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## Preface

This Manual is aimed at the students of English studying technical sciences. The emphasis is on the difficulties while translating technical texts from English into Polish. Some problems of word-building, grammar and English spelling are being analyzed. Four variants of exercises are compiled to give the students some basics of Techtalk.

## VARIANT ONE

### 1.1. Read the words:

| accent | cycle | exotic | pose | price | race | twice | voice | recent |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| barge | cyclone | giraffe | prose | rice | raise | wise | noise | reason |
| centre | cylinder | grimace | rose | prize | rise | tack | accord | clock |
| kopeck | exotic | music | tactics | kick | bird | fax | accede | close |
| egg | edge | bargain | jug | kiss | serve | age | exempt | guest |

### 1.2. Read the words, pay attention to the endings:

concerns-concerned, crashes-crashed, cries-cried, demonstrates-demonstrated, enjoys-enjoyed, expects-expected, explains-explained, finish-finishes, fires-fired, fixes-fixed, guards-guarded, guesses-guessed, guides-guided, helps-helped, investigates-investigated, kisses-kissed, likes-liked, lookslooked

### 1.3. Read the words with so-called "silent" letters:

climb, comb, debt, doubt, length, strength, jamb, plumb, thumb, muscle, Wednesday, tongue, forehead, honest, honour, hour, rhyme, rhythm, vehicle, calf, calm, could, half, should, would, yolk, autumn, solemn, cupboard, island, castle, fasten, listen, often, whistle, answer, sword, towards

### 1.4. In reacting to the sentences given below in capital letters use a reply in small letters:

A. Thank you for taking me out.
B. Thank you for the pleasure of your company.
C. I'll do everything you asked me.
D. You've done me a great favour! Thank you for the trouble you've taken.
E. I'm afraid I haven't been of great help to you.
F. Thank you for a wonderful evening.
a) Thank you in advance.
b) I'm the one who ought to thank you.
c) I'm glad you liked it
d) The pleasure was all mine.
e) No trouble at all
f) Thank you anyway.

### 1.5. Translate the following terminological units:

1. oil dashpots; 2. arcing contact; 3 . combustion zone; 4 . long distance call; 5. out-going terminus; 6. good combustion; 7. oil retainer; 8. by-pass wave; 9 . superheated header; 10. tuning condenser; 11. alarm device; 12. voltage transformer; 13. boiling point; 14. feed mechanism; 15. train handling; 16. horse power; 17. fixing lug; 18. flash light; 19. plug-and socket device; 20. overhead wire

### 1.6. Translate the abbreviations:

1. m.p.h.; 2. oz; 3. p.s.; 4. psi; 5. R.F.; 6. r.p.m.; 7. sp.gr.; 8. sq.ft.; 9.yd; 10. ahr; 11. c.p.s.; 12. dia; 13.g.r.; 14. hi-fi; 15. i.c.; 16. i.f.; 17. Kc/s; 18. kgf; 19. kV/a-hr; 20. 1.p.; 21. 1.v.; 22. mA; 23. Mc/s; 24. pf; 25 r.p.s.

### 1.7. Translate the computer terminology:

1. mainframe; 2. tower case; 3. reboot; 4. utilities; 5. freeware/shareware; 6. integrated circuit; 7. clock speed; 8. volatile/non-volatile; 9.optical drive; 10. expansion board; 11. touchpad; 12. mouse mat; 13. tracker ball; 14. selec-
tion pointer; 15. dumb terminal; 16. hard copy; 17. point-and-click interface; 18. compression; 19. batch file; 20. cron job

