

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

Day: Jan 3, 2025

Mock

Date: ___/___/20___

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.

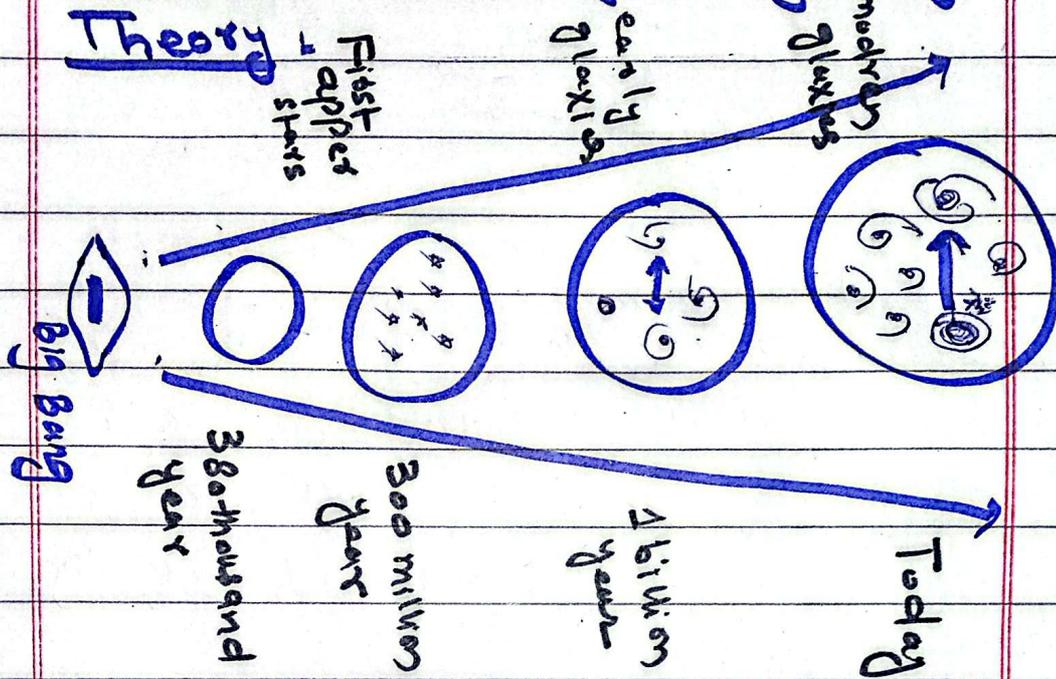
5. Mind your spelling and grammar while GSA doesn't deduct marks for these, your expression leaves an impression.

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! ✨

celestial bodies.

→ Structure and function of Universe according to Big Bang Theory



⇒ According to the Big Bang Theory, the universe began before about 13.8 billions years ago from an extremely hot, dense point called a singularity.

→ with the passage of time universe started expand and cool.

→ As a result fundamental particles i.e. protons, neutrons and electrons were formed.

→ Later these particles combined to form atoms, mainly "H" and "He".

→ Over millions of years, gravity caused these particles (gases) to come together ^{to} forming stars.

→ Then, stars grouped together to form galaxies. and then galaxies resulted into make up the universe.

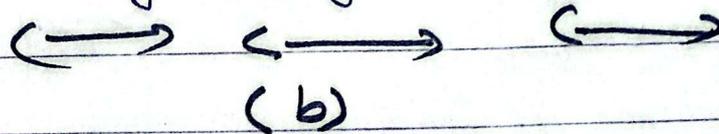
→ Structure of galaxies:

Galaxies are arranged into different large structures i.e. clusters, superclusters, filaments and vast empty regions called voids, (web like structure).

→ The universe is still expanding today, that it is showing that showing that it is not static but dynamic in nature.

→ Expansion of Universe

It is the fact that supports the Big Bang theory.



