TIME ALLOWED: THREE HOURS PART-I(MCQS): MAXIMUM 30 INUTES	PART-I (MCQS) PART-II	MAXIMUM MARKS = 20 MAXIMUM MARKS = 80

NOTE:
   i.   Part-II is to be attempted on the separate Answer Book.
   ii. Attempt ONLY FOUR questions from PART-II by selecting TWO questions from EACH SECTION. ALL questions carry EQUAL marks.

PART-II
(SECTION-A)

Q. No. 2
   a. Describe the structure of universe according to big bang theory.
   b. Define urinary system & explain the working of nephron.
   c. What is Un-balanced diet? How it affects the healthy living?
   d. Describe the structure and functions of cell wall, cell membrane, cytoplasm and mitochondria.

Q. No. 3
   a. How global warming can be reversed?
   b. Define ceramics. Give properties and applications of ceramics.
   c. Explain the working of Optic fibers & Mobile phone.
   d. Define the following and give examples:
   - Food Additives
   - Food Preservatives
   - Food Adulteration
   - Food Contamination

Q. No. 4
   a. Explain the role of heart and blood vessels in circulation.
   b. What is cyclone? Describe the formation of cyclone.
   c. Enlist the functions of:
      - Carbohydrates
      - Proteins
      - Fats
      - Calcium
      - Iron
   d. How remote sensing can be employed for environmental purposes?

Q. No. 5
   a. What is DRM? Give the importance of Risk assessment in DRM.
   b. Define biofuels. Explain the production of biodiesel and bio gas.
   c. What is digestive system? Explain the role of stomach and small intestine.
   d. Define plastics. Give their properties applications and environmental risks associated with plastics.

Q. No. 6

A. Pointing to a woman, Ahsan said, "Her granddaughter is the only daughter of my brother." How is the woman related to Ahsan?

B. The ratio between the length and the breadth of a rectangular park is 3:2. If a man cycling along the boundary of the park at the speed of 12 km/hr completes one round in 8 minutes, then the area of the park (in sq. m) is?

C. In a two-digit number, if it is known that its unit's digit exceeds its ten's digit by 2 and that the product of the given number and the sum of its digits is equal to 144, then the number is?

D. The L.C.M. of two numbers is 48. The numbers are in the ratio of 2: 3. Then the sum of the number is?

Q. No. 7

A) If 40% of a number is equal to two-third of another number, what is the ratio of first number to the second number?

B) On selling 17 balls at Rs. 720, there is a loss equal to the cost price of 5 balls. The cost price of a ball is?

C) A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of his son is?

D) Rashid and Kamran are working on an assignment. Rashid takes 6 hours to type 32 pages on a computer, while Kamran takes 5 hours to type 40 pages. How much time will they take, working together on two different computers to type an assignment of 110 pages?

Q. No. 8

A. There are five different houses A to E in a row. A is to the right of B and E is to the left of C and right of A. B is to the right of D. Which of the houses is in the middle?

B. If you start running from a point towards north and after covering 4km you turn to your left and run 5 km, and then again turn to your left and run 5km and then turn to left again and run another 6km and before finishing you take another left turn and run 1 km then answer questions based on this information.

How many km are you from the place you started?

In which direction will you be running while finishing?

After taking the second turn, in which direction will you be running?

From the finishing point if you have to reach the point from where you started, in which direction will you have to run?

C. Find the odd man out in the following anagrams. (a) THRSI (b) AOTC (c) EOUBSL (d) KTRIS (e) RETAEWS

D. How many triangles can you find in the figure given below?

***************
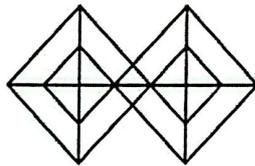
Best of Luck for CSS-2026

Start From Here

Q3

(a) How global warming can be reversed.

Global warming: Global warming happens when heat enter into earth from space and earth absorb the heat, and when it release the heat from earth green house gasses absorb the heat and minimal heat goes out in space back, and eath temprature keep warm. If the absorbtion amount of heat increase then Global warming happen.

Methods global warming can reversed.

