

DATE: _____

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

Part - II Section -

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:

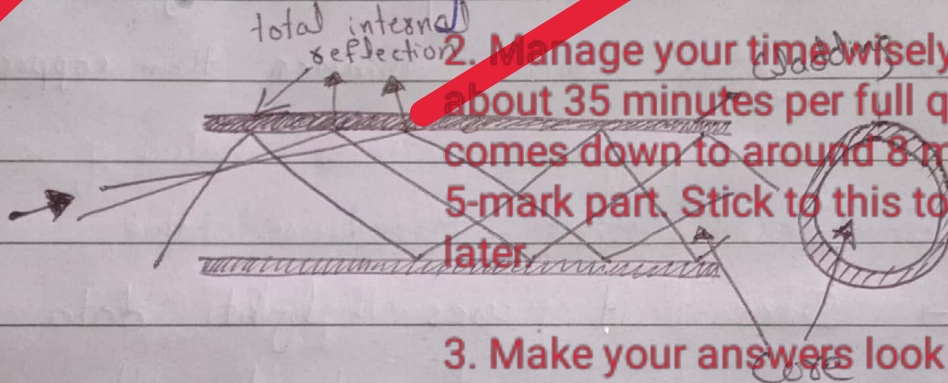
Q.No.4.

a.

What are fiber optics, transmission?

Ans.

Fiber optics are thin strands of glass or plastic used to transmit information using light.



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.

→ Cladding is low refractive index

→ Core is high refractive index

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

Working Principle:

→ A laser or LED

sends signals to the end of the fiber.

→ Light bounces off the walls again.

→ Light does not escape the fiber.

→ At the other end, a device

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! 🌟

②

DATE: _____

M T W T F S

the light and turns them back into data.

Generic!

Advantages over Copper wires.

- Uses light to send data fast.
- Faster than copper wires.
- Cannot lose signals over long distance.
- Not affected by electromagnetic interference.
- Lighter and thinner than copper.

Enables high speed data:

- Since it uses light, data can move at about the speed of light.
- They can carry a lot of data at once without slowing down.
- They are perfect for internet, TV, and other communications as they are much faster than other services.

DATE: _____

M T W T F S

b. What are the ----- earthquakes?

Ans: Earthquakes happens when the earth's crust suddenly shakes because of movement under the ground.

Causes:

Divide int anthropogenic and natura causes

- i. Tectonic Plates movement
- ii. Volcanic eruption or magma moving underground.
- iii. Human activities that mining, building of large dam or explosions.

Effects:

- i. Buildings collapse.
- ii. Roads and bridges break
- iii. loss of lives
- iv. Fires, tsunamis, landslides.

Generic

Types of Seismic Waves:

1. P-Waves : are fastest waves which travels through solids.

④

DATE: _____

M T W T F S

liquids and gases.

2. S-Waves = slower than P-waves,
can only travel through solids.

3. Surface waves: travel along
the earth surface, these
are slowest but most
damaging.

Measurement:

- i. Seismograph - records shaking of ground.
- ii. Richter Scale - Measure the
strength of earthquakes.
- iii. Mercalli Scale - measures how
much damage was done based
on people's observation.

Earthquake - Resistant Construction:

- i. Strong buildings are designed to
sway.
- ii. Use of flexible materials,
deep foundations, and shock absorbers
are installed in buildings.

And?

Preparedness Measures:

- Emergency kits.
- Practice drills.
- Evacuation plans.
- Warning systems.

C. What is balance diet ----- diseases?

Ans: A balanced diet means eating the right kinds and amount of food from all foods so your body ^{gets} ~~goes~~ everything it needs to grow, stay strong and healthy.

It includes.

Carbohydrates.

Fats

Proteins

Vitamins etc.

Importance:

- Grow properly.
- Stay strong and energetic
- Fight off diseases.
- Heal faster after injury.

6

MTWTFSS

DATE: _____

Macronutrients (needed in large amounts)

- Carbohydrates gives energies
- Proteins - build muscles and tissues
- Fats - stores energies.

Micronutrients (needed in small amounts)

- Vitamins - help body functions
- Minerals - Build strong bones, carry oxygen.

Prevention from chronic diseases:

- Diabetes - controls sugar.
- Heart Disease - lowers unhealthy fats and keeps BP normal.
- Obesity - keep weight in check with proper portions.
- Anemia - Iron rich foods prevents tiredness and weakness.
- Weak bones - Calcium and vitamin D keep bones strong.

d. What are ----- communities?

Ans: Water pollution happens when harmful substances get into rivers, lakes, oceans, or groundwater and make the water unsafe for drinking, swimming, fishing, or farming.

Sources:

- Industrial wastes.
- Sewage and wastewater.
- Agricultural runoff
- Plastic and garbage
- Oil spills.
- Household waste.

Add diagrams

Impacts on Environment:

- Kills fish and aquatic life.
- Destroys ecosystems.
- Reduces oxygen levels.
- Harms plants and birds.

DATE: _____

Impacts on Human health:

- Causes diseases like
 - Cholera
 - Diarrhea
 - Skin infection
 - Liver and kidney problems
- Dirty drinking water
- Toxic chemicals can build up in body.

Prevention and Control:

- Do not throw trash into water bodies.
- Use less chemicals at homes and in farms.
- Fix leaky toilets and pipes.
- Build proper sewage systems.
- Plant trees and use green spaces.
- Educate others.
- Enforce strict laws.
- Regularly test water quality.
- Install water treatment plants.

Don't be generic

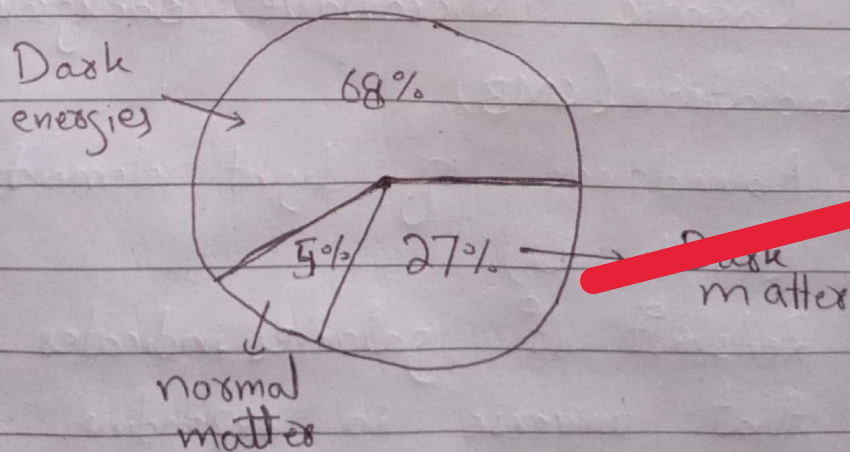
Q.No.2.

a. What is Big - - - - -

Answer: The Big Bang theory explains that the universe began as a singularity, an infinitely hot and dense point, around 13.8 billion years ago. This singularity expanded rapidly, and as it did, it cooled and formed subatomic particles, atoms, stars, galaxies, and the universe.

Role of Dark matter:

A type of matter that does not emit, absorb, or reflect light, making it invisible.



It plays a crucial role in the formation and evolution of galaxies by providing gravitational scaffolding for normal matter to clump around.

Role of Dark energies:

Dark energy is a mysterious component making up 68% of the universe's mass-energy content. It's thought to be responsible for the accelerating expansion of the universe.

Key evidence:

- Cosmic Microwave Background Radiation (CMB)
- Abundance of light elements (H, He, Li).
- Redshift of galaxies indicates that universe is expanding.