Pharmacognosy

1. Generally, the best collection time of a given drug-producing plant is:
   a- When the quantity of the chief constituents is the highest.
   b- When the quantity of the plant growth is the highest.
   c- When the plant is fully matured.
   d- At the end-stage of the plant life cycle when the plant is maximally dry.

2. Which is wrong concerning plant nomenclature:
   a- The genus name may indicate some striking characteristics of the plant.
   b- In “Alcea setosa Alef.”: the word Alef. is an abbreviation of the name of botanist who first described the plant variety.
   c- Is governed by rules of USP.
   d- Botanical name is a part of the subdivisions of the phyla.

3. Generally, which of the following natural materials need to be stored in dark places?
   a- Highly colored
   b- Oxidizable
   c- Hydrolysable
   d- Containing photo-stable constituents

4. Leaves are the used part of all of the following plants, except:
   a- Digitalis lanata
   b- Rosmarinus officinalis
   c- Lavandula angustifolia
   d- Arctostaphylos uva-ursi

5. Balsams are:
   a- Resins dissolved in volatile oil
   b- A mixture of volatile oils with sesquiterpenes
   c- Resins dissolved in water
   d- Polysaccharide mixed with volatile oil

6. Hashis (hashish) consists of the………………….of Cannabis sativa:
   a- Gum of the male flowers
   b- Resin of the female flowers
   c- Latex of the tops
   d- Pressed juice of the leaves

7. Opium is:
   a- Latex exudate of the unriped incised capsules after air dried.
   b- Dried wateric extract of the riped capsules.
   c- Dried alcoholic extract of the unriped capsules.
   d- Concentrated alcoholic extract of the poppy straw.

8. Which of the following vegetable drugs is carminative:
   a- Frangulae cortex
   b- Centaurii herba
   c- Silybi mariani fructus
   d- Foeniculi fructus

Examinations & evaluation unit winter 2013
9. Which of the following plants belong to Fabaceae family:
   a- Liquorice root  
   b- Fennel fruit  
   c- Anise fruit  
   d- Oleander leave

10. The presence of volatile oil is characteristic to which of the following plant parts:
   a- Bark  
   b- Wood  
   c- Flowers  
   d- Seed

11. Part of the xylem showing medullary rays containing acicular crystals of calcium oxalate, is a key element using microscopical examination for:
   a- Cinnamomum zeylanicum  
   b- Mentha piperita  
   c- Eugenia caryophyllus  
   d- Senna leaf

12. Which of the following plants match these criteria: 1-belong to Apiaceae family; 2-dried ripe fruit is the part used; 3-contain volatile oil (rich in anethole), fixed oil and protein; 4-used as carminative and flavour.
   a- Anise  
   b- Ginger  
   c- Cinnamon  
   d- Chamomile

13. Mostly simple granules, hatchet, wedge, or mussel-shaped. A few compound granules of 2 or 3 components firmly fused together. This describes the starch of:
   a- Solanum tuberosum L.  
   b- Oryza sativa L.  
   c- Triticum aestivum L.  
   d- Zea mays L

14. The male reproductive organ in the flower is called:
   a- Stamen  
   b- Corolla  
   c- Hypanthium  
   d- Carpel

15. All of the following are crude drugs, except:
   a- Dried mentha herbs  
   b- Dried flax seeds  
   c- Dried cinchona bark  
   d- Dried purified reserpine

16. Each of the following groups comprises natural drugs act on the same biological system (of similar pharmacological class), except:
   a- Digoxin, ergotamine, camphor and thymol  
   b- Senna, rhubarb, castor oil and cascara  
   c- THC, codeine, reserpine and caffeine  
   d- Coffee, opium, cannabis and Rawolfia

17. All are components of dermal tissue system, except:
   a- Trichomes  
   b- Stomata  
   c- Cortex  
   d- Periderm

18. Beside each of the following plant organs, its best collection time is mentioned, which of them is not correct:
   a- Seeds…………………… full matured and before fruits opening  
   b- Rhizomes……………… after vegetative time and maturation  
   c- Flowering tops………… prior to the time of plantation  
   d- Fruits…………………… fully matured but unripe
19. All of the following plants are rich in volatile oils in their used parts, except:
   a- Fennel  b- Linseed
   c- Mentha  d- Clove

20. All of the following plant parts contain bitter principles, except:
   a- Seeds of *Prunus amygdalus* var. *amara*
   b- Artemisia herb
   c- Liquorice root
   d- Khella seeds

**Phytochemistry**

21. Normacol plus® is a pharmaceutical product whose laxative activity is based mainly on:
   a- Sterculia gum  b- Agarose
   c- Lactulose  d- Sorbitol

