

Dos and Don'ts for the General Science & Ability Paper

Hi there — you've prepared well!

DATE: / /

(Section - B)

Remember, knowing the content is one thing, but presenting it in the paper exactly as required is another. Here are a few key points to keep in mind:

Q. Question 7:

(A) 40% of a number is equal to two-third of a number. Find ratio?

1. For a 5-mark part, aim to write at least 2 and at most 3 sides of the answer sheet. Often, a question has two or three parts, and the marks are divided accordingly — so address each part fairly.

2. Manage your time wisely — you have about 35 minutes per full question, which comes down to around 8 minutes for each 5-mark part. Stick to this to avoid rushing later.

Let first number be x
Let 2nd number be y
According to given condition:

$$\frac{40}{100} x = \frac{2}{3} y$$

3. Make your answers look scientific, not just theoretical. Use flowcharts and diagrams wherever they add clarity.

$$\frac{2}{5} x = \frac{2}{3} y$$

4. Neatness matters — keep your handwriting clean, avoid cutting or overwriting.

$$\frac{x}{y} = \frac{5}{3}$$

5. Mind your spelling and grammar — while GSA doesn't deduct marks for these, your expression leaves an impression.

$$x : y = 5 : 3$$

6. In the ability portion, explain analytical ability questions in words. For a 5-mark part, show all steps and provide clear explanations.

Hence, ratio of 1st number to the 2nd number is 5:3

Good luck for CSS 2026 — you're going to ace it, in sha Allah! 🌟

(B) On selling 17 balls at Rs 720 ---

Solution:

Selling price of 17 balls = Rs 720

Let the cost price of 1 ball = x

Loss is equal to the cost

price of 5 balls. So,

$$\text{Loss} = 5x$$

total balls sold = $17x$.

According to given condition

Selling price = Cost Price - loss

$$720 = 17x - 5x$$

$$720 = \frac{12x}{12}$$

$$60 = x$$

Hence, cost price of 1 ball = Rs 60

(C) A man is 24 years older --- ?

Solution:

Let the age of man = x

Let the age of son = y

After 2 years:

Man age will be $x + 2$

(3)

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According to given condition:

Man is 24 years younger than Son
 $[x = 24 + y] \rightarrow i$

After 2 years:

$$x + 2 = 2(x + y)$$

$$x + 2 = 48 + 2y$$

Putting the value of x from i

$$24 + y = 48 + 2y$$

$$y = 22$$

Hence, the present age of
son is **22 years**.

(D) Rashid and Kamran are working---

Solution:

Rashid takes 6 hrs to type = 32 pages

In one hour Rashid type = $\frac{32}{6}$ pages

In 1 hour Rashid type = 5.33 pages

Kamran takes 5 hrs to type = 40 pages

In 1 hour Kamran type

$$= \frac{40}{5} = 8 \text{ pages.}$$

In 1 hour Rashid and Kamran
combined type pages =

$$5.33 + 8 = 13.33 \text{ pages}$$

Total Pages need to be typed = 110 pages

Time they take to type

$$= \frac{110}{13.33}$$

$$= 8.25 \text{ hrs} = 8 \text{ hrs } 15 \text{ min}$$

Kamran and Rashid will take

8 hrs 15 min to type 110 pages

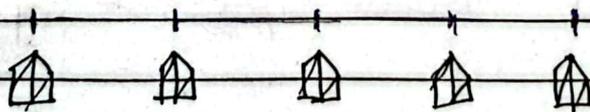
if work combined.

Question 8:

(A) There are 5 diff houses A - - - - ?

Solution:

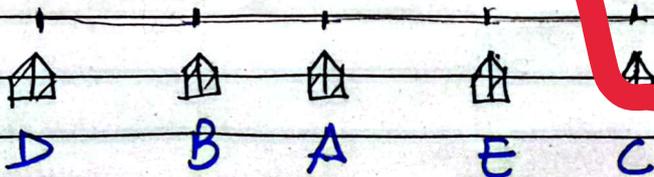
5 houses



According to given data :

A is to the right of B

and E is left of C and right of A.



