

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

Запорізький національний технічний університет

Методичні вказівки до практичних занять та самостійної роботи з
"Основної іноземної мови" (англійської)
для студентів третього курсу спеціальності 0203 Гуманітарні науки,
6.020303 "Філологія"
з подальшим навчанням за спеціальністю 7.02030304 "Переклад" усіх
форм навчання

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Методичні вказівки до практичних занять та самостійної роботи з "Основної іноземної мови" (англійської) для студентів третього курсу спеціальності 0203 Гуманітарні науки, 6.020303 "Філологія" з подальшим навчанням за спеціальністю 7.02030304 "Переклад" усіх форм навчання / Укл. Н. В. Лазебна. – Запоріжжя : ЗНТУ, 2013. – 50 с.

Укладач: Н.В. Лазебна, викл.

Рецензент: Г.М.Костенко, к.філол.н., доцент

Відповідальний
за випуск: Н.В. Лазебна, викл.

Затверджено
на засіданні кафедри теорії та
практики перекладу

Протокол № 4 від
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PART I AIRPORT

1. Discuss airport security issues

- ☐ Importance of security has increased since 9/11
- ☐ important to the industry and the traveling public
- ☐ Congestion results
- ☐ Screening
- ☐ Checked bags
- ☐ Security disruptions
- ☐ Need to understand consequences of screening and disruptions on airline operations
- ☐ Modeling congestion based on queues
- ☐ Ultimately goal: to improve security while minimizing cost

2. Focus on ideas about airport security issues.

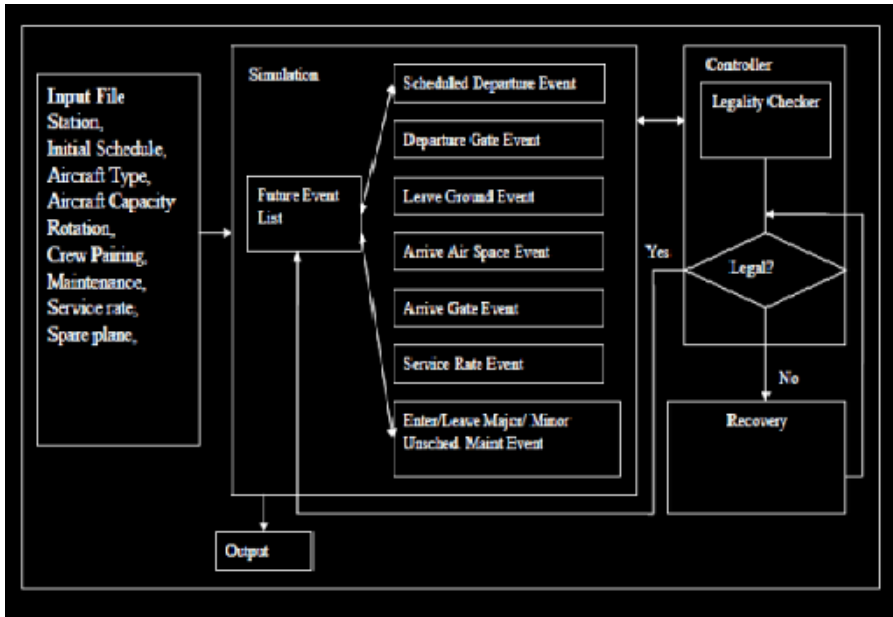
- ☐ Containment of breaches
- ☐ Gets into airport design issues
- ☐ Single queue multiple servers
- ☐ Can we speed up process at peak times
- ☐ Add more servers
- ☐ Prescreen frequent flyers
- ☐ Bag matching – not implemented in US ☐ Look at whole airport security issues
- ☐ Checked baggage, cargo, vendors, traffic, parking
- ☐ Would use risk assessment and systems approach
- ☐ Again gets into design issues
- ☐ Not just terminal
- ☐ More complex than airport design for plane

3. Focus on SimAir Plan. Consider pros and cons of the plan.

4. Focus on key concepts of SimAir.

- ☐ SimAir is a simulation model of airline operations
- ☐ It is used as a research tool to study real-time recovery methods and robust scheduling
- ☐ First presented at Agifors 1998 in Prague
- ☐ SimAir is used to run replications of an airline's operations in order to collect performance statistics
- ☐ Used to evaluate
- ☐ different operational recovery methods
- ☐ different schedules and plans

5. Consider the following research agenda. Make up a report.



Model Congestion and its Effect on Airline Operations

- ☐ Requires SimAir or MEANS for airline operations
- ☐ New simulation of passenger flow
- ☐ Requires pax data and show-up times
- May model ticket counters and bag check
- ☐ Need gate assignment model for planes
- ☐ Improving security
- ☐ Look at some alternatives and design issues
- ☐ Single checkpoint with separation into areas
- ☐ Land-side issues including traffic flow, parking, etc
- ☐ Develop passenger flow model in terminal
- ☐ Need gate assignment model for planes
- ☐ Integrate with SimAir and MEANS to connect to airline operations
- ☐ Look at whole airport security, design issues beginning with passengers, and do risk assesment
- ☐ Single checkpoint with separation into areas
- ☐ Cargo, vendors, access to tarmac

- ☐ Land-side issues including traffic flow, parking, etc

6. Fill in the gaps with the words from the list below.

Karin and Ken were going to Atlanta. They called the [] from Karin's house. Because the driver was late, they got a little bit worried. When they finally got to the [], Karin ran inside the []. She and Ken were taking separate []. Because she had gotten an [], she didn't need to get a []. Since she only had a [], she didn't need to check any []. She got through the line at [], and went directly to []. She was just in time to catch her [].

