**Algorithm Exercise 2**

**2.1 Activity 1**

Input : Total worked hours= W, Employee’s name

Process : Employee’s name = Total worked hours, W

W x Total pay for an hour

Output : Employee name and total gross pay

Pseudocode

1. Start
2. Get employee’s name
3. Get total worked hours, W
4. Calculate total gross pay = W \* total pay for an hour
5. Display employee’s name with total gross pay.

Get employee’s name

Get the Total worked hours,W

Calculate total gross pay = W \* total pay for an hour

Display employee’s name with total gross pay

**Activity 2**

Pseudocode

1. Start
2. Get the Name
3. Get the Faculty
4. Get the Course
5. Display Name, Faculty and Course
6. End

**2.3 Activity 3**

i) Input : Number of excess minutes = a

Process : a x 0.35

Output : Total overage fee

ii) 1. Start

2. Get the number of excess minutes, a

3. Calculate Total overage fee = a \* 0.35

4. Display total overage fee

5. End

Get the number of excess minutes, a

Calculate Total overage fee = a \* 0.35

Display the total overage fee

**2.4 Activity 4**

Input : F, r, n

Process : divide F with the squared value of sum of 1 and r. then multiply it with n

Output : P

Pseudocode

1. Start
2. Get F value
3. Get r value
4. Get n value
5. Calculate P using formula P= [F/(1+r)2 ] \* n
6. Display P
7. End

Get F

Get r

Get n

Calculate P using formula P= [F/(1+r)2 ] \* n

Display P

**Activity 5**

Input : Test1, Test2, Test3

Process : 1) Calculate average mark =(Test1+Test2+Test3)/3

2) display ‘Congratulations’ if average mark is more than 95

Output : Average mark and ‘Congratulations’ message

**Pseudocode**

1. Start
2. Get value for Test1
3. Get value for Test2
4. Get value for Test3
5. Calculate average mark =(Test1+Test2+Test3)/3
6. Display average mark
7. Display ‘Congratulations’ if average mark is > 95
8. End

Get Test1

Get Test2

Get Test3

Calculate average mark=(Test1+Test2+Test3)/3

average score > 95

If false If true

Display average

Display average

Display “Congratulations”

**Activity 6**

Input : Miles\_per\_hour , Increment\_miles

Process : For Miles\_per\_hour=60 and Miles\_per\_hour <= 131

If true, calculate Kilometres\_per\_hour = Miles\_per\_hour/0.6214

Miles\_per\_hour = Miles\_per\_hour + 10 (increment miles)

If false, get a new value for Miles\_per\_hour

Output : display kilometres\_per\_hour starting 60 Miles\_per\_hour to 130 Miles\_per\_hour

**Pseudocode**

1. Start
2. Initialize Miles\_per\_hour = 60 and Miles\_per\_hour <= 131
3. Get Miles\_per\_hour
4. If true, calculate Kilometres\_per\_hour = Miles\_per\_hour/0.6214

Miles\_per\_hour = Miles\_per\_hour + 10 (increment miles)

1. Display kilometres\_per\_hour starting from 60 Miles\_per\_hour to 130 Miles\_per\_hour
2. If false, get a new value for Miles\_per\_hour
3. End

Display miles\_per\_hour, kilometre\_per\_hour

Miles\_per\_hour = Miles\_per\_hour + 10 (increment miles)

calculate Kilometre Per Hour = Miles Per Hour/0.6214

If Miles\_per\_hour <=131

Get Miles\_per\_hour

Initialize Miles\_per\_hour = 60 and Miles\_per\_hour <= 131

If false

If true