

## First Quiz

- Which of the following names cannot be used in Fortran 95 as the name of a variable ?
  - dh131e
  - TONYBLAIR
  - tony\_blair
  - TonyBlair
  - 2003
- One of the following constants is invalid in Fortran 95. Which one ?
  - 13,402
  - 13402
  - 13402.
  - 1340.2E+01
  - 1.3402D4
- Which number does 23.32E-6 represent ?
  - $23.32 \times 10^6$
  - $-23.32 \times 10^6$
  - $23.32 \times 10^{-6}$
  - 17.32
  - 23.32 with 6-digit accuracy
- One of the following expressions does not evaluate to 2. Which one ?
  - SQRT(4.)
  - 4\*\*0.5
  - 4\*\*(1./2.)
  - 4.\*\*0.5E0
  - 4.0\*\*(1/2)
- What does the following program print on the screen ?

```
program test
implicit none
integer:: i, j, k
i = 4
j = (i/2)**2
k = i/8
i = i - 2
write(*,*) i, j, k
end program test
```

- 2 0 0
- 2 4 0
- 4 4 0
- 2 4 1
- 4 1 1

6. If  $A = 2.0$ ,  $B = 3.0$ ,  $C = 4.0$ , what is the value of  $A**2*B-C/A$  ?  
(A, B, C are real variables.)

- (a) 0.2
- (b) 4.0
- (c) 10.0
- (d) 62.0
- (e) None of the above

7. Which of the following expressions evaluates to the cosine of 1 degree ?

- (a) `cos(1)`
- (b) `cos(1.0)`
- (c) `cos(4.0*atan(1.0)/180.0)`
- (d) `cos(180.0/4.0/atan(1.0))`
- (e) `cos(4/180*atan(1.0))`

8. What does the following program print on the screen ?

```
program loop
implicit none
integer:: i, j
j=2
do i = 2, 10, 2
    j=2*j
end do
write(*,*) j
end program loop
```

- (a) 2
- (b) 32
- (c) 64
- (d) 256
- (e) 32.00000

9. What, if anything, should one change in the program below for obtaining the value of  $\pi$  printed on the screen to 12 (or more) significant figures ?

```
program printpi
implicit none
double precision:: pi
pi = 4.0 * atan(1.0)
write(*,*) pi
end program printpi
```

- (a) Nothing.
- (b) The `write` statement.
- (c) The fourth statement should read `pi = 4.d0 * atan(1.0)`.
- (d) The fourth statement should read `pi = 4.d0 * dble(atan(1.0))`.
- (e) None of the above.