

Part II

Question no 2 (A)

Artificial Intelligence (AI)

1- Introduction

Artificial Intelligence has been the part of daily life of people in this modern time. Health, education, economy and other societal activities are solving by the (AI). There are numerous benefits of AI. However, there are some drawbacks of AI also on the society.

2- Describing term AI

AI means the technology which has capability to think and observe like human intelligence from the data on internet.

3- How does it help people:

- Helps in the education
- Responsible for e-business
- Promotes environmental prosperity
- Agriculture • Health
- Library and books

These are the helping areas of AI for humans.

4- Drawbacks of AI

There are numerous drawbacks of AI which are haunting the society since its innovation.

- Unemployment • Cyber crimes
- Scams • AI made fake videos
- Breaching sovereignty of state
- Unethical activities

5- Conclusion

AI is the new electricity of this area which is responsible for the providing benefits and some drawbacks to the society.

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Question. no 2 (B)

Center Processing Unit

1- Introduction

Center processing unit is the controller of computer, it is also called the brain of computer. It has ability to store and analyze the data like human brain.

After invention of internet and AI it has become more powerful.

2- How does it work

CPU is the hardware, it contains RAM, ROM and other parts to work. It has chips to work and store the memory and data.

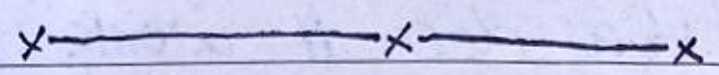
3- How does it resemble to human brain

CPU	Human Brain
• Memory	✓
• Analyzing	✓
• Need energy (electricity)	✓
• Communication	✓
• Connectivity	✓

There are many other activities which are done on the human brain work.

4- Conclusion

The CPU is the main part of whole computer system which provide the essential capability and brain to the computer.



Question no 2

(C)

Balanced Diet

1- Introduction

Balanced diet of human is the most crucial part to function, which provide ATP energy. Amalgamation of fibers, protein, fats and carbohydrates. Some minerals and vitamins with adequate amount of water. Lack of vit cause numerous diseases.

2- Composition of balanced diet

Protein 2gm per body weight, 2.5 liters of water. Adequate amount of carbohydrates for energy and fibers for digestion. Vitamins and minerals for the human organs function.

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3- Deficiency of Vitamins and their impacts on human body

Vitamin	Impacts
Vitamin A	Color blindness and eye problems
Vitamin C	Scurvy, and skin problems
B vitamin	Blood, energy and skin and heart heat problems

4- Conclusion

To conclude, balanced diet is necessary to fulfil the demand of the body which makes body capable to work. Other-wise, there are multiple disorders that are created.

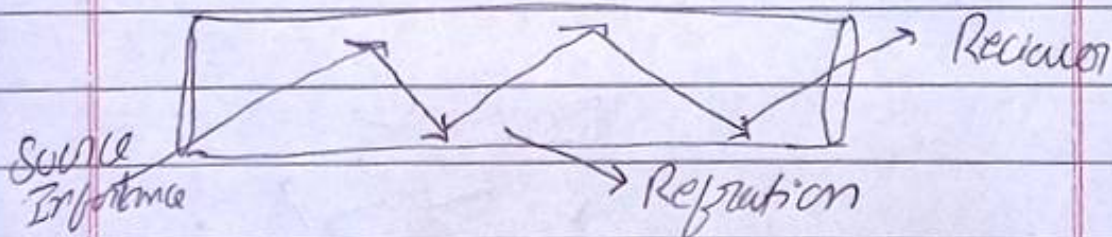
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Question no 2 (10)

(i) Optical Fiber and its working principle

Optical fibers are responsible for transferring rapidly information and networks.

Total internal reflection



(ii) An overview of the GPS

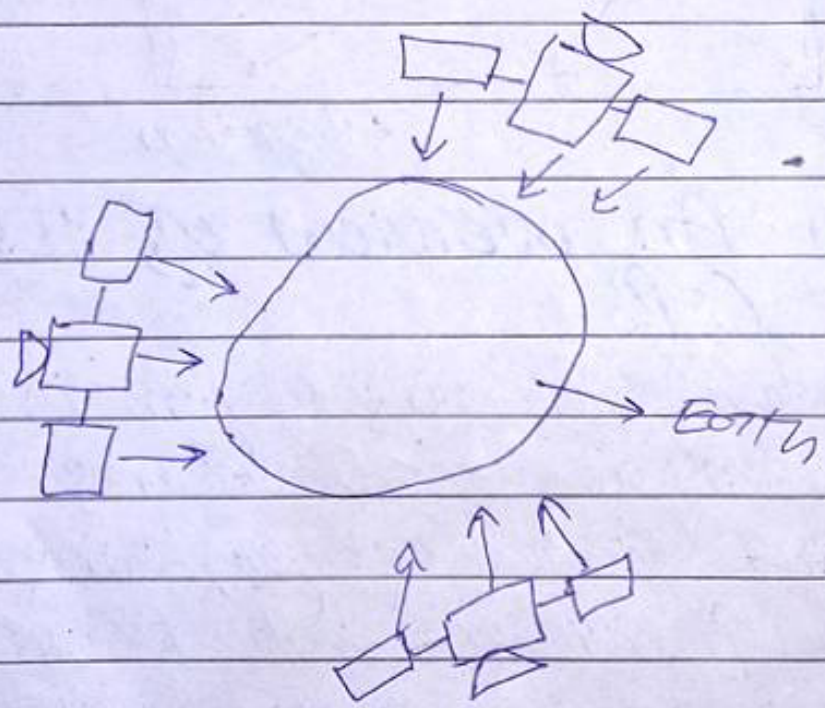
Global positioning system is responsible for the telling exact locations of anything an individual want to reach. There many applications for it.

