14. Fix two errors in the following given script

```
%% Find out if the entry is a Scalar or NOT.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc, etc!
% Your entry can be also any standard array generating functions!
ABC=input('Enter ANY numerical entry of any size surrounded with square brackets [ ]: ');
if isnumeric(ABC) && isscalar(ABC)
 fprintf('This is a scalar: %20g \n', ABC);
else
 format short
 fprintf('Your entry is not scalar, but an array \n', ABC);
 fprintf(ABC);
end
```

Correction

```
%% Find out if the entry is a Scalar or NOT.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc, etc!
% Your entry can be also any standard array generating functions!
ABC=input('Enter ANY numerical entry of any size surrounded with square brackets [ ]: ');
if isnumeric(ABC) && isscalar(ABC)
    fprintf('This is a scalar: %20g \n', ABC);
else
    format short
    disp('Your entry is not scalar, but an array');
    disp(ABC);
end
```

15. Fix the three errors in the following script

```
%% Find out whether the array is square and if it is, show its size.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc, etc!
% Your entry can be also any standard array generating functions!!!
ABC=input('Enter ANY numerical entry of any size within [ ]: ');
[Rows, Cols]=size(ABC);
if isnumeric(ABC) && Rows==Rows
 fprintf('This is a square ARRAY! ');
 fprintf('Your entry is of %5g -by- %5g square ARRAY \n', Cols, Rows);
else
 format short
 fprintf('Your entry is NOT a square array \n')
 fprintf('BUT an ARRAY of size %5g - by - %5g \n', Cols, Cols);
end
```

Correction

```
%% Find out whether the array is square and if it is, show its size.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc, etc!
% Your entry can be also any standard array generating functions!!!
ABC=input('Enter ANY numerical entry of any size within ( ): ');
[Rows, Cols]=size(ABC);
if isnumeric(ABC) && Rows==Cols
  fprintf('This is a square ARRAY! ');
  fprintf('Your entry is of %5g -by- %5g square ARRAY \n', Cols, Rows);
else
  format short
  fprintf('Your entry is NOT a square array \n');
  fprintf('BUT an ARRAY of size %5g -by- %5g \n', Rows, Cols);
end
```

16. Fix the two errors in the following script

```
%% Find out: the user entry is scalar or not. If it is, display it.
% otherwise, show the variable type.
ABC=input('Enter ANY numerical entry of any size within [ ]: ');
if isnumeric(ABC)
 fprintf('This is a Scalar! \n');
 fprintf('Your entry is a scalar: %5g \n', ABC);
else
 class(ABC, 1)
end
```

Correction

```
%% Find out: the user entry is scalar or not. If it is, display it.
% otherwise, show the variable type.
ABC=input('Enter ANY numerical entry of any size within [ ]: ');
if isnumeric(ABC)
    fprintf('This is a Scalar! \n');
    fprintf('Your entry is a scalar: %5g \n', ABC);
else
    display(class (ABC))
end
```

17. Fix two errors in the following script

```
%% Find out: the array is real and square. If it is, display it;
% otherwise, show its size and type.
% NB: size(), display(), class() can be used.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc.
% Your entry can be also any standard array generating functions!
ABC=input('Enter ANY numerical entry of any size within [ ]: ');
[Rs, Cs]=size(ABC);
if ischar(ABC) && Rs==Cs
 fprintf('This is a square array! \n');
 disp(ABC);
elseif
format short
fprintf('This is not a square array & its size: %5g-by-%5g \n', Rs, Cs);
disp(num2str(ABC));
end
```

Correction

There are 3 errors

```
%% Find out: the array is real and square. If it is, display it;
% otherwise, show its size and type.
% NB: size(), display(), class() can be used.
% Prepare your entry data that MUST be in array
% or matrix format of any size: 1-by-1, 2-by-2, 2-by-3, etc.
% Your entry can be also any standard array generating functions!
ABC=input('Enter ANY numerical entry of any size within [ ]: ');
[Rs, Cs]=size(ABC);
if isnumeric(ABC) && Rs==Cs
  fprintf('This is a square array! \n');
  disp(ABC);
else
  format short
  fprintf('This is not a square array & its size: %5g-by-%5g \n', Rs, Cs);
  disp(class(ABC));
end
```

