

Dos and Don'ts for General Science & Ability Paper

Hi there, you've done well. Know that acquiring knowledge is one thing and reproducing it in paper according to what's asked is another. There are a few things I would like to highlight. Add diagrams

1. A 5 marks part requires at least 2 and at max 3 sides of a paper. Know that there can be two or three parts of a question and their marks are divided accordingly. So, address all of them in a just manner.
2. Focus on time management. You get 35 minutes to solve one question and about 8 minutes per 5 mark part. Manage your time accordingly.
3. You need to understand that your paper is supposed to look more scientific than theoretical. So, add flowcharts and diagrams where required.
4. Your handwriting and neatness can be really impactful. Avoid cutting and overwriting.
5. Focus on your spellings and your grammar. Here, in GSA there's no deduction in marks but your expression will definitely create an impact.
6. In ability portion, give explanation for analytical ability question in words. You need to understand that a 5 mark part requires all steps written and explained.

Good luck for CSS 2025. You're gonna rock in sha Allah. :)

Physical Properties:-

- Hepatic bile → PH 7.4 Color is golden yellow
- Bladder bile → PH 8.8 Color is dark green or yellow.

4- Bile Secretion

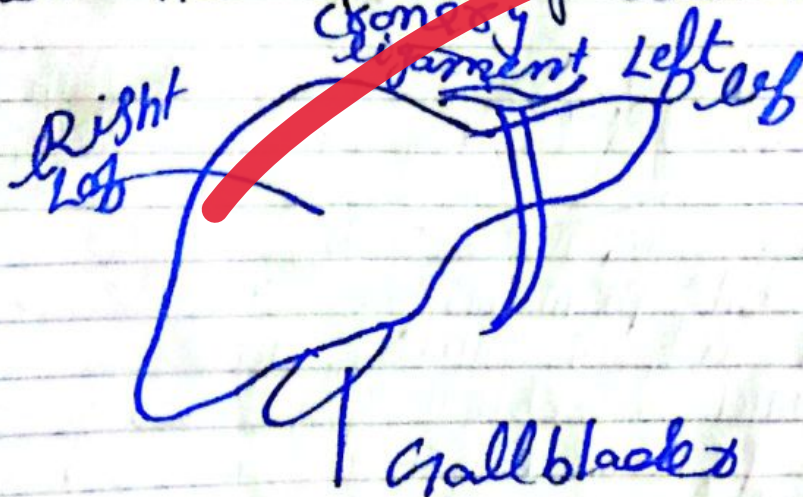
Bile is secreted in 2 stages.

(4.1) Stage one

The stage one in which liver hepatocytes will secrete an initial secretion that is rich in bile-cholesterol and other components. The initial secretion will drain through many minute bile canaliculi that penetrate the liver.

(4.2) Stage 2

The initial secretion will flow toward bile ducts during its flow in the duct secondary secretion added in which is sodium bicarbonate (secondary) watery solution. The bile is empty into duodenum when the sphincter of oddi is open.



Define the term.

- (1) Anaemia
- (2) Appendicitis
- (3) Spleen
- (4) Myopia
- (5) Isotones

(1) Anaemia .

in Anaemia of not having enough health red blood cells or hemoglobin to carry oxygen to the body tissue. Hemoglobin is a protein found in the red cells that carry oxygen to all other organ in the body.

Causes / Symptoms.

- (1) Tiredness
- (2) weakness
- (3) Short breath
- (4) Yellowish skin
- (5) Irregular heartbeat
- (6) Chest pain
- (7) Headaches
- (8) Cold hands and Feet

3 types of anaemia

(1) Aplastic anaemia \Rightarrow when body unable to form blood.

(2) Iron deficiency \Rightarrow when lack of health RBC in body

(3) Sickle cell anaemia \Rightarrow It is inherited. which effects the shape of RBC, which carry oxygen. The Round, Flexible cells become crescent shape.

(4) Thalassemia \Rightarrow it is inherited disease that cause your body less blood than normal.

(5) Vitamin B-12 deficiency \Rightarrow it is due to low amount of Vitamin B-12 in body.

Treatment

Eat Health food which is rich with Vitamin and Supplement use.

(2) Appendicitis

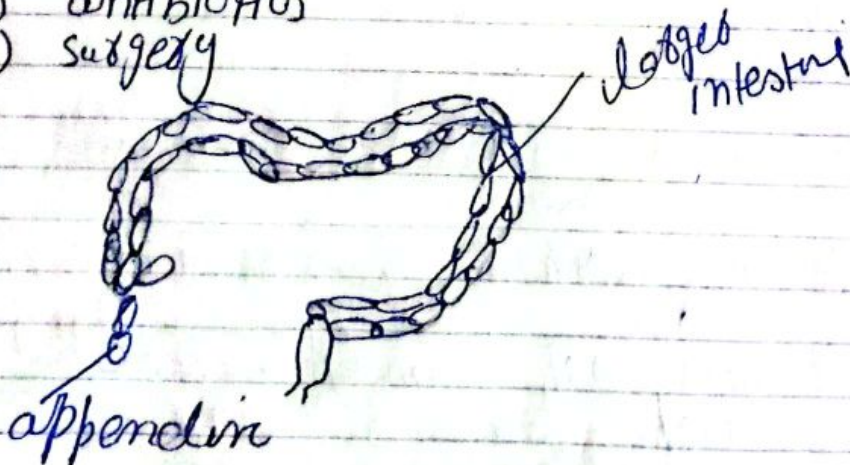
Appendicitis is a inflammation of appendix. it is finger shaped pouch that sticks out from the colon on the lower right side of the belly also called abdomen.

