

## Subject: English for Computer.

### Mid-Term Questions with Solution.

#### 1) Reading Passage 1.

#### Cloud Computing

Cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive. It involves computing over a network, where a program or application may run on many connected computers at the same time.

For some, cloud computing is a metaphor for the Internet. It typically uses connected hardware machines called servers. Individual users can use the server's processing power to run an application, store data, or perform any other computing task. Thus, instead of using a personal computer every-time to run the application, the individual can now run the application from anywhere in the world.

For businesses, cloud computing is an ideal way to reduce expenses. For example, companies may buy services in the cloud. That is to say, instead of installing applications on every single computer in the company, cloud computing would allow workers to log into a Web-based service (a cloud) which hosts all the programs individual users would need for their job. Everything would run on remote machines and local computers task would rely just on connecting to those machines.

While cloud computing, could change the entire computer industry, there are still some concerns about the security of the data stored on the remote machines. It is true that it promises to offload many tasks. However, this technology raises a fundamental question. Is it safe to store one's data on someone else's computer? The cloud service provider needs to establish clear and relevant policies that describe how the data of each cloud user will be accessed and used. Cloud service users should also be able to encrypt data that is processed or stored within the cloud to prevent unauthorized access.

#### Comprehension:

1. In cloud computing data is stored locally.  
False - b (Everything is stored on a remote machine)
2. Cloud computing offers an economical model for businesses.  
True - a (It reduces the expenses spent on applications and software...)
3. Cloud computing technology add workload on local machines.  
False - b (Most work is done on the remote computer.)
4. This technology offers a perfect solution for businesses without any concerns.  
False - b (There are concerns about the security of the data stored on the remote machines)

## 2) Reading Passage 2.

### Computers

A computer is a programmable machine designed to automatically carry out a sequence of arithmetic or logical operations. The first use of the word "computer" was recorded in 1613, referring to a person who carried out calculations, or computations, and the word continued with the same meaning until the middle of the 20th century. From the end of the 19th century the word began to take on its more familiar meaning, a machine that carries out computations

In the beginning, computers were as big as a large room. It is only later that they have become smaller and smaller, accessible to anyone. This has given way to personal computers. Later developers created new applications to help users perform many things from word processing to image editing. A large scale of programs, some free and others costly, have opened new horizons in information technology.

Now computers have noticeable impact on social relations. They have enabled entirely new forms of social interaction, activities, and organizing. With the Internet, working with computers has become part of our daily lives thanks to its basic features such as widespread usability and access. In addition to face to face communication that characterized humans for centuries, a new form of virtual communication has become more predominant.

Answer the following questions with **True** or **False**:

- 1- The word computer is a new term. **False**
- 2- Computers were accessible to anyone in the beginning. **False**
- 3- All computer applications are free. **False**
- 4- Computers and the Internet have shaped new social relations. **True.**
- 5- When did the first computer word record?. **It was recorded in 1613.**
- 6- Why does computer scientist create a new application?. **Computer Scientist created new applications to help users perform many things from word processing to image editing.**
- 7- Fill the Blank: In addition to face to face communication that characterized humans for centuries, a new form of virtual communication has become more predominant.

3) Fill in the blank either **Although/ Even though** or **In spite of/ Despite**.

- 1- Although it was cold, Marie didn't put on her coat.
- 2- Clare did the work in spite of being ill.
- 3- Even though the weather was bad, we had a good time.
- 4- In spite of all our hard work, a lot of things went wrong.
- 5- Although we had planned everything carefully, a lot of things went wrong.
- 6- I went to work the next day even though I was still feeling ill.

4) **Fill in the blank either Because or Because of :**

1- I went to hospital because I had a pain at my stomach.

2- I couldn't get to sleep because of the noise.

3- He is tired because of a lot of job.

4- She had come late because the roads were so crowded.

5) Identify the wrong part of the underlined words of following statements. Then, correct every wrong one.

1- There aren't any policemen in the street. **True.**

2- Do you know some plumber? **False, Any.**

3- He needs to make any friends. **True.**

4- Some Parts of computer are expensive. **True.**

6) Fill in the blanks the following conjunction words: **likewise, equally, in conclusion, instead of, to summarize, in brief, correspondingly, in comparison, Conversely, so called.**

1- The money has been divided equally .

2- Sardar played Tennis well and Raber did likewise .

3- It has fewer problems and correspondingly requires less maintenance.

4- In Conclusion , the research is very fruitful.

5- The size of a salon car is small in comparison with the trailer vehicle size.

6- Ahmed has graduated at the university. Conversely Ali has not.

7- In brief , the journey is very startling.

8- To Summarize , the surgery operation has given essential results.

9- The company so called Korek is responsible for the telecommunication.

10- Instead of going by a car, he goes by bus.

7) Fill in the blanks the following conjunction words: **For instance, Likewise, other, For example, in contrast, as follows, still, namely, Similarly, on the contrary, never, other, ever.**

1- The day began cold, on the contrary to the almost two weeks of uninterrupted sunshine.

2- He is still waiting you.

3- There are many types of cars. For instance , Toyota and GMC.

4- The rate are as follows : Labtop with 400\$, Printer 100\$.

5- The person who knows Java program namely a programmer.

6- They returned home. Likewise , I went home.

7- Sardar has Studied in Dohok. Similarly , Ali has done that

8- I understand this question. Please, explain for me **another** questions. ( False or True, if false correct it). **False, other.**

9- Please, show me other things, I don't like this one.

10- She was no malice in her; on the contrary , he was very kind.

11- I will see the other Places.

12- Have you ever seen a snake in your life?.

13- There are many types of cars. **For example** \_\_\_\_\_, BMW and GMC.

