1. What is the final value of D after the code?
   a) 1    b) 1.41    c) 7
   d) 2.41  e) 2    f) unknown
   A=4; B=3; C=2; D=1;
   if((A+B>=C)||(sqrt(C)==D))
   D=D+1; end;

2. What is the final value of A after the execution of the loop?
   a) 1.5    b) 3    c) 6
   d) 10.5   e) 0    f) none
   A=0;
   for m=0:0.5:3
     A = A + m;
   end

3. What is missing code in the function Biggest3 that returns the biggest of 3 given numbers? (line numbers are given)
   a) 2. O=x3;    b) 4. O=x1;
   c) 4. end;    d) 6. O=x3;
   e) 5. if;    f) none
   1. function O = Biggest3(x1, x2, x3)
   3. if(x1>x2)&&(x1>x3)  O = x1;
   5. elseif(x2>x3)&&(x2>x1)  O = x2;
   7. end;

4. What is the intention of given statement?
   a) See if x is around    b) Round x to nearest whole number
   c) See if the rounding of x is small    d) Determine the type of rounding
   e) Find out fractional part of x    f) Perturb x around its absolute value
   if(abs(round(x)-x)<0.001)
   A= e^pi+C/x*y;

5. What is the intended operation in the expression given?
   a) $A = e^{\pi C \over xy}$     b) $A = e^\pi + {yC \over x}$
   c) $A = e^{\pi C \over xy}$
   d) $A = {C \over xye^\pi}$
   e) $A = e^{\pi C \over x}$     f) $A = e^{-\pi C \over x}$

6. Program flow stops at the breakpoint. What is the value of b at that instant?
   a) 2    b) 3    c) 4
   d) -1    e) -3    f) -2
   1. for x=2:4
   2. if x<3 b=-x;
   3. else
   4. b=x;
   5. end; end

7. You are to write a function that checks if given three coordinates are the corners of a right triangle in R2. What would be the function declaration?
   a) function IsItRight(P1,P2,P3)
   b) RT=function(P1,P2,P3)
   c) function O=IsItRight(x1,x2,y1,y2)
   d) function RT=IsItRight(x1,y1,x2,y2,x3,y3)
   e) RT=function IsItRight(x1,y1,x2,y2,x3,y3)
   f) O=IsItRight function(P1,P2,P3)

No books, no notes, no cellphones and no calculators allowed. 50 minutes.
8. What is the value of $D$ after the statement?
   a) 0   b) 1   c) 2   D=ceil(fix(1.1)+round(2.6)+0.1);
   d) 4   e) 3   f) 5

9. The code piece given displays the given output on the command window. What should be the code in the place marked with ....?
   a) k==2   b) round(k/2)==k/2
   c) even(k)   d) k<=5 && k=2*k
   e) k=2:2:10   f) fix(k/2)==k/2

10. Assume that you want to break/hold the execution at the 10000th step in a pretty long loop to check the variables and then continue. What would you do?
    a) run step by step and stop when i=10000
    b) print out i and press stop button when i=10000
    c) put if(i==10000)
       i=i; % put a breakpoint here
       end;
    d) split the loop into two; upto and starting from 10000.
    e) insert a debugger option to stop at 10000.
    f) insert a breakpoint at 10000th line.

11. What is the value of D after the execution of $D=\text{mod}(10-\text{mod}(11,4),4)$;
    a) 0   b) 1   c) 2
    d) 4   e) 3   f) 5

12. Determining if two planar lines are perpendicular is easy. Just check if the slopes of the lines to if $m_1=-\frac{1}{m_2}$ where $m_1$ and $m_2$ are the slopes of the lines. The following code does that and sets $\text{perp}$ to 1 if they are perpendicular. What is wrong with the code?
    ```matlab
    perp=0;
    if(abs(m2)>0.001)&&(abs(m1+1/m2)<0.001)
        perp=1;
    elseif(abs(m1)>0.001)&&(abs(m2+1/m1)<0.001)
        perp=1;
    end;
    ```
    a) nothing is wrong   b) *s are missing   c) abs is not a good choice
    d) > must be <   e) 0.001 must be 0.0   f) missing else