Use These Words:

- airport
- baggage
- boarding pass
- carry-on bag
- e-ticket
- flight
- flights
- shuttle
- terminal
- the gate
- the X-ray machine

7. Focus on airport vocabulary

Airline Vocabulary

Word <i>part of speech</i>	Meaning	Example sentence
airfare <i>noun</i>	cost of a plane ticket	The cost of your meal is covered in your airfare.
aisle <i>noun</i>	the long empty space that you walk down	Please keep your bags out of the aisle so that nobody trips.
aisle seat <i>noun</i>	the seat that is next to the aisle	I'll give you an aisle seat in case you need to walk around with the baby.
assist <i>verb</i>	help	Please wait until everyone is off the plane so that we can assist you.
baggage <i>noun</i>	the bags and suitcases that travellers put their belongings in	I'm afraid your baggage got on the wrong airplane.
baggage, luggage claim <i>noun</i>	place where you pick up your baggage after arrival	The announcement will direct you to the correct baggage claim.
blanket <i>noun</i>	warm covering	If you feel cold I can get you a blanket.
boarding pass <i>noun</i>	part of the ticket that you give to the crew as you step onto the plane	Your must present your boarding pass at the gate.

bumpy, <i>adj</i>	rough	up and down movement of the aircraft	It might be a bumpy ride because we are flying through a storm.
cabin <i>noun</i>		interior of the aircraft	There is no smoking allowed inside the cabin.
call <i>noun</i>	light	a button passengers can press to get a crew member's attention	If you need anything, just press the call light.
captain <i>noun</i>		the person who is in charge of the plane	Would the kids like to go and meet the captain?
charter <i>noun</i>		discount airline	If you take a charter it will cost you half as much.
cockpit <i>noun</i>		the part of the plane where the captain and his co-pilots sit	We aren't doing any more tours of the cockpit because it's almost time to land.
comfortable <i>adjective</i>		feel good physically, able to relax	Because you have long legs you might be more comfortable in an aisle seat.
complimentary <i>adjective</i>		free of charge	We offer complimentary coffee or tea, but you have to pay for alcohol.
co-pilot <i>noun</i>		person who helps the captain fly the plane	If the captain gets sick the co- pilot can take over.
domestic <i>adjective</i>		within the same country	You should be at the airport two hours ahead of time for domestic

		flights.
emergency exit <i>noun</i>	section of the plane that opens in the case of an accident	Are you comfortable sitting next to the emergency exit?
e-ticket <i>noun</i>	airfare purchased on the internet	You will need to present your identification along with your e-ticket.
excess baggage <i>noun</i>	heavier/more bags than you are allowed	You can either pay for your excess baggage or leave one of your bags behind.
first-class <i>noun/adj</i>	more expensive seating, with better services	When you sit in first-class you get a better meal to eat.
gate <i>noun</i>	place where passengers go to wait to board a plane	Gate 3B is down this hall and to your right.
headset, earphones <i>noun</i>	device that allows passengers to listen to music or a movie	We will be coming around to sell headsets for five dollars.
international <i>adj</i>	worldwide	For international departures, go up one level.
jet lag <i>noun</i>	tiredness due to travelling through different time zones	I'm used to travelling now. My body doesn't suffer from jet lag anymore.
land <i>verb</i>	returning to the ground after being	We will be landing in Tokyo in approximately ten minutes.

	in the air	
life vest, life jacket <i>noun</i>	a blow-up device that you put on in an emergency over water	Please take a moment to locate the life vest under your seat.
motion sickness <i>noun</i>	a bad feeling in the stomach that passengers get during a rough ride	There is a paper bag in front of you in case you experience motion sickness.
overbooked <i>adj</i>	more passengers than available seats	The flight is overbooked. Four of our passengers will have to wait for the next flight.
overhead bin/compartament <i>noun</i>	place above the seats for storing luggage	You'll have to put your bag under your seat because all of the overhead bins are full.
over-sized baggage <i>adj</i>	items that do not fit in suitcases	Infant car seats and sporting equipment can be picked up at the over-sized baggage counter.
oxygen mask <i>noun</i>	a device that goes over a person's face, provides air in case of cabin air pressure loss	Put your oxygen mask on first before putting one on your child.
passport <i>noun</i>	document that proves a person's identification and nationality	Please have your passport out when you go through security.
pilot <i>noun</i>	the person who drives the plane	The pilot is circling over the airport until it is safe to land.

refreshments <i>noun</i>	drinks and snacks	It's a short flight, so we will be serving refreshments but not a meal.
row <i>noun</i>	a number of seats beside each other	You are in seat B of row nine.
runway <i>noun</i>	the strip of land that an airplane takes-off and lands on	The plane almost missed the runway because it was such a bad storm.
seatbelt <i>noun</i>	device that holds passengers in their seats	Please remain in your seats while the seatbelt light is on.
steward (male), stewardess (female), flight attendant, air host <i>noun</i>	man or woman who provides service for passengers during a flight	Ask one of the stewardesses for a pillow if you're tired.
stopover <i>noun</i>	touching down at more than one airport during a flight	It's not a direct flight. We're making one stopover in Toronto.
take off <i>noun/verb</i>	when the plane leaves the ground	We are next in line to take off on this runway.
taxi in, out <i>verb</i>	driving an airplane to the correct place for taking off or deboarding	Please remain in your seats until we taxi in to the gate.
touch down <i>verb, noun</i>	when the aircraft wheels land on the ground	That was a very smooth touch down.

turbulence <i>noun</i>	rough flight	This turbulence should only last a few minutes.
wheelchair <i>noun</i>	a seat for pushing elderly, disabled, or injured people	A steward will take you to the gate with a wheelchair.
window <i>noun</i>	seat next to the window where passengers can look out	If your child wants a window seat I can move you back a row.

8. Let's imagine you're flying from New York City to Los Angeles.

Situation 1: At the check-in desk

Agent: Good afternoon! Where are you flying to today?

You: Los Angeles.

Agent: May I have your passport, please?

You: Here you go.

Agent: Are you checking any bags?

You: Just this one.

Agent: OK, please place your bag on the scale.

You: I have a stopover in Chicago – do I need to pick up my luggage there?www.espressoenglish.net

Agent: No, it'll go straight through to Los Angeles. Here are your boarding passes –

your flight leaves from gate 15A and it'll begin boarding at 3:20. Your seat number is

26E.

You: Thanks.

Common phrases and vocabulary words:

Instead of “Where are you flying today?” the agent may ask “What’s your final destination?” The answer will be the same!

