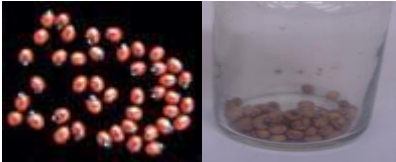


g) Draw and colour the specimen. Write down about the specimen in detail.

ABRUS PRECATORIOUS

- Beautiful looking seeds.
- Seeds are bright red in colour with black heads.
- Knowns as **GUNCHI, RATI, JAQUIRITY, KUNCH** etc.



-
- **Active principle:** abrin, abrein, and abriline.
- **Criminal uses:**
- [a] sui or sutari- ideal cattle poison
- **Fatal dose:** 90-100 mg
- **Fatal period** 3-5days
- **Treatment:** anti –**ABRIN**

ACETIC ACID



- CH_3COOH
- Occurs in nature in combination with alcohol in essences of many plants.
- Clear, colourless, acid having pungent odour.
- At about 16 degree c it looks like ice
- Vinegar- contains 4 to 6 % acetic acid
- It is an organic corrosive
- **Fatal dose:** 60 ml of acid
- **Fatal period** –1 to 48 hrs.
- **Treatment:** neutralized by weak alkalis like milk of magnesia or limewater, demulcents.
- **MLI:** may be used for suicide or may be accidental poisoning

ARSENIC OXIDE



- It is white as powder or pulp.
- **S/s**; gastrointestinal as well narcotic in acute poisoning.
- In subacute mild gastrointestinal disturbances.
- In chronic poisoning there are 4 stages: gi disturbances-bronchial catarh-cutaneous involvement and neurological signs
- **Fatal dose**: 180 mg
- **Fatal period**: 12-48 hrs
- **Treatment**: emesis, st.wash with freshly hydrated ferric oxide, bal
- **MLI** -homicidal, may be accidental when used as aphrodisiac/quack medicine

ARSENIC SULPHIDE

- It is green.
- **S/s**; gastrointestinal as well narcotic in acute poisoning.
- In subacute mild gastrointestinal disturbances.
- In chronic poisoning there are 4 stages: gi disturbances-bronchial catarh-cutaneous involvement and neurological signs
- **Fatal dose**: 180 mg
- **Fatal period**: 12-48 hrs
- **Treatment**: emesis, st.wash with freshly hydrated ferric oxide, bal
- **MLI**; homicidal, may be accidental when used as aphrodisiac/quack medicine

ARSENIC TRIIODIDE

- It is in form of orange colored crystals
- **S/s**; gastrointestinal as well narcotic in acute poisoning.
- In subacute mild gastrointestinal disturbances.
- In chronic poisoning there are 4 stages: gi disturbances-bronchial catarh-cutaneous involvement and neurological signs
- **Fatal dose**: 180 mg
- **Fatal period**: 12-48 hrs
- **Treatment**: emesis, st.wash with freshly hydrated ferric oxide, bal
- **MLI**; homicidal, may be accidental when used as aphrodisiac/quack medicine

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CANABIS INDICA



- **Indian hemp**
- **Ganja**-flowering top
- **Bhang**-leaves
- **Charas**-resinous exudate
- **Majun**-sweet of bhang
- **Active principles**; canabinal,canabidiol,canabinolic acid,canabigerl,canabicyclol
- **S/s** stage i excitement and euphoria, stage ii coma/narcosis
- **F.d.**- ganja 8g/kg,, bhang 10g/kg,, charas 4g/kg in nonaddict f.p. 12 hrs to several days
- **Treatment**: evacuation of stomach,saline purgative,oxygen etc
- **MLI**: accidental

CAPSICUM SEEDS



- *Capsicum annum*, *Capsicum frutescens*, *Capsicum minimum*.
- Yellow circular seeds.
- **Active principles**-capsicin, capsaicin
- **Treatment**: washing parts, application of emolient.
- **MLI**: torturing, malingering, robbery etc

CASTOR SEEDS



- ***Ricinus communis***, arandi
- Two types of seeds: large red with brown blotches or small gray with
 - Bright polished brown spots
- Active principle: **RICIN**, allergen
- **F.d** 10 seeds=6mg ricin for 60kg person
- **F.p.** 2-3 days
- **Treatment**: st.wash, demulcents, symptomatic
- **MLI**: accidental, malingering

COPPER SULPHATE



- Big blue crystals with mettalic taste,readily soluble in water.
- **F.d** 15-60 gms
- **F.p.** 1-3 days
- **Treatment:**st.wash with k-ferrocyanide, milk egg white, penicillamine, edta, bal,
- **MLI:** suicidal, accidental,
- Specific antidote for phosphorous poisoning,
- Emetic in metallic poisoning

CROTON SEEDS



- Purging nuts. **Jamalgota. Nepala**
- Oval brown dark seeds with longitudinal lines.no smell
- **Active principles:** crotin,crotonocide,resin,crotonoleic acid,crotonic acid
- **F.d.** 3-4 seeds
- **F.p.** 4-6 hrs to 3 days
- **Treatment:** st. Wash,demulcents,symptomatic
- **MLI:** accidental in child,
- Malingering may.