14- No , I have **never** \_\_\_\_\_ seen a snake in my life.

8) 1- For each **If Clause Rule**, give one example.

Hint: Finally, you will have 16 different statement examples.

Sol:

- 1- If you drive fast, you do car accident.
- 2- If lecture begins, student will not be able to come in.
- 3- If he comes, the picnic would be boring.
- 4- If he came, the picnic would be miserable.
- 5- If they had studied so hard, they would have succeeded.
- 6- If you speak a lot, go out of the class.
- 7- If he will travel abroad, his brother will follow him.
- 8- If he worked hard, he earns money.

9) **“Ahmed studies English at Cihan University”**. Change the tense of this statement into the following tenses:

- 1- Simple Future Tense: Ahmed is going to / will study English at Cihan University.
- 2- Present Perfect Tense: Ahmed has studied English at Cihan University.
- 3- Present Continuous Tense: Ahmed is studying English at Cihan University.
- 4- Past Perfect Tense: Ahmed had studied English at Cihan University.
- 5- Present Perfect Continuous: Ahmed has been studying English at Cihan University.
- 6- Past Perfect Continuous: Ahmed had been studying English at Cihan University.
- 7- Simple Past Tense: Ahmed Studied English at Cihan University.
- 8- Future Perfect Continuous Tense: Ahmed will have studied English at Cihan University.

10) **Draw a diagram describing Basic Computer Architecture.**

Sol: It was drawn and explained in the Lecture.

11) **Try to think about two firms providing a computer communication to exchange information at your region?.**

Sol: AsiaCell and Zain or IQ companies are used to provide communication.

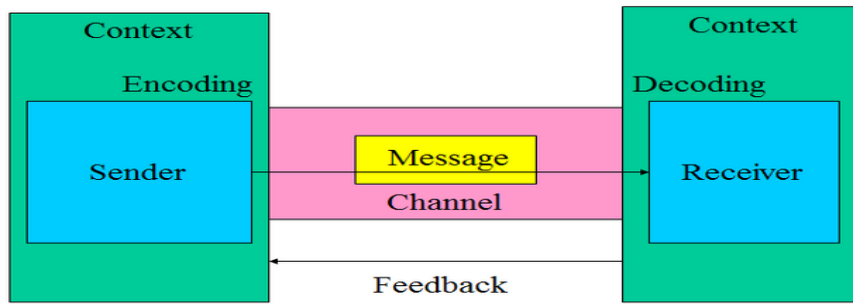
12) **Students in another country want to study the same computing course as yours without coming to your country. What communications links could your college or university use to make this possible?.**

Sol: he must use a video conference to get a communication with voice and image.

13) **What are the basic communication parts?.**

Sol:

# Communication Model



14) GSM stands for Global System Mobile.

15) Draw a GSM block diagram.

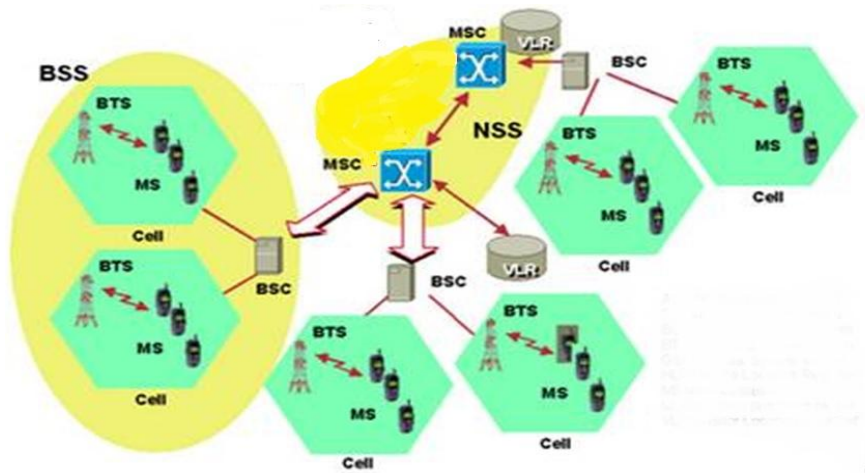
Sol:

1- MS (Mobile Station) = ME (Mobile Equipment) + SIM (Subscriber Identity Module).

2- BSS (Base Station Subsystem) = BTS (Base Transceiver Station) + BSC (Base Station Controller).

3- NSS (Network Switching Subsystem)

MSC (Mobile Switching Center)



16) Put either **simple past** or **continues past** tense in the blank.

- 1- The Plane \_\_\_was going\_\_\_ (go ) to Fargo.
- 2- The Airplane \_\_was flying\_\_\_ (fly) at 10,000 meters.
- 3- The Pilot \_\_noticed\_\_\_ (notice) it had short wings.
- 4- The Pilot \_\_\_reported\_\_\_ (report ) the incident.
- 5- He \_\_\_described\_\_\_ (describe) the vessel as silver in color.
- 6- No, one else \_\_\_saw\_\_\_ (see) the train.
- 7- The car \_\_was heading\_\_\_ (head) north-east.
- 8- The Coastguard \_\_saw\_\_\_ (see) three winged craft.
- 9- He \_\_was searching\_\_\_ (search) for a missing fishing boat.

9- The aircraft \_\_crashed\_\_\_\_(crash) at Roswell.

17) Answer these questions using –ing form.

**Example:**

**-How do you draw pictures on a computer?**

**By using a graphics package.**

How do you:

- 1- Select an option on a menu?. By clicking on the option button of the program.
- 2- Move rapidly through a document?. By reading fast the document.
- 3- Find a website?. By searching in the Internet.
- 4- Return to your starting page on the Web?. By clicking on the HOME button in the web page.
- 5- Store favorite site?. By clicking on the favorite button in the web page.
- 6- Share ideas with other Internet users on a subject you are interested in?. By sending an email.
- 7- Increase the speed of your computer?. By adding RAM to the computer.
- 9- Send voice and text message to other Internet users?. By doing voice call and chatting.
- 10- End a search on the Web?. By clicking a red cross symbol on the right-top-edge of the web page.