22. All of the following are tropane alkaloids, except:
   a- Papaverine
   b- Cocaine
   c- Atropine
   d- Hyoscine

23. The volatile oils consist of a mixture of:
   a- Oxygen free mono- and diterpenes
   b- Aliphatic and cyclic mono- and triterpenes
   c- Aliphatic and cyclic mono- and sesquiterpenes and phenyl-propane derivatives
   d- Highly oxygenated mono- and diterpenes

24. Saponin-containing drugs are used as:
   a- Laxative
   b- Bitter tonic
   c- Expectorant
   d- Emetic

25. What is the difference between the chemical structure of cotton and starch?
   a- Cotton consists of lines α-glucose molecules while the starch has branched β-glucose residue
   b- Cotton consists of unbranched β-glucose molecules the starch has also unbranched α- and β-glucose molecules
   c- Cotton is built up of glucose residues united by 1,4-β-D-glucose links, starch has branched and linear chains of 1,4-α-, and 1,6-α-D-glucose residue
   d- Both consist of branched and linear 1,2-β-D-glucose residues

26. Which is the right structure for the flavonoids of *Silybum marianum*:
   a- Dimer flavan-3,4-diol
   b- Monomer flavon-3-ol
   c- Flavanolignan
   d- Simple flavanone-glycoside

27. Cocaine is used as ____________ in the officinal medicine:
   a- Narcotic
   b- Emetic
   c- Sedative
   d- Local anaesthetic
28. How to get fixed oil for medical purpose?
   a- By extraction with a cold organic solvent
   b- By warm expression
   c- By extraction with cold water
   d- By cold expression

29. The cake of ricinus seed left after expression is unfit for use as a cattle food since it contains an extremely poisonous toxin known as ____________.
   a- Ricinin
   b- Ricin
   c- Taxol
   d- Sinigrine

30. Inulin is a___________ and is available in___________ drug:
   a- Fructosan, Cichoriae radix
   b- Arabin, Comfrey root
   c- Pectin, Plantain shoot
   d- Galactan, Foenigraeci semen

31. All the followings are alkaloids e
   a- Argenin
   b- Vincristine
   c- Reserpine
   d- Ephedrine

32. What type of compound is arbutin, which is used in urological infections?
   a- Flavonoid glycoside
   b- Phenolic glycoside
   c- Furanocoumarin
   d- Terpenoid

33. Volatile oils are mainly extracted by using:
   a- Soxhlet apparatus
   b- Perculator
   c- Clavenger apparatus
   d- Macerator

34. Which one of the following is S-glycoside:
   a- Digoxin
   b- Sennoside A
   c- Aloin
   d- Sinigrin

35. Thymol is a:
   a- Phenolic ether
   b- Phenolic monoterpenes
   c- Phenylpropanoid
   d- Non-phenolic alcohol

36. Which of the following does not represent a correct (fixed oil---source) combination:
   a- Coconut________ Cocus nucifera
   b- Rapeseed________ Glycine max
   c- Cottonseed________ Gossypium hirsutum
   d- Groundnut________ Arachis hypogea

37. Given the two fixed oils A and B. Suppose the iodine value of A equals 50, and of B equals 275, which of the following is correct:
   a- The melting point of A is lower than that of B.
   b- Both are polyunsaturated.
   c- Supposing one of the oils is a peanut and the other is a coconut, then B is the peanut oil.
   d- B is free of saturated acids.

38. All are non-triglyceride lipid substances that are solid at room temperature, except:
   a- Beeswax
   b- Cocoa butter
   c- Lanolin
   d- Carnauba wax
39. All are products of seeds, except:
   a- Guar gum   b- Fenugreek gum
   c- Pectins   d- Corn oil

40. Which of the following is(are) etherification product(s) of cellulose:
   a- Pyroxylin   b- CMC
   c- Cellulose acetate phthalate   d- Methyl cellulose

41. Hazard symbols are easily recognizable symbols designed to warn about hazardous materials or locations. What type of hazards symbols this sign represents:
   a- Bio-hazard sign   b- Radioactive sign
   c- Ionizing radiation sign   d- High voltage sign

42. Symptoms of mild pesticide poisoning include all the following except:
   a- Brain damage   b- Muscle twitching
   c- Eye irritation   d- Skin irritation

43. The most common way pesticides enter the body is through:
   a- Ingestion   b- Inhalation
   c- Eye or skin contact   d- Blood transfusion

44. Black Foot Disease is due:
   a- Mercury toxicity   b- Lead toxicity
   c- Arsenic toxicity   d- Cadmium toxicity

45. Who is most affected by lead poisoning?
   a- Children younger than six years old
   b- Pregnant women and the developing baby
   c- Young adults
   d- Eldery

46. Is considered one of the most poisonous plant toxins if ingested:
   a- Ricinine   b- Ricin
   c- Castor oil   d- Castor leaves