5

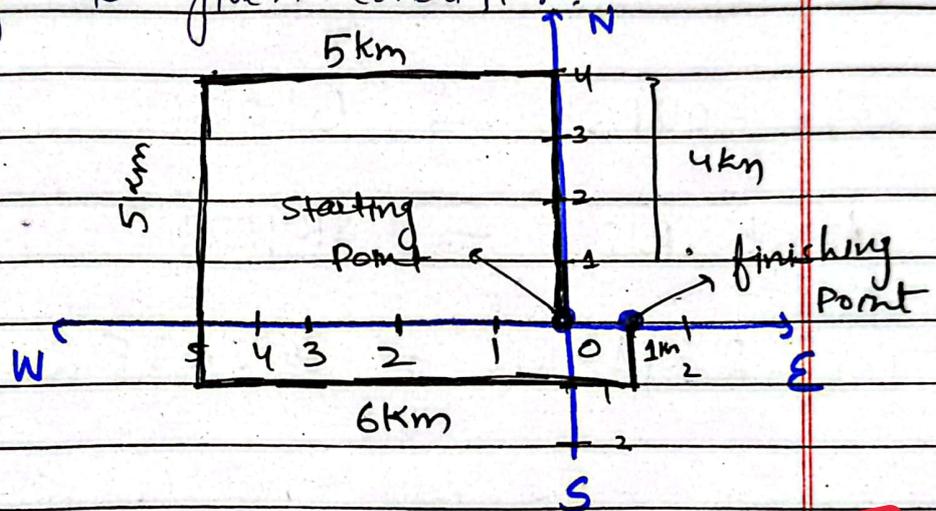
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Hence, **A** is the middle house

(B) If you start running from ----?

Solution:

According to given condition:



→ How many km are you from started?

1km away from starting point

→ In which direction running while finishing?
while finishing running **North** direction.

→ After taking 2nd turn, in which direction you will be running.

After 2nd turn, running in **South** direction.

→ from the finishing point ----?

Turn left, run **1km towards West**

(C) Find odd one out

Solution:

(a) THRSTI → SHIRT

(b) AOTC → COAT

(c) EOUBSL → SHOULDER

(d) KTRIS → SKIRT

(e) RETAZWS → SWEATER

The odd one is Sweater
because Sweater is used

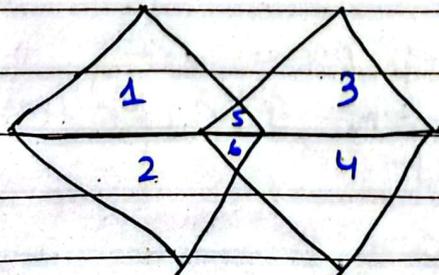
Only in Winter other
items can be used through
out the year.

(D) How many triangles?

Solution.