18)

**Decide which of the sites (a-j) to visit in order to find information on the following topic (1-10):**

- |  |   |
|--|---|
| 1- The latest Scientific developments. | A- <a href="http://www.admarket.com">www.admarket.com</a>                 |
| 2- Caring for your cat.                | B- <a href="http://www.bubble.com/webstars">www.bubble.com/webstars</a> . |
| 3- Calculating your tax.               | C- <a href="http://www.buildacard.com">www.buildacard.com</a>             |
| 4- New cars.                           | D- <a href="http://www.carlounge.com">www.carlounge.com</a>               |
| 5-Advertising on the Web.              | E- <a href="http://www.encenter.com/ski">www.encenter.com/ski</a> .       |
| 6- Books on sports.                    | F- <a href="http://www.peteat.co.uk">www.peteat.co.uk</a> .               |
| 7- Sending a virtual greetings card.   | G- <a href="http://www.moneyworld.co.uk">www.moneyworld.co.uk</a> .       |
| 8- Economic data on Bulgaria.          | H- <a href="http://www.newscientist.com">www.newscientist.com</a>         |
| 9- Your horoscope.                     | I- <a href="http://www.thebookplace.com">www.thebookplace.com</a>         |
| 10- Ski conditions in Europe.          | J- <a href="http://www.worldbank.org">www.worldbank.org</a> .             |

1h 2f 3g 4d 5a 6i 7c 8j 9b 10e

19) Put the following words in the following blanks with –ing form:

**Back up, become, enter, find, keep up, learn, link, receive, send, select, use**

- 1- keeping up with the latest news on your favorite team is easy on the web.
- 2- One of the most useful features of the Internet is sending and receiving email.

- 3- The grandfather, father, son method is one way of backing up your documents.
- 4- Fiber-Optic cable can be used for linking computers in a network.
- 5- Searching engines are ways of finding information on the Web.
- 6- using a Keyboard is the commonest way of entering data into a computer.
- 7- sending audio and video attachments is possible with email.
- 8- becoming programmer means learning a number of programming languages.
- 10 Selecting an option in a menu is easy with mouse.

20) **Link this action to show one action happened during the other action.**

**While, as, when.**

1- He \_\_\_\_\_ (fly) from London to Edinburgh. He \_\_\_\_\_ (see) an airplane.

**while he was flying from London to Edinburgh, he saw an airplane.**

2- Her computer \_\_\_\_\_ (crash) . She \_\_\_\_\_ (search) the Internet.

Her Computer crashed while she was searching in the Internet.

3- They \_\_\_\_\_ (study). A Fire \_\_\_\_\_ (start) in the computer lab.

When they were studying, a fire started in the computer lab.

4- She \_\_\_\_\_ (print) out her email. The printer \_\_\_\_\_ (develop ) a fault

As she was printing out her email, the printer developed a fault.

5-They \_\_\_\_\_ (work) on the computer. Someone \_\_\_\_\_ (switch) on the Power.

While they are working on the computer, someone switched on the power.

21)

Whose email addresses are these? Match the addresses (1–8) to the list of users (a–h).

- 1 redcrossyouth@algonet.se
- 2 webmaster@fao.org.it
- 3 today@bbc.co.uk
- 4 jsmith@smith.senate.gov
- 5 [REDACTED]
- 6 sales@demon.net
- 7 lunchx@swto1.usace.army.mil
- 8 s.larrieu@ly.ac.fr

- a a UN organization based in Italy
- b a US politician
- c a Swedish charity
- d a student at a French university
- e a news programme on a public broadcasting service in the UK
- f [REDACTED]
- g a military organization based in the US
- h an ISP

Sol: 1:c 2:a 3:e 4:b 6:h 7:g 8:d

22) Writing: Write a brief email to a friend describing your course, your message should answer these question:

- 1- What is your course called?.
- 2- When Do you have classes?.
- 3- Which Subject do you study?.
- 4- Which subject do you enjoy most? Why?.
- 5- What do you do in your free time?.

Sol:

Dear My Friend,

My course name is called English for computer. We have classes on each Monday and Wednesday morning. We study English which is more dedicated to computer field. I enjoy much with this subject because I want to learn English language. Indeed, at my free time, I develop myself for improving reading, speaking, listening and writing skills for the English language.

23) For the following email address:

[Ahmed@gmail.com.uk](mailto:Ahmed@gmail.com.uk)

Identify the email part?.

User-Id?: Ahmed.

Domain?: Gmail.com

Type of organization? Google.

Country ? UK.



24) Identify each of the following abbreviations:

Mb	Megabyte
LAN	Local Area Network
WAN	Wide Area Network
CD-ROM	Compact Disk-read only memory
ISP	Internet Service provider
PC	Personal Computer
OCR	Optical Character Recognition
RAM	Random Access Memory
GSM	Global System Mobile
MHz	Megahertz

-HTML: Hypertext Markup Language.

-CSS: Cascade Styling Sheet.

-JS: Java Script.

-ASP: Active Server Page.

25) **Write at least 50 words describing Personal Computer (PC).**

Hint: mention the following: computer types, computer parts, computer functions, services, etc.

Sol-25:

Computer is an electronic device that used to input a huge data then process them after that output useful information. Many important services might be achieved by a computer fast such as addition or subtraction operations. Computer consists of Hardware and Software, the former part such as RAM , CPU and HDD, while the latter one such as programs that used to control the hardware. Recently, people around the world are highly depending on computers with different life style, such as in economical, financial field also in scientific or even in military fields.

