

Total No. of Questions : 4]

SEAT No. :

PB27

[Total No. of Pages : 1

[6268]-221

S.E. (Computer Engineering) (Insem)

PRINCIPLES OF PROGRAMMING LANGUAGES

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

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2 Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) Why are there so many programming languages? What factors influence the choice of a programming language for a particular task? [5]
b) What is the importance of binding time? Explain various classes of binding time. [5]
c) Explain the difference between a syntax error and a logical error in programming. [5]

OR

- Q2)** a) Explain the characteristics of a good programming languages? [5]
b) How the translation and interpretation is performed in various languages? differentiate between them. [5]
c) What is syntax and semantics? Illustrate with an example how syntax and semantics are useful in programming languages design? [5]

- Q3)** a) What are the different control flow structures used in programming, explain with an example? [5]
b) What are functions and why are they important for code organization explain with an example? [4]
c) What is a mixed-mode-expression? Explain short circuit evaluation with an example. [6]

OR

- Q4)** a) What are primitive data types? List the primitive data types in Java and their respective storage capacity? [5]
b) Why selection and iteration statements are used in programming languages. What is the general form of a two-way selector? [4]
c) Explain how pointers differ from references with example? [6]



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**S.E. (Computer Engineering) (Insem)
MICROPROCESSOR
(2019 Pattern) (Semester - IV) (210254)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q.1 or Q.2 and Q.3 or Q.4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) All questions carry equal marks.
- 5) Assume suitable data, if necessary.

Q1) a) Explain architecture of 80386 microprocessor with block diagram. [5]

b) Explain following instructions [5]

i) MOV

ii) PUSH

iii) POP

iv) CBW

v) MOVSX

c) Explain following addressing modes in 80386 processor with example [5]

i) Immediate addressing mode

ii) Register addressing mode

iii) Register Indirect addressing mode

OR

Q2) a) Draw and elaborate programmers model of 80386 processor. [5]

b) With necessary example, explain various Decimal Arithmetic Instructions. [5]

c) Explain following addressing modes in 80386 processor with example [5]

i) Direct addressing mode

ii) Index addressing mode

iii) Based-scaled-index with displacement addressing mode

P.T.O.

- Q3) a)** What are the contents of various registers of 80386 processor after reset? [5]
- b) Draw and explain read cycle with non pipelined address timing. [5]
- c) Draw and explain control registers of 80386 processor. [5]

OR

- Q4) a)** Explain following signals [5]
- i) BE0# - BE3#
 - ii) ADS#
 - iii) D/C#
 - iv) W/R#
 - v) BS16#
- b) Draw and explain write cycle with non pipelined address timing. [5]
- c) Explain following system flags: [5]
- i) NT
 - ii) IOPL
 - iii) IF
 - iv) VM
 - v) RF