### 1.8. State the parts of speech of the following words and translate them:

 improve-improvement; easy-easier; use-useful-usefulness; invent-inventorinvention; to take an interest-interesting; move-movement; transmit-transmission-transmitter; wonder-wonderful; think-thoughtful; descriptiondescriptive; specialist-special; able-unable-ability; agree-agreement-disagreedisagreement; care-careful-careless; advance-advantage-disadvantage-advanced-advancement-advantageous, act-action-actual-active-activity, actoractress; actually-actuality, react-reaction-reactionary-reactive, day-dailytoday, ease-easy-disease.
### 1.9. Using the table (page 21) state the tense and voice of the following verb forms:

| 1. were being told | 11. is being boiled |
| :--- | :--- |
| 2. have asked | 12. will be constructing |
| 3. had written | 13. was going |
| 4. will have been talking | 14. is stopping |
| 5. had been crying | 15. will be given |
| 6. have been using | 16. was insulted |
| 7. will have been gone | 17. is produced |
| 8. had been done | 18. will have |
| 9. has been built | 19. went |
| 10. will have written | 20. takes |

### 1.10. Translate the following sentences paying attention to the Passive Voice:

1. They must be reminded of the meeting.
2. He was to be met at the station.
3. The design of new cars was much worked at.
4. The elements of the building had been manufactured at the plant.
5. Modern architecture is characterized by simplicity of lines.
6. We will be interested in the electrical properties of semiconductors.
7. The Sun being the most important planet, provides us with light and heat.
8. He was asked to lift the car and change the wheel.
9. You will be informed as soon as the report is received.
10. The students were told that the lecture will be followed by a film.
11. The engineer was showed a new device which has been constructed by his colleague.
12. The molecules are acted upon by an electric field.
13. The positive part of the nucleus was named proton.
14. Today you can be taken everywhere in any direction in a few days.
15. Air must be let into the cylinder of the engine.
16. The air must be compressed.
17. This metal can be cut dry.
18. The floor must be cleared and swept.
19. The machine-tool can be stopped at any moment.
20. New mines must be laid out on all-electric basis.

## VARIANT TWO

### 2.1 Read the words, pay attention to Greek, French and Italian borrowings:

| stomach-ache | anchor | character |
| :--- | :--- | :--- |
| chorus | echo | mechanic |
| chronicle | scheme | scholar |
| champagne | charlatan | chic |
| chute | sachet | schedule |
| intrigue | baroque | bourgeoisie |
| margarine | mosque | bouquet |
| oblique | chassis | cortege |
| tangerine | cliché | bureau |
| vermicelli | spaghetti | tarantella |

2.2. Read the words, paying attention to the exceptions:

| procedure | finger | roughly |
| :--- | :--- | :--- |
| gnaw | foreign | distinguish |
| reign | length | language |
| nephew | sure | possessions |
| scissors | climb | cupboard |
| comb | forehead | solemn |
| honour | jamb | rhyme |
| castle | yolk | towards |
| Wednesday | heir | sword |
| autumn | rhythm | calf |

### 2.3. Read and translate the words, state the part of speech:

1. physics; 2. untrue; 3. boyish; 4. pitiless; 5. demilitarization; 6. dynamics; 7. foolish; 8. heartless; 9. discover; 10. classless; 11. invariable; 12. discoverer; 13. rearrangement; 14. elementary; 15. kinematics; 16. reddish; 17. fundamental; 18. music; 19. mixture; 20 reactivity; 21. contain; 22. accumulate; 23. activate; 24. disjoin; 25. untrue; 26. supersonic; 27. dangerous; 28. extraterritorial; 29. prefabricate; 30. mathematics

### 2.4. State the parts of speech of the underlined words:

1. His mother works as a teacher. 2. One of his most important works concerns mathematics. 3. They reported the results of their work at the conference. 4. The report concerned new methods of studying a foreign language. 5. My friend will return tomorrow morning. 6. On my return home I looked through my e-mail at once. 7 . He was a good man. 8 . The captain will man his ship next month. 9. The people were waiting for the bus. 10. If you are in a hurry I can bus you. 11. I saw a big wolf in the forest. 12. A hungry man wolfed the dinner down. 13. He quickly ran out of the room. 14. I quickened my pace to suit his. 15 . My mother prepared lunch for the guests. 16. We were the only lunchers in the café. 17. We bought a new carpet. 18. Beautiful flowers carpeted the ground there. 19. His father is an engineer. 20. He fathered two children.

