

## MEETING 10

### SERIAL PORT

#### A. LEARNING OBJECTIVES

In this meeting you will be able to use Noun complex sentence in sentences, identify noun phrase in an article, write sentences by using complex sentence, speak about Serial Port and able to understand listening text about Serial Port.

#### B. DEFINITION OF COMPLEX SENTENCE

It is called complex sentence if a sentence contains an independent clause and it has one or more dependent clauses. Clause that is independent could stand alone while dependent clause can not stand alone although it has a subject and a verb.

Examples of Complex Sentences are below:

- ❖ If you like to talk to me, then speak English.
- ❖ Learning English is fun and easy.
- ❖ I like the new released laptop but I don't have much money
- ❖ Coding is easy to learn, but some computer science students think it is hard to master.
- ❖ Designing new game is very hard for beginner but it is also very challenging.
- ❖ Computer hardware is easy to learn but software is very complicated for me
- ❖ If you don't do your computer project, you won't get good score.
- ❖ When I am free I can play game on my computer until my fingers are tired
- ❖ If you learn computer programming, you need to spend time for many hours on computer.
- ❖ If you like working with computer you should study more about computer system.
- ❖ In computer systems, there many devices interconnect each other to run computer.

The following words are some examples of subordinating conjunctions you can use in complex sentences: Although, because, since, unless, when, which, while, who, because , since , as, after, as soon as, although / even though / though, unless, before, if / in the case that, by . More example of complex sentences

- ❖ After I got home, I did my homework and played game.
- ❖ Beth has open source class tomorrow, but she can't attend the class
- ❖ I went to canteen before class started.
- ❖ Studying before the test is good, if you want to pass.

- ❖ Because I didn't do well my database assignment, I got bad score .

## C. EXERCISES

### 1. Structure

**1.1 fill the gaps in these sentences. Because, since, after, when, as soon as, even though, unless, because, before , when, since , as, although , if , by (word can be used more than once)**

- 1) I study computer every day \_\_\_\_\_ I take computer science
- 2) I always do my homework \_\_\_\_\_ I got home from campus.
- 3) \_\_\_\_\_ it's raining, I never come late to campus.
- 4) \_\_\_\_\_ He doesn't finish his computer project, he will not get another project.
- 5) She requested to study together with Yusha \_\_\_\_\_ he was a smart man.
- 6) \_\_\_\_\_ they made a trouble in school, they had to stay longer in school in detention room.
- 7) Linda demand to make back up the data \_\_\_\_\_ the computer memory is limited.
- 8) Dennis bought a new flash disk \_\_\_\_\_ his old flash disk infected virus.
- 9) they think that there would be big problem \_\_\_\_\_ they don't finish the computer program.
- 10) Janny could have done the Java programming \_\_\_\_\_ the time the java class start.
- 11) \_\_\_\_\_ running a program you have to make sure that the code is valid.
- 12) I choose to be computer programmer \_\_\_\_\_ I like working with computer and I like coding.
- 13) \_\_\_\_\_ Artificial Intelligent will be in all aspect of computer field, students.
- 14) You will be a computer expert \_\_\_\_\_ if you learn both hardware and software computer.
- 15) \_\_\_\_\_ I have finished my computer course, I will work in computer company.

## 1.2 Fill the blank with appropriate word or words phrases from the box.

<b>a serial commutation</b>	<b>digital camera</b>	<b>general purpose</b>
<b>peripherals</b>	<b>DB9 and DB25</b>	<b>Integral part</b>
<b>Digital cameral</b>	<b>an RS-232</b>	<b>transmit</b>
<b>USB port</b>	<b>industrial automation system</b>	