DHATURA FRUIT



- **Datura fastuosa:** [alba and niger], d.stramonium, d.tatula, d.ferox, d.metel
- All parts are poisonous, spherical fruit contains 400-500 seeds.
- **F.d.** 100-125 crushed seeds.
- **F.p.** 12-24 hrs.
- **Active principles:** hyosine, hyoscyamine, atropine, daturine
- **S/s** :hot as hare-dry as bone-red as beet- mad as wet hen-blind as bat
- **Treatment:** st.wash with tannic acid
 - Sod.sulphate-purgative
 - Physostigmin iv / im
 - Pilocarpine s/c
- **MLI:** road side poison. Stupefying poison, may be accidental and rarely homicidal

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FERRIC CHLORIDE



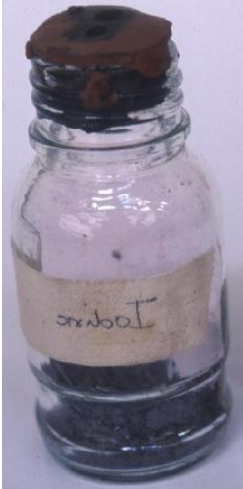
- **Drug of choice in arsenic poisoning**
- St. wash with hydrated ferric oxide, fresh, in arsenic poisoning. It is prepared by adding milk of magnesia to ferric chloride – ppt develops-separated and given with warm water during st. wash.

INDRANI



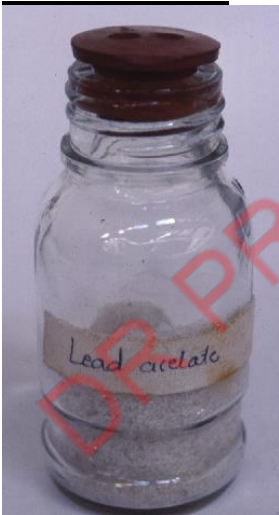
- Botanical name is **citrulus colocynthis**
- Active principle is **colocynthine**.
- Gi tract disturbances are produced in its toxicity with yellow vomiting and diarrhoea.
- It is a vegetable organic irritant poison.
- Also known as bitter apple.
- **F.d.** 1-3 gm.
- **F.p.** : within 24 hrs.
- **MLI:** suicidal and for procuring abortion.

IODINE



- Purple, soft and scaly crystals with metallic lustre & unpleasant taste.
- At all temperatures it gives off fumes.
- If swallowed it is an acid corrosive poison and if fumes inhaled irritant to air passage.
- **F.d.**: 2 gms.
- **F.p.**: 24 hrs.
- **Treatment**: st. Wash with solution starch or sodium thiosulphate.
 - Alkali, arrow root and barley water or milk.
- **MLI**: acute poisoning is rare. accidental poisoning may occur. preparation of iodine can be
- Used for homicide intent.
- **Iodine is used as chemical antidote** in number of poisonings with st. wash.

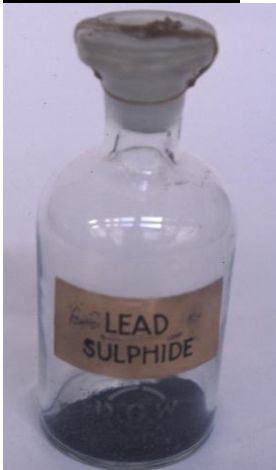
LEAD ACETATE



- White crystals
- Known as **salt of saturn**
- **Sugar of lead**
- Chronic poisoning known as **plumbism or saturnism**
- **S/s**: facial pallor, anaemia with punctate basophilia, Burtonian line, colic, constipation, wrist drop,

- Foot drop, lead encephalopathy, menstrual problems, impotence, sterility
- **F.d.:** 20g
- **F.p.:** 1-2 days in acute toxicity
- **Treatment:** st. wash with Na_2SO_4 or MgSO_4
 - Emetics
 - Morphine for pain
 - IV calcium gluconate
 - Ca EDTA
 - Mannitol

LEAD SULPHIDE



- Black in colour and in powder form
- Chronic poisoning known as **plumbism or saturnism**
- **S/s:** facial pallor, anaemia with punctate basophilia, Burtonian line, colic, constipation, wrist drop,
- Foot drop, lead encephalopathy, menstrual problems, impotence, sterility
- **F.d.:** 20g
- **F.p.:** 1-2 days in acute toxicity
- **Treatment:** st. wash with Na_2SO_4 or MgSO_4
 - Emetics
 - Morphine for pain
 - IV calcium gluconate
 - Ca EDTA
 - Mannitol