GHG
Heat
Heat go back
earth
Absorbtion of Heat
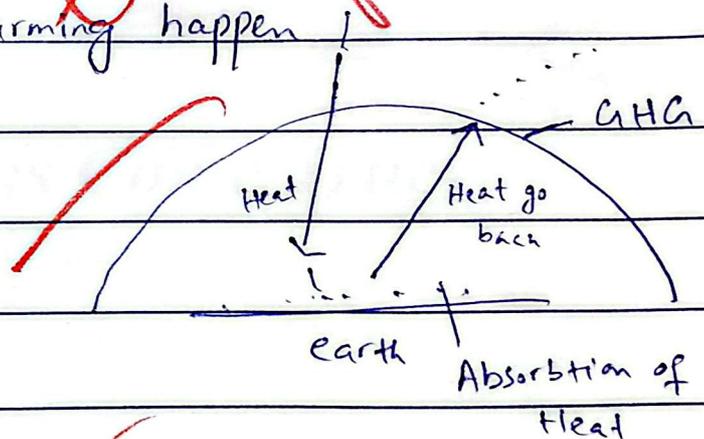
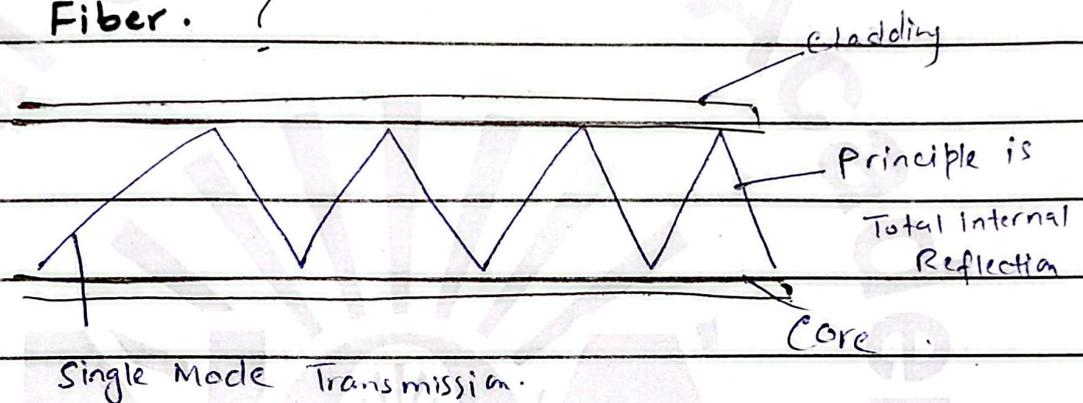i) Reduce the carbon emission of related industries.

ii) Shift non renewable source of energy into renewable source of energy.

iii) Reduce the use of cars, bikes and use public Transport

iv) Use Electric vechiles.

v) Run the campaign of Awarney.

vi) Increase the forestration.

(C) optical fiber & Mobile Phon.

OPTICAL Fiber. ?


cladding

Principle is Total Internal Reflection

Core.

Single Mode Transmission.

Working.

i) The Principle for the transmission of data use in optical fiber is Total internal reflection.

ii) The Transmission can be single mode or Multimode

iii) The Jackets preserve the Fiber from external environment.

iv) The data transmit very speedy — like the speed of light.

Mobile Phone.
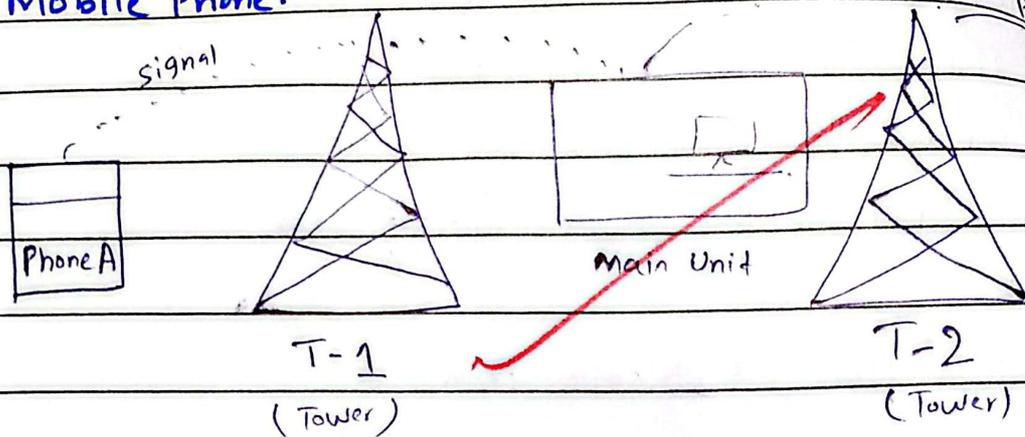
working:

i) First Phone A connect with Tower through SIM.

ii) Phone A Dial the call.

iii) The signal connect the Tower through the wave.

iv) Tower A send the information of call to Main unit.

v) The main unit find the nearest Tower.

vi) And connect with nearest Tower of Phone B.

vi) Tower 2 recive the signal and give the ring on Phone B.

vii) When Phone B pick the call, connect buit up.