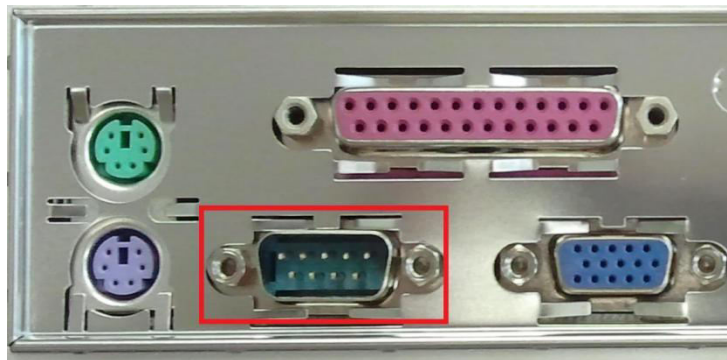
- 1) Serial port in computing is \_\_\_\_\_ interface through which information transfer in and out sequentiantly one bit a time.
- 2) Serial port is \_\_\_\_\_ interface that can be used for almost any types of devices, including modem, mice and printer.
- 3) The serial port is a type of connection on PCs that is used for \_\_\_\_\_ such as gaming controllers, mice, modems and older printers.
- 4) If that is confused you, there are two types of serial port, \_\_\_\_\_.
- 5) The serial port has been an \_\_\_\_\_ of most computer for more than 20 years.
- 6) Most modems still use serial port, as do some printers PDs and \_\_\_\_\_.
- 7) Serial port sometimes called a COM port or \_\_\_\_\_ which is its technical name.
- 8) Serial port can only \_\_\_\_\_ one bit of data at a time, whereas a parallel can transfer many bits at once.
- 9) Most new computer have replaced serial ports with much faster and more compatible \_\_\_\_\_.
- 10) Serial port are still used in application such as \_\_\_\_\_, scientific instrument.

## 2. Speaking

### 2.1 practice the conversation below:

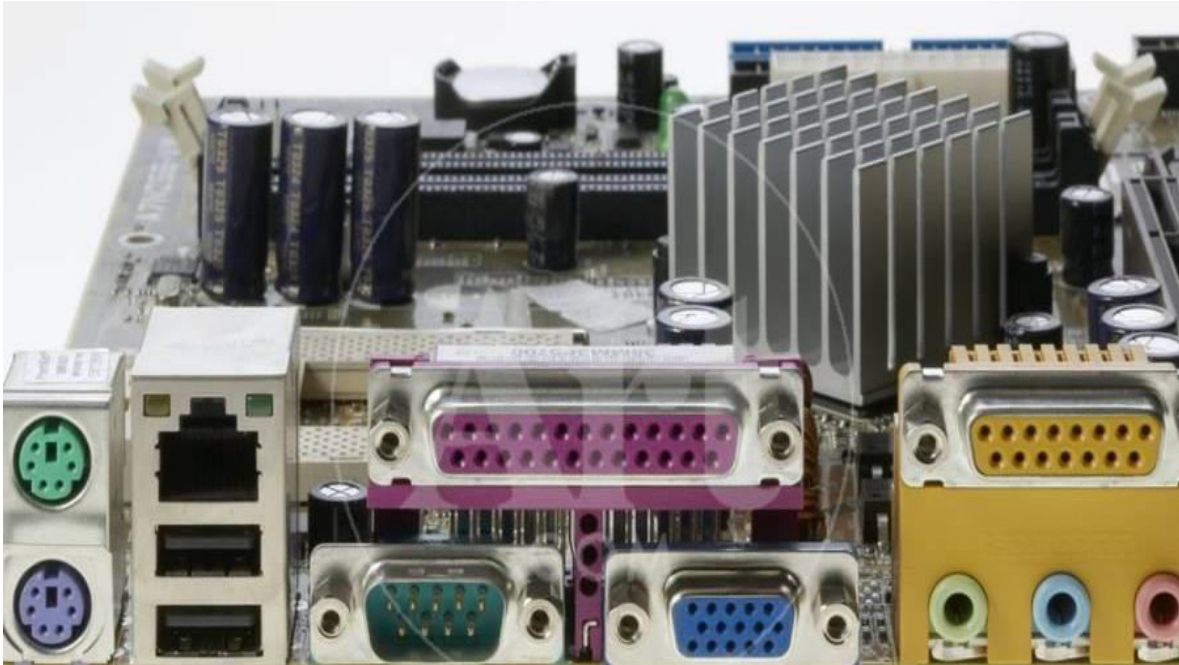
- Lisa** I want to ask you about serial port.
- Linda** What do you want to know?
- Lisa** There are few things I don't understand about it
- Linda** Ask me, I will try to answer if I can.
- Lisa** Is serial port important for computer?
- Linda** Yes it is important ,the devices in computer can't connect without serial port.
- Lisa** What does it mean?
- Linsa** It means it general purpose of interface that can be used for almost all type of devices including modem, printer and many more.  
It means without serial port you can't connect your modem to computer.
- Lisa** Where is the location of serial port in computer
- Linda** You can see them in the back of the computer , it is part of the mother board. Some people say a socket connection.
- Lisa** Ohh I see. I understand now. Thank you for sharing that.
- Linda** My pleasure. Don't be confuse with the computer term, find out the picture and will know the object.