47. Which of these groups is usually designated as one of the most sensitive subpopulations for exposures to toxic substances?
   a- Adult women   b- Infants
   c- Adult men   d- Adolescents

48. You have worked at a chemical facility for 10 years. The facility does not require protective equipment, and you have developed a number of serious health affects in the last 7 years. You are possibly experiencing what type of exposure?
   a- Chronic   b- Acute
   c- Both (a & b)   d- Sub chronic

49. What type of toxicologist takes samples of your blood, urine and hair for testing?
   a- Descriptive   b- Analytical
   c- Mechanistic   d- Forensic
50. **Teratogen means:**
   - a. A chemical which causes skin problems
   - b. A chemical which causes severe birth defects
   - c. A chemical which causes central nervous system damage
   - d. A chemical which causes muscle & bone problems

51. **Carbon monoxide poisoning treated with:**
   - a. 100% O2
   - b. Methylene blue
   - c. Vitamin C
   - d. NaHCO3 (plasma alkalinization)

52. **Mercury toxicity can be reduced by chelating the mercury ions with:**
   - a. NH4Cl (acidify urine)
   - b. Glucagon
   - c. Atropine + pralidoxime
   - d. dimercaprol

53. **When is gastric lavage contraindicated?**
   - a. When substance is caustic & corrosive
   - b. Patient in coma
   - c. If toxic substance is hydrocarbon & petroleum distillate
   - d. A&B&C

54. **Antidote for Iron toxicity is**
   - a. NaHCO3 (alkalinize urine)
   - b. NH4Cl (acidify urine)
   - c. Glucagon
   - d. Deferoxamine

55. **Preferred method for induction of emesis in emergency toxicity:**
   - a. Salt water solution
   - b. Syrup of ipecac
   - c. Mechanical induction
   - d. Milk

56. **All of the following symptoms are commonly found in sympathomimetic intoxications except:**
   - a. Agitation
   - b. Tachycardia and hypertension
   - c. Hyperthermia
   - d. Dry, flushed skin

57. **Regarding Paracetamol toxicity which is not true:**
   - a. Paracetamol toxicity is one of the most common causes of poisoning worldwide
   - b. Is the most common cause of acute liver failure
   - c. Damage to the liver, or hepatotoxicity, results not from paracetamol itself, but from one of its metabolites, N-acetyl-p-benzoquinoneimine
   - d. Has similar symptoms of intoxication of aspirin

58. **All of the following are effectively bound to activated charcoal except:**
   - a. Acetaminophen
   - b. Tricyclic antidepressant
   - c. Iron
   - d. Theophylline
59. What is the most important therapy in the management of a serious benzodiazepine ingestion?
   a- Multi-dose activated charcoal
   b- Alkaline diuresis
   c- Aggressive airway management
   d- Cardiac monitoring

60. All of the following statements concerning acetaminophen toxicity are true except:
   a- Hepatotoxicity occurs because of a depletion of glutathione
   b- Drugs that enhance the cytochrome P450 system diminish the toxic potential
   c- Signs of hepatotoxicity do not occur until at least 8 hours post ingestion
   d- Hepatic necrosis is centrilobular in distribution

**Pharmacology 1+3**

61. Infections caused by MRSA are commonly treated with:
   a- Methicillin
   b- Cephalexin
   c- Vancomycin
   d- Tetracycline

62. Clavulanic acid is:
   a- Beta lactam antibiotic
   b- Penicillinase inhibitor
   c- Macrolide antibiotic
   d- Peptidase inhibitor

63. Antiviral agent with anticancer properties:
   a- Amantadine
   b- Cytarabine
   c- Zidovudine
   d- Acyclovir

64. Pseudomembranous colitis is a common side effect for:
   a- Metronidazole
   b- Vancomycin
   c- Azithromycin
   d- Clindamycin

65. An antimalarial agent that is employed for treatment of rheumatoid arthritis:
   a- Chloroquine
   b- Artimisin
   c- Hydroxychloroquine
   d- Mefloquine

66. An antiestrogen that is used for treatment of breast cancer:
   a- Tamoxifen
   b- Leoprolide
   c- Octreotide
   d- Flumatide

67. Nonsteroidal antiandrogen; effective in prostate cancer:
   a- Tamoxifen
   b- Leoprolide
   c- Octreotide
   d- Flumatide

68. Exerts its anticancer action by binding to tubulin:
   a- Vincristine
   b- Prednisone
   c- Aspargine
   d- Bleomycin
69. Preparations of hCG are used for:
   a- FSH activity       b- LH activity
   c- Estrogen activity   d- Progesterone activity

70. Which of the following is used for treatment of hyperprolactinemia:
   a- Octreotide         b- Bromocriptine
   c- Estradiol          d- Tamoxifen

71. 100 mg of drug falls to 25 mg after:
   a- One half life      b- Two half lives
   c- Three half lives   d- Four half lives

