

Date: \_\_\_/\_\_\_/20\_\_\_

MON TUE WED THS FRI SAT  
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## General Science and Ability

Q. NO. 2

(a)

### Artificial intelligence

Artificial intelligence is the new electricity. This is like electricity changed the traditional methods of production of goods in industry and shaped human lives. The AI is going to shape human lives, polish skills of humans and assist to be creative. Therefore, AI is the new electricity of the 21st century.



(b)

CPU and human brain

CPU is brain of computer, it works like human brain. firstly, stores, sends and interpreates the information. The same is the case with human brain which also performs the same duties.

CPU	Human brain
Stores	stores information
Sends / processing	conveying information
interpreates information	understands
memory	long term / short term

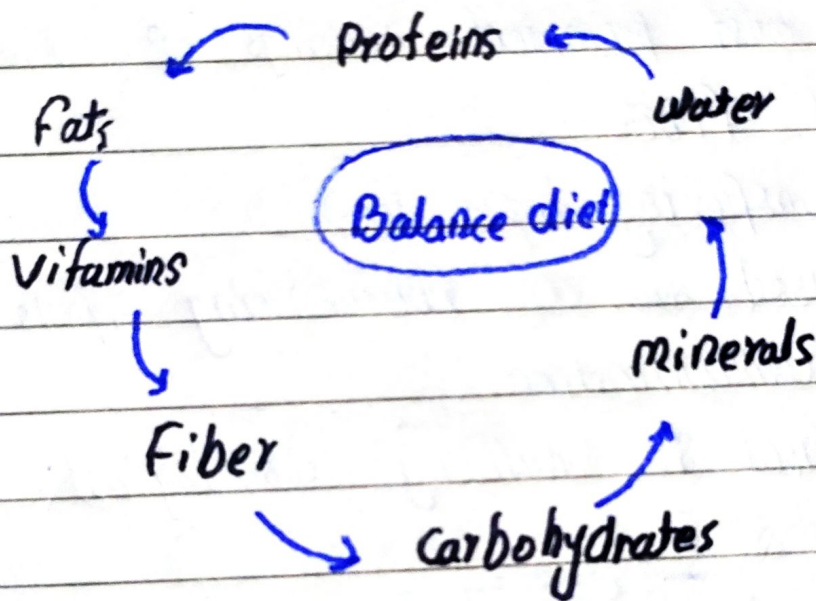
Figure 0.1 working CPU / human brain



(c)

Balance diet

Balance diet means consuming variety of foods in the proportion of balance level. This includes:



Deficiency of vit.	Imbalance in body
Vitamin A	Night blindness, Dry skin and eyes
Vitamin B	Anemia / weakness
Vitamin C	Scurvy (bleeding gums)

Figure 0.2 table of vit.



## (D)

### Optical fibers

Optical fiber refers to one of the most latest technologies which is being used to transfer information.

Four most prominent workings of the optical fiber:

- (1) Transferring information
- (2) used to send networking signals
- (3) Communication
- (4) used in military technologies

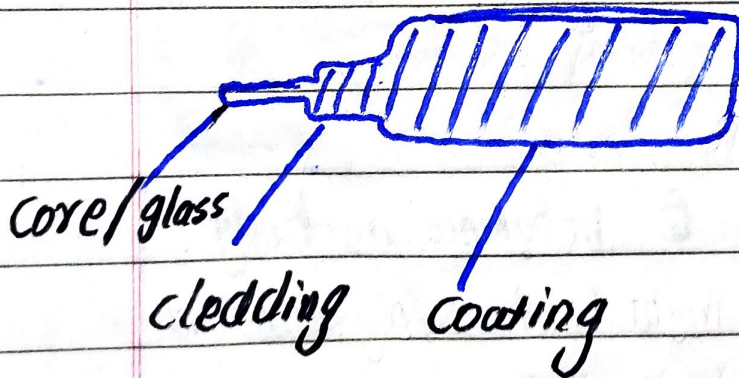


Figure 0.3 Diagram of optical fiber



# GPS

GPS stands for global positioning system. This was introduced by the US Air Force. It locates time, place and objects. It takes help from 24 orbiting satellites.