### 2.5. In reacting to the sentence given below in capital letters use one in small letters:

A. Excuse my troubling you.
B. Forgive me, please. I meant well.
C. I beg you pardon. I'm afraid I've taken up too much of your time.
D. I must apologize to you.
E. Apologize to John for me.
F. No offence meant.
a) No offence taken.
b) Not at all I'm sure. You are always welcome.
c) Never mind. Forget it.
d) I will.
e) You needn't apologize. It's my fault.
f) No trouble at all.

### 2.6. Translate multi-word combinations:

1. trunk-belt conveyor; 2. small-size universal electronic computers; 3. circulating water glow relay; 4. remote-control switch; 5.earth-fault protection; 6. flame proof apparatus; 7. metal-enclosed switchgear; 8. single-drum hauler; 9. distance-measuring relay; 9. time-graded system; 10. power-factor indicator; 11. oil-pressure failure; 12. reverse-power relay; 13. high-voltage supply; 14. the average sized motor car; 15. loading-point arrangement

### 2.7. Translate the abbreviations:

1. a.h; 2. amp.; 3. at. wt.; 4. b.p.; 5. cal.; 6. cap.; 7. c.c.; 8. c.f.m.; 9. c.g.; 10. $\mathrm{Cp} ; 111 \mathrm{cu} ; 12$. $\mathrm{cw} ; 13 . \mathrm{d} ; 14 . \mathrm{db} ; 15$. d.c.; 16. fig.; 17. FM 18. f.p.m.; 19. G.A.T.; 20. hf. h; 21. hp; 22. kva; 23. kwh; 24. lb; 25. mol. wt

### 2.8. Using the table (page 21) state the tense and voice of the following verb forms:

| 1. have told | 11. were killing |
| :--- | :--- |
| 2. will be discussed | 12. are asking |
| 3. has made | 13. had been ruined |
| 4. have been made | 14. will have been asked |
| 5. will have run | 15. have been talking |
| 6. had answered | 16. will be running |
| 7. does | 17. had been waiting |
| 8. am told | 18. is being painted |
| 9. will have been standing | 19. will sing |
| 10. will be paid | 20. is telling |

### 2.9. State the parts of speech:

nation-nation-national, general-generalize-generalization, chemic-chemistrychemical, period-periodic, physics-physical-geophysics, aquae-aquaeous, city-citizen, contain-container, grade-graduate-graduation, use-useful-usefulness-useless, kind-kindness, organic-inorganic, literature-literate-illiterate-literary, mystery-misterious

### 2.10 Translate the sentences, paying attention to the Absolute Participial construction:

1. The time of the beam's travel and its velocity being known, the scientists were able to calculate the distance to that planet.
2. Plastics having been applied for decoration, they found them to be more practical than other materials.
3. Different types of materials having being discussed, engineers chose steel as being the best.
4. The temperature of the melted ice rising, the movement of its molecules is speeded up.
5. The switchgear being intended for operation, it is essential that it is fully flame-proof.
6. Current passing through a coil of wire, magnetic poles are produced at each end of the coil.
7. The depth of the insert being sufficient, it was possible to make a large number of regrinds.
8. The job having been sandblasted, all scale was removed.
9. The motor load thus increases and a slip takes place, the amount being proportional to the load.
10. We have many polymers, new methods of their applying being worked out gradually.

## VARIANT THREE

### 3.1. Read the pairs of words, paying attention to the pronunciation:

after-act, blast-back, chance-channel, staff-stand, pass-past, brassbranch, glass-glance, after-art, staff-star, what-that, wash-cash, wandband, was-wake, want-wait, what-hot, wand-pond, wash-squash, wasp-waste, want-walk, stalk-stork, talk-fork, balk-ball, talk-tall, warwall, warm-worm, ward-word, warn-swan, quarter-squad, work-fork, worth-north, work-yoke

### 3.2. Translate the verbs with post-positives:

to give-to give off-to give out; to come-to come from; to move-to move in; to set-to set up; to work- to work on; to find- to find out; to look-to look at-to look after
3.3. Make substantives using the suffixes: -ing, -ance (ence), -ity:
possible-

