



WEST BENGAL STATE UNIVERSITY
B.Sc. Programme 5th Semester Examination, 2022-23

CMSGDSE01T-COMPUTER SCIENCE (DSE1)

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.
All symbols are of usual significance.*

GROUP-A

1. Answer any *five* questions: 2×5 = 10
- (a) What do you mean by 'Java is a platform independent language'?
 - (b) What is class? How does it accomplish data hiding?
 - (c) Why Java is called a 'strongly typed' language?
 - (d) What is type casting? Why it is required in programming?
 - (e) How is a method defined in Java?
 - (f) Is it necessary that a constructor in a class should always be public?
 - (g) What is the difference between compile time errors and run time errors?
 - (h) What is local applet and remote applet?
 - (i) What is the difference between applet and application programs?

GROUP-B

Answer any *five* questions from the following 8×5 = 40

2. (a) What do you mean by method overloading? How does method overloading differ from method overriding? 2+2
- (b) Why Java is called an object oriented language? What are the differences between class variable and instance variable? 2+2
3. (a) Give two different usage of super keyword with example. 2
- (b) What is constructor? Under what situation do you obtain a default constructor? 2+2
- (c) Difference between Abstract class and Interface. 2
4. (a) Explain Runtime Exceptions. 2
- (b) When throws keyword is used? 2
- (c) How finally used under Exception Handling? 2
- (d) Explain garbage collection in Java. 2

5. (a) Is it possible to call constructor for a class explicitly? 2
(b) What is a static constructor? When it is called? 3
(c) Explain static member with example. 3
6. (a) How does String class differ from the String Buffer class? 3
(b) Write a method called deletion (string s , int m) that returns the input string with m th element removed. 3
(c) What is the difference between an interface and a class? 2
7. (a) What is multiple inheritance? Give example of multiple inheritance using interface. 2+4
(b) What do you mean by a package? 2
8. (a) What do you mean by exceptions? Give example. 3
(b) When we use multiple catch statements? 2
(c) What is the need of finally statement in exception handling? Give example. 3
9. (a) Briefly describe the applet life cycle. 4
(b) Develop an applet that receives two numbers as input from the user and displays the GCD of the two numbers on the screen. 4