

# SPPU-SE-COMP-CONTENT – KSKA Git

Total No. of Questions : 8]

SEAT No. :

**P1535**

**[6002]-164**

[Total No. of Pages : 3

**S.E. ( Computer Engineering)**

**PRINCIPLES OF PROGRAMMING LANGUAGES**

**(2019 Pattern) (Semester - IV) (210255)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn whenever necessary.
- 4) Make suitable assumptions whenever necessary.

**Q1) a)** Explain following features of java in detail **[6]**

- i) Security
- ii) Platform Independence
- iii) Object - oriented

**b)** Write short note on **[6]**

- i) Garbage collector
- ii) this

**c)** Define constructor. Which are the types of Constructor used in Java? Explain with example. **[6]**

OR

**Q2) a)** Explain following features of java in detail **[6]**

- i) Portability
- ii) Architecture Neutral
- iii) Distributed

**b)** Write short note on **[6]**

- i) final
- ii) finalize ()

**c)** Explain one dimensional and multi - dimensional array used in Java with suitable examples. **[6]**

**Q3) a)** What is mean by inheritance? Explain the various types of inheritance used in Java with suitable example. **[6]**

**P.T.O.**

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- b) Explain following keywords of Java in detail [6]  
i) try  
ii) catch  
iii) finally
- c) Define package used in Java. Explain syntax, use, CLASSPATH, hierarchy of package with example. [6]

OR

- Q4)** a) Elaborate Method overriding and dynamic method dispatch in Java. [6]  
b) Explain various Exception Handling mechanisms in Java [6]  
c) What is the concept of stream, Explain byte stream and character stream in detail. [6]
- Q5)** a) Explain different ways to implement Threads in Java? With code example. [6]  
b) Explain the below methods in detail. [6]  
i) Isalive  
ii) notify  
iii) getpriority
- c) List the Features, advantages, and limitations of Vue JS. [5]

OR

- Q6)** a) Explain the uses of is Alive () and join () methods in the java thread with examples. [6]  
b) Explain the thread life cycle model in Java. [6]  
c) Write a short note on React JS and Angular JS. [5]

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- Q7) a)** Explain the features of LISP programming. [6]
- b) Explain the following Equality predicates using a suitable example. [6]
- i) EQUAL
  - ii) EQ
  - iii) EQL
  - iv) =
- c) Explain the following number predicates using a suitable example. [5]
- i) NUMBERP
  - ii) ZEROP
  - iii) PLUSP
  - iv) EVENP
  - v) ODDP

OR

- Q8) a)** Explain the following functions with suitable examples. [6]
- i) CAR()
  - ii) CDR()
  - iii) FIRST()
- b) Describe Logical Programming. Enlist its features. Also, list the commonly used Logical programming languages. [6]
- c) Evaluate the following forms of LISP. [5]
- i) (car (cdr'(1 2 3 4 5 )))
  - ii) (car (cdr' (a (b c) d e)))
  - iii) (car (cdr (cdr'(1 2 3 4 5 6 7 8))))

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