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**ROLL NO: CT-062**

**CLASS: BCIT**

**SECTION: B**

**EXERCISE 01: Write Pseudo Code and Flowchart to get temperature in Fahrenheit as input and convert it to Kelvin.**

**PSEUDOCODE:-**

01- **Begin**

02- **Variable** F,K

03- **Input** F

04**-Process** K=((F-32)\*5/9)+273

05- **Display** K

06- **End**

**FLOWCHART:-**

**DECLARE F, K**

**Input F**

**Process K=((F-32)\*5/9))+273**

**OUTPUT K**

**EXERCISE 02:** **Write Pseudo Code and Flowchart to calculate the area of a circle with radius taken as input.**

**PSEUDOCODE:-**

01- **Begin**

02- **Variable** A,R

03- **Input** R

04**-Process** A= 3.142\*R\*R

05- **Display** A

06- **End**

**FLOWCHART:-**

**DECLARE A, R**

**Input R**

**Process A= 3.142\*R\*R**

**OUTPUT A**

**EXERCISE 03:** **Write Pseudo Code and Flowchart to convert Km/hour to Miles/hour.**

**.**

**PSEUDOCODE:-**

01- **Begin**

02- **Variable** km, mi

03- **Input** km

04**-Process** mi= km\* 0.621371

05- **Display** mi

06- **End**

**FLOWCHART:-**

**DECLARE km, mi**

**Input km**

**Process mi= km\* 0.621371**

**OUTPUT mi**

**EXERCISE 04**: **Write Pseudo Code, Algorithm and Flowchart to take hours and Minutes as Input and calculate the total number of seconds.**

**PSEUDOCODE:-**

01- **Begin**

02- **Variable** hour, min, sec1, sec2, sec

03- **Input** hour

04- **Input** min

05**-Process** sec1=hour\*3600

06-**Process** sec2= min\*60

07-**Process** sec=sec1+sec2

08-**Display** sec

09- **End**

**FLOWCHART:-**

**DECLARE hour, min, sec1, sec2, sec**

**Input hour**

**Input min**

**Process sec1= hour\*3600**

**Process sec2= min\*60**

**Process sec= sec1+sec2**

**OUTPUT sec**

**EXERCISE 05: One of the jobs that Joe Roberts has been given at work is to order special paper for a report for a board meeting. The paper comes in reams of 500 sheets. He always makes five more copies than the number of people that will be there. Joe wants to know how many reams of paper he needs for a meeting. He can order only whole, not partial, reams. Assume the required number of pages will not equal an exact number of reams. Test your solution with the following data. The report is 140 pages long. There will be 25 people in the meeting.**

**PSEUDOCODE:-**

01- **Begin**

02-**Variable** pages\_per\_report, people, extra\_copies, pages\_per\_ream, total\_copies, total\_pages, reams\_required

03- **Set** pages\_per\_report = 140

people = 25

extra\_copies = 5

pages\_per\_ream = 500

04- **Process** total\_copies= people+extra\_copies

05- **Process** total\_pages=pages\_per\_report\*total\_copies

06- **Process** reams\_required= total\_pages/pages\_per\_ream

07- **If** reams\_required= total\_pages % pages\_per\_ream !=0

**Process** reams\_required=reams\_required+1

**Display** reams\_required

**Else**

**Display** reams\_required

08- **End**

**FLOWCHART:-**

**Declare pages\_per\_report, people, extra\_copies, pages\_per\_ream, total\_copies**, **total\_pages, reams\_required**

**Initialize pages\_per\_report = 140 people = 25 extra\_copies = 5**

**pages\_per\_ream = 500**

**Process total\_copies= people+extra\_copies**

**Process total\_pages =pages\_per\_report\*total\_copies**

**Process** **reams\_required= total\_pages/pages\_per\_ream**

**If** **reams\_required= total\_pages % pages\_per\_ream !=0**

**FALSE**

**TRUE**

**Process reams\_required=reams\_required+1**

**OUTPUT reams\_required**

**EXERCISE 06: Joe would like to build several bookcases that are of different heights and widths. All will be 12 inches in depth. The bookcases will have three shelves, in addition to the bottom and the top. Write a solution to print the number of feet of 12-inch-wide boards that will Joe need to complete a bookcase, given the height and width.**

**PSEUDOCODE:-**

01- **Begin**

02- **Variable** dept, width, height, total\_ft, side\_boards, horizontal\_ boards

03- **Set** dept=1

04- **Input** height

05- **Input** width

06**-Process** side\_boards= height\*2

07-**Process** horizontal\_boards= width\*5

08-**Process** total\_ft= side\_boards+ horizontal\_boards

09- **Display** total\_ft

10- **End**

**FLOWCHART:-**

**Declare dept, width, height, total\_ft, side\_boards, horizontal\_ boards**

**Initialize** **dept=1**

**INPUT height**

**INPUT width**

**Process side\_boards= height\*2**

**Process horizontal\_boards= width\*5**

**Process total\_ft=side\_boards+horizontal\_board**

**OUTPUT total\_ft**