

DiplETE – ET/CS (Current & New Scheme)

Time: 3 Hours

June 2018

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions, answer any FIVE Questions, selecting THREE questions from Part A and TWO questions from Part B. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following:

(2×10)

a. What is wrong in the following class definition?

```
Abstract class print
{
    Abstract show ( );
}
Class display extends print
{
}
```

- (A) Method show () should have a return type.
- (B) Method show () is not implemented in display.
- (C) Display does not contain any members.
- (D) Nothing is wrong

b. A URL specifies the following:

- (i) protocol used
- (ii) domain name of server hosting web page
- (iii) name of folder with required information
- (iv) name of document formatted using HTML
- (v) the name of ISP

- (A) (i), (ii), (iii), (v)
- (B) (i), (iii), (iv)
- (C) (i), (ii), (iii), (iv)
- (D) (ii),(iii),(iv), (v)

c. How do objects pass messages in Java?

- (A) They pass messages by modifying each other's fields
- (B) They pass messages by modifying the static variables of each other's classes
- (C) They pass messages by calling static methods of each other's classes
- (D) They pass messages by calling each other's instance methods

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- d. The 'href' tag is used to insert _____ in HTML.
 (A) hyperlink (B) list
 (C) button (D) table
- e. URL identifies a host computer by
 (A) IP address (B) domain name
 (C) Either of these (D) None of these
- f. Java Source Code is compiled into _____
 (A) .exe (B) byte code
 (C) .obj (D) Source code
- g. Which of this access specifier can be used for a class so that its members can be accessed by a different class in the different package?
 (A) private (B) protected
 (C) public (D) All of these
- h. Which of the methods of Thread class is used to find out the priority given to a thread?
 (A) get() (B) ThreadPriority()
 (C) getThreadPriority() (D) getPriority()
- i. What is the correct HTML for adding a background color?
 (A) <body bgcolor="yellow">
 (B) <body color="yellow">
 (C) <background>yellow</background>
 (D) <body background="yellow">
- j. The _____ specifies whether a border should be solid, dashed line, dotted line, double line, groove etc.?
 (A) border-decoration (B) border-layout
 (C) border-weight (D) border-style

PART A (Java)

Answer any THREE questions. Each question carries 16 marks.

- Q.2** a. List the important characteristics of Java Language. (8)
- b. With the help of a suitable figure, describe the different steps using which Java communicates with a web page. (8)
- Q.3** a. Explain break and continue statements in detail with examples. (8)
- b. Write a Java program to print output for n numbers using control statements. Take n from the user. (8)

1
 2 2
 3 3 3
 4 4 4 4
 5 5 5 5 5

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- Q.4** a. Explain the Methods of overloading and overriding with example for each. **(8)**
- b. Write a Java program for addition of two metrics. **(8)**
- Q.5** a. What is a package in Java? Explain different access modifiers of Java. **(8)**
- b. How to extend an interface? Illustrate with an example. **(8)**
- Q.6** a. Write a Java program to copy bytes from one file to another file. **(8)**
- b. What is an exception? Write an exception subclass which throws an exception if the value of a variable 'age' passed as argument to a method is less than 20 **(8)**

PART B (Web Programming)

Answer any TWO questions. Each question carries 16 marks.

- Q.7** a. What are name servers? What are the three elements of DNS? **(6+2)**
- b. Explain dynamic web page generation. **(4)**
- c. Explain HTTP transaction in details. Give the difference between GET and POST methods of HTTP. **(2+2)**
- Q.8** a. Describe the elements of web design. **(6)**
- b. A common mistake is to begin creating web pages before doing sufficient groundwork on the information blueprint for a site. Discuss the various steps of Information Architecture to be followed for designing the website. **(10)**
- Q.9** a. What is the outline of a CGI program? Briefly explain. **(8)**
- b. Explain the essential parts of a typical form. **(8)**