

CPS 201

SECTION-A

- (1) Integer, DIMENSION(120); : mean_rainfall
- (2) Integer :: price_of_goods, Unit_bundle, bonus
- (3) Character(len=20) :: residential_address
- (4) Real :: Student_Score, no_of_units, weight
- (5) Integer :: Total_mark(300)
- (5) Integer :: Total_mark(300)

| |
|---------|
| 10, 150 |
| 8, 64 |
| 6, 36 |
| 4, 16 |

- a) $r^2 = m * (1 + 0.3326 * x)$
- b) $E = C * V^{1/2}$
- c) $m_x = \exp(-2 * (K * x))^{1/2}$
- d) $\phi(x) = 0.5 - r(a + b * t + c * t^2 + d * t^3)$
- e) $\phi(x) = 0.5 - r(a * t + b * t^{1/2} + c * t^{3/2})$

(A) Print Since the Condition is true

Print *, 2*x, y, 2*(3x+y)

Print *, 810, 402, 1614

(5) $V = \pi r^2 h$

Program Volume of a Cylinder

! Program To Compute the Volume of a Cylinder

Implicit none

Real :: r, h

Real :: Pie = 3.142 ! OR u can use
PARAMETER PIE = 3.142

Read *, r, h

Volume = Pie * r ** 2 * h

Print *, Volume

End

SECTION 14

3(a)) Declarative Section: It Contain non executable statement, where all Variable btw the program are declared

)) Executable Section: It's Contain fortran program command that would make the program to run

Termination: Contain top and end
Program Command.

$$1 \text{ foot} = 0.3048 \text{ Metre}$$

Program to Convert feet to metre

#include <iostream.h>

Real : = foot, metre

Read *, "Pls enter the Value of feet"

Print *, "Pls enter the Value of feet"

Read *, feet

$$\text{metre} = \text{feet} / 0.3048$$

Print *, feet "feet to metre IS:", metre

End

Employee:

Implicit none

BASIC PAY

B2

BASIC PAY

Implicit none

REAL: BASIC PAY, ALLOWANCE, DEDUCTION,
REAL: NET PAY, TAX, RENT, HOUSING, TRANSPORT

~~Rent~~ = ~~Net~~ - ~~tax~~

~~Basic~~, ~~tax~~ fee, ~~param~~ type

PARAMETER DED-FEE = 2000

Net Pay, Basic Pay, ~~tax~~ housing & transport
rent

~~DEDUCTION~~ = ~~tax~~ - ~~fee~~ + ~~allowance~~

Allowance = Rent + Housing + Transport

TAX = 0.05 * Basic Pay

DEDUCTION = DED-FEE + TAX

Net Pay = Basic PAY + Allowance -
DEDUCTION

B2

Program Salary

Implicit none
Integer

Recall: Basic - Pay, Allowance, Deduction,
Real: NetPay, tax, fest, housing, transport
parameter Dev-fee = 200
Head: Basic - Pay, housing, transport,
rent

$$DO J = 1, 20$$

Allowance = Rent + transport + housing
TAX = 0.05 * Basic - Pay

Deduction = Dev-fee + tax

Net Pay = Basic - Pay + Allowance
- Deduction

END DO

Print(*,*) NetPay

END Salary

B2

(b) Program of Staff
Implicit none

Realization: Rent, dressing, transport, hazard
Real: Basic pay ; net pay, reduction
Parameter Dev fee = 2500

Integer: h
Basic pay, Rent
Hazard, hazard
Do h = 1, 10

Allowance = rent + dressing + transport, hazard
Deduction = 15151100 * Basic Pay + Dev fee
Net pay = Basic Pay + Allowance - Deduction
END DO
Print, Net pay
END

B3

Arrays: This is a group of related data items all of the same data type having common variable name with a subscript and occupying contiguous memory located in the computer.

- ① They are of group of related data
- They have common Variable name
- they have common data types
- the only thing that differentiate a variable from other is the subscript.

| | | | | | | | | |
|------|------|------|------|------|------|------|------|------|
| a[1] | a[2] | a[3] | a[4] | a[5] | a[6] | a[7] | a[8] | a[9] |
|------|------|------|------|------|------|------|------|------|

Integers, Dimension(1) :: AZ

Integers, Dimension(4,4), : X

(5)

Program factorial

Implicit none

Integer, :: n, k, k-factorial

n-factorial = 1

Do n = 1, k

k-factorial = i k - factorial * n

End Do

Write (**) k-factorial

End

B4(a)

(i) (n) Need that

B5

(C)

Program if-else
Implicit Done
Integers: x, y

Read x, y
If ($x \neq 0$ and $y \geq 0$) then
Print x+y

B5

(D) Program if-else

Implicit Done

Integers: x, y

Read x, y

If ($x >= 0$ and $y >= 0$) then

Print x+y

else if ($x <= 0$ and $y \geq 0$) then

Print x+y

else if ($x \geq 0$ and $y > 0$) then

Print x+y

else if ($x \leq 0$ and $y \leq 0$) then

~~Print x+y~~

