

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

Date: _____

Sun Mon Tue Wed Thu Fri Sat

Hi there — you've prepared well!

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:

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.

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

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

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

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

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

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Date: _____

Qj

$$M = 24 + S \quad \text{--- (1)}$$

After 2 years

$$M + 2 = S + 2$$

$$M + 2 = 2(S + 2) \quad \text{--- (2)}$$

$$24 + S + 2 = 2S + 4$$

$$26 + S = 2S + 4$$

$$S = 26 - 4$$

$$S = 22$$

D) R: 6 hour for 32 pages
K: 5h for 40

$$R = \frac{d}{t} = \frac{w}{t}$$

$$= \frac{32}{6} \Rightarrow \frac{16}{3}$$

$$K = \frac{40}{5} = 8$$

combined speed = $\frac{16}{3} + 8$

$$= \frac{40}{3}$$

$$w = 110$$

$$v = \frac{40}{3}$$

$$t = \frac{w}{v}$$

$$= \frac{330}{40} \Rightarrow 8 \dots \text{hours}$$

Date: _____

No 8

(i)

C A (B) D E
B has middle lane

(ii)

A 1 km
B North
C west if I turn again to left
D or East if I turn right
E west

(D) There is 38 triangles

Section A

Disaster Risk Management DRM

DRM is any types of immediate response to any disasters like flood, earthquake or fire.

What is Risk Assessment in DRM

~~Early~~ Collecting Data. It involves patterns changing or any aberrance in normal ecosystem.

Date: _____

Sun Mon Tue Wed Thu Fri Sat

2. Reporting

2. Considering Report: It includes the common people to respond and rep by reporting the disaster quickly when immediately after happening to authorities.

3. Real Releasing Early Warning:

Authorities have to publish or relay realise the early warning to gather resources to provide emergency response.

Why Risk Assessment is Important in DRM:

Precautionary Measures: It provide ability to take early action to forestall the disastrous consequences of Risk.

To prevent from Damage: Early steps even before happening of calamity reduces the large infrastructure damage and human casualties.

To maintain normal ecosystem
It help to analyze change in trends and to sustain

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Date: _____

Sun Mon Tue Wed Thu Fri Sat

normal daily life

Conclusion:

Disaster Risk Management through Risk assessment reduce the fatal consequences of disaster. In Japan earthquake early warning system has ability to predict coming of Earthquake 20-25 minutes before which provide time to people to evacuate to Earthquake ~~sansed~~ Halls. protected

(b)

Biofuels:

Biofuels are fuels come and produced from biomass like bio animal waste, plant waste, or ^{biological} organism

Types:

- 1- Bio-diesel
- 2- Bio gas
- 3- Bio-ethanol

Importance

- It is less expensive than normal fuels which non-renewable
- It produces less harm to environment by releasing

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Date: _____

less quantity of CO_2 , CH_4 etc.

