

Code No: 156CU

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, August/September - 2024****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) What the significance of RUBYGEMS in Ruby package management? [2]
- b) What is the purpose of the require and include statements in Ruby? [3]
- c) How can Ruby objects be created and manipulated in C? [2]
- d) What are some common use cases for embedding Ruby in other applications? [3]
- e) What are the main characteristics that differentiate scripting languages from traditional programming languages? [2]
- f) What are the primary control structures available in Perl? [3]
- g) List the modules used in advanced perl. [2]
- h) Describe the role of eval in Perl and its use cases. [3]
- i) How are procedures defined and used in TCL? [2]
- j) What is the purpose of the Canvas widget in Tk? [3]

**PART – B****(50 Marks)**

- 2.a) Discuss the structure and execution flow of a Ruby program.
- b) Create a small RubyTk application that includes a canvas and several widgets. [5+5]

**OR**

- 3.a) Explain the architecture of Rails and how it integrates with the Ruby programming language.
- b) Compare and contrast different web servers that can be used with Ruby applications. Highlight their strengths and weaknesses. [5+5]

- 4.a) Discuss in detail about Ruby Objects in C, the Jukebox extension.
- b) Describe Embedding a Ruby Interpreter. [5+5]

**OR**

- 5.a) Explain briefly about Embedding Ruby to Other Languages.
- b) Explain
  - i) Memory allocation
  - ii) Ruby Type System. [5+5]

- 6.a) Explain Web Scripting and the universe of Scripting Languages.  
b) Explain Control Structures in Perl with syntax and examples. [5+5]

**OR**

- 7.a) Compare Scripts and Programs. Explain characteristics of Scripting Languages.  
b) Explain  
i) Pattern and regular expressions  
ii) Subroutines. [5+5]

- 8.a) Explain finer points of looping. What is pack and unpack in advanced perl.  
b) Explain briefly about modules, objects and interfacing to the operating system. [5+5]

**OR**

- 9.a) Explain i) filesystem ii) eval iii) data structures in Advanced Perl.  
b) Explain Dirty Hands Internet Programming in Advanced Perl. [5+5]

- 10.a) Explain eval, source, exec and uplevel commands in Advance TCL.  
b) Explain Tk-Visual Tool Kits and Tk by example. [5+5]

**OR**

- 11.a) Explain Nuts and Bolts Internet Programming.  
b) Discuss Events and Binding and Perl-Tk. [5+5]

---ooOoo---

Aug-2024