No. of triangles = ?
So,

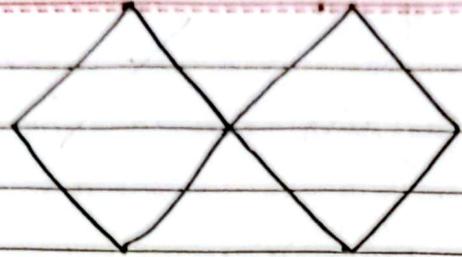
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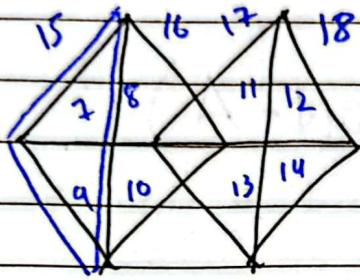
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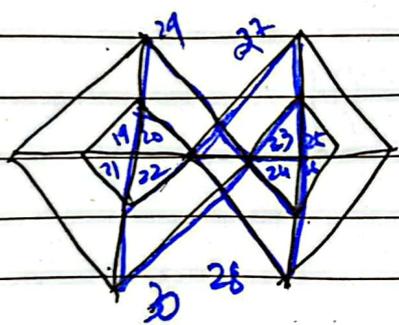
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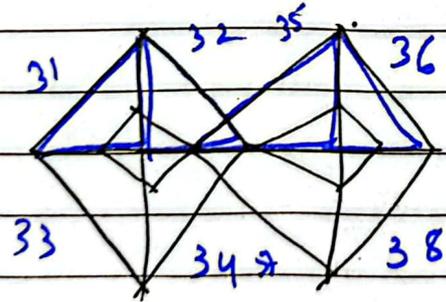
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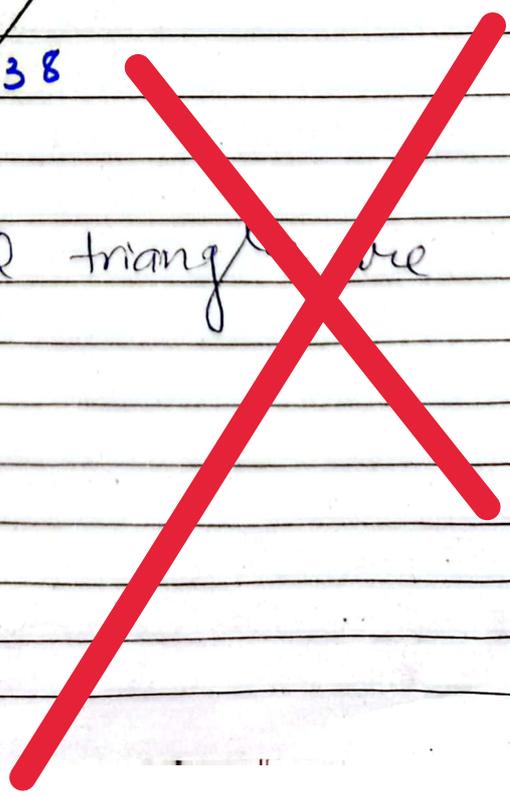
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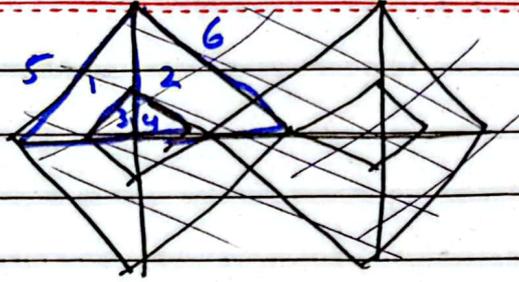


→



Hence, total triangles are
38





(SECTION-A)

Q. What is the structure of universe according to Big Bang Theory

Big Bang Theory:

According to Big Bang theory universe began 13.8 billion years ago from extremely hot dense particle. At that time space, time and matter came into existence. Since then, Universe is expanding.

Structure of universe:

→ Galaxies:

Galaxies consist of billion of stars. Stars combined together due to gravity form galaxies.

→ Clusters & super clusters:

Galaxies come together to form clusters & super clusters.

(a)

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3. Cosmic web: Huge number of filaments and voids, showing large scale distribution of matter.

4. Dark Matter:

Invisible dark matter that affects gravitational pull.

• Dark Energy:

A mysterious energy causing expansion of universe.

Universe started from singularity (not explosion), expanded and cooled to form atoms and stars. The structure of universe consists of filaments, dark energy, dark matter, cosmic webs, clusters and galaxies.

(b) Define urinary system and explain the working of nephrons.

Answer:

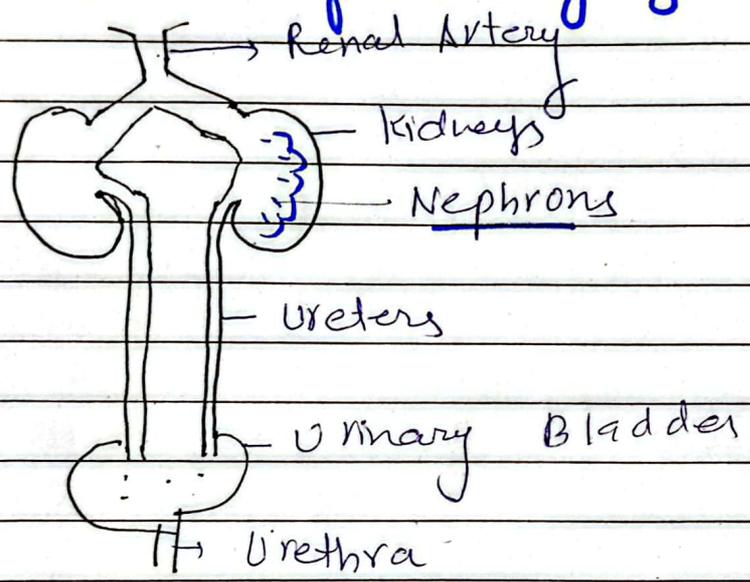
Urinary System:

Urinary System II

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the process of separation of nitrogenous waste in body. It is responsible for the filtration of body. It also removes nitrogenous waste from body,

Components of Urinary System:



Nephrons and their Working:

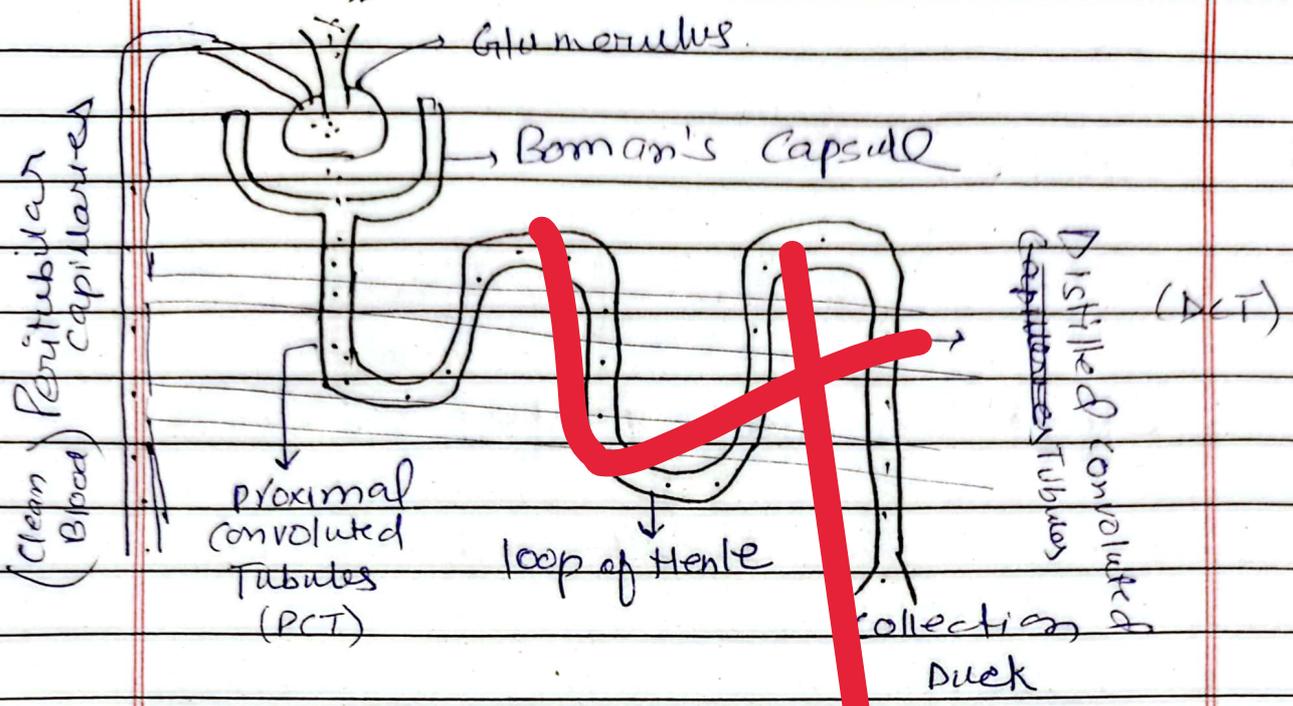
Nephrons are the functional units of kidneys. responsible for filtering blood, reabsorbing essential nutrients and removing waste

Basic structure contains:

- Renal corpuscle: for filtration
- Renal tube: for reabsorption & waste removal

(u)

DATE: / / Renal Artery



Glomerulus is a part of Nephron where filtration of blood takes place. Excessive things will separate called filtrate. Filtrate recedes PCT. Filtrate passes through DCT, moving through loop of Henle and DCT collected at collection ducts.