$\qquad$
impossible-
$\qquad$
to land-
$\qquad$
to exist-
$\qquad$
evi- dent-..........., distant-........, integral-.........., to surf-........., to sell-
$\qquad$
$\qquad$ moral-

### 3.4. Make antonyms, using the prefixes: de-, in, dis, un, im, ex:

include- $\qquad$ known- $\qquad$ possible- $\qquad$ cover- $\qquad$ courage- $\qquad$ visible- $\qquad$ definite- $\qquad$ familiar- $\qquad$ form- $\qquad$ explained-

### 3.5. Read the following numbers:

$1 / 2, \quad 0.5 ; \quad 0.25 ; \quad 31 / 2 ; \quad 4 \frac{1}{2} ; 0.3 ; 1.235 ; 3 \% ; 100 \%$

### 3.6. Match the left and the right columns:

1. length
a) $p$
2. density
b) 1
3. electric potential
c) Ps
4. electric current
d) lbf
5. electric resistance
e) c
6. heat
f) 1
7. specific heat
g) $R$
8. pound force
h) I
9. latent heat
i) Q
10. metric horse power
j) V
3.7. In reacting to the sentence given below in capital letters use one in small letters:
A. Do you mind my turning on the radio?
B. Do you mind if I leave?
C. I'll keep you company. You don't mind, do you?
D. What shall I do?
E. The door won't open.
a) I certainly do. Please, stay.
b) Not at all.
c) Allow me...
d) Speak to the manager, I suppose.
e) I'll be delighted.
F. May I help you?
G. Allow me...
H. Let me help you.
I. Need any help?
J. What can I do for you?
f) Don't bother, I'll manage it. Thanks.
g) Not at the moment, thank you.
h) Put me on the waiting list, please.
i) I'll be much obliged.
j) It would be very kind of you. Thanks.

### 3.8. Translate, paying attention to the Participles I and II and Participial constructions:

1. Electrons forming an atom are in certain motion.
2. The very first attempts obtaining synthetic materials were being made in the $19^{\text {th }}$ century.
3. Installed, this wire may be used as a type of conductor.
4. When released, this body will be easily found to vibrate about its equilibrium position.
5. These well-known units used to measure time, space and mass are called fundamental units.
6. When broadly used, the word "alloy" denotes mixture of metals and not solid solution.
7. These instruments may get spoilt if left in the open air.
8. Their results obtained differed depending on certain substance.
9. This rout indicated can be considered to have been finally examined.
10. To determine the horse-power required, it is desirable to have a map of the territory.

### 3.9. Match the prefix with its meaning:

1. deca (deka)
a) 100
2. hecto
b) 10
3. kilo
c) 0,1
4. deci
d) 1000
5. centi
e) 10,000
6. milli
f) 1,000000
7. myriad
g) 0,000001
8. mega
h) 0,001
9. micro
i) 0,01

### 3.10. Translate the following word combinations:

1. long-distance power transmission; 2. radio transmitters; 3. alternating current generator; 4. wire; 5. heat losses; 6. power line; 7. transmission line; 8. ship-building plant; 9. steam-powered machines; 10. product price decrease; 11. the electric equipment supply; 12. time and power settings; 13. machine building industry; 14. pulse voltage amplifier; 15. control desk

## VARIANT FOUR

### 4.1. Read the words:

accountant, collective, composer, disarmament, disconnected, misinformed, expressive, exportable, imperceptible, incorrectly, independent, rearmament, unaccountable, unattended, pressure, unemployment, unprofessional, interrelations, respectability, juice, fortunate, immediately, newish, ocean, drawing, squirrel, eighth, eighteenth, fourteenth, fifth, Tuesday, Wednesday, bourgeois