Food Additives : Food additives means the specific amount of chemical add into food, that increase the shelf life of food. This procedure is legal and mentioned on food packet. And it is not harmful for health.

Example — Packet of vegetables.

Food preservation : Food preservation is a technique in which different methods use to preserve the food. Like cooking, Boiling, UHT, Chilling, Freezing.

Like — Powder milk,

Food Adultration : In food adultration, the b. seller use different method to increase the quantity through different ways for the purpose is behind to make profit. Like e.g — Addition of substance in food, papaya seeds mix in black paper.

Food contamination : Food contamination meas addition of substance add into food unintentially. It not happen by plan. It happen due to use of unhygenic methods.

Example — Hair in milk —

Q. NO: 4

Q4 Part (a)

(a) Heart and Blood vessels.

Heart is the main organ of human body. The main function of heart to take the deoxygenated blood from body and send to lungs, and when that deoxygenated blood convert into oxygenated blood and recived by the heart. And heart sendt again the oxygenated blood to human body.

There are the blood vessels that help the human body organ for the transmittion of Blood. The cappilaries function is to transmit the oxygenated blood to the human body. The Artries function is to gather the deoxygenated blood and give that blood to heart. And heart convert the dyoxygenated blood into oxygenate blood.

Function :

<u>c</u>

Prot₂   Functions.

Carbohydrates - ~~Carbohydrates~~ are the main, quick and large

source of energy - Example - Wheat, Rice,

ProteinF - Meat is the main source of Protein. That
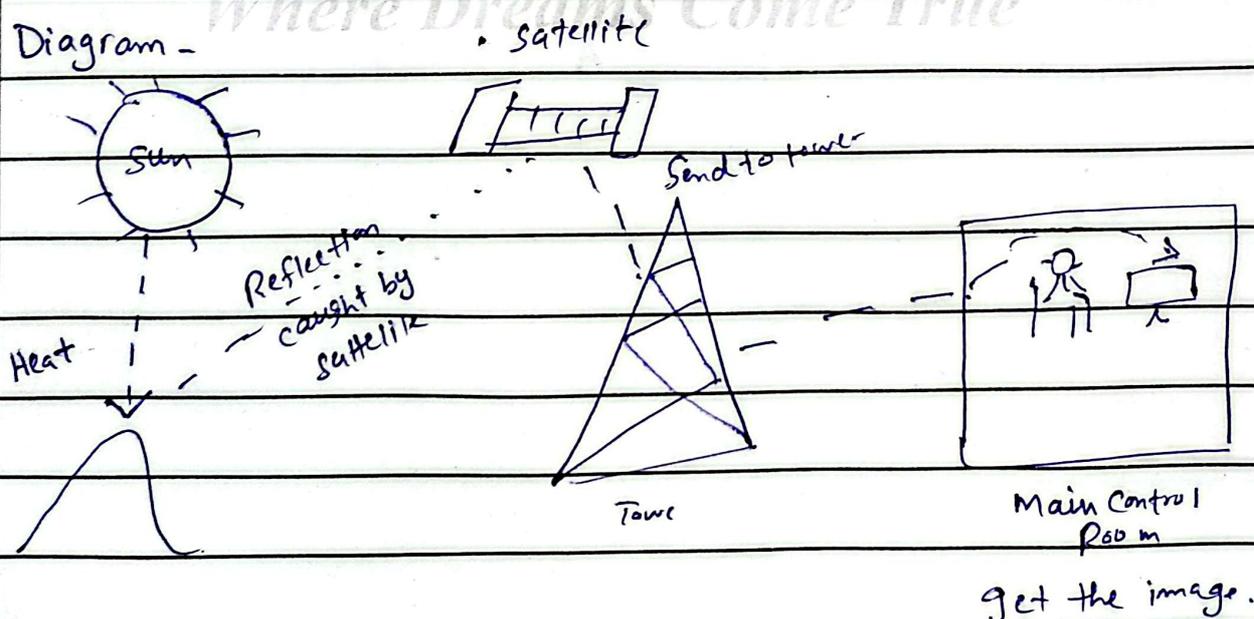
Provide energy . Like - Fish

Fats - Fats are the source of energy and can be preserved

in humman Muscles and when it need it Provide energy - e.g Butter.