26) **Give advice about website design using has/have to, must mustn't. use the following suggestions:**

**A: Things to do:**

- 1- Divide information into small sections: you have to divide information into small sections.
- 2- Have a lot of links to other sites: you have to have a lot of links to other sites.
- 3- Start with a brief piece of information to attract the reader: you have to start with a brief piece of information to attract the reader.
- 4- Update your page regularly: you have to update your page regularly.

**B: Things not to do**

- 1- Have a lot of links on one page: you must not have a lot of links on one page
- 2- Include graphics only to make it look nice: you must not Include graphics only to make it look nice.
- 3- Forget about readers with less sophisticated browsers: you must not forget about readers with less sophisticated browsers.
- 4- Have pages with dead-ends: you must not have pages with dead-ends.

27) How do you design a Web page for both Client and server Side.

Sol:



**Web Language, Client Side**

- 1- HTML. (HyperText Markup Language )
- 2- CSS. (Cascade Styling Sheet)
- 3- JS (JavaScript)

**Web Language, Server Side**

- 1- PHP (Hypertext Processor)
- 2- ASP. (Active Server Page)
- 3- Perl.

**Storing data in database,  
MySQL database  
Server is Apache**

28) **List seven computer processing words, and define each one of them.**

**Sol:**

- 1-New: Begins a new file containing no data.
- 2-Open: Start the application ready for use.
- 3-Save: Save the document to disk.
- 4-Edit: Alter the data in the document.
- 5-Insert: Enter information into the disk.
- 6-Print: Send the data to the printer to be printed out.
- 7-Format: Alter the appearance of the text.

29) Change the **Active Voice** to the **Passive Voice** of the following statements:

1. Scientists have invented new methods: **New methods have been invented by scientists.**
2. He has sent the email: The email has been sent by him.
3. Ministry builds the university: The University is built by the ministry.
4. Factory has manufactured cars: Cars have been manufactured by Factory.
5. Ahmed has written the H.W. : H.W has been written by Ahmed.
6. Ali sends an email: An email is sent by Ahmed.
7. The thief has stolen the jewelries: The jewelries have been stolen by the thief.

30)

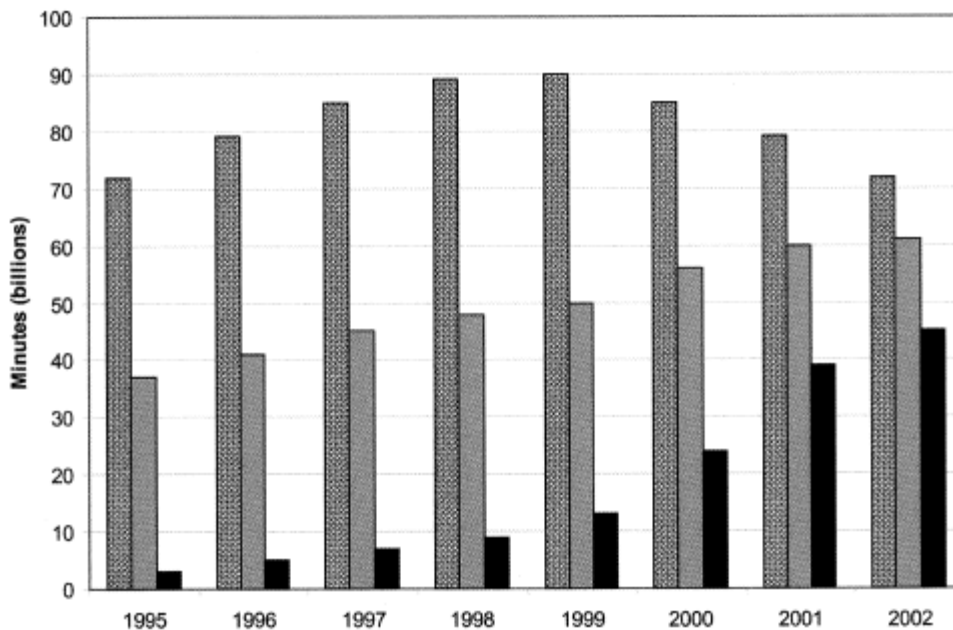
*The chart below shows the total number of minutes (in billions) of telephone calls in the UK, divided into three categories, from 1995–2002.*

*Summarise the information by selecting and reporting the main features, and make comparisons where relevant.*

Write at least 150 words.

**UK telephone calls, by category, 1995–2002**

Call type:   
 Local – fixed line   
 National and international – fixed line   
 Mobiles (all calls)



This model has been prepared by an examiner as an example of a very good answer. However, please note that this is just one example out of many possible approaches.

The chart shows the time spent by UK residents on different types of telephone calls between 1995 and 2002.

Local fixed line calls were the highest throughout the period, rising from 72 billion minutes in 1995 to just under 90 billion in 1998. After peaking at 90 billion the following year, these calls had fallen back to the 1995 figure by 2002.

National and international fixed line calls grew steadily from 38 billion to 61 billion at the end of the period in question, though the growth slowed over the last two years.

There was a dramatic increase in mobile calls from 2 billion to 46 billion minutes. This rise was particularly noticeable between 1999 and 2002, during which time the use of mobile phones tripled.

To sum up, although local fixed line calls were still the most popular in 2002, the gap between the three categories had narrowed considerably over the second half of the period in question.

After Mid-Term:

31) What is Database?.

A database is used to store information so that it can be searched and sorted in various ways. Each item of information is stored in a **field**. A collection of related fields forms a **record**. A language that used to search and store for information in database called Structure Query Language. (SQL).

