CHAPTER 15: DATABASE CONNECTIVITY AND WEB TECHNOLOGIES

1. Databaseconnectivitysoftwareisalsoknownasdatabasemiddlewarebecauseitinterfacesbetweentheapplicationprogramandthedatabase.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.681

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. AgoodAPImakesiteasytodevelopaprogrambyprovidingallofthebuildingblocks.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. AmongthethreelevelsofcomplianceoftheODBCAPIstandards,Level-1providessupportforproceduralSQLandcursors.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. Havingaweb-baseddatabaseinterfaceeliminatesthedesignandimplementationissuesofadatabasesystem.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.685

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Whetheryoupurchaseonlineorbystandinginline,thesystem-leveltransactiondetailsareessentiallythesame,andtheyrequirethesamebasicdatabasestructuresandrelationships.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.692

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Theeffectsofbaddatabasedesign,implementation,andmanagementaremagnifiedinanenvironmentinwhichthenumberoftransactionsislessthanonehundred.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.692

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Thebenefitsofthewebasadataaccessplatformarisefromitscross-platformfunctionalityandthesimplicityofitsinterface.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Whenanenduserusesawebbrowsertodynamicallyqueryadatabase,theclientbrowseractuallyrequestsawebpagefromthewebserver.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Inthedatabasequeryscenario,thewebservergeneratesthewebpagecontentsbeforeitsendsthepagetotheclientwebbrowser.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Extendingthewebserverfunctionalityimpliesthatthewebserverandtheweb-to-databasemiddlewarewillproperlycommunicatewitheachother.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. TheCommonGatewayInterface(CGI)isanewerwebserverinterfacestandardthatismuchmoreefficientandfasterthanadynamiclinklibrary(DLL).
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Anapplicationprogramminginterface(API)usesscriptfilesthatperformspecificfunctionsbasedontheclient’sparametersthatarepassedtothewebserver.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Thebrowser’sinterpretationandpresentationcapabilitiesaresufficienttodevelopweb­basedapplications.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Thelabel“statelesssystem”indicatesthat,atanygiventime,thereisanopencommunicationlinebetweenthe serverandeachclientaccessingit.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Theonlytimetheclientandservercomputerscommunicateiswhentheclientrequestsapageandtheserversendstherequestedpagetotheclient.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. TheuseofHTMLdoesnotequipawebbrowserwithcomputationalabilitiesbeyondformattingoutputtextandacceptingformfieldinputs.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Adocumenttypedefinition(DTD)canbereferencedbymanyExtensibleMarkupLanguage(XML)documentsofthesametype.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Moderate REF: p.702

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Extensible Markup Language (XML)

1. Aplug-inisanexternalapplicationthatisautomaticallyinvokedbyawebbrowserwhenneeded.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Aclient-sideextensionisaprogramthatinteractsdirectlywiththewebservertohandlespecifictypesofrequests.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. HTMLisdesignedtofacilitatetheextractionandmanipulationofdatafromstructureddocumentsovertheInternet.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.703

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. ThefirstlineofanXMLdocumentrepresentsthedocumentdeclaration,anditismandatory.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.703

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. Inadocumenttypedefinition(DTD)file,aplus(+)symbolbesideanelementindicatesthatitisanoptionalchildelementwithinitsparent.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.704

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. CloudservicesallowanyorganizationtoquicklyandeconomicallyaddinformationtechnologyservicestoitsITportfolio.
   1. True
   2. False

*ANSWER:* True

PTS: 1 DIF: Difficulty: Easy REF: p.710

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. Theinitialcostsofusingcloudservicestendtobesignificantlyhigherthanbuildingon-premiseITinfrastructures.
   1. True
   2. False

*ANSWER:* False

PTS: 1 DIF: Difficulty: Easy REF: p.712

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. isacollectionoftechnologiesusedtoaccessanytypeofdatasourceandmanagethedatathroughacommoninterface.
   1. DAO b.UDA

c.ODBC d.OLE-DB

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.682

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. ODBCworksonthe operatingsystem.
   1. Kronos b.UNIX

c.Windows d.Mac

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. isahigher-level,object-orientedapplicationinterfaceusedtoaccessremotedatabaseservers.
   1. UDA b.ODBC

c.DAO d.RDO

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. IntheODBCarchitecture,a(n) isinchargeofmanagingalldatabaseconnections.
   1. ODBCAPI b.DLL

