

I. What professions use CAD and what for? Write professions next to the right description.(5 points)

1.	designing and testing how the air will flow over the component, determining how the object will react to different variables as ice, snow, strong wind etc.	
2.	designing components and units which are present in every electronic device	
3.	testing strength of materials before they are used in constructions	
4.	design and develop life-saving and health-improving devices	
5.	test how all products look, feel, interact	

II. Put the following words in the right sequence to make sentences CAD/CAM systems, then write A(for advantage) or D (for disadvantage). (10 points)

1. percent /productivity /software/ increases/ by /CAM/ as much as/ 50 /initially.

2. of /Work/ be/ because/ can /the/ breakdown/ of/ sudden/ lost/ computers.

3. erasing /can /without/ be/ Designs/ altered.

4. possible /Computer/ are/ errors.

5. elements/ be/ Certain/ to/ facilitate/ can/ inspection/ magnified.

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

A	B	C
1. 3D ____	A. aided	
2. geometrical ____	B. to	
3. computer-__	C. testing	
4. time-__	D. representation	

5. refer __	E. parameters	
6. real-__	F. saving	
7. derived __	G. pattern	
8. rapid __	H. changing	
9. thought__	I. world (adj)	
10. game __	J. from	

IV. Decide whether the following sentences are T/true or F/false. (15p)

- The negative copy where black lines turn white and blank space turns blue is called a blue print. ____
- Industrial revolution started in the same year in which a blue print was discovered. ____
- Alan Turing was an American astronomer. ____
- The term CAD was invented by Patrick Hanratty. ____
- In 1971 General Motors introduced the microprocessor to the world. ____
- ADAM is the CAD software known as automated drafting and machinery introduced by Patrick Hanratty. ____
- The biggest advantage of carbon fiber fabric is high strength with low weight. ____
- Resin is a material that is not present during the production process of carbon fiber fabric. ____
- Carbon fiber composites have a very high coefficient of thermal expansion. ____
- The two most common sources of thermal energy are air-source and sun-source. ____
- The efficiency of the heat pump depends greatly on the temperatures of the source and sink. ____
- Aerogel weighs 15 gram per cubic centimeter. ____
- Aerogel is highly flammable. ____
- Aerogels are made by removing moisture from a gel while maintaining the gel structure. ____
- In RWD the power from the engine is delivered to the front wheels which are pulling the car forward. ____

V. Translate into Polish or English (10p)

	krok milowy		czynniki chłodnicze
cornerstone		porous	
	maż		pryczepność
	sztywny	flywheel	
performance			skrzynia rozdzielcza

VI. Match words to their definitions. (10 points)

1.	coin	a.	the physical and electronic parts of a computer, rather than the instructions it follows
2.	indispensable	b.	a solid substance that has a conductivity between that of an insulator and that of most metals, either due to the addition of an impurity or because of temperature effects
3.	consolidation	c.	to invent a new word or expression, or to use one in a particular way for the first time
4.	hardware	d.	an infinitesimal difference between two consecutive values of a variable quantity
5.	density	e.	a device, such as the foot throttle of an automobile, for increasing the speed of a machine
6.	vapor	f.	too important not to have; necessary
7.	furnace	g.	the relationship between the mass of a substance and its size
8.	semiconductor	h.	a container for holding burning substances, usually to heat buildings or to melt metals and other materials
9.	accelerator	i.	the process in which amounts or sets of numbers are added together to form a single amount, statement
10.	differential	j.	gas or extremely small drops of liquid that result from the heating of a liquid or solid

1 _____, 2 _____, 3 _____, 4 _____, 5 _____, 6 _____, 7 _____, 8 _____, 9 _____, 10 _____