32) Type of Database environment are : Oracle, Informix, MySQL.

Database language is SQL.

33) Create a Police Computer Database:

**Solution:**

**Possible fields are:** Name, Aliases, Appearance, Address, Crimes committed, Crime Convicted, way of operating, national driver license, driver address, motoring offences, vehicle license number, description.

34) What are the selection rule to find:

- 1- All Active Volcanoes?.
- 2- All Volcanoes over 6,000 meters?.
- 3- All Volcanoes in South America?.
- 4- All active Volcanoes in Ecuador?.
- 5- All Active Volcanoes in south America higher than 5,500 meters?.

Name	Country	Continent	Height (m)	Status
Cotopaxi	Ecuador	South America	5978	active
Popocatepetl	Mexico	North America	5452	active
Sangay	Ecuador	South America	5410	active
Tungurahua	Ecuador	South America	5033	active
Kilimanjaro	Tanzania	Africa	5889	dormant
Misti	Peru	South America	5801	dormant
Aconcagua	Argentina/Chile	South America	6960	believed extinct
Chimborazo	Ecuador	South America	6282	believed extinct
Orizaba	Mexico	North America	5700	believed extinct
Elbrus	Russian Federation	Asia	5647	believed extinct
Demavend	Iran	Middle East	5366	believed extinct

**Solution:**

- 1- 'status' is active.
- 2- 'Height' in meters is greater than 6,000.
- 3- 'Continent' equals to South America.
- 4- 'Country' equals Ecuador.
- 5- 'Status' is active, 'continent' equals south America and 'Height' in meters is greater than 5,500.

35) Write similar sentences for these searches:

- 1- Br?wn -Brown, Brawn, Braun.
- 2- t\*e - Tongue, the , tea, true.
- 3- #th - 12<sup>th</sup>, 3th, earth.
- 4-Paul[ao] -Paul, Paula, Paulo.
- 5-Mari[!a] -Marie, Maria, Mariy.

**Solution:**

- 1- You will find Brown and brawn, you won't find Braun.
- 2- You will find the, tongue and true, you won't find tea.
- 3- You will find 3th, you won't find 12th and earth.
- 4- You will find Paula and Paulo, you won't find Paul.
- 5- You will find Marie and Mariy, you won't find Maria

36) List 16 names for a graphical package toolbox.

Solution:

- 1- Text. 2- Eraser. 3- Polygon. 4- Rectangle.5- Airbrush. 6- Select. 7- Curve. 8- Color Fill. 9- Free form Select. 10- Pencil. 11- Ellipse. 12- Brush. 13- Pick Color.14-Line. 15- Magnifier. 16- Rounded Rectangular.

37) What are other graphical software packages that used for deign?.

Solution:

- 1- Photoshop. 2- 3D-Max. 3- AutoCAD. 4- OpenGL, Open CV.

38) Link each two sentences of the following:

- 1- Text is typed in using a word processing.
- 2- The text is edited.
- 3- The text is spellchecked.
- 4- Line drawings are made using a graphics package.
- 5- Photographs are scanned in with a scanner.
- 6- The first draft is completed.
- 7- The first draft is transferred to a page-makeup program.
- 8- Text and graphics are adjusted on screen.
- 9- They all fit together well.
- 10 The finished document is printed on a laser printer.

**Link these pairs of sentences using these time words**

**1+2: after, 2+3: before, 3+4: after, 5+6: after, 6+7: when, 8+9: until, 9+10 after.**

**Solution**

- 1-After the text is typed in using a word processing, it is edited.
- 2- Before the text is spellchecked, it is edited.
- 3- After the text is spellchecked, line drawings are made using a graphics package.
- 4- After photographs are scanned in with a scanner, the first draft is completed.

- 5- When the first draft is completed, it is transferred to a page-makeup program.
- 6- Text and graphics are adjusted on screen until they all fit together well.
- 7-After they all fit together well, the finished document is printed on a laser printer.

39) Example of **Future Trends:**

**Smart Cards:**

- **Identification.**
- **High-security access.**
- **Electronic money.**

**Robotics:**

- **Welding cars**
- **Repairing nuclear power plants.**

**Virtual Reality:**

- **Games.**
- **Virtual Travel.**

40) **What kind of information would you store in the following smart cards:**

- 1- A medical card.**
- 2- An identification card.**
- 3- A sports club membership card.**
- 4- An electronic wallet.**

Solution:

1- Possible information could be written in the medical card are as follows: blood type, allergies, drugs taken, medical history.

2- Information might be stored in the identification card are as following: Name, Address, date of birth and Nationality.

3- Information could be kept in the sport club member card are as follows: Name, Address, number of time you have used different facilities, best performance.

4- Possible information could be written in the electronic wallet are as follows: Name, Address, Account number, how much money is in the account.

41) **Give 10 future prediction examples you think that would happen in the future?.**

Sol:

- 1- In 2017, artificial ears will be manufactured for the human being.
- 2- In 2020, videophone which will dial automatically when you tell it the name of the person you wish to call.
- 3- In 2020, electronic implants to stimulate the muscles of disables people.
- 4- Computer touch screen will be unfold from your wristwatch in 2018.
- 5- Computer which writes their own software.
- 6- In 2021, smart cloths which alter their thermal properties according to the weather.
- 7- Robotics pets.
- 8- 2020, artificial lungs.

- 9- 2020, regular manned flights to Mars.
- 10- In 2030 direct connection between human brain and computer.
- 11- 2040, manufacturing artificial human brain.

42) Future has three types of expression, what are they, and how do you express on each one whether in affirmative or negative?.