Biodiesel

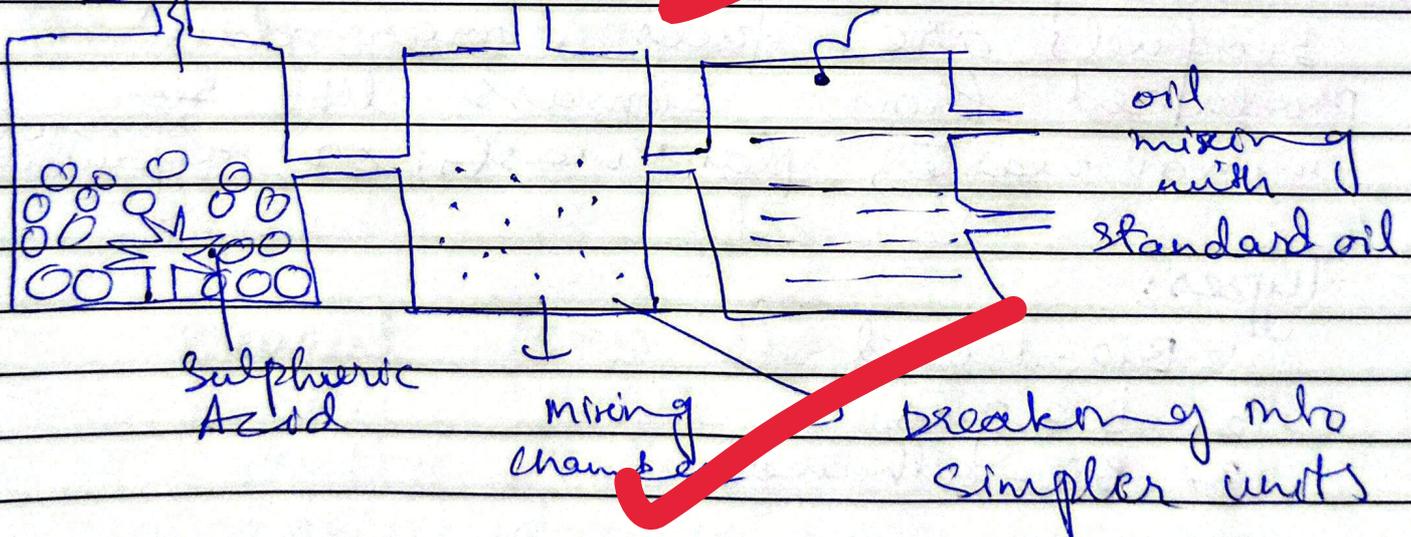
(i) Biodiesel:

It is the fuel which can be used as an alternative to normal & non-renewable fuel.

Production

- It can be produced by process called ~~bio~~ Trans-esterification
- It requires large amount of oil rich animal waste
- Required multichambered equipment
- Require Stand

Animal waste

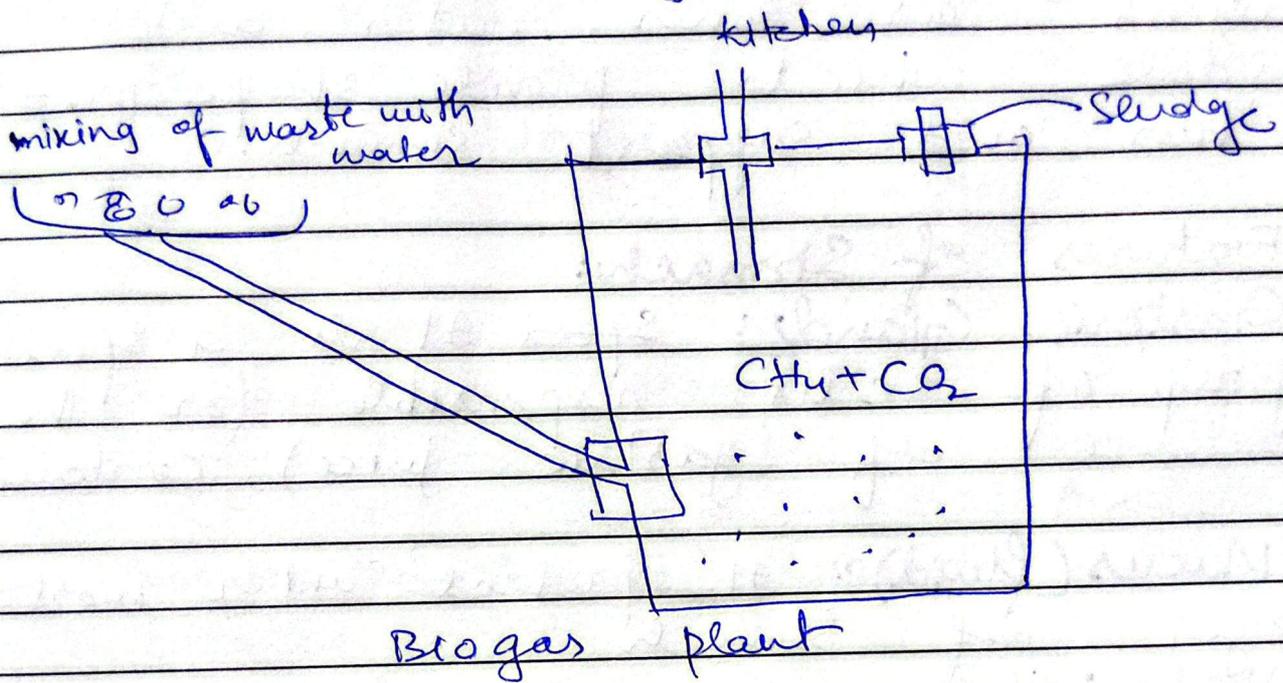


- Gives Glycerin as by product
- less efficient
- increase the risk of deforestation

