# PHB Education

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

## *Subject: Pharmacognosy*
## *Chapter -5.1: Laxative and Purgative Crude drugs*
## *Topic: Pharmacognosy – Senna*

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**1–10: General Information & Synonyms**

1. The biological source of Senna is:
   a) Dried leaves and pods of *Cassia angustifolia*
   b) Dried leaves of *Cassia fistula*
   c) Roots of *Cassia tora*
   d) Seeds of *Cassia alata*
   **Answer:** a) Dried leaves and pods of *Cassia angustifolia*
2. *Cassia angustifolia* is commonly known as:
   a) Indian Senna
   b) Alexandrian Senna
   c) American Senna
   d) Tinnevelly Senna
   **Answer:** d) Tinnevelly Senna
3. *Cassia acutifolia* is also called:
   a) Arabian Senna
   b) Alexandrian Senna
   c) Indian Senna
   d) Tinnevelly Senna
   **Answer:** b) Alexandrian Senna
4. The family of Senna is:
   a) Liliaceae
   b) Fabaceae
   c) Caesalpiniaceae
   d) Leguminosae
   **Answer:** c) Caesalpiniaceae
5. Alexandrian Senna is mainly obtained from:
   a) India
   b) Sudan and Egypt
   c) USA
   d) Sri Lanka
   **Answer:** b) Sudan and Egypt
6. Tinnevelly Senna is mainly obtained from:
   a) Sudan

b) India

c) Egypt

d) Italy

**Answer:** b) India

7. The botanical name of Tinnevelly Senna is:

a) *Cassia acutifolia*

b) *Cassia angustifolia*

c) *Cassia fistula*

d) *Cassia tora*

**Answer:** b) *Cassia angustifolia*

8. Senna is an example of a:

a) Carbohydrate drug

b) Alkaloidal drug

c) Anthraquinone glycoside drug

d) Essential oil drug

**Answer:** c) Anthraquinone glycoside drug

9. The synonym of *Cassia angustifolia* is:

a) Indian Senna

b) Alexandrian Senna

c) Egyptian Senna

d) Cape Senna

**Answer:** a) Indian Senna

10. The synonym of *Cassia acutifolia* is:

a) Alexandrian Senna

b) Indian Senna

c) Arabian Senna

d) Cape Senna

**Answer:** a) Alexandrian Senna

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**11–20: Morphology**

11. The leaves of Senna are:

a) Simple

b) Compound pinnate

c) Palmate

d) Needle-shaped

**Answer:** b) Compound pinnate

12. The Senna leaflets are arranged:
    a) Opposite
    b) Alternate
    c) Whorled
    d) Randomly
    **Answer:** a) Opposite
13. Number of leaflets per Senna leaf:
    a) 2–4 pairs
    b) 3–7 pairs
    c) 4–8 pairs
    d) 5–10 pairs
    **Answer:** c) 4–8 pairs
14. Shape of Senna leaflets is:
    a) Linear
    b) Lanceolate
    c) Ovate
    d) Cordate
    **Answer:** b) Lanceolate
15. Colour of Senna leaves:
    a) Greenish-yellow
    b) Bluish-green
    c) Dark brown
    d) Pale grey
    **Answer:** a) Greenish-yellow
16. Odour of Senna leaves:
    a) Aromatic
    b) Slight and characteristic
    c) Strong
    d) Odourless
    **Answer:** b) Slight and characteristic
17. Taste of Senna leaves:
    a) Bitter
    b) Sweet
    c) Tasteless
    d) Salty
    **Answer:** a) Bitter

18. The venation in Senna leaflets is:
    a) Parallel
    b) Reticulate
    c) Dichotomous
    d) Palmate
    **Answer:** b) Reticulate
19. The pod of Senna is:
    a) Oblong and flat
    b) Round and thick
    c) Cylindrical
    d) Triangular
    **Answer:** a) Oblong and flat
20. The colour of Senna pod is:
    a) Dark green
    b) Yellowish-brown
    c) Blackish
    d) Pale pink
    **Answer:** b) Yellowish-brown

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**21–30: Chemical Constituents**

21. The main active constituents of Senna are:
    a) Saponins
    b) Anthraquinone glycosides
    c) Alkaloids
    d) Flavonoids
    **Answer:** b) Anthraquinone glycosides
22. The major glycosides present in Senna are:
    a) Sennosides A and B
    b) Barbaloin and Aloin
    c) Digitoxin and Digoxin
    d) Glycyrrhizin and Saponin
    **Answer:** a) Sennosides A and B
23. Sennosides are:
    a) Monoglycosides
    b) Dianthrone glycosides
    c) Flavonoid glycosides

