Section 1 Part C – Computer Operations

Computing technology and software provides us with many functions and capabilities that are helpful when machining.

1. Match the computing technology or software to its purpose when machining, using an arrowed line.

Computing Technology or Software		Machining purpose
Lathe and milling machine digital read out		Controls CNC operated machines, automates machining operations, achieves precision and efficiency, supports complex geometries, optimises cutting strategies, integrates with CAD/CAM systems and enable customisation
Personal computer		Helps guide and position cutting tools to creates more accurate products and increases efficiency by reducing manual measurement
Microsoft Excel		It provides a versatile and powerful platform for data organisation, analysis, calculation, reporting. Can be used to chart data.
CNC computer software		Provides users with a versatile platform for communication, information access and production. Required to use software such as Microsoft Excel.

Computing technology and software provides us with important data outputs that are helpful when machining.

2. Match the data output to its features and purpose when machining, using an arrowed line.

Data output		Feature and machining purpose
Line graphs		Estimates trend identification, correlation assessment, prediction, modelling relationships, data interpretation and visual communication of data patterns
Digital read out (DRO)		In machining it is to enhance precision, accuracy, efficiency and control by reducing manual measurement
Lines of best fit		Is a versatile tool for data visualisation and analysis, providing a clear to understand trends, relationships, changes and patterns in machining data