**Serial port**



<https://superuser.com/questions/1028168/is-serial-port-a-male-or-female/1028170>

## 2.2 Discuss the question below



<https://www.art.com/products/p22105868095-sa-i7518463/colin-cuthbert-motherboard-connectors.htm>

- 1) Do you know all devices inside your computer?
- 2) What are the devices that connect to motherboard?
- 3) Do you know how the devices connect each other?
- 4) How many serial ports are there behind your personal computer?
- 5) What kind of serial port is in PC computer?
- 6) What is other name of serial port?
- 7) How many pins are there in serial port?
- 8) How can you remember that all?
- 9) How identify each serial port so will not make mistake when connecting devices?

**Example of exercise 2.2**

- Sam** Do you know all devices inside your computer?
- Antony** Yes I know what are in mother board such as CPU socket, super I/O chip, CPU fan connector, IDE connector, SATA connector and many more.
- Sam** What are the devices that connect to motherboard?
- Antony** All devices connect to motherboard because the possessor is in motherboard.
- Sam** Do you know how the devices connect each other?
- Antony** They can connect each other because there is a port or socket
- Sam** What kind of serial port is in personal computer?
- Antony** Serial port in PC is male which has 9 pins connector or we named it DE-9-D- sub.
- Sam** What is other name of serial port?
- Antony** It sometimes called COM port.
- Sam** How many pins are there in of serial port?
- Antony** Here are 25 pins we named it RS 232C standard
- Sam** How can you remember all of that?
- Antony** I study computer both hardware and software, I have to know all the detail part of the computer
- Sam** How do you identify each serial port so will not make mistake when connecting devices?
- Antony** It is easy. All the serial port in PC is male.
- Sam** It is sound easy to recognize.
- Antony** Anything else you want to know?
- Sam** That is enough for now, I will ask again if have problem with computer
- Antony** Any time.

### **3. Reading**

#### **3.1 Underline the complex sentence in the reading text below!**

#### **3.2 Read and record loud the reading text in your phone!**

##### **Serial Port**

There are basically two ways to move data from a computer to or from a peripheral device such as a printer or modem. A byte (8 bits) of data can be moved all at once, with each bit traveling along its own wire (see parallel port). Alternatively, a single wire can be used to carry the data one bit at a time. Such a connection is called a serial port.

The serial port receives data a full byte at a time from the computer bus and uses a UART (Universal Asynchronous Receiver-Transmitter) to extract the bits one at a time and send them through the port. A corresponding circuit at the other end accumulates the incoming bits and reassembles them into data bytes.

The data bits for each byte are preceded by a start-bit to signal the beginning of the data and terminated by a stop-bit. Depending on the application, an additional bit may be used for parity (see error correction). Devices connected by a serial port must “negotiate” by requesting a particular connection speed and parity setting. Failure to agree results in gibberish being received. Contain,

The official standard for serial transmission is called RS-232C. It defines various additional pins to which wires are connected, such as for synchronization (specifying when the device is ready to send or receive data) and ground. Physically, the old-style connectors are called DB-25 because they contain 25 pins (many of which are not used). Most newer PCs have DB-9 (i.e. nine pin) connectors. A “gender changer” can be used in cases where two devices both have male connectors (with pins) or female connectors (with corresponding sockets).

Because they use a single data transmission line and include error-correction, serial cables can be longer than parallel cables (25 feet or more, as opposed to 10–12 feet). Serial transmission is generally slower (at up to 115,200 bits/second) than parallel transmission. Serial connections have generally been used for such devices as modems (whose speed is already limited by phone line characteristics), keyboards, mice, and some older printers. Today the faster and more flexible USB (see universal series bus) is replacing serial connections for many devices including even keyboards. Adopted from Encyclopedia of Computer Science and Technology Revised Edition by Harry Henderson

**3.3 Answer the question bellow!**

- 1) What are the two devices tools to shift data from computer or from other device?
- 2) What is serial port?
- 3) What is UART (Universal Asynchronous Receiver-Transmitter) function?
- 4) What is RS-232C?
- 5) What is RS-232C function?
- 6) Why it is called DB-25?
- 7) What is the function of DB-9?
- 8) How long is the serial cable?
- 9) What is Serial transmission speed?
- 10) What is the most common connector used today?

**3.4 Match the term (A-G) with the statement (1-7)**

<b>A. RS-232C.</b>	<b>E. serial transmission</b>
<b>B. a gender changer,</b>	<b>F. A byte (8 bits)</b>
<b>C. Serial connections</b>	<b>G. DB-25</b>

- 1) It can be used in cases where two devices both have male connectors (with pins) or female connectors (with corresponding sockets).
- 2) Serial transmission that is official standard
- 3) There are 25 pins that many are not used.
- 4) All at once can be shifted with each bit moving along its own wire.
- 5) It is commonly slower than parallel transmission.
- 6) It is replacing serial connections for many devices including even keyboards.
- 7) They have used for devices such as modems which speed is already limited by phone line characteristics.