### 4.2. Translate neologisms, paying attention to affixation:

1. aeroneurosis; 2. silicosis; 3. coalite; 4. pentolite; 4. dieselize; 5. anodize; 6. desynchronize; 7. cosignee; 8. payee; 9. streamliner; 10. afterburner; 11. coolant; 12. reinstall; 13. remoter; 14. derange; 15. decolour; 16. encircle; 17. encrust; 18. interstellar; 19. undercoupling; 20. undervoltage; 21. undermaintainence

### 4.2. Match the left and the right columns:

1. ry
2. chute
3. ammo
4. memo
d) submarine
5. radsta
e) ammunition
6. chemurgy
f) long-range navigation
7. lub
g) radio detection and ranging
8. sub
h) memorandum
9. loran
10. radar
i) chemistry metallurgy
j) lubrication

### 4.3. In reacting to the sentence given below in capital letters use one in small letters:

A. You are painting it too black.
B. You're carrying it too far.
C. That won't get us anywhere.
D. Frankly, I would like to have him for a colleague.
E. Robert did very well in his exams, considering...
a) There you are. But why did you give him a good character?
b) Right you are. Let's leave it at that.
c) Perhaps. But as you know I always suspect the worst.
d) Yes, indeed. He missed so many lessons.
e) Not at all. That's the way things are.
F. If a person you are speaking with is not logical, you say:
G. If a person ignores facts, you say:
H. If a person is talking sense and you agree, you say:
I. If a person says things you disagree, you say:
J. If a person says something he didn't mention before, you say:
f) There is something in what you say.
g) It doesn't follow from what you said before.
h) Take into consideration the fact that...
i) That makes all the difference.
j) You are carrying it too far.

### 4.4. Translate the following word combinations:

1. general use; 2 . temperature scale; 3 . the boiling point of water; 4 . molecular motion; 5. civil life; 6. mercury thermometers; 7. temperature readings; 8. blood heat; 9 . heat measuring instruments; 10. a glass bulb; 11. temperature extremes; 12. in boiling water; 13. melting point temperature; 14. sea level; 15. mercury column; 16. weather conditions; 17. time variations; 18. longdistace power transmission; 19. alternation current generations; 20. wire cable; 21. heat losses; 22. power line; 23. transmission line

### 4.5. Read the Text 1 and translate it, then make some exercises:

A special adaptation of a pressure gauge is produced for the indication of depth, level or volume of oil, water or other liquid in tanks, dams, waterworks, etc. In the principle emploed, air is pumped by a compressor or handpump into a stand-pipe and/or diving-bell and the liquid is forced out. The pressure of air which displaces the liquid is a measure of the head of the liquid. By the use of a manifold cock, readings can be made on one indicator of the levels in a number of tanks. Alternatively a pressure bulb may be coupled direct to the instrument to give continuous readings.
Differential gauges can be calibrated in terms of flow, recording gauges having square law charts.
A differential pressure gauge can also be used to measure the difference between two liquid levels. It may be used for the determination of specific gravity of a liquid.
A recorder may be used to provide a continuous and permanent record on a chart of any of these variables.

### 4.6. Answer the questions:

1. What is the difference in the appearances of the dial type and the edgewise type pressure gauges?
2. What types of pressure gauges are used?
3. What maximum pressure can be recorded by means of a pressure recorder?
4. What else can a pressure gauge indicate?
5. What is the principle employed in the operation of the pressure gauge?
6. What types of different gauges are available?
7. What can differential pressure gauges measure?

### 4.7. Translate the words and word-combinations:

1. non-corrodible; 2. servo-operated; 3. edgewise; 4. hand-pump; 5. waterworks; 6. stand-pipe; 7. diving-bell; 8. displace

### 4.8. State the parts of speech:

1. special; 2. algebraic; 3. algebraically; 4. negative; 5. reduced; 6. directly; 7. selection; 8. significant; 9. significance; 10. reading; 11. able; 12. ability; 13. to enable; 14. calculation; 15. calculate; 16. calculator

