2017/EVEN/08/24/MCS–604
(A/B) (C)/568

UG Even Semester (CBCS) Exam., May—2017

COMPUTER SCIENCE

(6th Semester)

Course No. : MCS–604 (C)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Candidates are to answer *either* Option—A *or* Option—B

OPTION—A

Course No. : MCS–604 (A) (C)

(ADVANCE JAVA PROGRAMMING)

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. *(a)* Explain various types of enterprise architecture in detail. 12

(b) What are the features of enterprise programming? 3

2. *(a)* What do you mean by J2EE containers? Explain different types of container and also draw a container architecture. 9

(b) Explain Servlet architecture in detail. 6

UNIT—II

3. *(a)* Explain the following : 3+3+5=11

(i) JSP elements

(ii) JSP directives

(iii) JSP action

(b) Write a JSP program to find out a particular month from January to December using switch case. 4

4. *(a)* What do you mean by JavaBean? How are the JavaBeans differ from enterprise JavaBeans? 2+3=5

(b) Draw an EJB architecture and explain EJB container services in detail. 10

UNIT—III

5. *(a)* What do you understand by the term RMI? 2

(b) Discuss the following layered architectures : 4+5+4=13

(i) Stub/Skeleton layer

(ii) Remote reference layer

(iii) Transport layer

6. *(a)* Give the comparison between JNDI and LDAP? 5

(b) What are the features of LDAP ? 8

(c) What are the advantages of LDAP ? 2

UNIT—IV

7. *(a)* Discuss JDBC architecture in detail. 8

(b) What is the drive manager? How does the code can represent differences between JDBC and ODBC? 2+5=7

8. *(a)* Discuss the steps which is necessary to create and manage a database connection by using JDBC. 8

(b) Write a Java code to access the database using JDBC and ODBC, and also explain the meaning of each connection. 7

UNIT—V

9. *(a)* What are the features of XML? Explain. 7

(b) What are the advantages of XML over HTML? 3

(c) What do you mean by document-type definition? Explain with an example. 3+2=5

10. *(a)* Write an error handling code for document object model using Java. 4

(b) Write a Java code to implement a content handler interface for SAX parser. 5

(c) Write a short note on JAXB. 6

OPTION—B

Course No. : MCB–604 (B) (C)

(WEB TECHNOLOGY AND APPLICATIONS)

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. *(a)* Answer the following questions : 1×5=5

(i) What is OTP?

(ii) Define junk file.

(iii) What is http?

(iv) Why is captcha used?

(v) Define flooding attack.

(b) A credit card is lost and found by a hawker. Later, it is used by him but could not purchase items due to pin non-availability and caught. Comment on the cyber crime case. 5

(c) What are the common ethics for Web applications? 3

(d) What is TCP/IP? Who invented it? 2

2. *(a)* Answer the following questions : 1×5=5

(i) What is recaptcha?

(ii) What is traffic in Internet?

(iii) What do you mean by RMN?

(iv) Write down the full form of WYSIWYG.

(v) Define brute force attack.

(b) Explain the possible punishments in cyber crime related to fake profile. 5

(c) Describe the chronological developments of Internet facility in India. 5

UNIT—II

3. (a) Explain the requirement analysis of a Web project. 5

(b) What is RAD model? Explain it with strengths and weaknesses. 5

(c) What is quality factor? Explain some of the quality factors. 5

4. (a) Describe the various levels of SDLC Web model. 7

(b) What is team management? Describe the role of a team leader in a Web project. 5

(c) Define project deadline. 3

UNIT—III

5. (a) Describe the testing artifacts. 5

(b) What is open source software? How it become so popular these days? 5

(c) Write an HTML program to display the table as follows : 5

Data	*India*	*USA*
Population	1·3 billion	3·24 billion
GDP	2 billion	18 billion

6. (a) Write the specifications of CMM level 4 and level 5 in the context of quality of a software. 3+3=6

(b) What is communication management? 2

(c) Write an HTML program to insert an image of Passport Seva Kendra "passport.jpg" from My Documents folder and design a scroll news as marquee regarding the opening of Passport Seva Kendra in Silchar. 5

(d) What is Web template? 2

UNIT—IV

7. (a) What is payment gateway? Draw the diagram of both the phases of payment gateway and explain. 10

(b) Write down the steps involved in online purchase and mention Web technology associated with each phase. 5

8. *(a)* What are the various types of cards available in India for online transactions? Explain. 8

(b) Explain the basics of Web database connectivity using PHP-SQL. 7

UNIT—V

9. *(a)* Write a program in PHP to register a new user. 6

(b) Write a program in PHP to connect a database of students marks in SQL. 6

(c) Define Web security measures. 3

10. *(a)* Write a program in PHP to submit your CV in a job application process. 6

(b) Write a program in PHP to design a page for online shopping. 7

(c) Define CGI. 2

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