MADAR



- Botanical name is **calotropis**.
- White flower in c.procera and purple flower in c.gigentea
- **Active principles: calotropin, calotoxin, gignentin, resin, uscharin**
- **F.d:**not determined
- **F.p.:**varies from 30min. To 8 hrs.
- **Treatment:**st.wash, saline cathertics,demulcents,morphin
- **MLI:** flowers,leaves,rootbark and milky juice are used in indian medicine.
 - Flowers are digestive stomachic and tonic in action.leaves are externally used in colic
 - Madar juice is used for procuring criminal abortion.madar is used as an abortion stic
 - Milky juice is vesicant and used to produce artificial bruise.
 - Powdered root is used in colic and as an emetic.juice is used for infanticide,suicide,homicide.
 - Accidental poisoning may occur when used as indian medicines by quacks.
 - Madar juice is sometimes used for killing cattle.

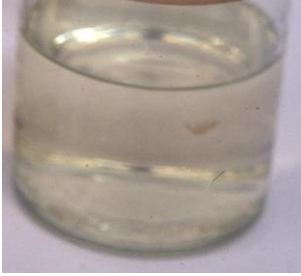
MARKING NUTS



- **Semecarpus anacardium** is biological name.
- **Bhilawa** is vernacular name.
- **Active principles**-semecarpol and bhilawanol
- Oily acrid juice is used by dhobis as a marking ink for linen and cloths.
- **F.d.:**more than 5 gms
- **MLI**
 - Used to produce artificial bruise.
 - Accidental poisoning may occur from administration by hakims.
 - Juice is introduced in vagina as a punishment for infidelity, to produce false charge of rape/assault

- Crushed nut is sometimes used locally to the os uteri for inducing criminal abortion.

NITRIC ACID



- Pure acid is a clear and colourless liquid with colourless fumes when exposed to air having choking odour.
 - Corrosive mineral acid.
- **F.d.** 8-10ml
- **F.p.** 12-24 hrs.
- **Treatment:**
 - Avoid gastric lavage and emetics.
 - Ice cubes and milk.
 - Demulcents
 - CaO, MgO, Al(OH)₃
 - Corticosteroids
- **MLI**
 - Suicide
 - Accidental
 - HOMICIDAL

NUX VOMICA SEEDS



- Kuchila, gogari lakdi, upas tree, snake wood, papita – vernacular names
- Strychnous nux vomica, s. ignati, s. tietue, s. colubrina – biological names
- Site of action: ant. horn cells of spinal cord.
- Alkaloids: strychnine, brucine, loganin
- **S/s** : convulsions, opisthotonus, emprosthotonus, pleurosthotonus, risus sardonicus
- **F.d.** 60-100 mg strychnine or 3-5 seeds
- **F.p.** : 1-2 hrs.
- **Treatment:** pentobarbital, chloral hydrate, diazepam, mephensin
- **MLI**
 - Accidental poisoning is common due to overdose,
 - Suicidal
 - Homicidal,
 - Cattle poisoning

OPIUM



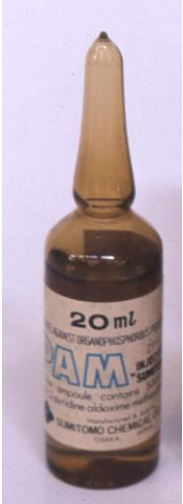
- Contains 3 acids and 25 **alkaloids**
 - Phenathrene group:morphine,codeine,thebaine
 - Benzyle-iso-quinoline group:papaverine ,narcotine,narcine,noscapine
- Milky white exudate i collected from unripe fruit which is air dried and becomes brown.
- **S/s** : stage i excitement stage ii depression stage iii narcosis
- Pinpoint pupil,thredy feeble pulse, chyne-stokes breathing
- **F.d.**crude-1.25-2 g , morphine powder 200-400 mg , parenteral morphine 10-30 mg
- **F.p.**8-12 hrs.
- **Treatment:**
 - St.wash with warm water or KMnO_4 solution
 - Nalorphine/ naloxane.
 - Maintain respiration
- **MLI:** drug of choice for suicide,accidental in children in tincture opii,rarly homicidal in children.