You can say “Here you go” when you give something to somebody, as in this example when you give the passport to the agent.

Check your bags means to put the bags on the airplane inside the cargo compartment. The small bag you take with you on the airplane is called

a carry-on. You need to put your carry-on bags through the X-ray machine at security.

The scale is the equipment that tells you the weight of your luggage (for example, 45 kilograms)

A stopover or layover is when the airplane stops in a different city before continuing to the final destination

If the agent says that your luggage will go straight through, it means it will go directly to the final destination (and you don't need to pick it up during your stopover)

Boarding passes are the tickets that permit you to enter the airplane

When a plane begins boarding, it means that the passengers start to enter the plane. Usually boarding time is 30-60 minutes before takeoff (when the plane leaves)

Extra Tips and Suggestions:

If you don't know where the check-in desk is, you can ask an airport employee, "Excuse me, where is the Delta check-in desk?" or, "Excuse me, where is the American Airlines check-in desk?"

If your bag is heavier than the weight limits, or if your bag is larger than the size limits, you may need to pay an oversized baggage fee or overweight baggage fee (this can be \$75 to \$300). Some airlines in the United States also charge a fee for ALL checked bags (usually \$15 to \$30).

If you have fragile or sensitive items in your bag that might break, you can ask the agent, "Please mark this bag as 'fragile.'"

If you want to ask if the flight will leave at the correct time, you can say, "Is the flight on time?" The agent will respond either "Yes" if the flight is on the correct schedule, or "There's a 20-minute delay" (for example) if the flight will leave later than expected.

Extra questions in the U.S.

On flights going to or inside the U.S., you will probably be asked some extra security questions before or during check-in. Here are some sample questions and the correct responses:

Agent: Did you pack your bags yourself?

You: Yes.

Agent: Are you carrying any firearms or flammable materials?

You: No.

Agent: Has your luggage been in your possession at all times?

You: Yes.

*Be careful here – some agents ask if your luggage has been “in your possession at all times” and others ask if your luggage has been “outside your supervision (or possession) at any time.” The answer to the first question is YES and the answer to the second question would be NO.

Agent: Has anyone given you anything to carry on the flight?

You: No.

Agent: Are you aware of the regulations regarding liquids in your carry-on, which must be 3.4 ounces or less and placed inside a single quart-sized transparent plastic bag?

You: Yes.

* If you want to take any liquids on a flight in the United States, they must be 3.4

ounces (100 milliliters) or less and you must put them all in a clear (transparent) plastic bag. Each passenger can take only one bag on the plane. If you have bigger bottles of liquid (like shampoo, wine, etc) you need to put them into your checked bag.

Image source (and more information): TSA.gov

Situation 2: Going through security

There are two pieces of equipment in security: you put your bags through the X-ray machine, and you walk through the metal detector. The X-ray machine has a conveyor belt that moves your bags automatically through the machine. You can put small items like keys or money into plastic bins.

Agent: Please lay your bags flat on the conveyor belt, and use the bins for small objects.

You: Do I need to take my laptop out of the bag?

Agent: Yes, you do. Take off your hat and your shoes, too.

(you walk through the metal detector)

[BEEP BEEP BEEP BEEP]

Agent: Please step back. Do you have anything in your pockets – keys, cell phone, loose change?

You: I don't think so. Let me try taking off my belt.

Agent: Okay, come on through.

(you go through the metal detector again)

Agent: You're all set! Have a nice flight.

The phrase “you're all set” is a common expression that means “you're finished and everything is OK.”

Phrasal Verb focus: SET OFF and GO OFF

When the alarm sounds, we say “the alarm went off.” To describe what caused the alarm to sound, we say “set off” – for example, “My keys set off the alarm” or “My keys set off the metal detector.”

Situation 3: At the gate

Airports are divided into terminals (the major sections of the airport) and each terminal has many gates. The gate is the door you go through to enter the airplane. Here are a few announcements you might hear while you are at the gate, waiting for the plane to board.

“Attention passengers of United Airlines flight 880. There has been a gate change. United Airlines flight 880 will now be leaving from gate 12.”

(Travel Tip: Know your flight number in English, so that you can pay attention to the announcement and know if you need to go to a different gate.)

“United Airlines flight 880 to Miami is now boarding.”

(this means it’s time for passengers to enter the plane)

“We would like to invite our first- and business-class passengers, Star Club Premium members, and passengers requiring special assistance to board at gate 12.”(this means that passengers who are “special” (first class, business class, or in the Star Club) or passengers who are elderly (old), disabled, pregnant, or with small children can go into the airplane first.)

“We would now like to invite all passengers seated in Zone 2 – that’s rows 16-35 – to begin boarding United Airlines flight 880 at gate 12.”

(look at your boarding pass to know your “zone number” and what “row” your seat number is)

“We would now like to invite all passengers to board United Airlines flight 880 to Miami at gate 12.”(this means everyone can enter the plane)

“This is the last call for United Airlines flight 880 to Miami, now boarding at gate number 12.”(this means it is the FINAL OPPORTUNITY to enter the plane before they close the doors)

“Passenger John Smith. Passenger John Smith, please proceed to the United Airlines desk at gate 12.” (sometimes the announcement will call a specific passenger by name. The word “proceed” in this context is a formal way to say “go.”)

Situation 4: On the plane

The people who work inside the airplane serving food and drinks are called flight attendants. Both men and women who have this job are called flight attendants. Here’s a conversation you might have on the plane:

Flight attendant: Chicken or pasta?

You: Sorry?

Flight attendant: Would you like chicken or pasta?

You: I'll have the chicken.

Flight attendant: Anything to drink?

You: What kind of soda do you have?

Flight attendant: Coke, Diet Coke, Sprite, Orange, and Dr. Pepper.

You: A Diet Coke, no ice, please.

Flight attendant: Here you go.

You: Thanks.

Conversation Tips:

If you didn't understand what the flight attendant said, you can say

Sorry? or Pardon? to ask him or her to repeat it.

If you want to ask for something, you can use the phrase "Can I have..."

