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Programming

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SEM-IV, Unit-5, paper-05

CLASSMATE
Date:
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⑦ Physics - Based Examples

~~Examples 7:- Kinetic K~~

Examples ① Kinetic Energy

Fortran

$$KE = 0.5 * M * V * V$$

Examples ② Distance Using Loop.

Fortran

```
DO T = 1, 10
   S = U*T + 0.5*A*T*T
   PRINT*, S
ENDDO
```

> [Exams preparation for Programming Important tips:-]

* Function:- A function is a subprogram that returns only one value to the calling program and is used in expression.

* Subroutine:- A subroutine is a subprogram that performs a task but does not return a value directly. It is called using the CALL statement.

Fortran
```
SUBROUTINE ADD (A,B,C)
   C = A+B.
RETURN
END.
```

CALL:
CALL ADD (X,Y,Z).

⇒ Difference Between Function and Subroutine in FORTRAN.

Basis	Function.
→ Definition	A Function returns a single value.
→ Return Value	Returns only one value.
→ Calling Method	called like a variable in expression.
→ Usage	Used in mathematical calculation
→ Example Call	$Y = SQUARE(X)$.

Example of Function.

Fortran
```
REAL FUNCTION SQUARE (X)
SQUARE = X*X
RETURN
END
```

XXX