Urinary system:-

Definition:-

The urinary system is responsible

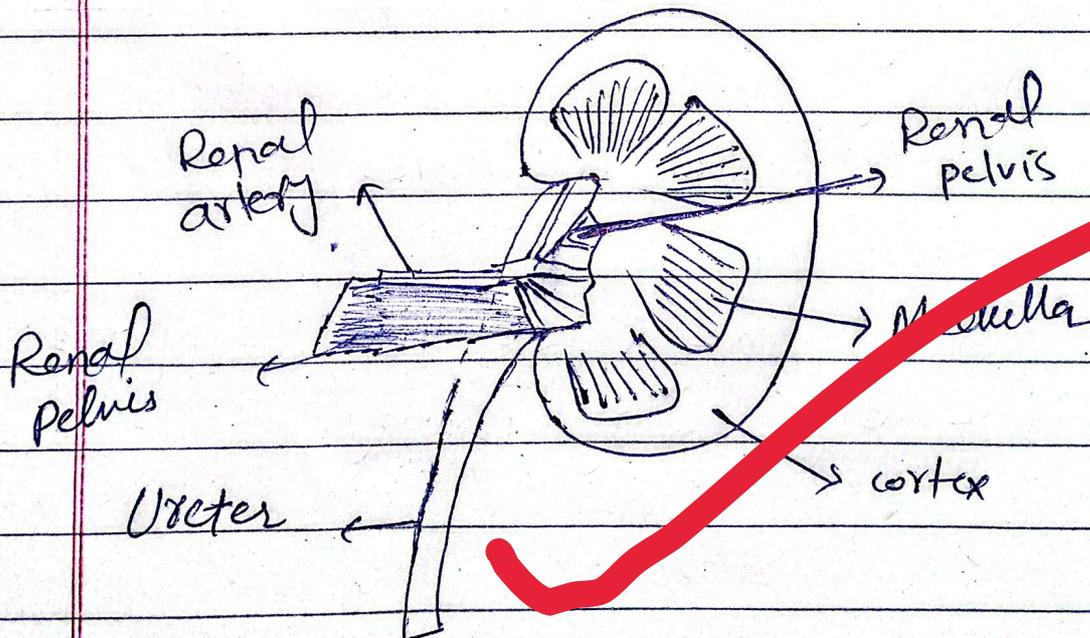
for functions i.e. removing waste products and excess water from blood and maintaining the balance of fluid, salts, and pH in the body.

⇒ Parts of Urinary system

There are different parts of urinary system these are

- (i) kidney
- (ii) Ureter
- (iii) Urinary bladder
- (iv) Urethra

→ Anatomy of the kidney



structure of kidney

⇒ Kidney - It plays important role in filter blood (remove

wastes) and form urine

⇒ The nephron is a structural and functional unit of kidney

⇒ Working of nephron:

The most important function of nephron form urine by filtering blood and removing wastes.

→ Steps of (in nephron) working:

(i) Glomerular Filtration:

The blood enters the nephron through glomerulus with high pressure. The high pressure of blood pushes water, salts, glucose, urea and other small molecules into Bowman's capsule. Other important nutrients and cells remain in blood.

(ii) Selective reabsorption:

The important nutrients, substances, salts, and water are reabsorbed into blood from renal tubules (mainly proximal convoluted tubule).

