Agisoft Metashape:

1.Align photos

Firstly, add the photos you wanna use. You can just drag them into the window, or click add photos in the workspace tab.
Click on align photos in the workflow tab.

Accuracy varies from highest to lowest, and is the accuracy which agisoft compiles your pictures.
Ultra high upscales images by a factor of 4
High keeps images true to size
Medium downscales by a factor of 4
Low downscales by a factor of 16
Lowest downscales by 32

Generic preselection checked means that agisoft will to it more streamlined, and the process is quicker.

Key point limit, in general, are the points agisoft should look for in each image. One point is one unique feature in an image.
If a limit of 40.000 key points, then you're telling agisoft to look for 40.000 points in each image. **Tie point limit, however,** is the amount of key points that should be tied together from each image. So if you have a tie point limit of 4.000, then four thousand of your key points need to match with another photo for them to be aligned.

Recommended values:
Key point limit: **20.000 - 60.000**
Tie point limit: **up to 40.000.**
BUT! If you choose **0**, then agisoft will find as many tie points for each picture it can (best feature).

2.Clean model before creating Dense Cloud

Model -> gradual selection

Reprojection error should be below **0.4**
Reconstruction uncertainty should be at **200**
Projection accuracy **20**

3.Dense cloud

The next step in creating your model. Click it In the workflow tab.

Quality goes from Ultra high to Lowest.
Ultra High processes original photos
High downscales by a factor of 4
Medium downscales by 16
Low by 64
Lowest by 256

Depth filtering is a function that sorts out outliers in the model.
Goes from disable to aggressive.
Mild is less strict filtering of features.
Moderate in between
Aggressive is more struct in terms of filtering out features.

Choose mild if you want small features to be included in your model (common to use for cross sections).

4.Mesh

The next step in creating your model is creating the Mesh. However, here you will have two choices.
Either creating mesh by using depth map, sparse cloud or by dense cloud.
If you do it by dense cloud, then you should edit it first.
Dense Cloud is the most realistic, but also takes the longest time to create.
Depth maps increases the quality, and takes smaller time to make as well.

Edit the dense cloud by using the free-form selection tool. Just drag your mouse and select + delete the unimportant parts of your model.
E.g. spikes, uninteresting sections, etc.

By Dense Cloud:
Source data: your data set by choice (dense cloud)
Surface type: Arbitrary if 3D model or Height Field (map)
Face count is the number of polygons on the mesh (which is essentially the quality of the model)
High - 1/5 of totalt dense cloud points (most detailed)
Medium - 1/15 of total dense cloud points
Low - 1/45 of total dense cloud points
Interpolation: will fill in spaces or holes on your model.
Disable: no hole filling
Enable: some hole filling

Extrapolated: no holes in model
Calculate vertex colours: check if you want your model to have colours.

By Depth Maps:
Quality: Will be the same (and must be) as the generated through the dense cloud process.
Reuse depth maps: check, so you don't have to use a new one.

5.Texture
Pretty straight forward. Usually just go with preselected options.