Date: _____

Bio-Gas:

It can be produced from animal & plant waste used as alternative to common gas.



- It give sludge as bio product which is the very good fertilizer
- 70% of CH_4 & 30% of CO_2
- It is smelly gas
- has low pressure

(c) Digestive System:

Digestive is responsible for the breaking down of large particles of food into smaller more absorbable particles as

1. Carbohydrates
2. Proteins
3. Fatty Acids

Date: _____

Sun Mon Tue Wed Thu Fri Sat

Stomach: is the J-shaped organ of the body responsible for 10% of digestion. It consists of 3 layers as inner, outer and middle which provide shape, protection and support stomach.

Features of Stomach:

Gastric Glands: Special group of cells responsible for the release of (gastric juice) contains:

- i) Mucus (fluid): It protect inner most layer of stomach
- ii) HCl: It is responsible for killing of micro-organisms and convert pepsinogen into pepsin
- iii) Pepsinogen: It is present in inactive form. HCl convert it into pepsin responsible for breaking down of protein into polypeptide.
- iv) Chyme: It is a semi-fluid like structure which formed after grinding of by stomach through forward, backward movement.

- Chyme then exit to small intestine by pyloric sphincter

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Date: _____

Sun Mon Tue Wed Thu Fri Sat

Small Intestine: 90% of digestion occurs at small intestine. It is 6m long. It complete digestion.

Features / Working:

a. Duodenum

- ① 20-25cm in length,
- ② releases only enzyme EnteroKinase
- ③ consist on

i) Pancrease

- Responsible to release pancreatic juice through pancreatic duct, consist on following enzymes like Amylase, Sodium Bicarbonate, Trypsin and Lipase.

(b) Liver: It releases bile which move through bile duct, responsible for conversion of fats into fatty acids.

(c) Jejunum: most of the digestion occurs here. It releases intestinal juice which contain enzymes