c.ODBCdriver d.drivermanager

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. TheODBCAPIstandarddefinesthreelevelsofcompliance: ,Level-1,andLevel-2,whichprovideincreasinglevelsoffunctionality.
   1. Elementary b.Basic

c.Core d.Level-0

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.685

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. BasedonMicrosoft’sComponentObjectModel(COM), isdatabasemiddlewarethataddsobject­orientedfunctionalityforaccesstorelationalandnonrelationaldata.
   1. MS-DB b.OLE-DB

c.COM-DB d.ODBC

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.685

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. IntheADO.NETframework,the objectcontainstheactualSQLcodeorastoredprocedurecalltoberunbythedatabase.
   1. Command b.DataReader

c.DataAdapter d.DataSet

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.690

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. IntheADO.NETframework,the objectisthein-memoryrepresentationofthedatainthedatabase.
   1. Command b.DataReader

c.DataAdapter d.DataSet

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.690

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. The isthemostspecializedobjectintheADO.NETframework.
   1. Command b.DataReader

c.DataAdapter d.DataSet

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.690

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. isanobject-orientedprogramminglanguagedevelopedbySunMicrosystemsthatrunsontopofwebbrowsersoftware.
   1. VisualBasic b.Java

c.JavaScript d.VBScript

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.691

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. One of theadvantages of overothermiddlewareisthatitrequiresnoconfigurationontheclientside.
   1. ODBC b.JDBC

c.OLE-DB d.AD.NET

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.692

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. Whichofthefollowingisthefirststepintheexchangebetweenawebbrowserandadatabase?
   1. TheHTMLoutputisdisplayedontheclientcomputer’swebbrowser.
   2. ThemiddlewarereceivesthequeryresultandcreatestheHTML-formattedpage.
   3. Theclient’swebbrowserrequestsapagefromawebserver.
   4. Theweb-to-databasemiddlewareusesODBCtoconnecttothedatabase.

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Anothernameforadatabaseserver-sideextensionprogramis .
   1. awebserver b.awebapplicationmiddleware

c.web-to-databasemiddleware d.adatabaseapplicationserver

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.694

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Whichofthefollowingisawell-definedweb-serverinterface?
   1. CommonGatewayInterface b.TinyInternetInterface

c.WindowsNT d.CommandLineInterface

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. ThemaindisadvantageofusingCGIscriptsisthat:
   1. theycausearesourcebottlenecksincetheyhavetoexecuteseparatelyforeachuserrequest.
   2. theyarespecifictothewebserverandtothe operating system, thus being platform dependent.
   3. an error in one script can damage and bring down the web server completely.
   4. they do not have the capability to process forms or prepare outputs based on form data.

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. A(n) canuseasharedconnectiontothedatabaseinsteadofcreatinganewoneeverytime.
   1. DLL b.API

c.webbrowser d.HTTPGETrequest

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. WhatisadisadvantageofusinganAPIweb-serverinterface?
   1. ItisslowerthanCGIscripts.
   2. ItisinefficientbecauseitusesDLLs.
   3. Anexternalprogramneedstorunforeachuserrequest.
   4. AnAPIerrorcanbringdowntheentirewebserver.

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Eachtimeanenduserclicksahyperlink,thebrowsergeneratesa(n) pagerequestthatissenttothedesignatedwebserverusingtheTCP/IPInternetprotocol.
   1. HTML b.XML

c.HTTPGET d.API

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.696

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Thewebbrowser’sjobistointerprettheHTMLcodethatitreceivesfromawebserverandto:
   1. develop web-based applications. b.displayitinastandardformattedway.

c.performimmediatedataentryvalidation. d.extractdetails,suchasorderdata,fromit.

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.696

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Youmustuseplug-insandotherclient-sideextensions:
   1. tocreateanopencommunicationlinebetweenaserveranditsclients.
   2. to eliminate the need for running external programs foreachclientrequest.
   3. toimproveprocessingcapabilitiesofa browser.
   4. tocreatedynamicwebsearchpages.

