JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

B.Tech- V Semester (IT)

COURSE CODE (CREDITS): 18B11CI315 (3)   MAX. MARKS: 35

COURSE NAME: Python Programming with Raspberry Pi

COURSE INSTRUCTORS: Dr. Vikas Baghel   MAX. TIME 2 Hours

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of a standard scientific calculator is allowed.

Q.No	Question	CO	Marks
Q1	a) Explain the difference between **subprocess.run()** and **subprocess.Popen()**.	[CO5]	[5]
	b) Write a Python script that uses subprocess to execute the **ls** command and prints the output.		[5]
Q2	Create a Tkinter window titled "*Login Form*". Add the following elements to the window: • A label for "*Login ID*" and an entry field for the user to input their ID. • A label for "*Password*" and an entry field for the user to input their password. • A "*Login*" button that, when clicked, prints the entered login ID and password to the console. Add appropriate padding and styling to enhance the appearance of the form.	[CO3]	[10]
Q3	Write a code that simulates providing the password: • You have at most three attempts. • If you provide the right password, the code will print '**Welcome in!**'. • If you provide the wrong password and it is not the third	[CO6]	[10]

	attempt, the code will print **'Wrong password. Please try again.'** and ask you to enter again the password. • If your third attempt is not successful, the code will write **'You are not allowed to access this computer!'** and exit. Assume that the right password is **'JuiT'** and use the function input() for asking the password from the command line.		
Q4	Write a PyGame program to draw a red rectangle on the screen. Game should handle quitting a PyGame program when the user closes the window?	[CO4]	[5]