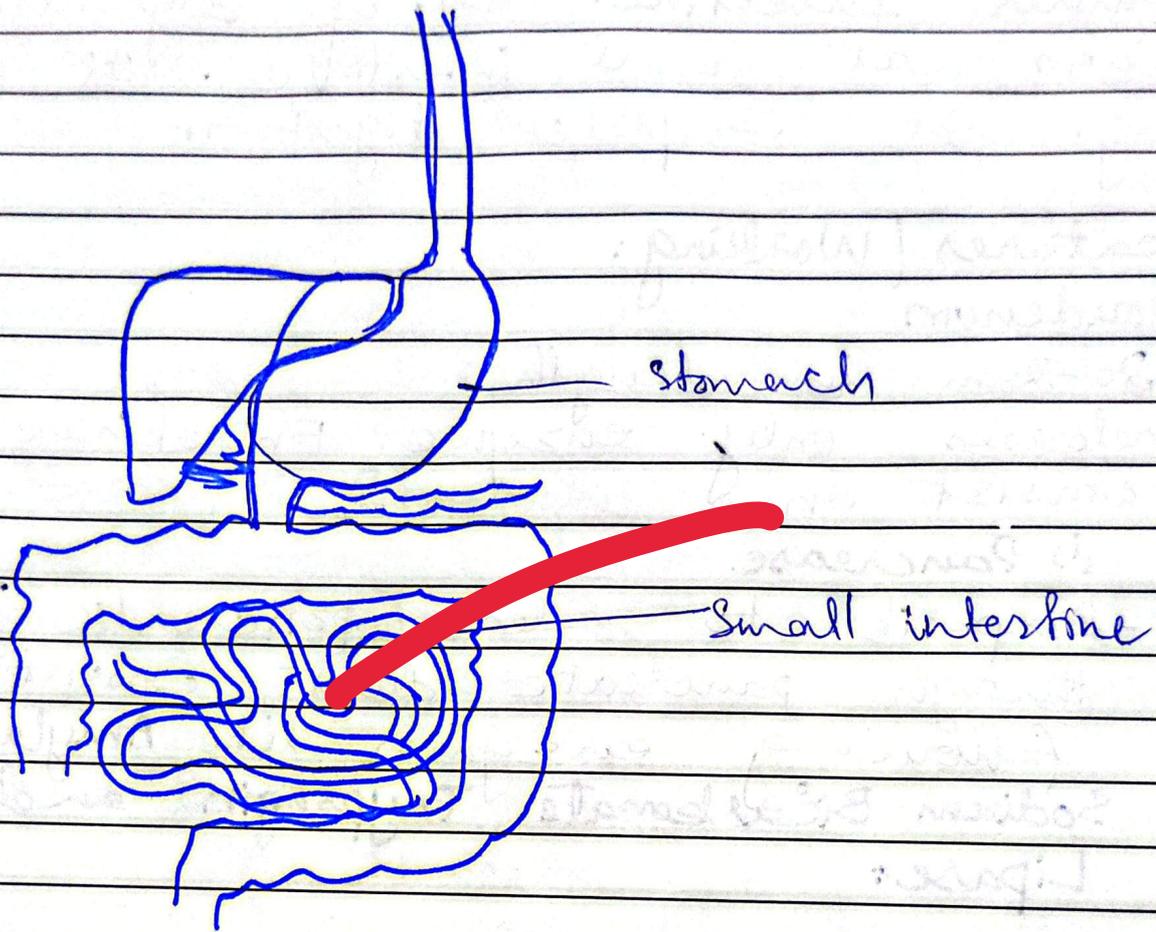
- Aminopeptidase: Polypeptide into dipeptide
- Trypsin: Convert dipeptide into Amino acids

- Lipase
- Maltase
- Lactase

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Date: _____

Sun Mon Tue Wed Thu Fri Sat



(Q3)

Global Warming

It is the average and gradual increase in ~~our~~ surface temperature of Earth and lower troposphere.

According to NASA: 1°C temperature has risen in last century.

How GW can be reversed:

- Shifting to ~~non~~ Renewable energy resources
We should cut our reliance

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Date: _____

~~on~~ green house gases like CO_2
on non-renewable energy sources
which ~~also~~ releases green house
gases like CO_2 , CH_4 , SO_2 etc. We
should shift to renewable energy
~~resources~~ sources like hydro, solar,
wind, bio and ~~elect~~ geothermal energy.
and by promotion of SDG 7 which
ensures clean and affordable energy.

Promotion of Global Forestry:

- Promotion of Afforestation and reforestation
- Reducing deforestation
- It provides 'carbon sink'
- Provision of SDG 15 life on land and forestry.

Promotion of Sustainable of Urbanization / Sponge cities:

- Promotion of 'vertical expansion' rather 'horizontal' as Japan did despite excessive earthquakes
- Use of "porous bricks" to allow water to absorb by low soil to support rain cycle
- Adoption of Japanese 'Miyawaki' technique to grow small patches of forests

Date: _____

Sun Mon Tue Wed Thu Fri Sat

4. Promotion of sustainable Transport:

- Reducing the usage of private car usage
- Encouraging public transport, use cycles and 70% of people in Copenhagen travel by cycle
- Shifting of public transport to electric vehicles like govt's initiative of Blue Electric buses in Islamabad and e-scooters.

5. Promotion of Education & Awareness:

- Integrating institutions like schools universities to educate people about global warming
- Cooperating with religious figures to talk on global warming as 'Jumma Khulba' is good platform
- Use of digital media to construct people narratives for collective against global warming
- This all help at social level.

6. Others Efforts:

- Ensuring solid waste management
- Getting International support through finances for capacity building
- Sustainable industrialization
- ~~Strengthening~~ Strengthening
- Strengthening Disaster Risk management

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