



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS
DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

REGULAR PROGRAMME

BIT 2207: INTERNET APPLICATION PROGRAMMING MAIN EXAM

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: 3 Nov 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

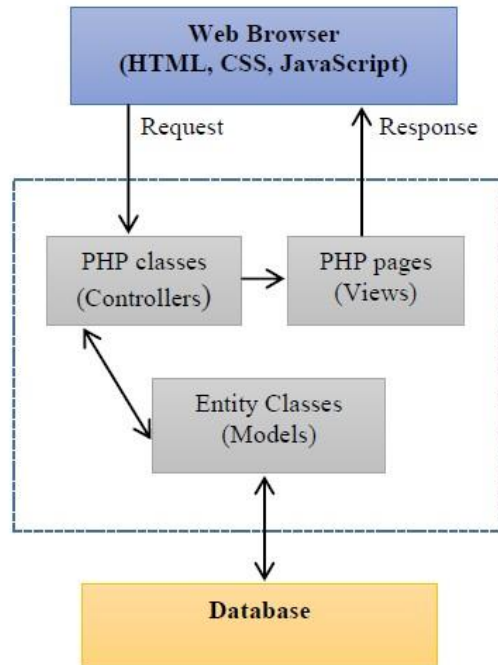
Question ONE

a) Define the following terms/phrases. [10 marks]

- i. localhost
- ii. server side scripting
- iii. client side scripting
- iv. common gateway interface
- v. static web sites

b) Describe four advantages of the PHP/JAVA/ASP when used as a scripting language. [6 marks]

c) The figure below shows Model-View- Controller Design Pattern using PHP/JAVA/ASP. Explain how the pattern works. [5 marks]



- d) Write PHP/JAVA/ASP -MYSLQ_i object oriented script that can be able to connect to a database server. [5 marks]
- e) Define a PHP/JAVA/ASP super global variable and illustrate with code how such a variable may be used. [4 marks]

Question TWO

- a) Explain the roles played by cookies and sessions in internet applications. [4 marks]
- b) The form below has an input field and a submit button that point to the file itself for processing form data. Illustrate with code how the form may be used to submit an input using a PHP/JAVA/ASP REQUEST METHOD. [8 marks]

Name:

- c) Explain four advantages and two disadvantages of WEB frameworks in WEB application development [8 marks]

Question THREE

- a) Using a foreach loop, write a PHP/JAVA/ASP extract that uses an array to display four items; TUM, TUK and JKUAT. [3 marks]
- b) Write a PHP/JAVA/ASP script that uses a function to output the following results. [4 marks]

$$5 + 10 = 15$$

$$7 + 13 = 20$$

$$2 + 4 = 6$$

c) Write the HTML CODE syntax that represents the form. [5 marks]

Name:

E-mail:

Gender: Female Male

d) Write a PHP/JAVA/ASP validation script suitable for the form. [8 marks]

Question FOUR

a) Define the term mobile web application. [2 marks]

b) List four main platforms for creating mobile apps. [4 marks]

c) Describe four disadvantages of Mobile native applications. [6marks]

d) Write a PHP/JAVA/ASP -MYSQL object oriented code extract that inserts a first name, a last name and an email into a table called students with fields: firstname, lastname and email. The script should give feedback regarding the insertaion.Assume successful server connection and database selection has already been achieved. [8 marks]

Question FIVE

a) Describe three advantages of using prepared statements. [6 marks]

b) Differentiate between the \$_GET method and the \$_POST method as used with PHP/JAVA/ASP. [4 marks]

c) Give two conditions for using the \$_GET method two conditions for using the \$_POST. [4 marks]

d) Write the PHP/JAVA/ASP -MYSQL connection string using PDO. [6 marks]