For

example:

Can I have a blanket?

Can I have a pair of headphones?

Can I have some water?

Can I have some extra napkins?

Can I have a decaf coffee?*

* There are two types of coffee – regular coffee, which has caffeine. This is the type

of coffee that helps keep you awake. There is also Decaf coffee – this is short for "decaffeinated coffee" – and this type has no caffeine. It's good to drink decaf coffee if you like the taste of coffee, but you want to go to sleep soon.

Finally, if you need to stand up, but there is a person sitting between you and the aisle, you can say Excuse me and make a motion to start standing up. The person sitting next to you will understand and stand up to let you get out of your seat.

You've just finished lesson 1 of the Travel English Course. Now you can take the quiz to test how well you remember the phrases. In tomorrow's lesson, you'll learn English phrases for arriving at the destination airport, and dealing with common travel problems.

If you're not yet registered, click the button to register so you can get the other 29 lessons in the course.

Quiz: Lesson 1 - At the Airport

1. _____ I have a coffee with milk, please?
A Can
B Will
C Do
2. Excuse me, where is the Delta check-in _____?
A desk
B station
C table
3. I lost my _____ pass - can I get another one?
A traveling
B seating
C boarding
4. I have a _____ in Paris on the way to Israel.
A stayover
B stopover
C layoff
5. _____ have the pasta, please.
A I'll
B I'm
C I'd
6. You need to _____ up your bag in Charlotte.
A take
B pick
C get
7. A _____ coffee, please.
A regular
B standard
C normal
8. The metal in my belt _____ the alarm.
A set off
B took off
C went off
9. Do I _____ to take off my shoes?
A want
B need
C should
10. Is the flight on _____?

A hour

B time

C departure

11. There's a half-hour _____.

A depart

B delay

C late

12. What _____ of juices do you have?

A can

B kind

C mark

13. How much is the oversized luggage _____?

A fee

B tax

C bill

14. What's my _____ number?

A chair

B seat

C sit

15. Will my luggage go straight _____ to New York?

A away

B through

C out

PART II MEDICINE

1. Read the following abstracts. Discuss pros and cons of the considered studies.

1) The biological effects of diagnostic cardiac imaging on chronically exposed physicians: the importance of being non-ionizing. Maria Grazia Andreassi*

Address: Laboratory of Cellular Biology and Genetics, CNR Institute of Clinical Physiology, Pisa, Italy

Email: Maria Grazia Andreassi* - andreas@ifc.cnr.it

Abstract

Ultrasounds and ionizing radiation are extensively used for diagnostic applications in the cardiology clinical practice. This paper reviewed the available information on occupational risk of the cardiologists who perform, every day, cardiac imaging procedures. At the moment, there are no consistent evidence that exposure to medical ultrasound is capable of inducing genetic effects, and representing a serious health hazard for clinical staff. In contrast, exposure to ionizing radiation may result in adverse health effect on clinical cardiologists. Although the current risk estimates are clouded by approximations and extrapolations, most data from cytogenetic studies have reported a detrimental effect on somatic DNA of professionally exposed personnel to chronic low doses of ionizing radiation. Since interventional cardiologists and electro-physiologists have the highest radiation exposure among health professionals, a major awareness is crucial for improving occupational protection. Furthermore, the use of a biological dosimeter could be a reliable tool for the risk quantification on an individual basis.

2) Biological effects of ultrasound: development of Safety guidelines.

Wesley I. Nyborg

Physics Department, University of Vermont, Burlington, VT 05405, USA
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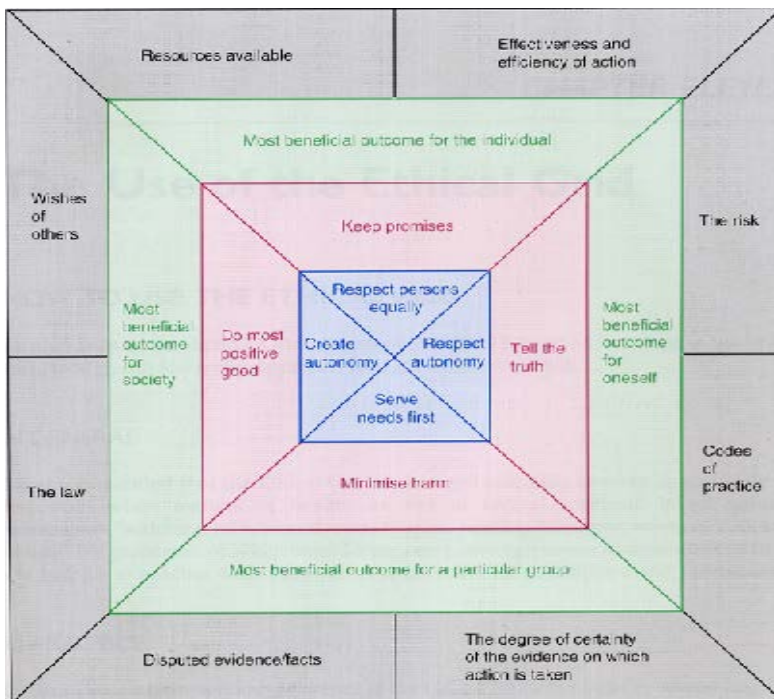
Abstract—After the end of World War II, advances in ultrasound (US) technology brought improved possibilities for medical applications. The first major efforts in this direction were in the use of US to treat diseases. Medical studies were accompanied by experiments with laboratory animals and other model systems to investigate basic biological questions and to obtain better understanding of mechanisms. Also, improvements were made in methods for measuring and controlling acoustical quantities such

as power, intensity and pressure. When diagnostic US became widely used, the scope of biological and physical studies was expanded to include conditions for addressing relevant safety matters. In this historical review, a major part of the story is told by 21 investigators who took part in it. Each was invited to prepare a brief personal account of his/her area(s) of research, emphasizing the “early days,” but including later work, showing how late and early work are related, if possible, and including anecdotal material about mentors, colleagues, etc. © 2000 World Federation for Ultrasound in Medicine & Biology.

