

# NAG Library Routine Document

## X07CAF

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

### 1 Purpose

X07CAF gets the current IEEE exception halting mode.

### 2 Specification

```
SUBROUTINE X07CAF (EXCEPTIONMODE)  
INTEGER EXCEPTIONMODE(3)
```

### 3 Description

X07CAF gets the current IEEE exception halting mode for the three common exceptions: overflow, divide-by-zero and invalid operation.

### 4 References

IEEE (2008) *Standard for Floating-Point Arithmetic* **IEEE Standard 754-2008** IEEE, New York.

### 5 Arguments

1: EXCEPTIONMODE(3) – INTEGER array *Output*  
*On exit:* each of the three elements of EXCEPTIONMODE is set to 1 if the corresponding condition will raise an exception, and is set to 0 otherwise. EXCEPTIONMODE(1) concerns floating-point overflow, EXCEPTIONMODE(2) concerns floating-point division by zero, and EXCEPTIONMODE(3) concerns floating-point invalid operation.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

Not applicable.

### 8 Parallelism and Performance

X07CAF is not threaded in any implementation.

### 9 Further Comments

None.

### 10 Example

See Section 10 in X07AAF.

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