Solution:

	<b>Certain</b>	<b>Fairly Certain</b>	<b>Uncertain</b>
<b>Yes</b>	<ul style="list-style-type: none"> <li>•will happen.</li> <li>•is/are going to happen.</li> </ul>	<ul style="list-style-type: none"> <li>•I think it will happen.</li> <li>•It will probably happen.</li> </ul>	<ul style="list-style-type: none"> <li>•It may happen.</li> <li>•It could happen.</li> <li>•It would happen.</li> <li>•It might happen.</li> <li>•It is a possibility to happen.</li> </ul>
<b>No</b>	<ul style="list-style-type: none"> <li>•will not / won't happen.</li> <li>•is / are not going to happen.</li> </ul>	<ul style="list-style-type: none"> <li>•I don't think it will happen.</li> <li>•It is unlikely to happen.</li> <li>•I don't see it happens</li> </ul>	<ul style="list-style-type: none"> <li>•It might not happen.</li> <li>•It would not happen.</li> </ul>

43) **Link these words to make predication with would (uncertain).**

- 1- Computers / write / own software.
- 2- Implants / stimulate/ muscles of disable
- 3- touchscreen / unfold/ wristwatch.
- 4- Clothes/ alter/ thermal properties.
- 5- Robot pets/ require / no food.
- 6-Arificial lungs / help / cancer patients.
- 7- People / be able to / travel to Mars.
- 8- A body chip / correct / poor vision.

Solution:

**Key (other answers are possible)**

- 1 Computers would write their own software.
- 2 Implants would stimulate the muscles of the disabled.
- 3 A touchscreen would unfold from your wristwatch.
- 4 Smart clothes would alter their thermal properties.
- 5 Robot pets would require no food.
- 6 Artificial lungs would help cancer patients.
- 7 People would be able to travel to Mars.
- 8 A body chip would correct poor vision.



44) For the following points, answer with False, True or Not Given:

Computer Generation	Dates	Technology
First	1951-1958	Vacuum tubes (Valves)
Second	1958-1964	Transistors
Third	1968-1970	Integrated Circuits (IC)
Fourth	1971	Microprocessor.

1. 1942 first electronic computer built.
2. 1947 Transistor invented.
3. 1954 first commercial computer put on sale.
4. 1960 first minicomputer.
5. 1965 ICs introduced.
6. 1971 microprocessor introduced .

**Solution:** it has been solved in the class.

45) Write the meaning of each of these terms as the following two examples:

- 1- An insect-sized robot → (a robot which is the size of an insect)
- 2- Computer-generated graphics → graphics which are generated by a computer.

1- An ant-sized machine.

Solution:

- A head-mounted display
- 3- Computer-assisted instruction
- 4- An IT-based future.
- 5- Computer-aided design.
- 6- Computer-aided manufacturing.
- 7- Character-based operating system.
- 7- Write-protected disk.

- 1- A machine which is the size of an ant.
- 2- A display which is mounted on the head.
- 3- Instruction which is assisted by computers.
- 4- A future which is based on an IT.
- 5- Design which is aided by computers.
- 6- Manufacturing which is aided by computers.
- 7- An operating system which is based on characters.
- 8- A disk which is protected against writing.

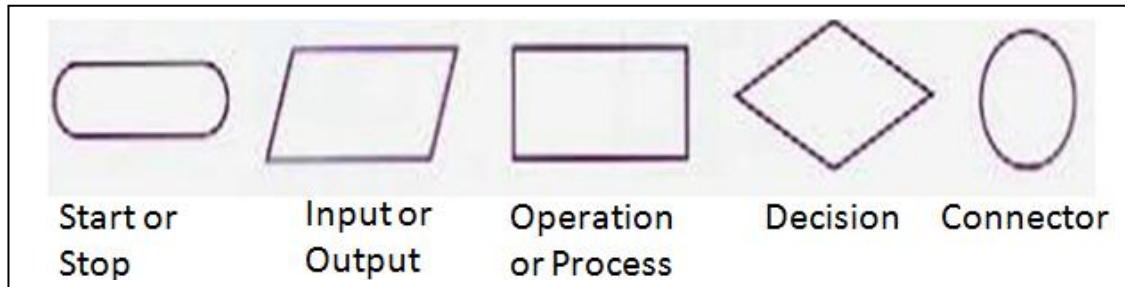
46) What are the basic stages for Programmer to program?.

Solution:

- 1- Analyzing and defining the problem to be solved.
- 2- Designing the program.
- 3- Coding.
- 4- Testing
- 5- Documentation.
- 6- Training the users.
- 7- Obtaining feedback from users.

47) List the flow chart symbols and explain the function of each one.

Solution:



48) Complete these sentences by putting the verb in bracket into either Present Simple or Present Continuous:

1- At the moment, I \_\_\_\_\_ (work) on a program for schools.  
 2- We always \_\_\_\_\_ (ask) the users, not the managers, what they need from the system.  
 3- Kavar is a database expert so usually he \_\_\_\_\_ (do) anything on database and I \_\_\_\_\_ (get) the interfaces.  
 4- We \_\_\_\_\_ (use) Active server for this project because it is web-based.  
 5- Commonly we \_\_\_\_\_ (use) C++ and JavaScript.  
 6- Whenever we \_\_\_\_\_ (finish) part of a project, we put a copy of the software in a sub-folder as a record.  
 7- I \_\_\_\_\_ (subscribe) to two magazines.  
 8- Right now I \_\_\_\_\_ (try) to learn how to use Active Server Properly.  
 9- At the moment we \_\_\_\_\_ (develop) a Web-based project.  
 10- It's a magazine for people who what they \_\_\_\_\_ (do).

