

PHB Education

**Government Exam and D. Pharm Exit Exam Preparation
Questions Bank**

Subject: Pharmacognosy
Chapter -5.1: Laxative and Purgative Crude drugs
Topic: Pharmacognosy – Ispaghula

Synonyms

1. Ispaghula is commonly known as:

- A) Psyllium husk
- B) Castor oil
- C) Senna leaf
- D) Aloe resin

Answer: A) Psyllium husk

2. Another name for Ispaghula seeds is:

- A) Plantago
- B) Linseed
- C) Isabgol
- D) Althaea

Answer: C) Isabgol

3. Official name of Ispaghula according to Indian Pharmacopoeia:

- A) Plantago ovata seeds
- B) Plantago major roots
- C) Psyllium bark
- D) Plantago indica fruit

Answer: A) Plantago ovata seeds

4. Ispaghula husk is also called:

- A) Tegument
- B) Epispore
- C) Pericarp
- D) Seed coat

Answer: D) Seed coat

5. Isabgol is derived from:

- A) Arabic word meaning "ear of horse"
- B) Latin word meaning "soft seed"
- C) Greek word meaning "gel seed"
- D) Sanskrit word meaning "fiber seed"

Answer: A) Arabic word meaning "ear of horse"

Biological Source

6. **Ispaghula consists of dried seeds of:**

- A) Plantago ovata
- B) Plantago major
- C) Plantago lanceolata
- D) Cassia angustifolia

Answer: A) Plantago ovata

7. **Plantago ovata belongs to the family:**

- A) Plantaginaceae
- B) Liliaceae
- C) Fabaceae
- D) Euphorbiaceae

Answer: A) Plantaginaceae

8. **Geographical source of Ispaghula is mainly:**

- A) India and Pakistan
- B) China and Japan
- C) USA and Canada
- D) Australia and Indonesia

Answer: A) India and Pakistan

9. **Major cultivating Indian states for Isabgol:**

- A) Gujarat and Rajasthan
- B) Kerala and Tamil Nadu
- C) Punjab and Haryana
- D) Bihar and West Bengal

Answer: A) Gujarat and Rajasthan

10. **Botanical name of Isabgol:**

- A) Plantago ovata Forsk
- B) Cassia acutifolia
- C) Aloe barbadensis
- D) Ricinus communis

