DevOps (DEVELOPMENT OPERATIONS)
THEORY PAPER
Tibetan Computer Resource Center, Department of Finance, CTA.

Duration: 1 hour   Maximum Marks: 30

A. Multiple choice questions. Circle the correct answer. 23 Marks

1. PHP server scripts are surrounded by delimiters, which?
   a. <&>...</&>
   b. <?php> ... </?>
   c. <?php ... ?>
   d. <script> ... </script>

2. All variables in PHP start with which symbol?
   a. $
   b. !
   c. &

3. The PHP syntax is most similar to:
   a. JavaScript
   b. VBScript
   c. Perl and C

4. How do you create an array in PHP?
   a. $cars = "Volvo", "BMW", "Toyota";
   b. $cars = array["Volvo", "BMW", "Toyota"];
   c. $cars = array("Volvo", "BMW", "Toyota");

5. Which operator is used to check if two values are equal and of the same data type?
   a. =
   b. !=
   c. ===
   d. ==

6. Which function name is the correct function to get the length of the string "Hello World!" in the following?
   ```
   echo _____("Hello World!");
   ```
   a. strlength
   b. stringlength
   c. strlen
   d. lenstr

7. Fill in with the correct function name and its variables to replace the word "World" with the word "Tashi".
   ```
   $oldtxt = "Hello World";
   $newtxt = _____(_____, _____, $oldtxt);
   ```
   a. $newtxt = str_replace("World", "Tashi", $oldtxt);
   b. $newtxt = string_rep("Tashi", "World", $oldtxt);
   c. $newtxt = str_replace("Tashi", "World", $oldtxt;
   d. $newtxt = string_rep("World", "Tashi", $oldtxt);

8. Which MySQL statement is used to update data in a database?
   a. INSERT
   b. MODIFY
   c. SAVE
   d. UPDATE

9. Which MySQL statement is used to delete data from a database?
   a. COLLAPSE
   b. REMOVE
   c. DELETE

10. With MySQL, how do you select all the columns from a table named "Persons"?
    a. SELECT *.Persons
    b. SELECT Persons
    c. SELECT [all] FROM Persons
    d. SELECT * FROM Persons

11. With MySQL, how do you select all the records from a table named "Persons" where the value of the column "FirstName" is "Peter"?
    a. SELECT [all] FROM Persons WHERE FirstName LIKE "Peter";
    b. SELECT * FROM Persons WHERE FirstName = "Peter";
    c. SELECT [all} FROM Persons WHERE FirstName EQUAL "Peter";

12. The OR operator displays a record if ANY conditions listed are true. The AND operator displays a record if ALL of the conditions listed are true
    a. TRUE
    b. FALSE

13. With MySQL, how do you select all the records from a table named "Persons" where the "FirstName" is "Peter" and the "LastName" is "Jackson"?
    a. SELECT * FROM Persons WHERE FirstName<>'Peter' AND LastName<>'Jackson';
    b. SELECT * FROM Persons WHERE FirstName='Peter' AND LastName='Jackson';
    c. SELECT FirstName='Peter', LastName='Jackson' FROM Persons;

14. The NOT NULL constraint enforces a column to not accept NULL values.
    a. TRUE
    b. FALSE

15. Which database is required by WordPress?
    a. MySQL
    b. MongoDB
    c. RDB
    d. None of these

16. What is the purpose of WordPress taxonomy?
    a. To classify website content into categorie and tags
    b. To optimize a website for search engines
    c. To provide website security features
    d. To customize website design

17. What is the default post Category for WordPress?
    a. The first category added to WordPress
    b. Uncategorized
    c. No category
    d. None of these

18. What is the purpose of the WordPress REST API?
    a. To enable communication between WordPress sites and external applications
    b. To optimize a website for search engines
    c. To provide website security features
    d. To customize website design

19. What is a child theme in WordPress?
    a. A theme that inherits the design and functionality of another theme
    b. A type of plugin
    c. A template for a specific page or post
    d. A script that runs in the background of a website

20. What is the purpose of the WordPress loop?
    a. To display posts and pages on a website
    b. To create custom post types
    c. To optimize website performance
    d. To create website backups

21. What is a widget in WordPress?
    a. The element that adds a new feature to the theme
    b. New theme type
    c. Editor of a WordPress theme
    d. All of these

22. What is the command to check the version of the Ubuntu Server version?
    a. ubuntu - -version
    b. ubuntu -v
    c. lsb_release -a

23. Which is the correct command to ssh into the server with IP "172.28.20.4", port number "8888", and username as "tcrc"?

    a. ssh -p 8888 tcrc@172.28.20.4
    b. ssh -port 8888 tcrc@172.28.20.4
    c. ssh -port 8888 -u tcrc -host

B. **Subjective Question. Answer one of the two questions. 7 marks**

What is the main difference between WordPress posts and pages?

Or

Explain the purpose of a child theme.

DevOps (DEVELOPMENT OPERATIONS)
PRACTICAL PAPER
Tibetan Computer Resource Center, Department of Finance, CTA.

Duration: 2 hour   Maximum Marks: 70

1. Set up a local web server for the WordPress Site. Use any of the preferred local web server tools. XAMPP, MAMP, WAMP, or any other. **5 Marks**

2. Install the Latest WordPress and Set Up a Basic Site. **10 Marks**

3. Create, install, and activate a Child Theme using any default theme. **20 Marks**

   a. Customize the Child theme.

   b. Design a basic website layout. The body or website content layout should contain two columns. Use Lorem Ipsum text to create content. There should be at least 4 Pages and 5 Posts.

4. Install and configure the necessary plugins required to build the website. **10 Marks**

5. Create a contact form with the following fields. Use any of the preferred Form plugins. **15 Marks**

   a. Name, Email, Date of Birth, and Phone number.

   b. Configure the form such that when a user submits a form, all the data from the submitted form is sent to this e-mail address: *tcrcwebdb@tibet.net*

6. Create a Custom Post Type and name it "CTA". **5 Marks**

7. Ensure the website's security. Follow the best practices. **5 Marks**