Key Words: Biological effects, Ultrasound, Safety, Guidelines, Personal, History.

2. Focus on ethical grid of Seedhouse. Consider ethical

concerns and the way doctors make a right decision



3. Cells, Tissues, and Organs

Terms Matching Activity - Objectives #5, 6, 7

Write the letter of the correct definition in the blank space next to each term.

_____ Connective tissue A. Encloses the protoplasm and permits soluble substances to enter and leave the cell.

_____ Organs B. The process of building up larger molecules from smaller ones.

_____ Epithelial tissue C. Supports, protects, and binds together other tissues of the body.

_____ Brain D. The colorless, jellylike substance of cells in which protein, fat, carbohydrates, and water are present.

_____ Kidneys E. Tissue that contracts and moves the various parts of the body.

_____ Nerve tissue F. Controls vision.

_____ Cytoplasm G. The organ that digests food.

_____ Cell membrane H. Forms the external protective covering of the body.

_____ Liver I. The organ that removes toxic products of

digestion.

_____ Metabolism J. All the protoplasm of a cell except for the nucleus.

_____ Stomach and intestines K. A chemical process whereby cells are

nourished and carry out their activities.

_____ Anabolism L. The reproduction of cells by dividing into two identical cells called daughter cells.

_____ Tissue M. The breaking down of complex compounds within the cells to smaller

ones. Cells, Tissues and Organs Matching Activity - Page 2

_____ Lungs N. A protective covering on body surfaces, such as skin, mucous membranes, heart lining.

_____ Skin O. A collection of similar cells that perform a particular function.

_____ Nucleus P. The organ that supplies oxygen to the blood.

_____ Protoplasm Q. Groups of tissues designed to perform a specific function.

_____ Catabolism R. Tissue that carries food, waste products, and hormones throughout the body.

_____ Muscular tissue S. The organ that circulates blood.

_____ Eyes T. The dense, active protoplasm found in the center of the cell.

_____ Heart U. Tissue that carries messages to and from the brain and controls and coordinates all bodily functions.

_____ Mitosis V. The organ that excretes water and waste products.

_____ Liquid tissue W. The organ responsible for controlling the body.

4. Select the best answer for each question. Mark an x in the box next to your

selection.

1. Which organ controls circulation? (5 points)

† Heart

† Lungs

† Intestines

† Brain

2. Which of the following is a minute structure responsible for carrying on all

life processes? (5 points)

† Nucleus

† Membrane

† Cell

† Capillary

3. Which organ controls all functions of the body? (5 points)

† Heart

† Brain

† Central nervous system

† Muscle tissues

4. Which organ removes poisons from the body? (5 points)

† Intestines

† Lungs

† Liver

† Stomach

5. Bone, cartilage, ligaments, and tendons are examples of which type of

tissue? (5 points)

† Liquid tissue

† Epithelial tissue

† Muscular tissue

† Connective tissue Cosmetology I: Cells, Tissues, and Organs Exam

6. Skin, mucous membranes, heart lining, and glands are examples of which

tissues? (5 points)

† Liquid tissue

† Epithelial tissue

† Muscular tissue

† Connective tissue

7. Body tissues are composed of 60 to 90 percent water. (5 points)

† A. True

† B. False

8. Liquid tissue contracts and moves the various parts of the body. (5 points)

† A. True

† B. False

9. The heart is the organ responsible for supplying oxygen to the blood. (5 points)

† A. True

† B. False

10. Which term describes breaking down of complex compounds within the cells to smaller ones? (5 points)

† Metabolism

† Catabolism

† Anabolism

† Absorption

11. What are the two phases of metabolism? (Check two answers) (5 points)

† Anabolism

† Catabolism

† Cytoplasm

† None of the above

12. Which of the follow describes a collection of similar cells that perform a particular function? (5 points)

† An organ

† Tissue

† Protoplasm

† Respiratory system

13. List the major organs of the body. (1 point for each correct answer)

14. What is mitosis? (5 points)

- † A watery fluid that contains food material necessary for growth
- † The process of cells becoming impaired or destroyed in unfavorable conditions
- † The process of building up larger molecules from smaller ones
- † The reproduction of cells by dividing into two identical cells called daughter cells

15. Which of the following do cells need to reproduce? Check all that apply. (1/2 point for each correct answer)

- † Food
- † Oxygen
- † Water
- † Extreme temperatures
- † Encouragement by their parent cell
- † The ability to eliminate waste products

16. List the five types of tissues found in the body. (1 point for each correct answer)

17. Which part of a cell is like the white of a raw egg? (5 points)

- † The protoplasm
- † The nucleus
- † Cytoplasm
- † Cell membrane

18. Which part of the cell is the center of the cell and plays an important part in cell reproduction? (5 points)

- † The protoplasm
- † The nucleus
- † Cytoplasm
- † Cell membrane

19. Which part of the cell permits soluble substances to enter and leave the cell? (5 points)

- † The protoplasm
- † The nucleus
- † Cytoplasm
- † Cell membrane

20. Which term best describes a group of tissues designed to perform a specific function? (5 points)

- † Mitosis
- † Organ
- † Nucleus
- † Neurons

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Appendix A

Keys

PART I AIRPORT

Answers – Quiz 1

1. A
2. A
3. C
4. B
5. A
9. B
10. B
11. B
12. B
13. A
14. B
15. B

PART II MEDICINE

Exercise 3 Cosmetology I: Cells, Tissues, and Organs Matching
Activity Answer Key

1

Cells, Tissues, and Organs - Answer Key

Terms Matching Activity - Objectives #5, 6, 7

Write the letter of the correct definition in the blank space next to each term.

_____ Connective tissue A. Encloses the protoplasm and permits soluble substances to enter and leave the cell.

_____ Organs B. The process of building up larger molecules from smaller ones.

_____ Epithelial tissue C. Supports, protects, and binds together other tissues of the body.

_____ Brain D. The colorless, jellylike substance of cells in which protein, fat, carbohydrates, and water are present.

_____ Kidneys E. Tissue that contracts and moves the various parts of the body.

_____ Nerve tissue F. Controls vision.

_____ Cytoplasm G. The organ that digests food.

_____ Cell membrane H. Forms the external protective covering of the body.

_____ Liver I. The organ that removes toxic products of digestion.

_____ Metabolism J. All the protoplasm of a cell except for the nucleus.

_____ Stomach and intestines K. A chemical process whereby cells are

nourished and carry out their activities.

