

Sl. No.

**A10.2-R5 : FULL STACK WEB DEVELOPMENT USING MVC FRAMEWORK**

अवधि : 03 घंटे

DURATION : 03 Hours

अधिकतम अंक : 100

MAXIMUM MARKS : 100

ओएमआर शीट सं. :  
OMR Sheet No. :

रोल नं. :

Roll No. :

उत्तर-पुस्तिका सं. :

Answer Sheet No. :

परीक्षार्थी का नाम :

Name of Candidate :

परीक्षार्थी के हस्ताक्षर :

;Signature of Candidate :

**परीक्षार्थियों के लिए निर्देश :****Instructions for Candidate :**

कृपया प्रश्न-पुस्तिका, ओएमआर शीट एवं उत्तर-पुस्तिका में दिये गए निर्देशों को ध्यानपूर्वक पढ़ें।	Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
प्रश्न-पुस्तिका की भाषा अंग्रेजी है। परीक्षार्थी केवल अंग्रेजी भाषा में ही उत्तर दे सकता है।	Question Paper is in English language. Candidate can answer in English language only.
इस मॉड्यूल/पेपर के दो भाग हैं। भाग एक में चार प्रश्न और भाग दो में पाँच प्रश्न हैं।	There are TWO PARTS in this Module/Paper. PART ONE contains FOUR questions and PART TWO contains FIVE questions.
भाग एक "वैकल्पिक" प्रकार का है जिसके कुल अंक 40 हैं तथा भाग दो "व्यक्तिपरक" प्रकार का है और इसके कुल अंक 60 हैं।	PART ONE is Objective type and carries 40 Marks. PART TWO is Subjective type and carries 60 Marks.
भाग एक के उत्तर, ओएमआर उत्तर-पुस्तिका पर ही दिये जाने हैं। भाग दो की उत्तर-पुस्तिका में भाग एक के उत्तर नहीं दिये जाने चाहिए।	PART ONE is to be answered in the OMR ANSWER SHEET only. PART ONE is NOT to be answered in the answer book for PART TWO.
भाग एक के लिए अधिकतम समय सीमा एक घण्टा निर्धारित की गई है। भाग दो की उत्तर-पुस्तिका, भाग एक की उत्तर-पुस्तिका जमा कराने के पश्चात् दी जाएगी। तथापि, निर्धारित एक घंटे से पहले भाग एक पूरा करने वाले परीक्षार्थी भाग एक की उत्तर-पुस्तिका निरीक्षक को सौंपने के तुरंत बाद, भाग दो की उत्तर-पुस्तिका ले सकते हैं।	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.
परीक्षार्थी, उपस्थिति-पत्रिका पर हस्ताक्षर किए बिना और अपनी उत्तर-पुस्तिका, निरीक्षक को सौंपे बिना, परीक्षा हॉल/कमरा नहीं छोड़ सकते हैं। ऐसा नहीं करने पर, परीक्षार्थी को इस मॉड्यूल/पेपर में अयोग्य घोषित कर दिया जाएगा।	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.
प्रश्न-पुस्तिका को खोलने के निर्देश मिलने के पश्चात् एवं उत्तर लिखना आरम्भ करने से पहले उम्मीदवार जाँच कर यह सुनिश्चित कर लें कि प्रश्न-पुस्तिका प्रत्येक दृष्टि से संपूर्ण है।	After receiving the instruction to open the booklet and before starting to answer the questions, the candidate should ensure that the Question Booklet is complete in all respect.

जब तक आपसे कहा न जाए, तब तक प्रश्न-पुस्तिका न खोलें।

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

**PART ONE**

**(Answer all the questions)**

**1. Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the "tear-off" answer sheet attached to the question paper, following instructions therein. (1x10)**

- 1.1** In Model-View-Controller (MVC) architecture, model defines the :
- (A) Data-access layer
  - (B) Presentation layer
  - (C) Business-logic layer
  - (D) Interface layer
- 1.2** PHP files have a default file extension of \_\_\_\_\_.
- (A) .html
  - (B) .xml
  - (C) .php
  - (D) .ph
- 1.3** What are the different types of hook point in Codeigniter ?
- (A) post\_controller\_constructor
  - (B) pre\_controller
  - (C) post\_system
  - (D) all of these

- 1.4** Which function is executed before every action in the controller ?
- (A) beforeFilter
  - (B) afterFilter
  - (C) firstFilter
  - (D) initfilter
- 1.5** What is the first function that gets loaded from a controller ?
- (A) About
  - (B) Index
  - (C) Delete
  - (D) Edit
- 1.6** What is the name of cake's database configuration file ?
- (A) Datasource
  - (B) Database
  - (C) Database.php.default
  - (D) Helper
- 1.7** The special database that always exists after setting up MySQL in a computer is \_\_\_\_\_.
- (A) sampdb
  - (B) mysql
  - (C) information\_schema
  - (D) readme\_db

