

R18

Code No: 156CU

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, January/February - 2025

SCRIPTING LANGUAGES

(Common to CSE, IT, CSE(AI&ML), CSE(DS), AI&ML)

Time: 3 Hours

Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- 1.a) How can Cookies be used in Ruby-based web applications? [2]
- b) What is Ruby, and how does it differ from other programming languages? [3]
- c) What is the purpose of Data_Get_Struct() object in Ruby? [2]
- d) What are the main features of the Jukebox extension? [3]
- e) Compare 'while' and 'until' loops in Perl. [2]
- f) State the need of web scripting in today's world. [3]
- g) Define the terms pack and unpack in Perl. [2]
- h) State and explain the need for the 'eval function in Perl'. [3]
- i) Write about various forms of backslash substitution in Tcl. [2]
- j) Provide the structure of Tcl application and discuss. [3]

PART - B

(50 Marks)

- 2.a) Discuss the Lexical structure of the Ruby program and various tokens in it.
- b) Demonstrate how to write a basic CGI script in Ruby that handles form submissions. [5+5]

OR

- 3.a) Describe how the Ruby on Rails framework follows the Model-View-Controller (MVC) architecture.
- b) Write down the steps in installing RubyGems and use it to install other apps and libraries. [6+4]

- 4.a) How do Ruby objects map to C objects when extending Ruby with C? Explain the basic process.
- b) Create a Ruby program that demonstrates memory management, showing how objects are created and freed by Ruby's garbage collector. [5+5]

OR

- 5.a) What is the purpose of extending Ruby with C, and how does it enhance Ruby's capabilities?
- b) Create a Ruby script using the Jukebox extension that dynamically adjusts audio playback based on user input. [5+5]

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- 6.a) Explain how 'for' and 'while' control structures are used in Perl with an example.
- b) Write a Perl script to print the factorial of a number. [6+4]

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- 7.a) What is a subroutine? How to create and use subroutines in Perl? Illustrate with an example.
- b) Compare and contrast Perl's data structures: arrays, hashes, and scalars. [5+5]

- 8.a) How do the packages and modules in Perl contributed to code reusability? Explain.
- b) What are the advantages and disadvantages of using Perl for developing Internet ware applications? [5+5]

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- 9. Discuss the importance of filesystem manipulation in Perl. Provide examples of functions used to interact with the file system. [10]

- 10.a) How to define and use procedures in Tcl? Explain with an example script.
- b) List and explain the three classes of events in Tcl. [5+5]

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- 11.a) Give a brief note on the interaction between Tcl interpreter and its application.
- b) Discuss about glob-matching and regular expression matching in Tcl. [5+5]

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