_____ Anabolism L. The reproduction of cells by dividing into two identical cells called daughter cells.

_____ Tissue M. The breaking down of complex compounds within the cells to smaller ones.

A

B

C

G

I

J

K

N

O

Q

U

V

W

2

_____ Lungs N. A protective covering on body surfaces, such as skin, mucous membranes, heart lining.

_____ Skin O. A collection of similar cells that perform a particular function.

_____ Nucleus P. The organ that supplies oxygen to the blood.

_____ Protoplasm Q. Groups of tissues designed to perform a specific function.

_____ Catabolism R. Tissue that carries food, waste products, and hormones throughout the body.

_____ Muscular tissue S. The organ that circulates blood.

_____ Eyes T. The dense, active protoplasm found in the center of the cell.

_____ Heart U. Tissue that carries messages to and from the brain and controls and coordinates all bodily functions.

_____ Mitosis V. The organ that excretes water and waste products.

_____ Liquid Tissue W. The organ responsible for controlling the

body.

D

E

F

H

L

M

P

R

S

T

1

Exercise 4. Cosmetology I: Cells, Tissues, and Organs Exam Key

1

Cells, Tissues and Organs -- Lesson Exam Answer Key

1. Which organ controls circulation? (5 points) Objective #7

5 Heart

† Lungs

† Intestines

† Brain

2. Which of the following is a minute structure responsible for carrying on all life processes? (5 points) Objective #1

† Nucleus

† Membrane

5 Cell

† Capillary

3. Which organ controls all functions of the body? (5 points) Objective #7

† Heart

5 Brain

† Central nervous system

† Muscle tissues

4. Which organ removes poisons from the body? (5 points) Objective #7

† Intestines

† Lungs

5 Liver

† Stomach

5. Bone, cartilage, ligaments, and tendons are examples of which type of tissue? (5 points) Objective #6

† Liquid tissue

† Epithelial tissue

† Muscular tissue

5 Connective tissue

2

6. Skin, mucous membranes, heart lining, and glands are examples of which

tissues? (5 points) Objective #6

† Liquid tissue

5 Epithelial tissue

† Muscular tissue

† Connective tissue

7. Body tissues are composed of 60 to 90 percent water. (5 points) Objective

#5

5 A. True

† B. False

8. Liquid tissue contracts and moves the various parts of the body. (5 points)

Objective #6

† A. True

5 B. False

9. The heart is the organ responsible for supplying oxygen to the blood. (5

points) Objective #7

† A. True

5 B. False

10. Which term describes breaking down of complex compounds within the cells

to smaller ones? (5 points) Objective #4

† Metabolism

5 Catabolism

† Anabolism

† Absorption

11. What are the two phases of metabolism? (Check two answers) (5 points)

Objective #4

5 Anabolism

5 Catabolism

† Cytoplasm

† None of the above Cosmetology I: Cells, Tissues, and Organs
Exam Key

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3

12. Which of the following describes a collection of similar cells that perform a particular function? (5 points) Objective #6

† An organ

5 Tissue

† Protoplasm

† Respiratory system

13. List the major organs of the body. (1 point for each correct answer)

Objective #7

Brain _____

Heart _____

Lungs _____

Eyes _____

Kidneys _____

Liver _____

Skin _____

Stomach and intestines _____

14. What is mitosis? (5 points) Objective #3

† A watery fluid that contains food material necessary for growth

† The process of cells becoming impaired or destroyed in unfavorable conditions

† The process of building up larger molecules from smaller ones

5 The reproduction of cells by dividing into two identical cells called daughter cells

15. Which of the following do cells need to reproduce? Check all that apply. (1/2 point for each correct answer) Objective #3

5 Food

5 Oxygen

5 Water

† Extreme temperatures

† Encouragement by their parent cell

5 The ability to eliminate waste products

4

16. List the five types of tissues found in the body. (1 point for each correct answer) Objective #6

Connective tissue _____

Epithelial tissue _____

Liquid tissue _____

Muscular tissue _____

Nerve tissue _____

17. Which part of a cell is like the white of a raw egg? (5 points) Objective #2

5 Protoplasm

† Nucleus

† Cytoplasm

† Cell membrane

18. Which part of the cell is the center of the cell and plays an important part in cell reproduction? (5 points) Objective #2

† Protoplasm

5 Nucleus

† Cytoplasm

† Cell membrane

19. Which part of the cell permits soluble substances to enter and leave the cell? (5 points) Objective #2

† Protoplasm

† Nucleus

† Cytoplasm

5 Cell membrane

20. Which term best describes a group of tissues designed to perform a specific function? (5 points) Objective #7

† Mitosis

5 Organ

† Nucleus

† Neurons

Appendix B

Medical Terms

A

Abrasion: damage to the epidermis and dermis from shearing forces; commonly referred to as a *scrape*

Activated Charcoal: form of charcoal with a high surface area that is specially formulated to bind to substances; used to prevent absorption of swallowed substances from the intestine

Advanced Life Support (ALS): care provided to patients with use of drugs, advanced invasive airway procedures using cardiac monitor defibrillators, and advanced knowledge and judgment; these skills are generally reserved for pre-hospital care providers trained above the EMT-Basic level

Airway Adjuncts: devices such as oropharyngeal and nasopharyngeal airways that are designed to prevent airway obstruction by the tongue

Anaphylaxis: exaggerated, life-threatening hypersensitivity reaction to a previously encountered antigen; caused by the release of histamine from the cells

Angina Pectoris: chest pain or pressure frequently brought on by exercise and relieved by rest; caused by ischemia in the heart and often treated with nitroglycerin