(c) What is Un-Balanced diet? How it affects healthy living?

Un-Balanced Diet:

Un-Balanced Diet lacks in essential Nutrients - like vitamins, minerals, proteins etc = or essential ¹⁰⁰ of nutrients require excess

for proper growth, energy
& health

Example:

- Junk food, cold drinks etc.
High on fat and sugar

Effect on healthy life:-

- 1) Cause underweight and overweight issues.

Excess calories intake cause obesity that can lead to heart disease. Whereas lack of calories can cause weakness, fatigue

- 2) leads to nutritional deficiencies
Lack of iron can cause anemia
Lack of calcium leads to weak bones

- 3) Affects Mental health
Poor diet affects mental health issues. for instance, stress, anxiety

- 4) Weakens Immunity power
Lack of vitamins (V) & minerals can reduce body's ability to fight against infections

- 5) Affects Growth & development
Stunted growth can also cause due to unbalanced diet.

(a) Describe the structure and functions of:

Cell wall:

|| Structure ||

- * Only present in plant cells
- * Made of cellulose
- * Rigid and strong
- * Permeable - allows water & molecules to pass through it.

|| Functions ||

- * Provide support to cell and maintains shape
- * Contributes to tissue formation

Cell Membrane

|| Structure ||

- * Present in all cells (animal, plants)
- * Made of phospholipid bilayer with embedded proteins
- * semi-permeable

|| Functions ||

- * Act as barrier
- * Protects cell from environment
- * Involve in cell signaling
- * Facilitate communication with other cells via receptors

3. Cytoplasm

Structure

- * Gel like semi fluid
- * Made up of water with salts and molecules
- ↳ contains organelles

Function

- ↳ Medium provide for chemical reaction
- ↳ Supports organelles
- ↳ helps movement within cell

4. Mitochondria :

Structure

- ↳ Double-Membrane organelle.
- ↳ contains enzymes, DNA, ribosome
- ↳ found in all cells

Function

- ↳ Also called power house of cell
- ↳ convert glucose to energy
- ↳ Regulate metabolism

Q5 (a) What is DRM? Importance

Disaster Risk Management:

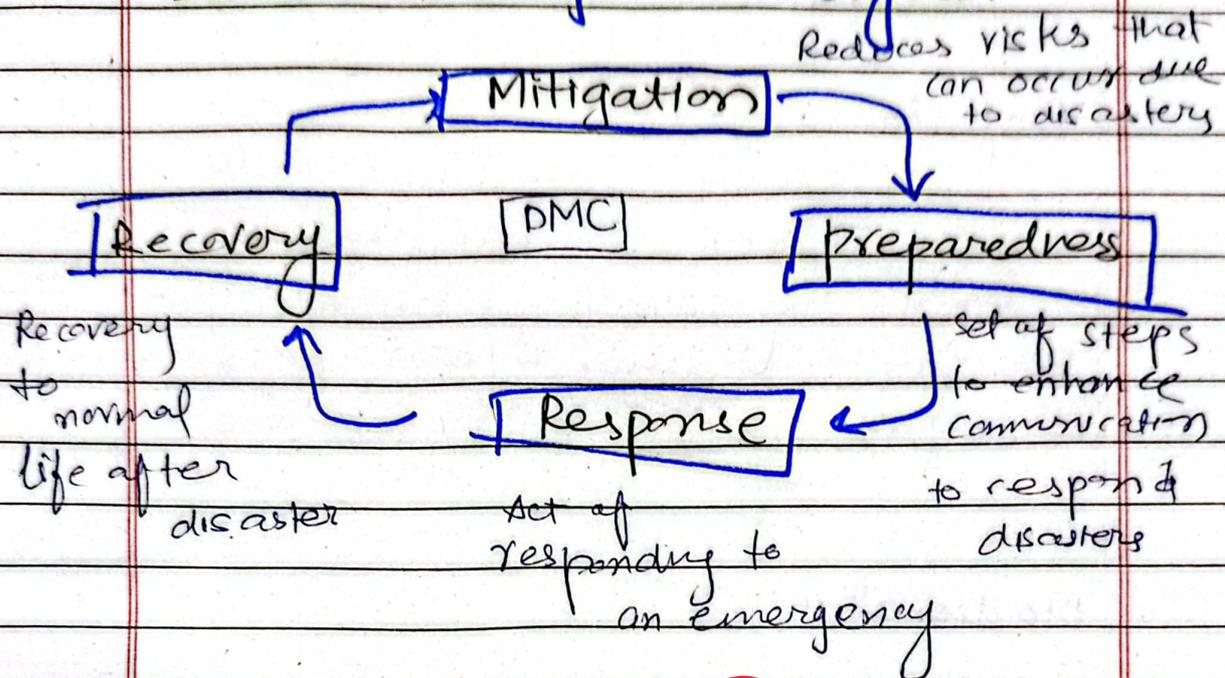
A systematic approach to identify, assess and reduce of disasters using