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Whichofthefollowingisaclient-sideextension?
   1. ActiveX b.ODBC

c.SQL\*Net d.TCP/IP

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Amongclient-sideextensions, isaMicrosoftspecificationforwritingprogramsthatruninsidetheInternetExplorerbrowser.
   1. COBOL b.ActiveX

c.JavaScript d.Visor.Net

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. \_\_\_\_\_isascriptinglanguagethatallowswebauthorstodesigninteractivesites.
   1. VisualBasic b.HTML

c.JavaScript d.Java

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.697

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Whichofthefollowingistrueofawebapplicationserver?
   1. ItisMicrosoft’simplementationofasupersetoftheSQLAccessGroupCLIstandardfordatabaseaccess.
   2. Itisautomaticallyinvokedbythebrowserwhenneeded.
   3. Itrunsontheclientmachine,freeingserverresources.
   4. ItprovidessecurityandauthenticationofusersthroughuserIDsandpasswords.

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.698

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. codeisembeddedinsideanHTMLpageandisactivatedbytriggeringeventssuchasclickingonalink.
   1. XML b.SQL

c.VisualBasic d.VBScript

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.698

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. isawebapplicationserverthatprovidestheabilitytoconnectwebserverstomultipledatasources.
   1. MSAccess b.ColdFusion/JRun

c.FoxPro d.dBase

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.698

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. WhichofthefollowingisacharacteristicoftheXMLmetalanguage?
   1. It isconcernedwiththewaydataaredisplayed.
   2. Itallowsthedefinitionofnewtags.
2. Youcanusethe**//**symbolforenteringacommentintheXMLdocument.
3. ItcanbeusedasareplacementofHTML.

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.702

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. EveryXMLdocumenthasa .
   1. root element b.basetag

c.schema d.DTD

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.703

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. A(n) fileprovidesthecompositionofthedatabase’slogicalmodelanddefinesthesyntaxrulesforanXMLdocument.
   1. XMLD b.XHTML

c.DTD d.meta

*ANSWER:* c

PTS: 1 DIF: Difficulty: Easy REF: p.704

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. The\_\_\_\_\_isanadvanceddatadefinitionlanguagethatisusedtodescribethestructureofXMLdatadocuments.
   1. XHTML b.HTMLschema

c.DTD d.XMLschema

*ANSWER:*d

PTS: 1 DIF: Difficulty: Easy REF: p.705

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. Using ,youcanextractdatafromanXMLdocumentandconvertitintoatextfile.
   1. XMLD b.XSLT

c.DTD d.XMLschema

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.706

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. \_\_\_\_\_\_\_\_\_\_ is a computing model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computer resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
   1. Cloud computing b.OBDC

c.SQL data services d.database middleware

*ANSWER:* a

PTS: 1 DIF: Difficulty: Easy REF: p.709-710

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. cloudisatypeofcloudinfrastructurethatisbuiltbyathird-partyorganizationtosellcloudservicestothegeneralpublic.
   1. Community b.Public

c.Exclusive d.Private

*ANSWER:* b

PTS: 1 DIF: Difficulty: Easy REF: p.712

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. Inthe category,thecloudserviceprovideroffersthecapabilitytobuildanddeployconsumer-createdapplicationsusingtheprovider’scloudinfrastructure.
   1. ApplicationasaService(AaaS) b.InfrastructureasaService(IaaS)

c.SoftwareasaService(SaaS) d.PlatformasaService(PaaS)

*ANSWER:* d

PTS: 1 DIF: Difficulty: Easy REF: p.713

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. ODBC,OLE-DB,andADO.NETformthebackboneofthe architecture.

*ANSWER:* UDA

UniversalDataAccess(UDA)UniversalDataAccess

PTS: 1 DIF: Difficulty: Easy REF: p.682

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. OpenDatabaseConnectivity(ODBC),asupersetoftheSQLAccessGroupCallLevelInterface(CLI),isimplementedby .

*ANSWER:* Microsoft

PTS: 1 DIF: Difficulty: Easy REF: p.683

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. A(n) isauniquenamebywhichthedatasourcewillbeknowntoODBC,andtherefore,toapplications.

*ANSWER:* DSN

datasourcename

datasourcename(DSN)

PTS: 1 DIF: Difficulty: Easy REF: p.684

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. InthecontextofOLE-DB,a isanobject(applicationorprocess)thatrequestsandusesdata.

*ANSWER:* consumer

PTS: 1 DIF: Difficulty: Easy REF: p.685

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. IntheOLE-DBmodel,the actslikeadataconsumerofthedataproviderandasadataproviderforthedataconsumer(end-userapplication).