d) O-glycosides

**Answer:** b) Dianthrone glycosides

24. Anthraquinone derivatives in Senna are responsible for:

a) Anti-inflammatory activity

b) Laxative effect

c) Analgesic effect

d) Antimicrobial activity

**Answer:** b) Laxative effect

25. The aglycone part of Senna glycoside is:

a) Emodin

b) Rhein

c) Chrysophanol

d) Aloe-emodin

**Answer:** b) Rhein

26. Sennosides yield on hydrolysis:

a) Glucose and anthraquinone

b) Sucrose and emodin

c) Mannose and aloin

d) Fructose and chrysin

**Answer:** a) Glucose and anthraquinone

27. Other constituents of Senna include:

a) Resin, mucilage, flavonoids

b) Alkaloids and tannins

c) Fixed oils

d) Terpenoids

**Answer:** a) Resin, mucilage, flavonoids

28. The content of Sennosides in Senna leaf is about:

a) 1–2%

b) 2–3%

c) 3–4%

d) 4–5%

**Answer:** c) 3–4%

29. The glycosides in Senna are mainly located in:

a) Mesophyll cells

b) Epidermis

c) Xylem vessels

d) Phloem region

**Answer:** a) Mesophyll cells

30. Sennoside A is:

a) Anthrone glycoside

b) Dianthrone glycoside

c) Anthranilic acid derivative

d) Flavone glycoside

**Answer:** b) Dianthrone glycoside

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**31–40: Chemical Tests**

31. Bornträger's test is used for:

a) Alkaloids

b) Glycosides containing anthraquinone nucleus

c) Saponins

d) Terpenoids

**Answer:** b) Glycosides containing anthraquinone nucleus

32. In Bornträger's test, positive result is indicated by:

a) Red colour in alkaline layer

b) Blue colour in acid layer

c) Green colour in ether layer

d) Violet colour in water layer

**Answer:** a) Red colour in alkaline layer

33. Modified Bornträger's test detects:

a) C-glycosides

b) O-glycosides

c) N-glycosides

d) Saponins

**Answer:** a) C-glycosides

34. Reagent used in Bornträger's test is:

a) Ammonia solution

b) Ferric chloride

c) Sulphuric acid

d) Benedict's reagent

**Answer:** a) Ammonia solution

35. Hydrolysis of Senna glycosides liberates:

a) Anthraquinone aglycone

b) Flavonoid aglycone

c) Alkaloid base

d) Essential oil

**Answer:** a) Anthraquinone aglycone

36. To detect anthraquinone glycosides, the drug is first hydrolyzed with:

a) Hydrochloric acid

b) Sulphuric acid

c) Nitric acid

d) Acetic acid

**Answer:** a) Hydrochloric acid

37. Colour developed in Bornträger's test after extraction with benzene and addition of ammonia is:

a) Pink to red

b) Yellow to orange

c) Blue

d) Violet

**Answer:** a) Pink to red

38. Presence of C-glycosides in Senna is confirmed by:

a) Modified Bornträger's test

b) Keller–Killiani test

c) Legal's test

d) Salkowski test

**Answer:** a) Modified Bornträger's test

39. Anthraquinone glycosides are soluble in:

a) Benzene and ether

b) Water

c) Alcohol

d) Oil

**Answer:** a) Benzene and ether

40. C-glycosides differ from O-glycosides by:

a) Type of linkage with sugar

b) Nature of aglycone

c) Molecular weight

d) Optical activity

**Answer:** a) Type of linkage with sugar

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**41–50: Uses and Applications**

41. Senna acts as a:

a) Purgative

b) Antipyretic

c) Analgesic

d) Anthelmintic

**Answer:** a) Purgative

42. Senna is mainly used to relieve:

a) Diarrhea

b) Constipation

c) Fever

d) Nausea

**Answer:** b) Constipation

43. The mechanism of action of Senna is due to:

a) Stimulation of intestinal motility

b) Depression of CNS

c) Increase in urine output

d) Reduction in heart rate

**Answer:** a) Stimulation of intestinal motility

44. The effect of Senna appears after:

a) 1 hour

b) 3–4 hours

c) 6–8 hours

d) 12–24 hours

**Answer:** c) 6–8 hours

45. Senna is contraindicated in:

a) Constipation

b) Pregnancy (prolonged use)

c) Fever

d) Arthritis

**Answer:** b) Pregnancy (prolonged use)

46. Chronic use of Senna may cause:

a) Hypokalemia

b) Hypertension

c) Hyperglycemia

d) Anemia

**Answer:** a) Hypokalemia

47. The drug used as a substitute for Senna is:

a) Rhubarb

b) Aloe

c) Cascara

d) All of these

**Answer:** d) All of these

48. Senna is used in combination with:

a) Carminatives

b) Antacids

c) Digestives

d) Diuretics

**Answer:** a) Carminatives

49. Senna is used in pediatric patients in the form of:

a) Syrup or infusion

b) Capsule

c) Tablet only

d) Injectable solution

**Answer:** a) Syrup or infusion

50. The standard reference for Senna is given in:

a) Indian Pharmacopoeia

b) British Pharmacopoeia

c) United States Pharmacopoeia

d) All of these

**Answer:** d) All of these

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