

I. Complete the sentences with appropriate words. To help you some letters have been given. (5p)

1. A software that is _ _ _ O _ A _ _ is out of date and no longer in use.
2. Technology that is highly-advanced, innovative and pioneering is C _ _ _ _ _ G _ _ _ E
3. Mobile phones seem to have become _ _ D _ S _ E _ _ _ _ E
4. A _ _ _ P _ _ _ R _ _ _ _ is simply interested in and knowledgeable about computers.
5. A building that features ultra-modern solutions is _ _ _ _ _ - _ _ - _ _ - _ _ _

II. Match words from A and B into pairs to form collocations. Translate into Polish in C. (20p)

A	B	C
1. fit _	A. device	
2. technological _	B. native	
3. labour-savng _	C. in	
4. computer- _	D. view	
5. digital _	E. code	
6. pass _	F. pen	
7. cross- _	G. breakthrough	
8. metric _	H. section	
9. exploded _	I. literate	
10. technical _	J. system	

III. Decide whether the following sentences are T/true or F/false. (16p)

(technical drawing, measurements)

1. In engineering, most drawings consist of a set of several designs. ____
2. The final drawing is made using a technical pencil, graded according to hardness. ____
3. The visual image of a component should be accurate in terms of dimensions and proportions, and should provide an overall impression of what an object is or does. ____

4. General arrangement drawing shows one or more smaller components in detail. ____
5. Centuries ago the systems of measurement differed from one city to the next. ____
6. The basic unit multiplied by a thousand is milli, whereas divided by a thousand is kilo. ____
7. The system of measurement used in British industry is the metric system. ____

(presentations)

8. "Intelligence is a skill itself; it's what you can do; and how well and how efficiently you can do things." ____
Artificial intelligence can be split into two broad types: narrow and general ____
9. Machine learning is when a computer system is being programmed how to perform a task. ____
10. Strong AI exists solely in fiction. ____
11. In inkjet bioprinting, cells and biomaterials are patterned into desired substrates in the form of droplets. ____
12. The extrusion printing produces droplets instead of filaments. ____
13. Collagen as a biocompatible and biodegradable polymer has been widely used to regenerate skin, bone, cartilage, and islets. ____
14. The advances in 3D printing allow for re-creating a 3D microengineered environment that mimics in vitro microenvironments. ____
15. PEG is a biodegradable polymer, which does not limit its possibilities. ____

IV. Translate into Polish or English (15p)

	nie do odróżnienia		różnorodny
ubiquitous		blood vessels	
verisimilitude			włókno
	zmiennoprzecinkowe	nozzle	
binary digits			wklęsły
	nadzór		zesztywnieć
	tusz biologiczny	printhead	
vascularization			

V. Complete the extracts with the suggested words or phrases. (14p)

carry out layers attributed to networks

Neural _____ are made up of interconnected _____ of algorithms that feed data into each other. They can be trained to _____ specific tasks by modifying the importance _____ data as it passes between these layers.

data technique machine-learning

A common _____ for teaching AI systems is by training them using many labelled examples. These _____ systems are fed huge amounts of _____, which has been annotated to highlight the features of interest.

tissue blueprint diseases overcome donors imaging treatments

Organ transplantation is one of the major _____ for many end-stage organ _____. The supply of _____ is, however, limited. The emerging of _____ biofabrication technologies can one day help _____ the tissue or organ shortage.

A _____ of tissues and organs can be generated using medical _____ techniques, such as computer tomography (CT) or magnetic resonance imaging (MRI).