Answer: A) Plantago ovata Forsk

Morphology

11. **The Ispaghula seed shape is:**

- A) Ovate and boat-shaped
- B) Round and flat
- C) Conical

D) Triangular

Answer: A) Ovate and boat-shaped

12. Color of Ispaghula seed:

A) Brownish

B) Green

C) White

D) Yellow

Answer: A) Brownish

13. Surface of Ispaghula seeds is:

A) Smooth and shiny

B) Hairy and rough

C) Sticky

D) Porous

Answer: A) Smooth and shiny

14. Size of Ispaghula seed:

A) 2–3 mm long

B) 10 mm long

C) 1 cm long

D) 5–6 mm long

Answer: A) 2–3 mm long

15. Odor and taste of Ispaghula:

A) Odorless and mucilaginous taste

B) Aromatic and bitter

C) Sweet odor

D) Acrid taste

Answer: A) Odorless and mucilaginous taste

16. Seed coat swells in water due to presence of:

A) Mucilage

B) Resin

C) Oil

D) Alkaloid

Answer: A) Mucilage

17. Husk represents which part of seed?

A) Outer coat

B) Endosperm

C) Embryo

D) Hilum

Answer: A) Outer coat

18. Ispaghula husk color:

A) White to pinkish

B) Dark brown

C) Black

D) Yellowish green

Answer: A) White to pinkish

19. When soaked in water, seeds produce:

A) Transparent mucilage

B) Milky latex

C) Colored resin

D) Sticky oil

Answer: A) Transparent mucilage

20. Ispaghula swells in:

A) Cold water

B) Hot water

C) Alcohol

D) Ether

Answer: A) Cold water

Chemical Constituents

21. Major constituent of Ispaghula:

A) Mucilage

B) Alkaloids

C) Glycosides

D) Fixed oil

Answer: A) Mucilage

22. Mucilage of Ispaghula contains:

A) Arabinose and Xylose

B) Glucose only

C) Mannitol

D) Starch

Answer: A) Arabinose and Xylose

23. Percentage of mucilage in husk:

A) 20–30%

B) 50–60%

C) 80–90%

D) 5–10%

Answer: B) 50–60%

24. Other constituents of Ispaghula include:

A) Fixed oil and protein

B) Resins and tannins

C) Alkaloids and flavonoids

D) Steroids

Answer: A) Fixed oil and protein

25. Fixed oil in Ispaghula contains:

A) Linoleic acid

B) Stearic acid

C) Palmitic acid

D) All of the above

Answer: D) All of the above

26. Ispaghula is rich in:

A) Soluble dietary fiber

B) Insoluble lignin

C) Cellulose

D) Pectin

Answer: A) Soluble dietary fiber

27. Protein content in seed is about:

A) 15–20%

B) 5%

C) 30%

D) 1%

Answer: A) 15–20%

28. Ispaghula mucilage is composed of:

A) Polysaccharides

B) Proteins

C) Amino acids

D) Lipids

Answer: A) Polysaccharides

29. Mucilage is present mainly in:

A) Seed coat

B) Cotyledons

C) Embryo

D) Hilum

Answer: A) Seed coat

30. Ash value of Ispaghula seed is about:

A) 3–5%

B) 1%

C) 10%

D) 20%

Answer: A) 3–5%

Chemical Tests

31. Swelling test is done for:

A) Mucilage content

B) Oil content

C) Alkaloids

D) Glycosides

Answer: A) Mucilage content

32. Chemical test for mucilage presence:

A) Ruthenium red test

B) FeCl_3 test

C) Molisch test

D) Biuret test

Answer: A) Ruthenium red test

33. Ruthenium red gives which color with mucilage:

A) Pink or red

B) Blue

C) Yellow

D) Green

Answer: A) Pink or red

34. When Ispaghula seed is placed in water:

A) Swells forming a gelatinous mass

B) Dissolves completely

C) Sinks without change

D) Changes color

Answer: A) Swells forming a gelatinous mass

35. Ash value is determined for:

A) Purity evaluation

B) Color testing

- C) Weight loss
- D) Taste evaluation

Answer: A) Purity evaluation

36. Identification of husk under microscope shows:

- A) Epidermis with mucilage cells
- B) Trichomes
- C) Oil glands
- D) Resin ducts

Answer: A) Epidermis with mucilage cells

37. Presence of swelling index indicates:

- A) Mucilage richness
- B) Moisture content
- C) Oil content
- D) Protein content

Answer: A) Mucilage richness

38. Swelling index of good Ispaghula:

- A) Not less than 10
- B) Not less than 40
- C) Not less than 20
- D) Not less than 70

Answer: B) Not less than 40

39. Test for purity includes checking:

- A) Swelling index and foreign matter
- B) Color
- C) Aroma
- D) Size only

Answer: A) Swelling index and foreign matter

40. Loss on drying for Ispaghula seed should not exceed:

- A) 12%
- B) 20%
- C) 5%
- D) 2%

Answer: A) 12%

Uses

41. Ispaghula is mainly used as:

- A) Laxative

- B) Sedative
- C) Antipyretic
- D) Anthelmintic

Answer: A) Laxative

42. Type of laxative action shown by Ispaghula:

- A) Bulk-forming
- B) Stimulant
- C) Osmotic
- D) Lubricant

Answer: A) Bulk-forming

43. Ispaghula is useful in:

- A) Constipation and diarrhea
- B) Fever
- C) Cough
- D) Headache

Answer: A) Constipation and diarrhea

44. Used in treatment of:

- A) Hypercholesterolemia
- B) Tuberculosis
- C) Malaria
- D) Ulcers only

Answer: A) Hypercholesterolemia

45. Ispaghula husk helps reduce:

- A) Blood cholesterol
- B) Hemoglobin
- C) Calcium absorption
- D) Protein level

Answer: A) Blood cholesterol

46. Mechanism of laxative action:

- A) Absorbs water and swells forming soft stool mass
- B) Inhibits bile acids
- C) Stimulates CNS
- D) Kills intestinal bacteria

Answer: A) Absorbs water and swells forming soft stool mass

47. Also used in formulation of:

- A) Fiber supplements
- B) Painkillers

C) Antibiotics

D) Sedatives

Answer: A) Fiber supplements

48. Husk is used in pharmaceutical industry as:

A) Binder and disintegrant

B) Lubricant

C) Flavoring agent

D) Preservative

Answer: A) Binder and disintegrant

49. Ispaghula helps in control of:

A) Diabetes mellitus

B) Cancer

C) Fever

D) Cold

Answer: A) Diabetes mellitus

50. Toxicity of Ispaghula:

A) Non-toxic and safe

B) Highly toxic

C) Causes liver damage

D) Addictive

Answer: A) Non-toxic and safe