1.8 Which Numeric Data type has the largest range ?

- (A) Int
- (B) Mediumint
- (C) Tinyint
- (D) Smallint

1.9 The practice of creating objects based on predefined classes is often referred to as \_\_\_\_\_.

- (A) class creation
- (B) object creation
- (C) object instantiation
- (D) class instantiation

1.10 Which one of the following property scopes is not supported by PHP ?

- (A) friendly
- (B) final
- (C) public
- (D) static

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the "OMR" sheet attached to the question paper, following instructions therein. (1x10)

- 2.1 Cakephp is a PHP framework package which enables you to develop custom application. It supports a MVC based architecture.
- 2.2 \$ this keyword is used to refer to properties or methods within the class itself.
- 2.3 The View Templates file of CakePHP has default extension .tcp.
- 2.4 A continue keyword terminates the for loop or switch statement and transfers execution to the statement immediately following the for loop or switch.
- 2.5 If there is any problem in loading a file then include() function generates a warning but the script will continue execution.
- 2.6 CakePHP does not support composite primary keys.
- 2.7 The default CakePHP behavior is to execute the action() method of that controller.
- 2.8 Controller layer handles requests from users and generate the response with the aid of both the Model and the View layer.
- 2.9 CakeRequest is the default request object used in CakePHP.
- 2.10 A constant is a class that aids in controller logic.

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 attached to the question paper, following instructions therein. (1x10)

X		Y	
3.1	Term in MVC architecture that perform business processing is called as	A.	errno()
3.2	Function used to determine whether a class exists or not in PHP	B.	Array
3.3	Function used to get environment variables in PHP	C.	Controller
3.4	An array represents an array containing one or more arrays	D.	class_exist()
3.5	A method is used to retrieve the number of rows affected by an INSERT, UPDATE, or DELETE query in PHP	E.	cross-site scripting
3.6	The attack which involves the insertion of malicious code into a page frequented by other users is known as	F.	Associative Array
3.7	PHP recognizes constructors by the name	G.	env()
3.8	The updated MySQL extension released with PHP 5 is typically referred to as	H.	getenv()
3.9	Method returns the error code generated from the execution of the last MySQL function	I.	affected_rows()
3.10	In CakePHP Controllers provide a number of methods that handle requests are called	J.	advanced sql injection
		K.	function __construct()
		L.	mysqli
		M.	Actions

4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Enter your choice in the "OMR" answer sheet attached to the question paper, following instructions therein. (1x10)

A.	array_push()	B.	0	C.	<select></select>
D.	Magic Function	E.	Blind SQL Injection	F.	Final
G.	Abstract	H.	\$GLOBALS	I.	mysql_connect()
J.	mysql_query()	K.	Get	L.	Post
M.	Text				

- 4.1 A function in PHP which starts with \_\_\_\_\_ (double underscore) is known as \_\_\_\_\_.
- 4.2 PHP's numerically indexed array begin with position \_\_\_\_\_.
- 4.3 \_\_\_\_\_ method scope prevents a method from being overridden by a subclass.
- 4.4 \_\_\_\_\_ in-built function will add a value to the end of an array.
- 4.5 \_\_\_\_\_ contains a reference to every variable which is currently available within the global scope of the script.
- 4.6 \_\_\_\_\_ method connect a MySQL database using PHP.
- 4.7 \_\_\_\_\_ should not be used while sending passwords or other sensitive information.
- 4.8 \_\_\_\_\_ default type of 'type' attribute of <input> element in HTML.
- 4.9 \_\_\_\_\_ tag is used to create drop-down list in HTML.
- 4.10 \_\_\_\_\_ is time based SQL injection attack.

## PART TWO

(Answer any FOUR questions)

5. (a) Explain MVC architecture in detail.  
(b) Differentiate between Codeigniter and Laravel frameworks.  
(c) Explain decision making in PHP with appropriate syntax. (5+5+5)
6. (a) Explain various ways of defining validation rules in CakePHP models.  
(b) What is an array ? Explain various types of arrays available in PHP with suitable example. (8+7)
7. (a) List and explain any eight core helpers available in CakePHP.  
(b) Differentiate between client-side and server-side scripting language. (9+6)
8. (a) What is function in PHP ? Why should we use functions ? Explain pass by value and pass by reference parameter passing to functions with suitable example.  
(b) What is Inheritance ? Explain the concept of multilevel inheritance and method overriding with suitable example. (8+7)
9. (a) Write a PHP script to insert details like firstname, lastname and email to myguests table of mysql.  
(b) Explain about CakePHP session management with suitable example.  
(c) Write a PHP script to retrieve and display employee data like id, name, designation and salary from tblemployee table. (5+5+5)

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SPACE FOR ROUGH WORK

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