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Strategies & policies

Disaster Management cycle:



Importance of DRM:

- * Hazards Identification: Help us to differentiate between manmade disasters and natural phenomena.
- * Vulnerability Analysis: enable us to detect disaster prone and high risk areas.
- * Resource allocation: Provide us data to allocate resources according to the required need.
- * Reducing loss: Prepare well by strong communication to reduce loss.
- * Faster Recovery: Strategies to make faster recovery after disaster.

(B) Define Biofuels. Explain the production of biodiesel & biogas.

Biofuels :

Biofuels are renewable energy source. Biofuels consists of Biodiesel and biogas.

- These are derived from biological materials. like animals plants

Biodiesel :

- Biodiesel can be produced from ~~animal~~ animal fats, vegetable and cooking oils
- Oil + Methanol (alcohol) $\xrightarrow{\text{catalyst}}$ Biodiesel
process called **transesterification**
- It is used in engines as diesel.

Biogas

- Organic waste such as sewage, kitchen waste reacts with bacteria in the absence of oxygen from biogas.

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Organic matter + Anaerobic bacteria
+ Slurry

Bio gas use as ~~power~~ electricity generation & fertilizer.

Q. What is digestive system - - -

Digestive System.

Digestive system is the process of breaking down food into nutrients, absorbing them and eliminating waste.

Stages of Digestive system:

(1) Ingestion:

is act of eating

(2) Digestion

Breaking down of food

(3) Absorption of food

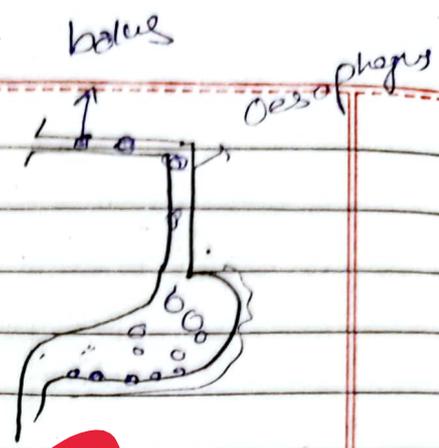
Simpler particles are absorbed in blood

(4) Excretion

elimination of wastes

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Role of Stomach:



- Responsible for receiving boluses.
- Contains HCL and enzymes like Pepsin.

Functions:

- Breaks down proteins into peptides
- Kills bacteria
- Mixes food with gastric juice to form chyme.

Role of small Intestine:

- Long tube ~ 6m divide into duodenum, Jejunum, Ileum.

Functions:

- Completes digestion using enzymes and bile
- Absorb nutrients into blood
- Moves undigested waste to large intestine.

(D) Define Plastic, properties

1a

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Plastic Definition:

- Plastics are synthetic or semi-synthetic organic polymers. They can be molded into different shapes.

Properties.

- Light weight and durable
- Good electric and thermal insulator.
- Non-biodegradable.

Applications:

- Household items such as boxes, plates, toys.
- Packing materials, bottles.
- Industrial material.
- Medical equipments etc.

Environmental Risk.

- Non-biodegradable - It takes longer to decompose.
- Release toxic chemicals when burn.

DATE / /

- Harmful for animals and plant when ~~absorb~~ is soil or water in the form of microplastic

✓ ——— ✓