**Nagarjuna College of Information Technology**

**Full Marks: 60**

**Pass Marks: 30**

**Time: 3 hrs.**

**Shankhamul -09, Lalitpur**

**SET - A**

**Pre-Board Examination 2080**

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| **BIM / Fourth Semester / IT 239: Web Technology II** |

***Candidates are required to answer the questions in their own words as far as possible.***

**Group “A”**

**Brief Answer Questions: [10×1=10]**

1. What are the various methods for outputting data in PHP??
2. What are PHP superglobals? List some commonly used superglobals?
3. How do you iterate through an array using a foreach loop?
4. What is the purpose of the "public" access modifier? Give example.
5. What is the primary purpose of an abstract class in PHP? .
6. Which PHP function is commonly used to read the contents of a file?
7. Which PHP function is commonly used to establish a connection with a MySQL database? Write syntax.
8. Explain the process of destroying a session in PHP.
9. Which PHP function is used to perform a regular expression match against a string? Write syntax.
10. How can you include an external file in PHP?

**Group “B”**

**Short Answers Questions. Attempt any *FIVE* questions: [5×3=15]**

1. Describe the basic syntax of PHP, including how to define variables, constants, and comments.
2. Explain the concept of strings in PHP. How do you declare and manipulate strings? Provide examples of any three string functions commonly used in PHP.
3. Explain the concept of a class in PHP. How do you define a class, and what does it encapsulate? Provide an example of a simple PHP class definition.
4. Discuss the process of retrieving and processing form data in PHP. How do you access form data submitted via POST or GET methods?
5. Discuss the steps involved in creating a connection to a database using PHP. What functions or methods are commonly used to establish a database connection?
6. Describe the process of setting cookies in PHP. How do you set cookies with specific attributes such as expiration time and domain?

**Group “C”**

**Long Answers Questions. Attempt any *THREE* questions [3×5=15]**

1. Discuss the concept of functions in PHP, covering aspects such as defining functions, passing arguments to functions, and returning values from functions along with relevant example.
2. Explain the process of defining and initializing an associative array in PHP. Write a PHP script that defines an associative array representing the information of a person (e.g., name, age, email). Then, print each key-value pair of the array.
3. Explain the process of reading a text file in PHP. Write a PHP script that reads the contents of a text file named "student.txt" and displays its content on the webpage.
4. Write a brief note on PHP Server-Side Web Framework.

**Group “D”**

**Comprehensive Answer Questions: [2×10=20]**

1. Discuss the use of interfaces and abstract classes in Object-Oriented Programming (OOP) in PHP. Write a PHP abstract class called 'Animal' with abstract methods like 'eat()' and 'makeSound()'. Create subclasses like 'Dog', 'Cat', and 'Bird' that implement these methods.
2. Design a PHP application to create a user-friendly web form for collecting personal information. The form should include fields for Username, Password, Confirm password, Age, and Comments. Validate user input as follows:
3. All fields are required
4. Username: Ensure it is between 2 to 10 characters long and contains only alphabetic characters.
5. Password: Password must be minimum 8 characters long and must contain at least a character, a number and a special symbol.
6. Password and Confirm Password must match.
7. Upon successful validation, store the user's information in a MySQL database.

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**Nagarjuna College of Information Technology**

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**Shankhamul -09, Lalitpur**

**SET - B**

**Pre-Board Examination 2080**

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| **BIM / Fourth Semester / IT 239: Web Technology II** |

***Candidates are required to answer the questions in their own words as far as possible.***

**Group “A”**

**Brief Answer Questions: [10×1=10]**

1. How do you define functions in PHP? Write the syntax and structure.
2. What are PHP superglobals? List some commonly used superglobals?
3. Write syntax for creating multidimensional array.
4. What is the purpose of the "private" access modifier? Give example.
5. What is the primary purpose of an interface class in PHP??
6. Which PHP function is commonly used to read the contents of a file?
7. What is the purpose of the PHP function mysqli\_query()? Write syntax.
8. Explain the process of deleting cooking in PHP.
9. What is meaning of ‘\W’ pattern in PHP?
10. How can you include an external file in PHP?

**Group “B”**

**Short Answers Questions. Attempt any *FIVE* questions. [5×3=15]**

1. How does PHP handle data types and operators? Discuss the various data types supported by PHP.
2. Define an array in PHP. Differentiate between numerically indexed arrays and associative arrays. Provide examples illustrating the creation and manipulation of each type.
3. Describe the process of creating objects in PHP. How do you instantiate a class to create an object? Provide a code example demonstrating the creation of an object from a class.
4. Discuss the process of retrieving and processing form data in PHP. How do you access form data submitted via POST or GET methods?
5. Discuss the steps involved in creating a connection to a database using PHP. What functions or methods are commonly used to establish a database connection?
6. Discuss the usage of sessions in PHP. How do you start, end, and set a timeout for sessions in PHP?

**Group “C”**

**Long Answer questions. Attempt any *THREE* questions [3×5=15]**

1. Discuss the concept of functions in PHP. Write a function in PHP to check whether the entered number is prime or not.
2. Differentiate between numerically indexed arrays and associative arrays in PHP. Write a PHP script that demonstrates the creation and usage of both numerically indexed and associative arrays
3. Describe the procedure for writing to a text file in PHP. Write a PHP script that takes input from a form field and appends the input data to a text file named "log.txt" each time the form is submitted.
4. Write a brief note on Server-Side Web Framework.

**Group “D”**

**Comprehensive Answer Questions. Attempt all questions [2×10=20]**

1. Explain the role of access modifiers (public, private, protected) in controlling the visibility of class members. Show inheritance in action by creating a parent class with protected members and a child class inheriting from it, accessing and modifying inherited properties.
2. Design a PHP application to create a user-friendly web form for collecting personal information. The form should include fields for Username, Password, Confirm password, Age, and Comments. Validate user input as follows:
3. All fields are required
4. Username: Ensure it is between 2 to 10 characters long and contains only alphabetic characters.
5. Password: Password must be minimum 8 characters long and must contain at least a character, a number and a special symbol.
6. Password and Confirm Password must match.
7. Upon successful validation, store the user's information in a MySQL database.

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