Symptoms

- (1) it cause pain in lower right of abdomen.
- (2) Sudden pain that begin around the navel and often shifts to the lower right abdomen
- (3) Nausea and vomiting
- (4) Loss of appetite
- (3) Abdominal bloating

Treatment

- (1) antibiotics
- (2) surgery



(3) Spleen

An organ that is a part of the lymphatic and blood system.

The spleen filters blood to help destroy micro-organisms and get rid of old or damaged RBC. It also makes lymphocytes and stores blood cells.
It is present on the upper left side of the abdomen under the ribs and above the stomach.

Functions.

(1) Red pulp.
Filtration of RBC

(ii) White pulp
A active immune response through humoral and cell mediated pathways. make white cells that help you fight with infection.

(3) maintain level of fluid in body

(4) Produce antibodies that protects against infection.

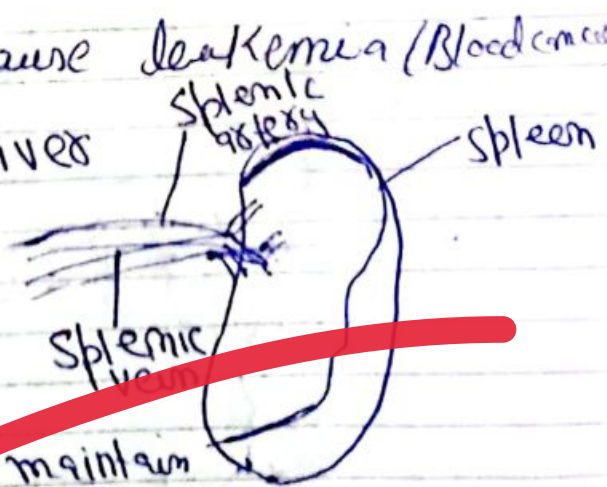
(5) Stores blood.

Disorders

(1) Disorders of spleen cause leukemia (Blood cancer)

(2) Blood clot in liver

(3) Cystic Fibrosis



Treatment

(1) Healthy Food

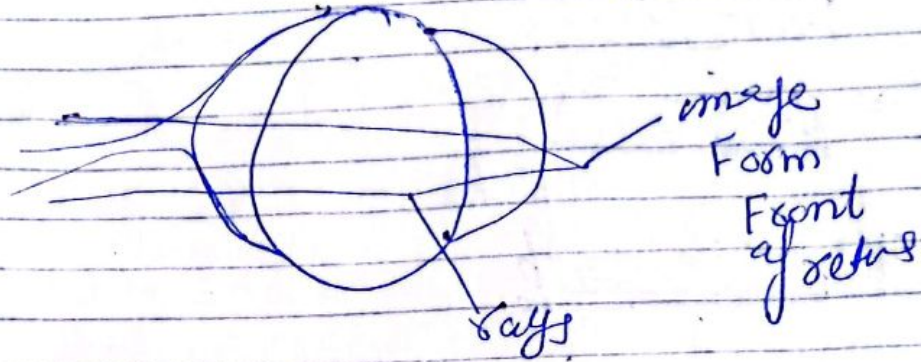
(2) Plenty of water drink

(3) Regular Exercise to maintain healthy weight.

(4) Protect body from infection.

myopia

Myopia is a short-sightedness in which parallel rays of light come from infinity and focus in front of retina



Symptoms

- (1) Difficulty to see distant object
- (2) Nausea
- (3) Headache
- (4) Eye strain
- (5) Squint

Sign

- (1) Curvature of cornea is exaggerated
- (2) Prominent eyeball

Treatment

Non-surgical

- (1) Concave lens
- (2) Spectacles
- (3) myopia therapy / Exercise

Surgical

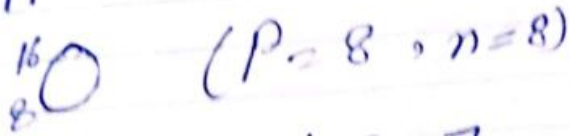
- Lasik
- LEsed
- Keratotomy

Isotones

Two or more atoms have same number of neutrons. The atomic mass and mass are different. Protons number is different.

Example

Oxygen



Nitrogen ${}^7_7\text{N} \quad (P=7, n=8)$

uses

- (1) it is used in medical imaging
- (2) Nuclear weapon.