72. Cholinergic drugs are
   a- Parasympatholytic  b- Parasympathomimetic
   c- Sympatholytic      d- Sympathomimetic

73. Used topically as eye drops to treat glaucoma:
   a- Acetylcholine      b- Carbachol
   c- Bethanochol        d- Pilocarpine

74. Used to treat myasthenia gravis:
   a- Phystostigmine     b- Neostigmine
   c- Atropine           d- Epinephrine

75. Beta blockers are not used for the treatment of:
   a- Asthma             b- Hypertension
   c- Angina            d- Anxiety

76. The most serious adverse effect associated with loop diuretics is:
   a- Hypotension        b- Tachycardia
   c- Hypocalcemia       d- Hypokalemia

77. Calcium channel blockers lower blood pressure through:
   a- Lowering total peripheral resistance
   b- Reducing cardiac output of the blood
   c- Reducing heart rate
   d- Controlling the viscosity of the blood

78. Dry cough is a common side effect of:
   a- Beta blockers
   b- ACE inhibitors
   c- Calcium channel blockers
   d- Vasodilators

79. The drug of choice for treatment of pregnancy hypertension is:
   a- Methyl dopa         b- Propranolol
   c- Hydralazine         d- Captopril

80. Which of the following is an angiotensin converting enzyme inhibitor?
   a- Atenolol            b- Diltiazem
   c- Enalapril           d- Candesartan
81. Which of the following may reduce oxidation of a drug:
   a- Keep the drug away from air
   b- Store the drug at high temperature
   c- Use a transparent container
   d- Use a preservative

82. Which of the following stress tests is not applied to solid dosage forms?
   a- Heat
   b- pH
   c- Moisture uptake
   d- Physical stress

83. The minimum acceptable potency of any drug level is:
   a- 50%
   b- 10%
   c- 90%
   d- 70%

84. Arrhenius equation represents the relationship between:
   a- Time and concentration
   b- Temperature and concentration
   c- Temperature and reaction rate constant
   d- Time and reaction rate constant

85. To reduce sticking we can:
   a- Add mg stearate as antiadherent
   b- Add talc as glidant
   c- Undergo wet granulation
   d- Undergo direct compression

86. When capping results from dryness at granulation step the correction will be:
   a- Removal of the very fine powders
   b- Changing the exhausted part of the tableting machine
   c- Add water
   d- Make granules at larger size

87. Enteric coated tablets are designed to dissolve in:
   a- Mouth
   b- Stomach
   c- Small intestine
   d- Rectum

88. Which of the following is considered as eutectic mixture?
   a- Aspirin and vitamin C
   b- Aspirin and thymol
   c- Aspirin and starch
   d- Thymol and starch

89. The department that supervises every industrial step:
   a- QC
   b- Research and development
   c- QA
   d- Compliance

90. Para aminobenzoic acid results from procaine through:
   a- Isomerization
   b- Racemization
   c- Hydrolysis
   d- Polymerization
91. Which of the following is a light absorbant?
   a- EDTA  
   b- Benzalkonium chloride  
   c- Nitrobenzene  
   d- Oxybenzene

92. Antacids interfere with tetracycline absorption through:
   a- pH alteration  
   b- Alteration in gastric emptying  
   c- Complexation  
   d- Alteration in metabolism

93. Concurrent administration of erythromycin and antacids causes:
   a- Decreased erythromycin absorption  
   b- Decreased erythromycin metabolism  
   c- Increased erythromycin absorption  
   d- Increased erythromycin metabolism

94. Which one of the following characteristics is not true about unit dose packaging?
   a- Tamper evident  
   b- Hygienic  
   c- Accurate  
   d- Increase wastage of the drug

95. Used to pack fluids for injection:
   a- Borosilicate glass  
   b- Soda lime glass  
   c- Lead free glass  
   d- Surface treated glass

96. The type of plastic used in manufacturing bags and tubes for IV solutions:
   a- Polyethylene  
   b- Polyvinyl chloride  
   c- Polystyrene  
   d- Nylon

97. Vials are usually closed by:
   a- Heat  
   b- Metal foil  
   c- Rubber piece  
   d- Double wrapping

98. Regarding drug solubility, which of the following is correct:
   a- Solubility increases with increasing surface area  
   b- Solubility increases with decreasing surface area  
   c- Solubility is not affected by surface area  
   d- poorly soluble drugs should be coarsely divided

99. Treatment of picking can be achieved by all of the following except:
   a- Increase the quantity of binder  
   b- Increase the quantity of disintegrant  
   c- Increase the quantity of lubricant  
   d- Remove any impurities

100. Drugs that are destroyed by gastric acidity are best formulated as:
    a- Sugar coated tablets  
    b- Film coated tablets  
    c- Effervescent tablets  
    d- Enteric coated tablets

The End