*ANSWER:* serviceprovider

PTS: 1 DIF: Difficulty: Easy REF: p.686

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. A(n)\_\_\_\_\_isaprogramwritteninaprogramminglanguagethatisnotcompiled,butisinterpretedandexecutedatruntime.

*ANSWER:* script

PTS: 1 DIF: Difficulty: Easy REF: p.687

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. providesaunifiedinterfacetoaccessdatafromanyprogramminglanguagethatusestheunderlyingOLE-DBobjects.

*ANSWER:* ActiveXDataObjects

ADO

ActiveXDataObjects(ADO)

PTS: 1 DIF: Difficulty: Easy REF: p.687

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. TheMicrosoft frameworkisacomponent-basedplatformfordevelopingdistributed,heterogeneous,interoperableapplicationsaimedatmanipulatinganytypeofdataoveranynetworkunderanyoperatingsystemandanyprogramminglanguage.

*ANSWER:* .NET

PTS: 1 DIF: Difficulty: Easy REF: p.687

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. isanapplicationprogramminginterfacethatallowsaJavaprogramtointeractwithawiderangeofdatasources(relationaldatabases,tabulardatasources,spreadsheets,andtextfiles).

*ANSWER:* JavaDatabaseConnectivityJDBC

JavaDatabaseConnectivity(JDBC)

PTS: 1 DIF: Difficulty: Easy REF: p.691

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Connectivity

1. webpagesareattheheartofcurrentgenerationwebsites.

*ANSWER:* Dynamic

PTS: 1 DIF: Difficulty: Easy REF: p.693

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. APIsarefasterthan scriptsbecausethecoderesidesinmemoryandthereisnoneedtorunanexternalprogramforeachrequest.

*ANSWER:* CGI

CommonGatewayInterfaceCommonGatewayInterface(CGI)

PTS: 1 DIF: Difficulty: Easy REF: p.695

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Regardlessofthetypeofwebserverinterfaceused,aweb-to-database programmustbeabletoconnectwithadatabase.

*ANSWER:* middleware

PTS: 1 DIF: Difficulty: Easy REF: p.696

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Aweb serverisamiddlewareapplicationthatexpandsthefunctionalityofwebserversbylinkingthemtoawiderangeofservices.

*ANSWER:* application

PTS: 1 DIF: Difficulty: Easy REF: p.698

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. Topreventtheserverfromperformingalldatavalidation, datainputvalidationisoneofthemostbasicrequirementsforwebapplications.

*ANSWER:* client-side

clientsideclientside

PTS: 1 DIF: Difficulty: Easy REF: p.698

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Database Internet Connectivity

1. ,ortransactionsdoneovertheInternet,enablesalltypesoforganizationstosellproductsandservicestoaglobalmarket.

*ANSWER:* E-commerce

PTS: 1 DIF: Difficulty: Easy REF: p.702

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. XMLis derived fromthe ,aninternationalstandardforthepublicationanddistributionofhighlycomplextechnicaldocuments.

*ANSWER:* StandardGeneralizedMarkupLanguage

SGML

StandardGeneralizedMarkupLanguage(SGML)

PTS: 1 DIF: Difficulty: Easy REF: p.702

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. XMLtagsmustbewellformed,thatis,eachopeningtagmusthaveacorresponding tag.

*ANSWER:* closing

PTS: 1 DIF: Difficulty: Easy REF: p.703

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. A(n) provideslimitedadditionalsemanticvaluetoXML,suchasdatatypesupportordatavalidationrules.

*ANSWER:* DTD

documenttypedefinition

documenttypedefinition(DTD)

PTS: 1 DIF: Difficulty: Easy REF: p.705

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. ADBMSthatsupports exchangescanintegratewithexternalsystemssuchastheweb,mobiledata,andlegacysystems,thusenablingthecreationofnewtypesofsystems.

*ANSWER:* XML

PTS: 1 DIF: Difficulty: Easy REF: p.708-709

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. XML is used to create \_\_\_\_\_\_\_\_\_\_\_\_\_ vocabularies for entire industries.

*ANSWER:* metadictionaries

PTS: 1 DIF: Difficulty: Easy REF: p.709

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Extensible Markup Language (XML)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ refers to a cloud computing-based data management service that provides relational data storage, access, and management to companies of all sizes without the typical high costs of in-house hardware, software, infrastructure, and personnel.

