2018

CBCS

3rd Semester

COMPUTER SCIENCE

PAPER—SEC1P

(Set–1)

(Honours)

(Practical)

Full Marks : 15

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Software Lab Based on Android Programming

Answer any one question (Lottery basis) :   1×10

1. Write a program in android to display 'Hello world' in the middle of the screen of the emulator.

2. Write a program in android to create a login screen that has a username and a password field. Add a 'Login' button to display the user name and password in the next screen.

3. Write a program to create multiple options. The selected option value should be displayed in a text box.

4. Write a program in android to create a List box with multiple items. The item should appear at the bottom of the screen when selected.

5. Write a program in android to create, insert, update and delete a table in the database.

[PNB – 02;   Viva Voce – 03]

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Software Lab Based on MATLAB

Answer any one question (Lottery basis) : 1×10

1. Write a program in MATLAB to assign the following expressions to a variable then display the variable.
   (a) $(5 + 6) / (7 + 8)$

   (b) $2\pi^2 + 2$

   (c) $4\sqrt{4}$

2. Write a program in MATLAB to convert a temperature in celcius to farenheit and vice versa. The input should be taken from the terminal.

3. Draw a graph in MATLAB to join the points (0, 0), (3, 0), (3, 3) and (0, 3).

4. Create an array of N numbers in MATLAB. Write a program that selects only the perfect square numbers from the array.

5. The Sort Rows (x) function will sort a vector or matrix into increasing row order. Use this function to sort a list of names into alphabetical order.

[PNB – 02; Viva Voce – 03]

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Software Lab Based on Android Programming

Answer any one question *(Lottery basis)* :   1×10

1. Write a program in android to display 'UNIVERSITY' on the top, bottom, left and right side of a screen.

2. Write a program in android to create a List that contains the teacher names of your subject. The teacher name should be displayed in a text box when it is selected in the List.

3. Write a program in Android to create a spinner with names of image files in a folder. Display and change the image depending on changing the spinner value.

4. Write a program in Android to create a Login application with username and password field.

   Popup any message on successful login.

5. Write a program in Android to create 2 option buttons for 2 different colors. The color of the screen should change on selecting any option buttom.

   [PNB – 02;   Viva Voce – 03]

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Software Lab Based on MATLAB

1. Write a program in MATLAB to display the value of the following expressions :

   (a) $4\pi^2 + \sqrt{4}$

   (b) (5 * 6) / (2 + 3)

   (c) $10^{-4} * 10^{-2} + 0.123$

2. Write a program in MATLAB to setup a vector A with 5 elements having values : 1, 2, 3, 4, 5. Using A, create asignment statements for a vector N which will result in N having these values :

   (a) 2, 4, 6, 8, 10

   (b) $\frac{1}{2}$, 1, $\frac{3}{2}$, 2, $\frac{5}{2}$

   (c) 1, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$.

3. A snpermarket conveyer belt holds an array of groceries. The price of each product is [0.6, 1.2, 0.5. 1.3]; While the numbers of each product are [3, 2, 1, 5]. Use MATLAB to calculate the total bill.

4. Draw a graph to join the points (0, 1), (4, 3), (3, 0) and (5, −3).

5. Create an aray of *N* numbers. Now find a single MATLAB statement that picks the odd numbers or even numbers from the array.

[PNB − 02;   Viva Voce − 03]

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