→ Applications:

- Location
- Aviation
- Transport
- Emergency location
- Schools / colleges
- Hospitals

(iii) 2D, 3D locations are measuring by the Satellites

2 Dimensional and 3 dimensional image of the any object on the earth surface is being provided by the Satellites.



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Question. n3

(C)

Answer

Global Warming

1- What is global warming

According to UNFCCC: definition of global warming is change in the average temperature of earth surface, steadily increasing more the average 15.3°C and increasing in continuously.

2- Merits of global warming:

- (i) keep make atmosphere livable
- (ii) water and food production
- (iii) Beneficial for the aquatic life

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3- Demerits of the phenomenon Global warming:

- Heat waves
- Floods / droughts
- Water loss
- Human loss
- Diseases / heat strokes
- Loss of forest and greenery
- Affecting the crops
- Economic loss

4- Conclusion

Global warming is threatening the whole world by harming environment and society.

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Question no 3

(D)

Answer

1- Introduction

Polio one of the most dangerous viral diseases in the world.

It has been eradicated from the whole world except few countries: Afghanistan, Pakistan and South Africa. Pakistan is facing problems of health sector, societal norm and economic issues.

2- What is polio

Polio is the disease caused by the virus name polio virus which hamper the immune system.

3- Symptoms of polio

- Paralysis physically
- Weaken immune system
- other health issues.

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4- Hurdles facing by Pakistan to eradicate polio from the country

- (i) Health sector does not work correctly.
- (ii) Parental problems these does not vaccinate their children
- (iii) Societal norms that it (drops, vaccine) will affect the fertility
- (iv) Economic problems of state
- (v) Unhygienic environment due to bad management.

5- Conclusion

Polio virus is responsible for the forming numerous hurdles in human life. Paralyze the whole body of host. There are few hurdles the Pakistan facing to achieve polio free state: economic, municipal and health sector issues.

Question no 3

(A)

ANSWER

Chemical bond, and especially covalent bond

(i) What and why
an atom form the
bond

Every atom wants to be stable in its excess, the outer shell of an atom needs to be the stable that's why it bond with other atom either share or transfer e.

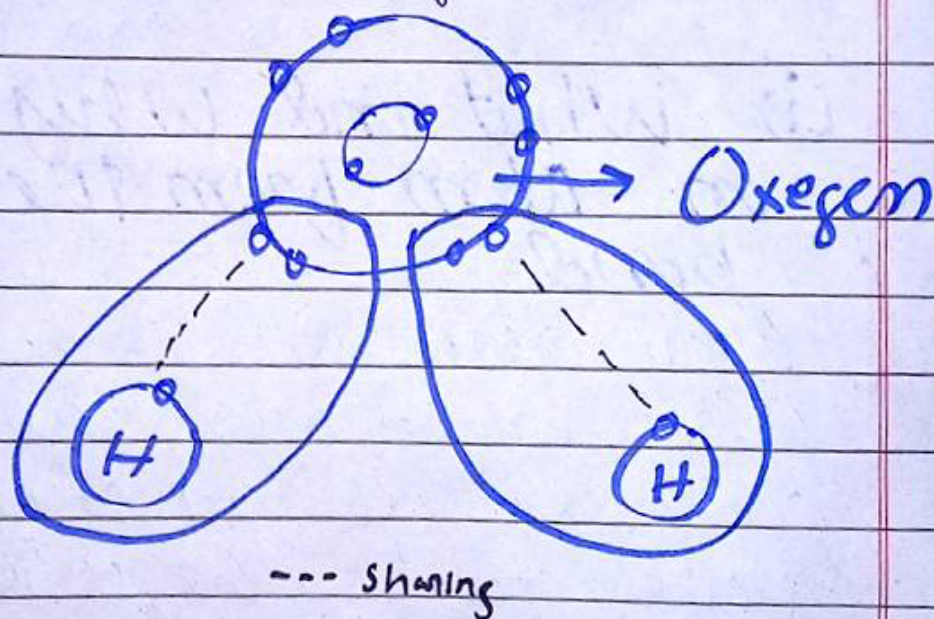
(ii) What is covalent
bond

Covalent bond is responsible for the sharing atom's

electron to the other atom's shell.

Example of Water H_2O
covalent bond:

Partially or polarly covalent bond is in the water molecule which is responsible for the sharing electrons.



Conclusion

It is responsible for the sharing electrons with the other atoms.

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Question. no 3

(B)

Answer

1- Introduction to question

Doping is the process of adding anything to anything. There are an element or matter called ceramics and it has many types: silicon, Aluminium oxide and other types which used in the industries.

2- Terminology of doping

Doping means adulteration, in other words, add anything to enhance the quantity of anything called doping which is the most haunting problem of this time.

3-Types of doping

- Food doping
- Medicine doping
- Micro-nutrients doping
- Industrial doping
- Diuretic
- Narcotics

4- An overview of Ceramics

Ceramics is the type of matter which is non-metallic non-liquid material, which is capable to of from react and heat.

5-Types Ceramics

- ⊙ Silicon Carbide
- ⊙ Aluminum Oxide
- ⊙ Boron Nitrate
- ⊙ Porcelain
- ⊙ Bone China

6- Conclusion

Doping is the getting too much nowadays, ceramics are one of the useful material for industries, and building, it has many types.