Calcium - Calcium provide energy and it help into growth and

to make bones Strong - Example - Milk, Banana.

Iron - Iron provide energy and it help in productive

growth - Example. Leafy green vegetables.

d Remote Sensing -

Diagram -   • satellite

Sun

Reflection
caught by
sattelik

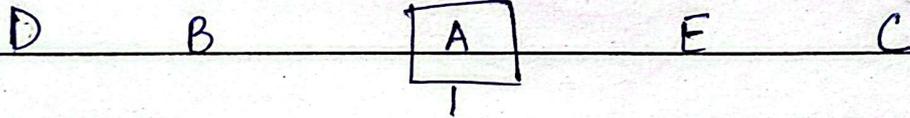Send to tower

Heat

Tower

Main Control
Room

get the image.

Uses -

i) Remote sensing using in different field.

ii) It is using to get the image - Military & security purpose

iii) In environment Remote sensing helped use to find the determinet of environment of that space that we can not go.

iv) Like we take measure befor any disester happen.

Q8   **Section B**

(a)

D   B $\boxed{A}$ E   C
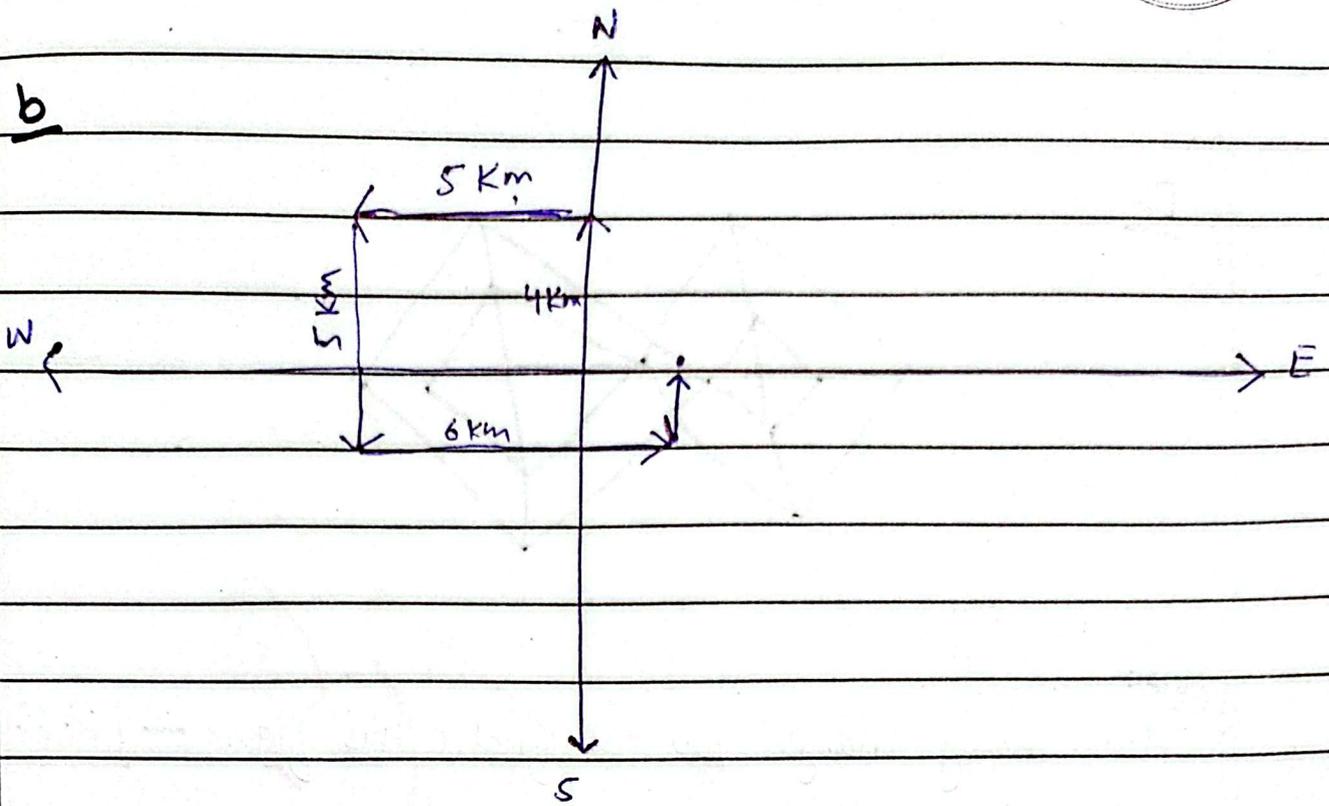
Middle House.