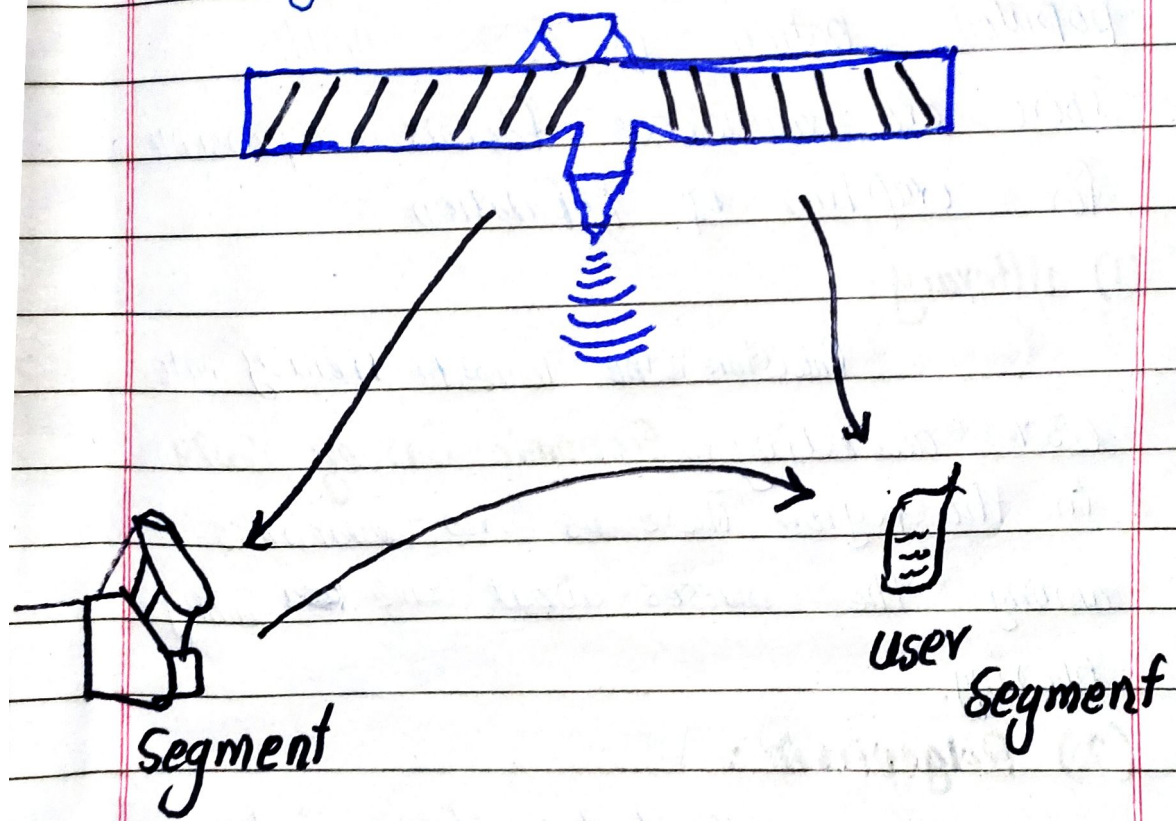


Figure 0.4 working of GPS



# Q. NO. 5

(a)

According to Pakistan Economic Survey 2024, Pakistan has 241 million population. This makes Pakistan the 5th most populous nation in the world.

There are numerous factors responsible for eruption of population.

(1) Illiteracy:

Pakistan has lowest literacy rate 63% according to Economic Survey 2024 in the region. There is no awareness among the masses about the family planning.

(2) Culture:

Culture has strong influence over the masses. In various parts of the country birth control is considered one of the notorious acts.