Q3

Difference b/w cyclones and Tornadoes which cyclones was observed in 2024?

The tropical cyclone in 24 May 2024 was observed in north Indian ocean. Its name was Remal

Definition

Cyclone Definition

(1) Cyclone look like a large whirlpool that is found out in the tropics. It look like a huge mass of air that have disc like shape.

2 Formation

Heat is released from the moist air and condensation of ocean. 21 degree air is ideal. Water evaporates from ocean. The wind rise up and release energy to form cloud. It almost like a balloon.

3. Effects

(1) Its main effects are heavy rain, strong wind, large storm.
After cyclone destroy land and disease

Tornado Definition

It is a column of air that is contact with earth, a cumulonimbus cloud. Its speed less than 110 miles per hour. It travel few miles and then disappears.



Formation

Dustier storm cold air and warm air combine in a set pattern. The cold air deep the warm air rise. The warm air twisted into funnel cloud that form tornado.

Effect

on your structure
Some time life threatening

Q

How Earthquake form

Earthquake are result of sudden movement of faulty plates. The store energy in the form of elastic strain are released in the form of seismic wave in the form of ground of earth shake.

How many people died in Turkey earthquake.

on 8 Feb 2023 the worst earth quake killed over 55,000 people in Turkey.

intensity of earthquake was 7.8 magnitude on Richter scale in the southwest area.

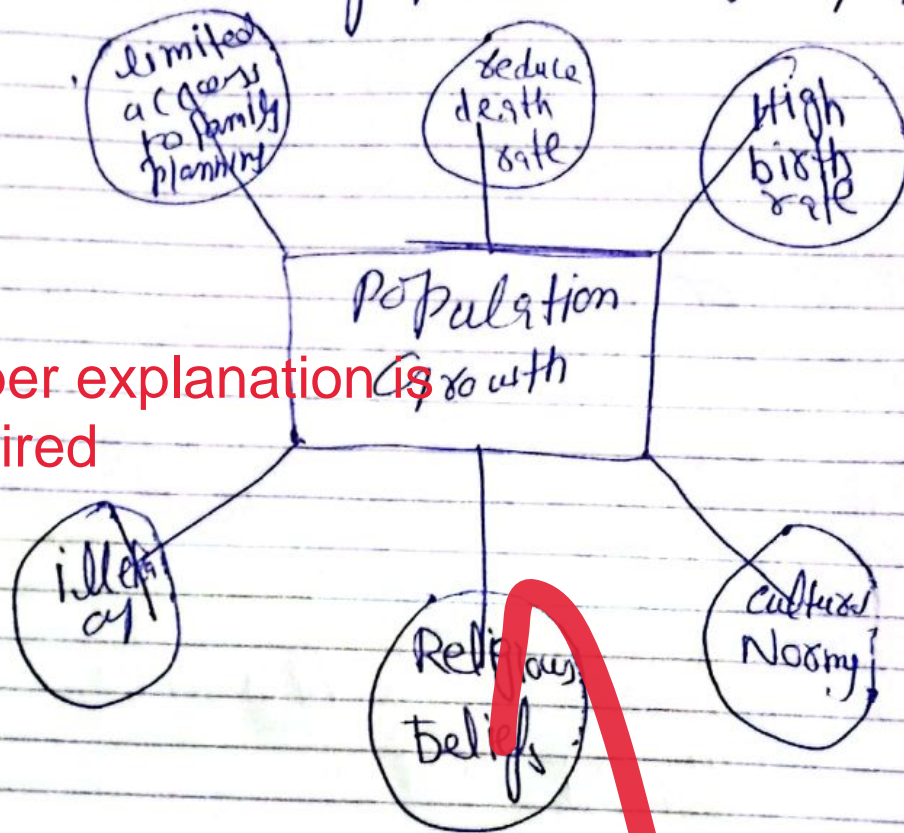
Q

Reason of High population in Pakistan

Population Growth

Population Growth is an increase in the number of people in a given area. Population growth can be measured with a neighborhood, country or global level of population.

Reason of Pakistan high population.



Proper explanation is required

Control measures

- (1) Promote education of family planning
- (2) Economically independency

(3) Educate women

math postka

DQ 19

Radius = 30cm

height = 1

Volume = ?

Value of Pi = 3.14

Formula

$$V = \pi r^2 h$$

Solution

$$= 3.14 \times (30)^2 \times 1$$

$$2827.433 \text{ cm}^2$$

Result

$$2827.433 \text{ cm}^2$$

Find wrong no

8, 19, 52, 151, 447

$$8 \times 3 - 5 = 19$$

$$19 \times 3 - 5 = 52$$

$$52 \times 3 - 5 = 151$$

$$151 \times 3 - 5 = 448$$

447

is the wrong No

11, 13, 17, 19, 23

$$11 + 2 = 13$$

$$13 + 4 = 17$$

$$17 + 2 = 19$$

$$19 + 4 = 23$$

$$23 + 2 = \boxed{25}$$