

Sl. No.

A10.2-R5 : Full Stack Web Development using MVC Framework

DURATION : 03 Hours

MAXIMUM MARKS : 100

OMR Sheet No. :

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Roll No. :

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Answer Sheet No. :

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Name of Candidate : _____ ; **Signature of Candidate :** _____

INSTRUCTIONS FOR CANDIDATES :

- Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
- Question Paper is in English language. Candidate has to answer in English language only.
- There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
- **PART ONE** is Objective type and carries **40** Marks. **PART TWO** is Subjective type and carries **60** Marks.
- **PART ONE** is to be answered in the **OMR ANSWER SHEET** only, supplied with the question paper, as per the instructions contained therein. **PART ONE** is **NOT** to be answered in the answer book for **PART TWO**.
- Maximum time allotted for **PART ONE** is **ONE HOUR**. Answer book for **PART TWO** will be supplied at the table when the Answer Sheet for **PART ONE** is returned. However, Candidates who complete **PART ONE** earlier than one hour, can collect the answer book for **PART TWO** immediately after handing over the Answer Sheet for **PART ONE** to the Invigilator.
- **Candidate cannot leave the examination hall/room without signing on the attendance sheet and handing over his/her Answer Sheet to the invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.**
- After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question Booklet is complete in all respect.

DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.

PART ONE

(Answer all the questions. Each question carries ONE mark)

1. Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the "OMR" answer sheet supplied with the question paper, following instructions therein.

(1x10)

1.1 How many functions does PHP offer for searching and modifying strings using Perl-compatible regular expressions ?

- (A) 7
- (B) 8
- (C) 9
- (D) 10

1.2 Suppose we have two compare two strings which of the following function/functions can you use ?

- (i) strcmp()
 - (ii) strcasecmp()
 - (iii) strstr()
 - (iv) strpos()
- (A) (i) and (ii)
(B) (iii) and (iv)
(C) None of the mentioned
(D) All of the mentioned

1.3 Which one of the following functions will convert a string to all uppercase ?

- (A) strtoupper()
- (B) uppercase()
- (C) str_uppercase()
- (D) struppercase()

1.4 What will be the output of the following PHP code ?

```
< ?php  
  
$title = "O'malley wins the heavyweight  
championship!";  
  
echo ucwords($title);  
  
?>
```

- (A) O'Malley Wins The Heavyweight Championship!
- (B) O'malley Wins The Heavyweight Championship!
- (C) O'Malley wins the heavyweight championship!
- (D) o'malley wins the heavyweight championship!

1.5 What will be the output of the following PHP code ?

```
< ?php  
  
echo str_pad("Salad", 5)." is good."  
  
?>
```

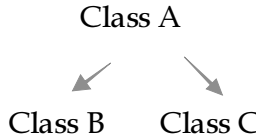
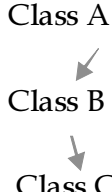
- (A) SaladSaladSaladSaladSalad is good
- (B) is good SaladSaladSaladSaladSalad
- (C) is good Salad
- (D) Salad is good

1.6 Which one of the following functions can be used to concatenate array elements to form a single delimited string ?

- (A) explode()
- (B) implode()
- (C) concat()
- (D) concatenate()

- 1.7 Which one of the following functions finds the last occurrence of a string, returning its numerical position ?
- (A) strlastpos()
 - (B) strpos()
 - (C) strlast()
 - (D) strrpos()
- 1.8 What will be the output of the following PHP code ?
- ```
< ?php
$url = "nachiketh@example.com";
echo ltrim(strstr($url, "@"),"@");
?>
```
- (A) nachiketh@example.com
  - (B) nachiketh
  - (C) nachiketh@
  - (D) example.com
- 1.9 PHP has long supported two regular expression implementations known as \_\_\_\_\_ and \_\_\_\_\_.
- (i) Perl
  - (ii) PEAR
  - (iii) Pearl
  - (iv) POSIX
  - (A) (i) and (ii)
  - (B) (ii) and (iv)
  - (C) (i) and (iv)
  - (D) (ii) and (iii)
- 1.10 Which of the following view file types are supported in MVC ?
- (A) .cshtml
  - (B) .vbhtml
  - (C) .aspx
  - (D) All of the above
2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)
- 2.1 The extension of php file is .cs.
  - 2.2 Multilevel inheritance is supported in MVC
  - 2.3 Instance of Static class can be created
  - 2.4 Interface can have internal method as well
  - 2.5 A concrete class can inherit static class
  - 2.6 \$.ajax method is used to call mvc controller action method from PHP code
  - 2.7 jquery is javascript library
  - 2.8 Dll is self executable
  - 2.9 Data Annotation attributes can be used for data validation in MVC.
  - 2.10 Session never gets expired on its own in MVC.