**Key**

1 I am/I'm working	2 ask
3 does, get	4 we are/we're using
5 use	6 finish
7 subscribe	8 I am/I'm trying
9 we are/we're developing	10 they are/they're doing

49) Sort the following words according to their possible categories.

**Bold, Cell, Column, Draw, Field, Fill, Font, Formula, Justify, Paint, Record, Rotate, Row, Scale, Search, Selection Rules, Sort, Spelling Checker, Tab, Tool Palette, Underline.**

Word Processing----Database----Spreadsheet----Graphics

Font	Field	Cell	Tool Palette
Bold	Selection	Column	Paint
Underline	Rules	Formula	Draw
Justify	Record	Row	Scale
Spelling checker	Search		Rotate
Tab	Sort		Fill

50) Fill in the blanks with the suitable verbs:

**Burn down, Give up, Come across, Keep up with, Come up, Pick up, Divide up, Put out, Find out, Take up.**

- 1- If the fire engine doesn't arrive on time, the house will \_\_\_\_\_.
- 2- I subscribe to magazine to \_\_\_\_\_ developments in programming.
- 3- In programming you often \_\_\_\_\_ the coding among a team of programmers.
- 4- If a site takes too long to download, people \_\_\_\_\_ and go to another site.
- 5- In the Hardware class we \_\_\_\_\_ about things inside computers.
- 6- People may \_\_\_\_\_ your website by chance when they are browsing the net.
- 7- If you get the answer right. The fire engine \_\_\_\_\_ the fire.
- 8- When you test a program. Different kinds of problem \_\_\_\_\_
- 9- Reading about new developments \_\_\_\_\_ a lot of Dawan's free time.
- 10- He tries to \_\_\_\_\_ a copy of Dr. Ali's Journal when he can.

**Key**

- |                         |                |
|-------------------------|----------------|
| 1 burn down             | 2 keep up with |
| 3 divide up             | 4 give up      |
| 5 find out              | 6 come across  |
| 7 puts out/will put out | 8 come up      |
| 9 takes up              | 10 pick up     |

51) Link each of these pairs of contrasting statement using:

**whereas, in contrast, or but.**

- 1- Dot matrix printers are noisy. Laser printers are quiet.
- 2- Floppy disks store small amount of data. Hard disks store large amount of data.
- 3- Handheld computers fit into your pocket. Supercomputers occupy a whole room.
- 4- High-level languages are easy to understand. Machine code is very difficult to understand.
- 5- Basic is a simple language. C++ is complex.
- 6- Modern computers are powerful and relatively cheap. Older computers were less powerful and quite expensive.
- 7- An analyst analyses problems and finds solutions. A programmer turns these solutions into computer programs.
- 8- A graphics package produces images and designs. A word processor produces texts.

Solution:

**Key (there are other possible answers)**

- 1 Dot matrix printers are noisy, but laser printers are quiet.
- 2 Floppy disks store small amounts of data, whereas hard disks store large amounts of data.
- 3 Handheld computers fit into your pocket. In contrast, supercomputers occupy a whole room.
- 4 High-level languages are easy to understand, whereas machine code is very difficult to understand.
- 5 Basic is a simple language, but C++ is complex.
- 6 Modern computers are powerful and relatively cheap. In contrast, older computers were less powerful and quite expensive.
- 7 An analyst analyses problems and finds solutions, whereas a programmer turns these solutions into computer programs.
- 8 A graphics package produces images and designs, but a word processor produces texts.

52) Give example of some computer viruses and define them:

**Computer Virus:**

**1-Cascade:** all the letters in a file fall to the bottom of the screen.

**2-Michelangelo :** turn data into nonsense.

**3-Jerusalem B:** Erases any file you try to load.

53) Give synonym to the following words:

Flash= Display briefly, Gobbledygook= meaningless rubbish, Dormant= opposite of active, Eradicate= remove totally, Career= profession= Occupation= Job, Vocation= Trade.

54) Make guidelines to the following sentences:

-Download email attachment onto a floppy.

-Don't use a floppy without checking it.

**Solution:**

Always download email attachment onto a floppy.

Never use a floppy without checking it.

55) Make rules to the following sentences:

-Download email attachment onto a floppy.

-Don't use a floppy without checking it.

**Solution:**

You **must** download attachment onto a floppy.

You **must not** use a floppy without checking it.

56) Rewrite the following statements using rules, whether must or must not according to your understanding.

- 1- keep you network password secret.
- 2- don't try to access other people's data.
- 3- Always make a backup copy of all your important files.
- 4- Never commercial software without license.
- 5- Check your email regularly.
- 6- Never install software before it is virus-checked.
- 7- Don't re-use web-images from pages which have a copyright symbol.
- 8- Never change other people's data without permission.
- 9- Don't believe every email message that warns you about viruses.
- 10- Always virus-check an email attachment before opening it.

Solution:

- 1 You must keep your network password secret.
- 2 You mustn't try to access other people's data.
- 3 You must make a backup copy of all your important files.
- 4 You mustn't use commercial software without a licence.
- 5 You must check your email regularly.
- 6 You mustn't install software before it is virus-checked:
- 7 You mustn't re-use Web images from pages which have a copyright symbol.
- 8 You mustn't change other people's data without permission.
- 9 You mustn't believe every email message that warns you about viruses – some are scare stories.
- 10 You must virus-check an email attachment before opening it.

57) -List three computer crimes: Viruses, hacking, pirating.

-Why is it difficult to remove all viruses?. Every virus appears every month.

58) Mention possible computer science job?.

Possible Jobs:

- 1- System Analyst Programmer.
- 2- Technical Sales Manager.
- 3- Network Support Person.
- 4- Hardware Engineer.
- 5- Software Designer.
- 6- Technical Sales Manager.