Asthma: respiratory disorder characterized by recurring episodes of sudden onset of breathing difficulty, wheezing on expiration and inspiration as a result of constriction of the bronchi, coughing, and thick mucous bronchial secretions; also known as *reactive airway disease*

Automated External Defibrillator (AED): device used in cardiac arrest to perform a computer analysis of the patient's cardiac rhythm and deliver defibrillatory shocks when indicated

AVPU: acronym for Alert, Verbal, Painful, and Unresponsive; used to describe patient's responsiveness

B

Body Substance Isolation (BSI): isolation of substances that are excreted from the body to prevent the spread of communicable diseases

Bradycardia: heart rate less than 60 beats per minute; a patient with bradycardia may or may not have symptoms

Bronchodilators: medications that relax constricted airways, making airflow easier; commonly used in patients with chronic obstructive pulmonary disease and asthma

Bronchospasm: condition seen in patients with asthma in which airways constrict tightly in response to irritants, cold air, exercise, or unknown factors

C

Capillary Refill Time (CRT): time it takes for a patient's skin color to return to normal after the skin or nailbed has been pressed or blanched; normal time is less than 2 seconds; assesses perfusion

Cardiac Arrest: condition in which the heart no longer generates blood flow, causing pulselessness and apnea; two of the many causes are arrhythmias and myocardial infarction

Cardiogenic Shock: cardiac failure whereby the heart cannot sufficiently pump blood to the rest of the circulatory system

Cerebrovascular Accident (CVA): a stroke, is a condition that results from a disruption of circulation to the brain, causing ischemia and damage to brain tissue

Cervical Collar: device used to provide partial C-spine immobilization; only 50% in the three major motions of anterior / posterior, lateral bending, and rotation; it is applied to the neck area of an injured patient suspected to having a cervical spine injury

Chief Complaint: brief statement describing the reason for the patient's seeking medical attention

Chronic Obstructive Pulmonary Disease (COPD): condition characterized by diminished inspiratory and expiratory capacity of the lungs

Congestive Heart Failure (CHF): condition in which the heart is an

inadequate pump, causing fluid to build up in the lungs (pulmonary edema) and venous system (distended neck veins)

Contusion: minor damage in the dermal layer of the skin, causing

discoloration from blood leaking into the surrounding tissue; a bruise

Crackles: low-pitched bubbling sounds produced by fluid in the lower airways; often described as either fine or coarse

C-spine: neck area; common term in vehicle extrication trauma patient care; short for *cervical spine*

Cyanosis: slightly bluish, grayish, slate-like, or dark purple discoloration of the skin caused by a deficiency of oxygen and excess of carbon dioxide in the blood

D

Defibrillation: delivery of an electrical shock to the myocardium in an attempt to convert ventricular fibrillation or ventricular tachycardia to a normal rhythm

Diabetes Mellitus: a metabolic disorder that results from inadequate insulin secretion

Diaphoretic: state of sweating

Distal: located away from the center of the body; situated away from the point of attachment or origin or a central point

Do-Not-Resuscitate (DNR) Order: instructions to withhold resuscitation efforts; these can be issued by a physician after consultation with the patient or surrogate decision maker or by the medical command authority via radio communication

E

Edema: abnormal accumulation of fluid in tissues in response to injury

Emergency Medical Technician (EMT): person trained in and responsible for the administration of specialized emergency care and transportation to a medical facility of victims of acute illness or injury; the US Department of Transportation training guidelines for EMTs include a 110-hour course of instruction and clinical time

EMT-Basic (EMT-B): basic level of emergency medical technician education identified by the US Department of Transportation; provides

basic emergency medical care

EMT-Intermediate (EMT-I): level of emergency medical technician between the level of EMT-Basic and EMT-Paramedic; the EMT-I generally has additional education in assessment over the EMT-B level; in addition, the EMT-I generally will be educated to use intravenous therapy and a limited selection of medications

EMT-Paramedic (EMT-P): most advanced level of prehospital emergency care provided identified by the US Department of Transportation; the EMT-P has advanced assessment skills and is trained in a wide variety of invasive interventions; the EMT-P can use a variety of medications, intravenous solutions, and other advanced treatment techniques

Epilepsy: group of neurologic disorders characterized by recurrent episodes of convulsive seizures, sensory disturbances, unusual behavior, loss of consciousness, or all of these; uncontrolled electric discharge from the nerve cells of the cerebral cortex

Epi-Pen: autoinjector that contains epinephrine used subcutaneously to counteract the effects of histamine

F

Febrile: pertaining to elevated body temperature; a body temperature of over 100 degrees Fahrenheit commonly is considered febrile

G

Glasgow Coma Scale: standardized rating system used to evaluate the degree of consciousness impairment based on eye opening, motor response, and verbal response; points are scored for the patient's best response in each of the three categories

Glucose: simple sugar used by the cell for energy; derived from the digestion of complex carbohydrates that are eaten, from the breakdown of glycogen in the liver, or by conversion of protein in the liver

H

Hazardous Materials (HAZMAT): chemical substances (solid, gas, or liquid) that are toxic to humans; unprotected exposure to these chemicals may result in severe illness or death; they may be poisonous, flammable, explosive, carcinogenic, or environmentally pollutant; HAZMAT is the part of emergency services that handles these field situations

Head-Tilt, Chin-Lift: maneuver that opens the airway of unconscious patients; the neck is extended with one hand on the forehead and one hand under the chin

Hemiparesis: partial paralysis that affects only one side of the body

Hemiplegia: total paralysis that affects only one side of the body

Hemorrhage: severe loss of blood

Hypertension: abnormally high blood pressure; a risk factor for atherosclerosis, stroke, and other vascular events

Hyperventilation: process in which minute ventilation is increased above normal; purposely done for patients with head injuries or prolonged apnea

I

Incident Command System (ICS): system of control of the emergency scene that is set up by predetermined procedures for effective control of complex emergency operations, such as extrication operations; the origins of ICS can be traced to the fire service, but it has now been adapted for use in almost any situation requiring management of complex events

Insulin-Dependent Diabetes Mellitus: condition characterized by an inability to metabolize carbohydrates (sugar) because of a lack of insulin