18. Fix the five errors in the following script:

```
%% Q7. Computing area of a circle, square and rectangle w.r.t the user entries:

W = input('Width of a rectangle: ', 's');
L = input('Length of a rectangle: ', 's');
R = input('Radius of a circle: ', 's');
S = input('Side length of a square: ', 's');
if isempty(R) && isempty(S)
 A1=W*L;
 fprintf('Area of a rectangle: A1 = %5g \n', A1);
elseif isempty(W) && isempty(L) && exist('R','var') && exist('S', 'var')
 A2 = pi*R^2; A3 = S^2;
 fprintf('Area of a circle: A2 = %5g \n', A2);
 fprintf('Area of a square: A3 = %5g \n', A3);
elseif isempty(W) && isempty(L) && isempty(R)
 A3 = S^2;
 fprintf('Area of a square: A3 = %5g \n', A3);
elseif isempty(S) && isempty(W) && isempty(L)
 A2 = pi*R^2;
 fprintf('Area of a circle: A2 = %5g \n', A2);
else exist('W','var') && exist('L','var') && exist('R','var') &&
exist('S','var')
 A1=W*L; A2 = pi*R^2; A3 = S^2;
 fprintf('Area of a rectangle: A1 = %5g \n', A1);
 fprintf('Area of a circle: A2 = %5g \n', A2);
 fprintf('Area of a square: A3 = %5g \n', A3);
else
 fprintf('You need to ENTER some dimensions! \n')
end
```

Correction

```
%% Q7. Computing area of a circle, square and rectangle w.r.t the user entries:
W = input('Width of a rectangle: ');
L = input('Length of a rectangle: ');
R = input('Radius of a circle: ');
S = input('Side length of a square: ');       % error 1
if isempty(R) && isempty(S) && exist('W', 'var') && exist('L', 'var') % error 2
  A1 = W*L;
  fprintf('Area of a rectangle: A1 = %5g \n', A1);
elseif isempty(W) && isempty(L) && exist('R', 'var') && exist('S', 'var')
  A2 = pi*R^2; A3 = S^2;
  fprintf('Area of a circle: A2 = %5g \n', A2);
  fprintf('Area of a square: A3 = %5g \n', A3);
elseif isempty(W) && isempty(L) && isempty(R) && exist('S', 'var') % error 3
  A3 = S^2;
  fprintf('Area of a square: A3 = %5g \n', A3);
elseif isempty(S) && isempty(W) && isempty(L) && exist('R', 'var')  % error 4
  A2 = pi*R^2;
  fprintf('Area of a circle: A2 = %5g \n', A2);
elseif exist('W', 'var') && exist('L', 'var') && exist('R', 'var') && exist('S', 'var')%error5
  A1 = W*L; A2 = pi*R^2; A3 = S^2;
  fprintf('Area of a rectangle: A1 = %5g \n', A1);
  fprintf('Area of a circle: A2 = %5g \n', A2);
  fprintf('Area of a square: A3 = %5g \n', A3);
else
  fprintf('You need to ENTER some dimensions! \n')
end
```

19. Fix the five errors in the following script

```
%% Assessing the student performances
clc; clearvars
SP =input('Enter the student grade: ');
if SP <65
 disp('Student Grade is F ')
elseif SP>=66 && SP<=71
disp('Student Grade is D ')
elseif SP>71 && SP<=81
 disp('Student Grade is C ')
elseif SP>82 && SP<87
 disp('Student Grade is B ')
else
 disp('Student Grade is A ')
end
```

Correction

I found only 2 errors

```
clc; clearvars
SP = input('Enter the student grade: ');
if SP <65
  disp('Student Grade is F')
elseif SP>=65 && SP<=71    % error 1
  disp('Student Grade is D')
elseif SP>71 && SP<=81
  disp('Student Grade is C')
elseif SP>81 && SP<87     % error 2
  disp('Student Grade is B')
else
  disp('Student Grade is A')
end
```

21. Edit and correct the following given script to display the current date and time correctly in the Command window:

```
Format short e
T=clock;
fprintf('This year is: %n4 \n', T(1))
if T(2)==1
 sprintf('It is: %f4 -st month of the year: %n4 \n', T(2),T(1))
elseif T(2)==2
 sprintf('It is: %f4 -nd month of the year: %n4 \n', T(2),T(1))
elseif T(3)==3
 sprintf('It is: %f4 -rd month of the year: %n4 \n', T(2),T(1))
else
 sprintf('It is: %f4 -th month of the year: %n4 \n', T(2),T(1))
end
sprintf('current time is: %lo o"clock %l0 min \n', T(4), T(5))
sprintf('and %s secs \n', (T(6)))
```

22. Your corrected script should display the current date and time in the following format:
It is: 11 - day of the 6-th month of the year: 2014
current time is: 15 o"clock 3 min and 17.136 secs

Correction

```
format short e
T=clock;

if T(2) == 1
  fprintf('It is: %d -day of the %d st month of the year: %d \n', T(3), T(2), T(1))
elseif T(2)==2
  fprintf('It is: %d -day of the %d -nd month of the year: %d \n', T(3), T(2), T(1))
elseif T(3)==3
  fprintf('It is: %d -day of the %d -rd month of the year: %d \n', T(3), T(2), T(1))
else
  fprintf('It is: %d -day of the %d -th month of the year: %d \n', T(3), T(2), T(1))
end
fprintf('current time is: %d o\''clock %d min and %0.3f secs \n', T(4), T(5), T(6))
```