PES University, Bangalore

(Established under Karnataka Act No. 16 of 2013)   **UC16MC601/UC14MC602**

END SEMESTER ASSESSMENT (ESA) MCA V SEMESTER- DEC 2018

UC16MC601 / UC14MC602 – ADVANCED JAVA PROGRAMMING

Time: 3 Hrs   Answer All Questions   Max Marks: 100

1.	a.	Write a note on the following with respect to JDBC
		  i) Statement
		  ii) Prepared Statement
		  iii) Callable Statement
			02+02
			+02

	b.	Programmatically represent the following in JDBC Import required packages Load the Driver Get the DB Connection via Driver Execute SQL Queries via Connection Process results returned by SQL Queries Close all JDBC objects	06
	c.	Differentiate between JDBC and ODBC	04
	d.	Which methods from the HTTP Session class are used to achieve the following 1) returns unique identifier generated for each session 2) invalidates the session and unbinds all objects associated with it 3) returns time in milliseconds since January 1,1970 at which the session was first built 4) sets the length of time, in seconds, that a session should go without access before being automatically invalidated.	04
2.	a.	Write one-line each on the following HTTP1.1 Request and Response Headers	10

Accept	Cache-Control
Authorization	Content-Disposition
Content-Length	Location
Host	Refresh
User-Agent	WWW-Authenticate

	b.	A servlet is accessed on the browser using the below URL - http://FirstExample/ myfirstServlet Create the web.xml entries for the same.	04
	c.	Analyze the given statements and answer the following	
		i) Which **two** of the following statements are true?	02
		a)The deployment descriptor must be well formed, i.e. every tag ~~every tag~~ must have a matching closing tag (or be closed with a forward slash) b)The deployment descriptor contains information on the configuration of servlets in a webapplication c)A single deployment descriptor may be used to configure multiple web applications d)The deployment descriptor cannot contain comments e)The deployment descriptor can be edited by the designer	
		ii) Which **one** of the following methods is NOT idempotent.	01
		a) Get b) Post c) Trace d) Head e) Options	
		iii) Mahesh is a developer developing a web application. He wants his servlets to behave in a single threaded environment. Which **one** of the following will be the right choice to achieve the above?	01
		a)The servlet has to implement singleThreadedModel interface b)The servlet has to extend singleThreadedModel Class c)The servlet has to extend httpServlet which in turn implements SingleThreadedModel interface d)It is not possible to make a servlet behave in a single threaded fashion	
		iv) Which **two** of the following are true about Cookies?	02
		a)Cookies are created in clientside and stored in server side b)Maximum of twenty cookies per website can be stored in a client machine c)Minimum size of a cookie is 8kb d)Cookies can be created by using Cookie class	

3.	a.	Represent JSP Hierarchy(Tomcat) diagrammatically.	06
	b.	Devise a Java JSP program to get student information through a HTML and create a Java Bean class, populate bean and display the same information through another JSP. Student USN: [＿＿＿＿＿＿＿＿＿＿] Marks: [＿＿＿＿＿＿＿＿＿＿] [Display]	10
	c.	Write the syntax for the following JSP useBean JSP include directive JSP taglib directive JSP page directive with import attribute	04
4.	a.	i) Bring out the steps to create JAR in eclipse	03
		ii) A user wants to create an annotation called "Author". This annotation must contain a single value "name". Write code to create the annotation and use the same annotation.	02+02
	b.	Explain the following options with respect to jar tool m u f	03
	c.	Enumerate the advantages of Java Beans.	05
	d.	Define Package. Differentiate between Interfaces and Classes.	01+04
5.	a.	What are the main tasks performed by IoC container? List the two types of IoC containers. Also programmatically create IoC container using both the ways.	07
	b.	Define Spring framework. What are the advantages of Spring framework?	02+04
	c.	Draw Spring Framework Architecture and explain.	03+04