(2 × 15 = 30 Marks)

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Fifth Semester B.C.A. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1544 – DESIGN AND ANALYSIS OF ALGORITHMS

(2021 Admission)

Time : 3 Hours　　　　　　　　　　　　　　　　　　Max. Marks : 80

SECTION A — [Very short answer type]

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

1. A problem can be solved by many different algorithms. True/False.

2. —————— asymptotic notation describes upper bound of running time function.

3. Define recursion.

4. Binary search is an example of ———— algorithm design technique.

5. Define connected graph.

6. What is optimum solution?

7. Define path.

8. What do you mean by state-space tree?

9. Define the term sorting.

10. Expand NP.

<div align="right">(10 × 1 = 10 Marks)</div>

SECTION B — [Short Answer]

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

11. What is exact algorithm?

12. Define pseudo code.

13. What do you mean by order of growth?

14. Define principle of optimality.

15. What is feasible solution?

16. What do you mean by Minimum Cost Spanning Tree?

17. Define dynamic programming.

18. What is digraph?

19. Define the term implicit constraints.

20. What is time complexity?

21. Define the term deterministic algorithm.

22. Write any four properties of good algorithms.

<div align="right">(8 × 2 = 16 Marks)</div>

SECTION C — [Short Essay]

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

23. Differentiate Best case and Average case.

24. Describe divide and conquer method in detail.

25. Write a note on Strassen's Matrix Multiplication,

26. Write Kruskal's Algorithm.

27. Write a note on single source shortest path.

28. What is Backtracking? Explain.

29. Write a note on merge sort.

30. What is NP. Complete?

31. Write a note on LC search.

(6 × 4 = 24 Marks)

SECTION D — [Long Essay]

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

32. Discuss recursive algorithm for Binary Search with the support of an example.

33. Describe Prim's algorithm with an example.

34. Write a detailed note on travelling sales person problem.

35. Explain quick sort algorithm.

(2 × 15 = 30 Marks)

Reg. No. : ....

Name : ....

Fifth Semester B.Sc./B.C.A. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Computer Science / Computer Applications /
Physics with Computer Applications

Open Course

CS 1551.2/CP 1551.2/PC 1551.2 – INTERNET AND WWW

(2021 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION – A (Very Short Answer Type)

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

1.   Expand WAN.

2.   Define the term extranet.

3.   FTP is the short name of _____.

4.   What do you mean by web page?

5.   Expand HTTP.

6.   Internet explorer is a _____.

7.   Define port number in URL.

8.   _____ number of layers are in OSI Reference Model.

9.   Expand IIS.

10.   Apache is a _____.

(10 × 1 = 10 Marks)

SECTION – B (Short Answer)

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

11. List any four advantage of Networking.

12. What is Internet?

13. Write a note on IPV6.

14. Define search strategy.

15. Write a note on directories in web browser.

16. What are the services offered by Network Layer in OSI Model?

17. Write a note on chat rooms.

18. Describe datagrams.

19. What do you mean by PWS?

20. Define network stations.

21. Write a note on SSL.

22. Write a note on unguided media.

(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 working of dial up access to internet.

24. Explain the role of network cards in communication.

25. Describe Search generalization in detail.

26. Write a detailed note on book marks in web browser.

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7.   Discuss the role of Transport Layer in OSI Model.

28. What are the components of URL? Explain.

29. Describe the disadvantages of Email.

30. Explain the working of a webserver.

31. Write the methods to identify network stations? Explain.

(6 × 4 = 24 Marks)

SECTION – D (Long Essay)

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

32. Discuss Network Topologies in detail.

33. Describe the working of Search Engine in detail.

34. Write a detailed note on TCP/IP Model.

35. Explain any three internet security threats in detail.

(2 × 15 = 30 Marks)

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Name : ....

Fifth Semester B.C.A. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1544 – DESIGN AND ANALYSIS OF ALGORITHMS

(2021 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION A — [Very short answer type]

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

1. A problem can be solved by many different algorithms. True/False.

2. —————— asymptotic notation describes upper bound of running time function.

3. Define recursion.

4. Binary search is an example of —————— algorithm design technique.

5. Define connected graph.

6. What is optimum solution?

7. Define path.

8. What do you mean by state-space tree?

9. Define the term sorting.

10. Expand NP.

<div align="right">(10 × 1 = 10 Marks)</div>

SECTION B — [Short Answer]

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

11. What is exact algorithm?

12. Define pseudo code.

13. What do you mean by order of growth?

14. Define principle of optimality.

15. What is feasible solution?

16. What do you mean by Minimum Cost Spanning Tree?

17. Define dynamic programming.

18. What is digraph?

19. Define the term implicit constraints.

20. What is time complexity?

21. Define the term deterministic algorithm.

22. Write any four properties of good algorithms.

<div align="right">(8 × 2 = 16 Marks)</div>

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

23. Differentiate Best case and Average case.

24. Describe divide and conquer method in detail.

25. Write a note on Strassen's Matrix Multiplication.

26. Write Kruskal's Algorithm.

27. Write a note on single source shortest path.

28. What is Backtracking? Explain.

29. Write a note on merge sort.

30. What is NP. Complete?

31. Write a note on LC search.

(6 × 4 = 24 Marks)

SECTION D — [Long Essay]

(Answer any two questions. Each carries 15 Marks)

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33. Describe Prim's algorithm with an example.

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(2 × 15 = 30 Marks)

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