*ANSWER:* SQL data services (SDS)

SQL data services

SDS

PTS: 1 DIF: Difficulty: Easy REF: p.716

NAT: BUSPROG: Technology STATE: DISC: Information Technology

KEY: Bloom’s: Knowledge TOP: Cloud Computing Services

1. WhatarethecomponentsinthebasicODBCarchitecture?

*ANSWER:* ThebasicODBCarchitecturehasthreemaincomponents:ahigh-levelODBCAPIthroughwhichapplicationprogramsaccessODBCfunctionality,adrivermanagerthatisinchargeofmanagingalldatabaseconnections,andanODBCdriverthatcommunicatesdirectlytotheDBMS.

PTS: 1 DIF: Difficulty: Moderate REF: p.683

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Database Connectivity

1. ­­­­­­­­­­­­­WhatarethemaintypesofobjectsintheOLE-DBmodel?Explain.

*ANSWER:* ThefunctionalityofOLE-DBmodelisdividedintotwotypesofobjects:consumersandproviders.

1. Consumersareobjects(applicationsorprocesses)thatrequestandusedata.Consumersrequestdatabyinvokingthemethodsexposedbythedataproviderobjects(publicinterface)andpassingtherequiredparameters.
2. Providersareobjectsthatmanagetheconnectionwithadatasourceandprovidedatatotheconsumers.Providersaredividedintotwocategories:dataprovidersandserviceproviders.

Dataprovidersprovidedatatootherprocesses.Databasevendorscreatedataproviderobjectsthatexposethefunctionalityoftheunderlyingdatasource(relational,object-oriented,text,andsoon).

Serviceprovidersprovideadditionalfunctionalitytoconsumers.Theserviceproviderislocatedbetweenthedataproviderandtheconsumer.Theserviceproviderrequestsdatafromthedataprovider,transformsthedata,andthenprovidesthetransformeddatatothedataconsumer.Inotherwords,theserviceprovideractslikeadataconsumerofthedataproviderandasadataproviderforthedataconsumer(end-userapplication).Forexample,aserviceprovidercouldoffercursormanagementservices,transactionmanagementservices,queryprocessingservices,andindexingservices.

PTS: 1 DIF: Difficulty: Moderate REF: p.685-686

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Database Connectivity

1. Whatisaserver-sideextension?Explain.

*ANSWER:* A server-side extension is a program that interacts directly with the web server to handle specific typesof requests. A server-side extension program retrieves the data from databases and passes the retrieveddata to the web server, which in turn sends the data to the client’s browser for display. A server­sideextension makes it possible to retrieve and present the query results, but more importantly, it provides itsservices to the web server in a way that is totally transparent to the client browser. In short, the server-side extension adds significant functionality to the Web server, and therefore to the Internet.

PTS: 1 DIF: Difficulty: Moderate REF: p.693

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Database Internet Connectivity

1. WhatisJavaScript?Howdoesitwork?

*ANSWER:* JavaScriptisascriptinglanguage(onethatenablestheexecutionofaseriesofcommandsormacros)thatallowswebauthorstodesigninteractivesites.JavaScriptcodeisembeddedinthewebpageandexecutedafteraspecificevent,suchasamouseclickonanobjectorapagebeingloadedfromtheserverintomemory.

PTS: 1 DIF: Difficulty: Moderate REF: p.697

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Database Internet Connectivity

1. Explainthefeaturesprovidedbywebapplicationservers.

*ANSWER:* Webapplicationserversprovidefeaturessuchas:

* Anintegrateddevelopmentenvironmentwithsessionmanagementandsupportforpersistentapplicationvariables.
* SecurityandauthenticationofusersthroughuserIDsandpasswords.
* Computationallanguagestorepresentandstorebusinesslogicintheapplicationserver.
* AutomaticgenerationofHTMLpagesintegratedwithJava,JavaScript,VBScript,ASP,andsoon.
* Performanceandfault-tolerantfeatures.
* Databaseaccesswithtransactionmanagementcapabilities.
* Accesstomultipleservices,suchasfiletransfers(FTP),databaseconnectivity,e-mail,anddirectoryservices.

PTS: 1 DIF: Difficulty: Moderate REF: p.698

NAT: BUSPROG: Analytic STATE: DISC: Information Technology

KEY: Bloom’s: Comprehension TOP: Database Internet Connectivity