**3.5 Mark true for correct statement and mark false for the false statement.**

- 1) There is only one way to move data from a computer to or from a peripheral device such as a printer or modem.  
☐ true  
☐ false
- 2) A single wire can be used to carry the data one bit at a time.  
☐ true  
☐ false
- 3) The data bits for each byte come before a start-bit to signal the beginning of the data and terminated by a stop-bit.  
☐ true  
☐ false
- 4) Devices connected by a serial port give a particular connection speed and parity setting.  
☐ true  
☐ false
- 5) RS-232C is the old style connector.  
☐ true  
☐ false
- 6) The oldest PCs have DB-9 nine pins connectors.  
☐ true  
☐ false
- 7) Serial transmission is generally faster (at up to 115,200 bits/second) than parallel transmission.  
☐ true  
☐ false
- 8) USB connections have generally been used for such devices as modems keyboards, mice, and some older printers.  
☐ true  
☐ false

#### 4. Listening

##### 4.1 Listen to Sultan Issa Hampton talking about serial port and write T for true statement and F for false statements.

- 1) A serial port is an interface that allows a PC to broadcast or obtain data one bit at a time.  
☐ true  
☐ false
- 2) Serial port is one of the longest types of interfaces and at one time was normally used to connect printers and external modems to a PC.  
☐ true  
☐ false
- 3) Advance serial ports are used in scientific instruments.  
☐ true  
☐ false
- 4) a parallel port is slower for data transfer rate than a serial port.  
☐ true  
☐ false
- 5) a serial port is a female port, while a parallel port is a male port.  
☐ true  
☐ false
- 6) a COM position symbolize an input/output (I/O) and an disrupt demand (IRQ) address.  
☐ true  
☐ false
- 7) The I/O address transfers and receives data to and from a peripheral equipment such as a mouse or keyboard.  
☐ true  
☐ false
- 8) The serial port standard is RS-223.  
☐ true  
☐ false

## 5. Writing

### 5.1 Translate into Indonesian the sentences below

- 1) Ada dua jenis serial port yaitu DB 9 dan DB 25

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- 2) Serial port pada umumnya dapat digunakan pada hampir semua jenis alat-alat komputer termasuk modem , printer, keybaord dan lain-lain.

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- 3) Serial port hanya mampu memindahkan satu bit data, semetara port paralel dapat memindahkan data dalam jumlah yang banyak pada saat yang bersamaan.

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- 4) Serial port adalah salah satu jenis sambunga yng terdapat dapam PC yang digunakan sebagai perpheral seperti pada modem, keyboard, mouse dan lain-lain.

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- 5) Pada umumnya modem jaman sekarang masih menggunakan serial port, sama seperti printer, PDs dan kamera digital.

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- 6) Selama lebih dari 20 tahun komponen serial port sudah menyatu dengan badan komputer.

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- 7) Serial port dalam komputer adalah serial antar muka komputer untuk memindahkan informasi dari dalam atau dari luar secara berurutan sekali satu bit.

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**5.2 Use subordinating conjunctions though, if, when, because, unless, because, before , when, since , as, although , if , by etc... to complete complex sentence below!**

- 1) Henry needs to upgrade his computer.  
\_\_\_\_\_
- 2) My computer runs very slow  
\_\_\_\_\_
- 3) Jenny needs helps someone to convert the doc file to PDF  
\_\_\_\_\_
- 4) Yvonne played game extremely well  
\_\_\_\_\_
- 5) Franklin wants to get a new job on computer  
\_\_\_\_\_
- 6) I'm formatting my hard disk  
\_\_\_\_\_
- 7) Marvin thinks he will buy the new released laptop  
\_\_\_\_\_
- 8) Cindy and David want to be international certified programmer  
\_\_\_\_\_
- 9) I really enjoyed playing online game  
\_\_\_\_\_
- 10) Alexander has been working sixty hours a week to fix the error in his program  
\_\_\_\_\_

## 6. Key words

### 6.1 Find the synonym and translate them

English	Synonym	Indonesian
accumulates, agree , contain, defines, Depending, extract, Failure, gender, gibberish, negotiate, opposed, particular, preceded, reassembles, Receives, request, results , terminated, through, wires.		

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