Intravenous: a sterile solution or drug that is injected into the body by venipuncture

Intravenous Cannulation: the placement of a catheter into a vein

Ischemia: a lack of oxygen to an organ

J

Jaw Thrust: maneuver for opening the airway in unconscious patients; enables cervical spine stabilization and is often used with trauma patients

K

Kendrick Extrication Device (KED): specially designed devices used in removing automobile crash patients; it is composed of the body sling with straps and handles, chin and head straps, and a space filler pad

L

Laceration: break in the skin of varying depths resulting from a forceful impact with a sharp object; deeper injury than is seen in abrasions, with larger blood vessels involved and more bleeding

Level of Consciousness (LOC): indirect measurement of cerebral oxygenation

Long Spine Board: device to immobilize the entire body as a single unit (also called a longboard)

M

Manual Cervical Immobilization: type of spinal immobilization in which the cervical spine is immobilized by hand until further devices can be applied

Mass (Multiple) Casualty Incident (MCI): commonly accepted definition of any incident involving one or more patients that cannot be handled by the first responding units to a scene

Mechanism of Injury: manner in which injuries occur; actions or objects that cause trauma injury to a patient

Medical Direction: various duties that a physician provides in support of an EMS system; includes protocols, case reviews, educational programming, etc.

Meningitis: and infection or inflammation of the meninges, highly vascular membranes that separate the skull from the brain

Myocardial Infarction (MI): condition in which part of the heart muscle

(myocardium) dies because of inadequate supply of oxygen and nutrients; may be caused by a thrombosis, coronary artery spasm, or emboli; also called a *heart attack*

N

Nasal Cannula: device used to deliver low concentrations of oxygen to patients who need supplemental oxygen but who are not in acute respiratory distress

Nasopharyngeal (Nasal) Airway: airway adjunct inserted into a nostril and designed to prevent airway obstruction by the tongue

Nitroglycerin: medication that dilates blood vessels and decreases the workload on the heart; often used to treat angina pectoris

Non-Insulin-Dependent Diabetes Mellitus: a diabetic condition that usually occurs in individuals over 40 years of age and usually can be controlled by diet and oral insulin

Nonrebreather Mask: device used to deliver high concentrations of oxygen to patients in acute respiratory distress; has a reservoir bag and a one-way valve to prevent rebreathing

O

On-Line Medical Direction: clinical type of medical direction that involves real-time direction of prehospital providers in the delivery of emergency care; also known as *direct medical direction*

OPQRST: acronym for assessing the complaint, signs, and symptoms of a patient (Onset, Provocation, Quality, Radiation, Severity, Time)

Oriented: describes a patient who can state name, current location, date, etc.

Oropharyngeal (Oral) Airway: airway adjunct designed to prevent airway obstruction by the tongue in unconscious patients; inserted upside down and rotated 180 degrees

P

Packaging: preparing the victim for transfer from the vehicle to the ambulance

Past Medical History: significant past medical illnesses or traumatic injury

that the patient has experienced

Patent Airway: an open, unblocked airway

Perfusion: state of adequate supply of oxygen and nutrients to the tissues; ability of the circulatory system to distribute blood containing nutrients and oxygen to the tissues

Pertinent Negative: absence of a sign or symptom that helps substantiate or identify a patient's condition

Pertinent Positive: presence of a sign or symptom that helps substantiate or identify a patient's condition

Prehospital Care Report (PCR): official or formal documentation of the physical assessment and care provided to a particular patient; may either be in a written or computer-based format

Protocols: written or printed instructions or plans for carrying out an activity; in EMS, a protocol is a document that describes, usually in a step-by-step manner, the method that is used to deal with a particular set of symptoms or conditions

Proximal: located toward the center of the body; situated next to or near the point of attachment or origin or a central point

Pulmonary Embolism: obstruction of blood flow to the lungs caused by a clot that has traveled from a deep leg vein to a branch of the pulmonary arteries; can cause acute dyspnea (difficulty breathing), hypoxia (lack of oxygen), and / or sudden death

Pulseless Electrical Activity (PEA): a condition where there is a rhythm noted on the monitor that should result in adequate perfusion, but the patient is pulseless and apneic

Q

R

Rales: a crackling or bubbling sound in the lungs

Refusal of Care: declined treatment based on an informed consent

S

SAMPLE History: mnemonic to help EMT-Basics assess history; S-signs and symptoms, A-allergies, M-medications, P-past pertinent medical history, L-last oral intake, E-event

Shock: failure of the circulatory system to perfuse tissues; hypoperfusion of the circulatory system

Snoring: noisy, raspy breathing, usually with the mouth open; indicates an airway obstruction

Spinal Immobilization: critical trauma patient care that involves the maintenance of the spinal column, in-line, in place so that further injury to that area will be prevented during patient removal or handling

Standard Operating Procedures (SOPs): formal guidelines developed by emergency organizations to assist in preplanning emergency operations and procedures before the incident

Stridor: abnormal, high-pitched, musical sound caused by an obstruction in the trachea or larynx; usually heard during inspiration

Syncope: brief lapse in consciousness

T

Tachycardia: condition in which the heart contracts at a rate greater than 100 beats per minute

T.K.O. Rate: "To Keep Open" rate of infusing the IV solution; it is also referred to as KVO (Keep Vein Open); it is equal to approximately 8 to 15 drops per minute

Tourniquet: band of cloth or plastic placed around an extremity and twisted or knotted to increase pressure so that blood flow below the band is interrupted or stopped; last resort measure used to control severe bleeding

Transient Ischemic Attack (TIA): a stroke-like neurologic deficit that completely resolves within minutes to hours; also called a mini-stroke

U

V

Ventricular Fibrillation (VF or V-Fib): dysrhythmia in which the heart is in a state of disorganized electrical and mechanical activity, resulting in a lack of blood flow; treated with defibrillation

W

Wheezes: high-pitched sounds heard when air moves through constricted airways; commonly occurs in patients with asthma

Wide Open Rate: no restriction of fluid flow from the IV bag to the patient

X

Y

Z