OXALIC ACID



- **Acid of sugar**
- In form of colourless transparent prismatic crystals.
- Organic corrosive acid
- Local effects on gitract in form of vomitting and diarrhoea with corrosion
- After absorption hypocalcemia and is nephrotoxic poison
- **F.d.:**10 gms
- **F.p.:**1-2 hrs
- **Treatment:** chalk,magnesia egg shell,wall plaster,saccharated lime,cagluconate
- **MLI:**suicidal,homicidal,accidental,abortificiant,for forgery to remove ink writing

PAM



- Acetylcholine reactivators
- Pyridine aldoxy methiodate
- **i.v 5% x 7-10 days in organophosphorous compound poisoning.**

PHENOL



- Short colourless needle shaped crystals, on exposure turn pink
- Typical carbolic smell.
- Poisonous by any route.
- **S/s** carbolism: local corrosion, burning pain, tingling, numbness, white opaque eschar, **carboluria** and **ochronosis**
- **F.d.** 15-20 gms
- **F.p.**, 3-4 hrs.
- **Treatment:** st. wash with animal charcoal/ olive oil, demulcents, iv glucose saline etc.
- **MLI:** accidental when used as anaesthetic, preservative, antiseptic etc. And abortifacient. Used for malingering to produce jaundice simulation.

POPPY CAPSULE



- 3 acids and 25 **alkaloids**
 - Phenathrene group:morphine,codeine,thebaine
 - Benzyle-iso-quinoline group:papaverine narcotine,narcine,noscapine
- Milky white exudate i collected from unripe fruit which is air dried and becomes brown.
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- **F.d.**crude-1.25-2 g , morphine powder 200-400 mg , parenteral morphine 10-30 mg
- **F.p.**8-12 hrs.
- **Treatment:**st.wash with warm water or kmno4 solution
 - Nalorphine/ naloxane.
 - Maintain respiration
- **Mli:** drug of choice for suicide,accidental in children in tincture opii,rarly homicidal in children.

POPPY SEEDS



- **SEEDS ARE USED AS NUTRIENTS AND HAVE MILD SEDATIVE EFFECTS BUT NONFATAL AND HARMLESS.**

POTASSIUM PERMANGANATE



- Prepared by heating potassium hydroxide with magnesium dioxide and potassium chlorate.
- Dark purple, slender prismatic crystals.
- Powerful oxidising agent, disinfectant and used also in bleaching textiles.
- Concentrated solution is powerful corrosive.
- **F.d.** 5-10 gm
- **Treatment**: st. wash with charcoal or sodium thiosulphate, egg, milk calcium gluconate iv, calcium disodium edta
- **Mli:**
 - Accidental or suicidal
 - When used as tablet to procure an abortion will produce haemorrhage & sloughing
 - In vagina and uterus.
 - Chemical antidote for oxidizable poisons

SULPHURIC ACID



- Mineral corrosive acid.
- Heavy, hygroscopic, oily
- Oil of vitriol or battery acid
- **F.d.** 5-10 ml of strong acid
- **F.p.:** 18-24 hrs.
- Accidental poisoning, suicidal, **vitriolage**
 - Accident may occur when mistaken for glycerin
 - Gastric lavage is absolute contraindication
 - Alkaline carbonates are contraindicated.
 - Sulphate of indigo is a dark blue liquid . . > 1 part indigo + 9 parts H₂SO₄

TIK 20



- It is diazinon insecticide
- Aryl phosphate
- Pesticide for soft body insects
- Cholinestrase inhibitor
- Muscarine like, nicotine like effects and effects on cne
- **Treatment:** o2
decontamination
atropinisation
pralidoximes
symptomatic
- **MLI:** accidental, suicidal and rarely homicidal

TOBACCO LEAVES



- **Nicotine and nicotianine active principles**
- Cardiac poison
- Site of action is autonomic ganglia
- **F.d.** 1 to 2 drop of pure nicotine, 40 to 60 mg of nicotine

YELLOW PHOSPHOROUS



- Yellow or white . White on exposure turns yellow. White on heating at 240 degree temperature in presence of nitric acid turns red which is non toxic.
- Poisonous
- Luminous,garlicy odour,inflammable at room temperature, so kept in water.
- Soluble in carbon disulphide
- Phossy jaw in chronic poisoning
- In acute hepatotoxic-yeow atrophy of liver
- **F.d.**30 –120 mg **-f.p.**:4-10 hrs.
- **Treatment:** st.wash with kmno4 / cuso4
- **MLI**-rodenticide-accidental and suicidal ,rarely homicidal

ACONITE



- All parts are poisonous
- Taste is sweet. So known as mitha bish
- Known as monk's hood, wolf's bane
- Root is more or less conical,shrivelled and most poisonous
- Look like horse reddish.
- On cut section turns pink. Horse reddish does not show pink color
- Aconitine,aconine,picraconitine,indaconitine,aconitic acids etc. Are **active principles**
- Hippus[alternate dilatation and constriction of pupil] is typical and cardinal finding
- **F.d** 2-3 gm of root

- **F.p.**-1 to 5 hrs
- **Treatment**-for cardiac arrhythmia-novacaine slow iv
- **MLI** :**ideal homicidal poison**,arrow poison,cattle poison,abortifacient

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