### 4.9. Using the table(page 21) state the tense and voice of the following verb forms:

| 1. were being told | 11. is being boiled |
| :--- | :--- |
| 2. have asked | 12. will be constructing |
| 3. had written | 13. was singing |
| 4. will have been talking | 14. is stopping |
| 5. had been working | 15. will be told |
| 6. have been saying | 16. was insulted |


| 7. will have been done | 17. is produced |
| :--- | :--- |
| 8. had been sent | 18. went |
| 9. will have employed | 19. will do |
| 10. took | 20. says |

4.10. In reacting to the sentences choose your answers from those given in brackets:

## 1. He's the kind of man you can always rely on.

a) It does him credit.
b) It speaks of him.
c) It's commendable.
d) It's very kind of you to say so.
e) Good for him.
f) I must say the same of you.
g) Yes, I must say that for him.
2. Don't you worry. I'll handle the whole thing myself.
a) Good!
b) Fine!
c) Good boy (girl)!
d) It's very considerable of you!
e) So much the better.
f) A good idea!
g) Now you are talking!
h) That's the spirit!
i) Wonderful!
j) It's the very thing to do!
k) It'll be kind of you!
3. Sorry, I've failed to get the figures you asked for.

1) Never mind!
$\mathrm{m})$ It can wait.
n) I've expected it.
o) No wonder.
4. He's made a mess of it.
p) It's him all over.
q) No wonder.
r) It was to be expected.
5. Well, this is a surprise!
s) Why? I have expected it.
t) It's no news to me.
u) I've got used to it.

## Appendix 1. The English Alphabet (a song)

A B C D E F G
H I J K L M N O P
Q R S T U V W
Q R S T U V W
X Y Z
Well, you see
how I know the
the ABC

## Appendix 2. The Table of English Tenses



## Appendix 3. Famous Quotes

1. It is always in season for old men to learn (Aeshyllus).
2. Better beans and bacon in peace than cakes and ale in fear (Aesop).
3. It is early to be brave from a safe distance (Aesop)
4. It is not only fine feathers that make fine birds (Aesop).
5. Appearances are deceptive (Aesop).
6. Knowledge is power (Francis Bacon).
7. Riches are for spending (Francis Bacon).
8. Hope is a good breakfast but it is a bad supper (Francis Bacon).
9. Houses are to built to live in, and not to look on (Francis Bacon).
10.The absurd man is the one who never changes (Marseille).
11.The pen is the tongue of mind (Servantes).
12.He that gives quickly gives twice (Servantes).
10. You must look into people as well as at them (Chesterfield).
14.There is no place more delightful than home (Cicero).
15.I had rather be right than be President (Clay Henry).
11. When you have nothing to say, say nothing (Ch. Colton).
17.Joy is the best of wine (G. Eliot).
18.The first wealth is health (Ralph Emerson).
19.The shoemaker makes a good shoe because he makes nothing else (R. Emerson).
20.Nothing great was achieved without enthusiasm (R. Emerson).
21.Nothing can bring you piece but yourself (R. Emerson).
22.All men are poets at heart (R. Emerson).
23.The things taught at schools and colleges are not an education, but the means of education (R. Emerson).
24.In the country of the blind the one-eyed man is king (Erasmus).
25.Prevention is better than cure (Erasmus).
12. When children are doing nothing, they are doing mischief (Henry Fielding).
27.Remember that time is money (B. Franklin).
28.A bank is a place where they lend you an umbrella in fair weather and ask for it back when it begins to rain (Robert Frost).
29.The world is full of willing people, some willing to work, the rest willing to let them ( Robert Frost).
30.Half the world is composed of people who have something to say and can't, and the other half who have nothing to say and keep on saying (Robert Frost).
31.If you do not think about the future you cannot have one (J. Galsworthy).
32.Nothing is impossible to a willing heart (John Heywood).
33.Anger is a short madness (Horace).
34.If you live in the river you should make friends with the crocodile (Indian Proverb).
13. You cannot have what you do not want (J. Acosta).
36.The king is the man, who can (Th. Carlyle).
37.Ability is sexless (Ch. Pankhurst).
38.God does not ask about our ability, but our availability (Source Unknown).