### (3) Religious factor:

undoubtedly, Islam is one of the moderate religions. Islam has always adopted the best aspects of other civilizations. Misunderstanding among uneducated youth and conservative scholars have always rejected the idea of birth control.

### Measures

#### (1) Awareness:

Awareness among the masses is important to encounter the eruption of population. Moreover, this can be achieved after taking the religious class in control.

#### (2) 3 child Policy:

Pakistan strictly impose three child Policy. This will help to control the population.



(b)

## Cyclones and Tornadoes

Cyclones and Tornadoes are two types of natural disasters. They are formed differently.

Cyclones	Tornadoes
Form over warm ocean waters	Develop from severe thunderstorms
Large-scale weather systems	Small-scale weather system

Figure 0.5 difference between Cyclones and Tornadoes



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In 2024, Cyclone Hidaya was observed affecting parts of the western Indian Ocean and Africa.

(c)

The Earthquakes occur due to the sudden release of energy in the Earth's Crust, causing seismic waves. This is usually caused by tectonic plates shifting or colliding.

### Turkey's Earthquake 2023

Deaths: over 5000 people

Intensity: The earthquake had a magnitude of 7.8 on the Richter scale.



(D)

Definitions	Definitions
Hypocenter	Point within the earth where earthquake produced
Epicenter	Surface point directly above hypocenter
Eye wall of hurricane:	The ring of intense <sup>storm</sup>
Shallow focus	An earthquake that happens at a depth of less than 70 km
Parsec	An astronomical unit of distance



## Section-II

Q.6  
(a)

Ans

- The ratio of Blocks A, B, C, D is in the ratio 4:7:3:1
- The number of A Block is 50 more than the number of C block
- Number of <sup>B</sup> blocks.

→ The number of A Block is 50

→ let the number of C block be 45

→ So, the number of B must be (15)

Therefore, the number of B block is (15)



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(b)

Pair of shoes 80 \$  
with 15% discount  
10% sale tax what is  
the final price?

$$\frac{10}{100} \times 80$$
$$\frac{5}{50} \times 80 = 200$$

The final price is 200

(c)

Travels 42 km plus 2 stops  
average of 36/hr  
 $4 + 42 \div 36 = 82$

$$= 27.3333 \text{ km}$$

Arrives at 5 p.m



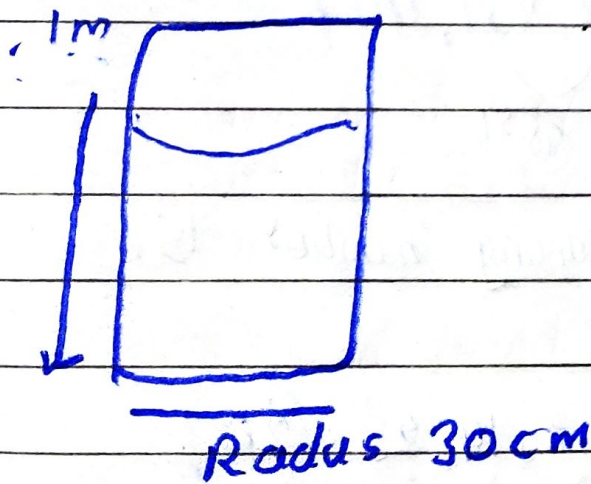
(d)

(i) white

(ii) uninterested

Q No. 7

(a)



Ans  $\frac{4}{30}$  cm



(b)

Average of 3 boys 15

$$\frac{15 \quad 15 \quad 15}{3}$$

Average 3:5:7

youngest (12)

12 years old.

(c)

8, 19, 52, 151, 447

$$\underbrace{\quad}_{11} \quad \underbrace{\quad}_{33} \quad \underbrace{\quad}_{98156}$$

wrong number 151

11, 13, 17, 19, 23 (29)

Prime number series the  
answer is ~~29~~ 29

(Ended)