Middle House is = A

b

How many km you are away from start ~~─~~ 1 Km

<u>In</u> which Direction runing ~~finished~~ - North.

After taking the ~~second~~ turn in whic direction you be running. South.

From the finishing ~~point~~ if you have to reach the Point from where you started in which direction you will have to run - ⟶ West.

D
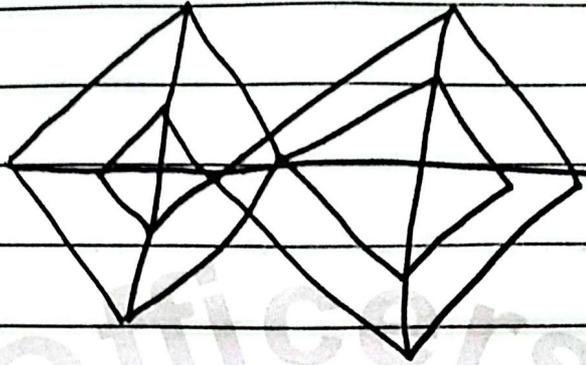
Ans:-

How many Triangle you can find in this figure — 22 Ans

Rough work—

| | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |

22

Q7

(a)

$$40\% \text{ of } A = 2 : 3$$

$$40\% \cdot A = \frac{2}{3}$$

$$60\% \cdot B = 1 - \frac{2}{3}$$

$$60\% \cdot B = \frac{3-2}{3}$$

$$60\% \text{ of } B = \frac{1}{3}$$

$$60\% \text{ of } B = 1 : 3$$

The ratio will b = 1 : 3

(b)

17 balls sell Rs 720.

Loss = cost price of 5 balls.

Cost price = ?

$$\text{Loss price} = \frac{720}{51} \quad 144 = \text{Los}$$

$$= 720 - 144$$

Cost price = 576

$$2 \overline{)17}$$
$$\frac{17}{17}$$
$$\overline{51}$$
$$17$$
$$\overline{68}$$

$$720$$
$$144$$

$$576$$

C.

	Present	Before / After.
Man	$24x$.	$(24x \cancel{+2})2$
Son	x	$x+2$

$$(24x+2)2 = x+2 \qquad \Big| \qquad (24x)2 = x+2$$

$$48x+4 = x+2 \qquad\qquad 48x = x+2$$

$$48x - x = -4+2 \qquad\qquad 47x = 2$$

$$47x = -2 \qquad\qquad\qquad \boxed{x = \frac{2}{47}}$$

$$24x + 2 = 2x+4$$

$$22x = x$$

$$\boxed{\text{The present age of his son is} = \text{11 years}}$$

d :

Rashid — 6 Hours — 32 pages.

Kamran — 5 Hours — 40 pages.

How much time = ? — work together on 2 different computer to type an assignment of 110 pages.

Rashid type 1 page in = $\dfrac{6 \times 60}{32}$

$= \dfrac{360 \;\cancel{18}\; \cancel{9}\; 45\; 11.2}{32 \;\cancel{16}\; 8\; 4\; 1}$

Rashid type $\boxed{1 \text{ page in} = 11.2 \text{ minutes}}$

Kamran type 1 page $= \dfrac{5 \times 60}{40}$

$\boxed{\text{Kamra 1 page} = \dfrac{300}{40} \;\;\cancel{}\;\; = 7.5}$

Rashid type 110 pages = 11.2 × 110

$\boxed{\textbf{Rashid type 110 page} = 1232 \textbf{ minutes}}$

$\boxed{\textbf{Rashid type 110 page} = \mathbf{20 \cdot 5} \textbf{ Hours}}$

(margin calculations)

20.5
+2.6
308
616
+2327
60
50
+5
51

7.5
4) 30
28
20
20
x

110
112
220
11. x
11. xx
+2 3 2.0
60
30

Kamran type 110 page $= 110 \times 7.5$

Kamran type 110 page $= 825$ Minutes

Kamran type 110 page $= 13.7$ Hours

$$
\begin{array}{r}
110 \\
75 \\
\hline
550 \\
7764 \\
\hline
8250
\end{array}
$$

$$
\frac{8250}{825}
$$

$$
\frac{825}{60}
$$

$$
\begin{array}{r}
13.7 \\
55 \\
765 \\
825 \\
60 \\
22 \\
41 \\
50
\end{array}
$$