19. (a) Explain the life cycle of a servlet.

Or

- (b) How forms can be created and processed using JSP? Make it clear with your own assumptions.
- 20. (a) Explain in detail about EJB design and implementation.

Or

(b) Define EJB. Discuss the future directions of EJB.

PART C — $(3 \times 10 = 30)$

Answer any THREE questions.

- 21. Define array with its types. Give an Example.
- 22. What is Collection Interface? Explain.
- 23. Explain in detail about Exception and Error Handling Methods in Java.
- 24. Write a detailed note on JSP architecture.
- 25. Explain in detail about EJB session beans and EJB entity beans.

S.No. 7269

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(For candidates admitted from 2022-2023 onwards)

M.C.A. DEGREE EXAMINATION, NOVEMBER 2023

Computer Applications — Core Choice Course

ADVANCED JAVA PROGRAMMING

Time: Three hours

Maximum: 75 marks

PART A — (20 marks)

Answer ALL questions.

- I. (A) Multiple choice questions:
- $(5\times 1=5)$
- 1. Java is a ——— language.
 - (a) Interpreter
 - (b) Compiler
 - (c) None of the above
 - (d) Both
- 2. What is the size of float and double in java?
 - (a) 32 and 64
- (b) 32 and 32
- (c) 64 and 64
- (d) 64 and 32

3.	MVC stands for ———
	(a) Model, View, controller
	(b) Memory, View, Controller
	(c) Model, View, Command
	(d) Modern, View, Controller
4.	Using mail API we cannot send mail from a servlet.
	(a) True (b) False
5.	Which of these ways used to communicate from an applet to servlet?
	(a) RMI communication
	(b) HTTP communication
	(c) Socket communication
	(d) All of the above
	(B) Fill in the blanks: $(5 \times 1 = 5)$
6.	AWT stands for ———.
7 .	Which method is used to find the length of the string ————.
8.	EJB stands for ———.
9.	Can we compare int variable with a Boolean variable ————.
10.	operand by 1.

- II. Answer ALL Questions: $(5 \times 2 = 10)$
- 11. What is multithreading?
- 12. What is generic programming?
- 13. What is the purpose of JList component?
- 14. What is JSP scriplet tag used for?
- 15. What is EJB clients?

PART B — $(5 \times 5 = 25)$ Answer ALL questions.

16. (a) Why synchronization in essential in Multithreading? Describe.

Or

- (b) Why multiple inheritance is not allowed in Java using classes? Give an example.
- 17. (a) Explain the following classes and methods in detail with example.

Or

- (b) Describe Method overloading with an example.
- 18. (a) What is the task of Layout manager?

 Describe about default layout manager.

Or

(b) Define event delegation model. Why do we need adapter class in event handling?