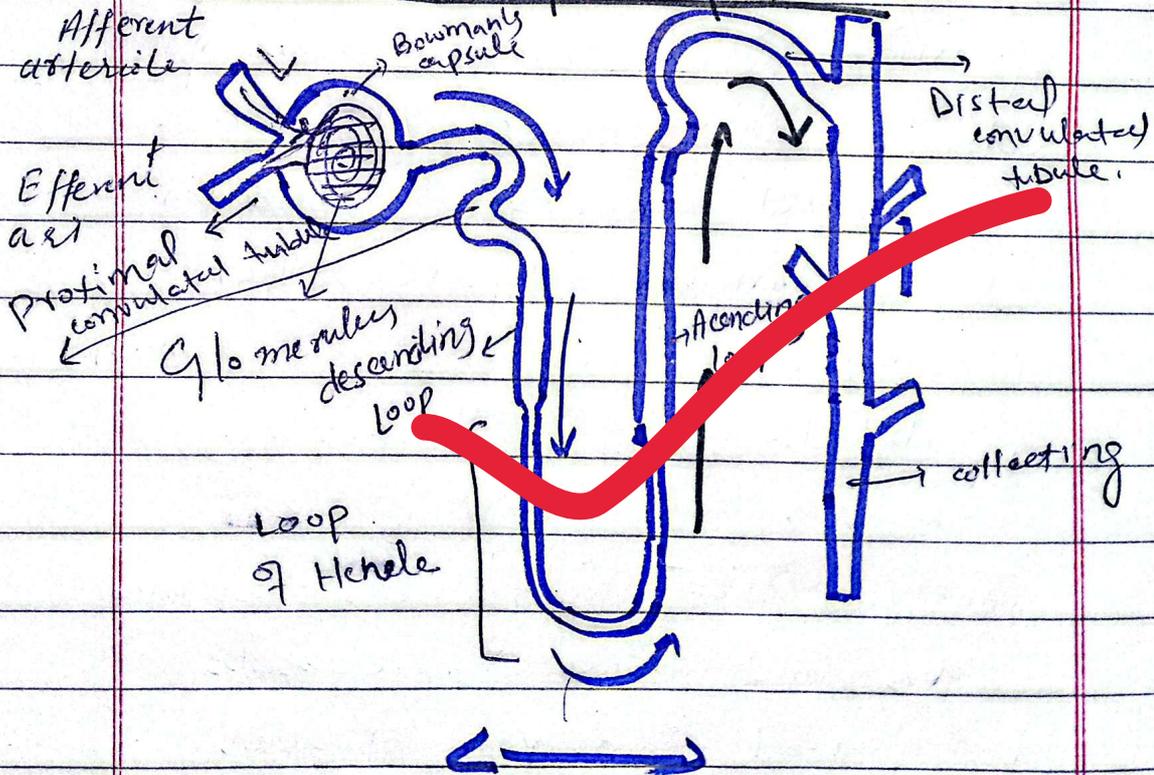
(iii) Tubular Secretions:

The additional wastes material like hydrogen, (K) potassium ions and drugs are pushed into tubules from blood to maintain ionic and pH balance

(iv) Urine Formation

The remaining fluid becomes urine which move towards the collecting duct, renal pelvis and urinary bladder. Then moves out through the Urethra

⇒ Structure of nephron



(c)

Un-balanced diet

An unbalanced diet that does not provide the right amount or nutrients which are required for good health.

→ It may contain excess or deficiency of nutrients which are required.

i.e. Carbohydrates, proteins, fats, vitamins and minerals.

⇒ Causes of Unbalanced diet

The one of most big reason eating too much junk foods, not eating habit of fruits and vegetables, improper diet plan etc.

→ How it affects the body:-

There are numerous side-effects of unbalanced diet

⇒ Types of effects

(i) Short-term effects

Such type of effects caused the digestive issues, lower the energy and skin problems etc.

(ii) Long term effects

Such type of effects caused the serious issues or chronic

effects. are listed here:-

- (1) obesity and weight gain
- (2) Hypertension
- (3) Type-2 diabetes
- (4) Nutritional disease
 - (a) anemia (low blood cell)
 - (b) rickets (bone disease).

⇒ Preventions:-

We can prevent the effects of unbalanced diet by eating healthy foods, taking essential nutrients, cereals, proteins etc.

Conclusion:

A healthy body needs a healthy nutritional diet to grow in proper ways.



(d)

(a) Structure and functions of cell membrane:- (fluid mosaic model)

⇒ The cell membrane is a thin, flexible, selectively permeable layer made up of phospholipid bilayer with embedded protein

⇒ Functions : At: control

- Controls the movement of substances into and outside of the cell
- Also protect the cell and helps maintain its shape.

⇒ Cell wall structure and function:

It is a rigid outer layer in plant, fungi, bacteria and algae that provides structural support, maintains cell shape, protects against mechanical stress and pathogens, and regulates substance flow through pores.

→ Its structure varies made up of cellulose, pectin, and hemicellulose in plants. Similarly, made up of chitin in fungi and peptidoglycan in Bacteria.