3. Match words and phrases in column X with the closest related meaning / word(s) / phrase(s) in column Y. Enter your selection in the "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

| Column X |                                                                        |    | Column Y                                                                             |
|----------|------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------|
| 3.1      | DI                                                                     | A. |    |
| 3.2      | Example of Multilevel Inheritance                                      | B. | Dependency Injection                                                                 |
| 3.3      | Laravel                                                                | C. | Base                                                                                 |
| 3.4      | float: left;                                                           | D. | a self-contained component which consists of methods and properties                  |
| 3.5      | keyword is used to refer baseclass constructor to subclass constructor | E. | Used to create object in memory                                                      |
| 3.6      | what is class                                                          | F. |   |
| 3.7      | Wordpress                                                              | G. | CMS in PHP                                                                           |
| 3.8      | Example of Multiple Inheritance                                        | H. | Framework in php                                                                     |
| 3.9      | what is object                                                         | I. | The element floats to the left of its container                                      |
| 3.1      | Constructor                                                            | J. | an entity that determines how an object will behave and what the object will contain |
|          |                                                                        | K. | JavaScript Library                                                                   |
|          |                                                                        | L. | Open source                                                                          |
|          |                                                                        | M. | Structure                                                                            |

4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Choose the most appropriate option, enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein.

(1x10)

|          |                                          |          |                |          |                    |          |                   |
|----------|------------------------------------------|----------|----------------|----------|--------------------|----------|-------------------|
| <b>A</b> | web browser                              | <b>B</b> | SECOND         | <b>C</b> | Aborted            | <b>D</b> | method overriding |
| <b>E</b> | url:<br>"{controller}/<br>{action}/{id}" | <b>F</b> | pilot          | <b>G</b> | MySQL              | <b>H</b> | Unique index      |
| <b>I</b> | module interface                         | <b>J</b> | Set difference | <b>K</b> | method overloading | <b>L</b> | 4NF               |
| <b>M</b> | THIRD                                    |          |                |          |                    |          |                   |

- 4.1 \_\_\_\_\_ is an Open Source DBMS.
- 4.2 When a primary key is defined in the table, DBMS automatically creates a \_\_\_\_\_ on a primary key column.
- 4.3 In \_\_\_\_\_ normal form is the partial dependency removed.
- 4.4 \_\_\_\_\_ problem caused by independent multivalued dependencies is eliminated in which of the normal form ?
- 4.5 \_\_\_\_\_ is not the relational algebra operator.
- 4.6 \_\_\_\_\_ is a default route pattern in MVC.
- 4.7 Method with same name but different signature is example of \_\_\_\_\_.
- 4.8 A transaction state changes from active to \_\_\_\_\_, after the transaction has been rolled back and the database restored to its state prior to the start of the transaction.
- 4.9 HTML web pages can be read and rendered by \_\_\_\_\_.
- 4.10 Method with same name and same signature is example of \_\_\_\_\_.

**PART TWO**

(Answer **any FOUR** questions)

5. (a) What is difference between 3-layer architecture and MVC architecture ?
- (b) What is difference between ASP.NET Web Form and ASP.NET MVC ?
- (c) What is TempData in ASP.NET MVC ?  
(5+5+5)
6. (a) What is method overloading ? Explain with example.
- (b) What is the difference between reference type and value type ? Explain with example.
- (c) Write a program to check if given input string is palindrome or not using PHP code.  
(4+5+6)
7. (a) Why exception handling is required ? Explain System Divide By Zero Exception with example.
- (b) What is static class explain with example.  
(7+8)

8. (a) Explain advantage of inheritance. Explain multilevel inheritance with example.
- (b) How many types of arrays are available in PHP ? Explain in detail.  
(7+8)
9. (a) Explain decision making concepts in php with examples.
- (b) Write a program to find all prime number between 1-100
- (c) How Model, View and Controller communicate with each other in ASP.NET MVC ?  
(5+5+5)

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**SPACE FOR ROUGH WORK**

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