59) **Express on an Essential manners by English language?.**

- 1- Good Communication skills to discuss requirements with users.
- 2- Able to work quickly under pressure.

**Solution:**

- We can describe the essential requirements like this:
  - 1-They **must have** good communication skills to discuss requirement with users.
  - 2- They **must have** ability to work quickly under pressure.

60) **Express on an desirable manners by English language?.**

- 1- Interest in technology to keep up with new developments.
- 2-Physically fit for lifting, carrying, and bending.

**Solution:**

- We can describe the desirable requirement like this:
  - 1-They **should have** an interest in technology.
  - 2- They **should be** physically fit.

61) Reading:

**Comperhension & Reading**

**JavaScript** is a simplified form of the java lanaguage. It is powerful and easy to use. Scripts are small programs that can be used to perform simple tasks or tie other programs together. JavaScript is designed for use inside webpages. It can enable a webpage to respond to a mouse click or input on a form. It can also provide a way of moving through webpages and produce simple animation.

**Visual Basic** is a programming environment, not simply a language. It uses the language BSIC, a simple language developed to make it easy for people to learn how to program. Visual Basic has predifined objects such as dialog boxes, buttons, and text boxes which can be chosen from a toolbox and dragged across the screen using the mouse and dropped into the reired position. Basic programming code is attached to form a complete program. Visual Basic is used to write general purpose applications for the windows operating system.

**C++** was developed from the C language, it was designed as a systems programming language with features that make it easy to control the computer hardware efficiently. It was used to produce the microsoft windows operating system. It is protable, i.e. programs written in C++ can be easily adapted for use on many different types of computer system.

**HTML** stands for HyperText Markup Language. It is a page description language used for creating webpages. HTML uses a system of tags to mark page links and formatting. For exmple, the tag <u> tells the program to start underlining a text. Although porgrams cannot be created using HTML, small programs can be embedded in HTML code using a scripting language like JavaScript.

**Java** is a programming language originally designed for programming small electronic devices such as mobile phones. It can run unchanged on any operating system that has a java interpreter program. Java is used for writing programs for the World Wide Web.

**Delphi** is similar to Visual basic. It is also a programming environment for developing program for the windows operating system. It has predefined objects that can be chosen from a toolbox. In Delphi, however, the code attached to the objects is written in a form of Pascal. You can think of Delphi as a kind of 'Visual Pascal'. Like Visual Basic, it is often used for general purpose programs.

**Answer with True, False, Not Given:**

- 1- JavaScript is difficult to use. **False.**
- 2- Javascript can be designed for webpages. **True**
- 3- JavaScript provides a way of moving through webpages and produce simple animation. **True**
- 4- JavaScript can be used to program client side scripting. **Not Given.**
- 5- Visual Basic has objects such as dialog boxes, buttons, and text boxes. **True**
- 6- Visual Basic is used to write general purpose applications for Windows operating system. **True**
- 7- ASP is webpage server scripting language. **Not Given**
- 8- C++ was developed from the BASIC language. **False**
- 9- C++ is easy to control the computer hardware efficiently. **True**
- 10- The most powerful language among all computer languages is C++. **Not Given**
- 11- Program which is written by using C++ can be adapted for use with only one type of computer system. **False**
- 12- By HTML we can add image inside a webpage. **Not Given**
- 13- HTML stands for HyperText Makeup Language. **False**
- 14- Small programs can be embedded in HTML code using a scripting language like C++. **False**
- 15- Mobile phone applications can be programmed by using Java programming language. **True**
- 16- Delphi is also a programming environment for developing program for the windows operating system. **True**

### **How the CPU Executes Program Instructions**

Let us examine the way the central processing unit, in association with memory, executes computer program. Many personal computers can execute instructions in less than millionth of a second, whereas supercomputers can execute instructions in less than one-billionth of a second.

Before an instruction can be executed, program instructions and data must be placed into memory from an input device or a secondary storage device. The data will probably make a

temporary stop in a register. Once the necessary data and instruction are in memory, the central processing unit performs the following four steps for each instruction:

- 1- The Control unit fetches (gets) the instruction from memory.
- 2- The control unit decodes the instruction (decides what it means) and directs that the necessary data be moved from memory to the arithmetic/logic unit. These first two steps together are called instruction time, or I-time.
- 3- The arithmetic/logic unit executes the arithmetic or logical instruction. That is, the ALU is given control and performs the actual operation on the data.
- 4- The arithmetic/logic unit stores the result of this operation in memory or in a register.

Step 3 and 4 together are called execution time or E-time. The control unit eventually directs memory to release the result to an output device or a secondary storage device. The combination of I-time and E-time is called the machine cycle.

### **Smart Cards: A chip to Save your Life**

If your friend suddenly had an accident and was unconscious or incoherent, could you provide any information to an ambulance crew? Would you know her blood type, her allergies, the prescription drugs she takes? Probably not. Even family members may not have this information, or be too distraught themselves to provide needed medical information. Enter the medicard, a plastic card that has an embedded chip containing all that patient information. Small computers that can read the cards are installed in ambulances and in hospital emergency rooms. This system is working successfully in some communities. The biggest problem is making sure that people carry their cards at all times.

### **Hands Tracking from Frontal View for Vision-Based Gesture Recognition**

**Abstract:** We present a system for tracking the hands of a user in a frontal camera view for gesture recognition purposes. The system uses multiple cues, incorporates tracing and prediction algorithms, and applies probabilistic inference to determine the trajectories of the hands reliably even in case of hand-face overlap. A method for assessing tracking quality is also introduced. Tests were performed with image sequences of 152 signs from German Sign Language, which have been segmented manually before hand to offer a basis for quantitative evaluation. A hit rate of 81.1% was achieved on this material.