QUESTION BANK (VETERINARY PHARMACOLOGY)

PAPER NO. 16

Drugs acting on skin and mucous membrane

I.Name the following

1.A commonly available adsorbent of plant origin.-(Activated charcoal)

2.Active Ingredients of savlon—(chlorhexidine, cetrimide)

3.Active ingredient of Dakins solution.—(sodium hypochlorite +boric acid)

4.Active ingredient of Gramoneg.-(Nalidixic acid)

5.Active ingredient of creosote.-(Guaiacol)

6.A diagnostic dye for corneal ulcer.—(fluoresceine dye)

7.Alcohol obtained by fermentation of molasses.-(Ethyl alcohol)

8.Alcohol obtained by destructive distillation of wood.-(Methyl alcohol)

9.An anionic surface active agent. –(Soaps, sodium lauryl sulphate., sodium cetyl sulphate, tri ethanolamine)

10.Antiseptic that act by liberating nascent oxygen on contact with organic matter.-(Hydrogen peroxide)

11.An organic silver preparation.-(Argyrol)

12.Antidote of methyl alcohol.-(Ethyl alcohol)

13.An astringent of plant origin.-(Tannic acid/ Catechu)

14.An emollient of animal origin.-(Wool fat, lanolin)

15.An organic acid included in dermatological preparation.—(undecylenic acid)

16.An inflammatory metalloprotein in bovine liver.-(Orgotein)

17.A vesicant of fly origin –(Cantharidine)

18.A water soluble hydrocarbon—(Polysorbate-80)

19.Father of antiseptics—(Joseph Lister)

20.Fly from which cantharidine is obtained .—(*Cantharis vesicatoria*)

21.Five percent aqueous solution of iodine .-(leugol's iodine)

22.Hydrated wool fat.-(Lanolin)

23.Ingredients of Dettol .-(Chloroxylinols, terpinols, alcohols)

24.Ingredients of Lin. saponis—(Camphor, soft soap, alcohol)

25.Ingredients of Iosan –(Iodophore with phosphoric acid)

26.Ingredients of dressing powder .-(zinc oxide, boric acid, iodoform)

27.Ingredients of Tr. Iodine.-(Iodine. Potassium iodide, alcohol)

28.Ingredients of Whit field's ointment.-(Salicylic acid, Benzoic acid, Vaseline)

29.Major component of talc.-(Magnesium silicate)

30.One antiseptic preparation containing Bismuth and iodoform .-(BIPP)

31.One combination of iodine with phosphoric acid .-(Iosan)

32.One antiseptic included under biguanides.-(Chlorhexidines)

33.One antibiotic known for its ability to penetrate in to granulation tissues.—(Mupirocin)

34.One drug not metabolized by the body.-(Nitrous oxide)

35.One organic chloride used as antiseptic /disinfectant.-(Chloramine –T, Chlorazodine)

36.One organic mercurial preparation used as eye antiseptic.-(Mercurochrome)

37.One plant oil which cannot be used as emollient .—(croton oil, cashew nut shell oil)

38.One keratoplastic agent.-(salicylic acid)

39.One keratolytic agent.-(salicylic acid)

40.One organic iodine preparation.-(Iodoform)

41.One oxidizing agent with antiseptic property that will release nascent oxygen on contact with organic matter .-(Hydrogen peroxide)

42.One oxidizing agent with antiseptic action which will not release nascent oxygen on contact with organic matter for oxidation.-(potassium permanganate)

43.Other name for mercuric chloride.-(Corrosive sublimate)

44.Other name for methenamine mandelate-(Mandelamine, Hexamine, Methenamine)

45.Other name for caustics.-(corrosive, escarotics)

46.Other name for cayenne pepper.-(Capsicum)

47.Other name for isopropyl alcohol.-(Rubbing alcohol)

48.Other name for phenol coefficient .-(Ridal walker coefficient , chick martin ratio)

49.Other name for phenyl salicylas.-(Salol)

50.Other name for methyl salicylas.-(oil of wintergreen)

51.Other name for Poultics.-(Cataplasma)

52.Other name for solid extract.-(Ext. siccum)

53.Other name for Sudan 4 .-(Scarlet red)

54.Other name for liquid paraffin.-(mineral oil)

55.Plant from which Glycyrrhiza is obtained.-(*Glycyrrhiza glabra*)

56.Potassium permanganate lotion 1/4000 to 1/10000 used for gargling.-(Condy's lotion)

57.Source of tragacanth –(*Astragalus gummifer*)

58.Source of cantharidine –*(Cantharis vesicatoria*)

59.The active ingredient of Whitfield's ointment .-(salicylic and benzoic acid)

60.The active ingredient of Savlon.-(cetrimide)

61.The active counter irritant principle present in ground mustard.-(allyl iso thio cyanate)

62.The common name of trinitrophenol.-(picric acid)

63.The first antiseptic used by Joseph Lister-(Carbolic acid/ Phenol)

64.The natural source of Iodine.(sea weeds)

65.The other name for phenol.-(carbolic acid)

66.The other name for mercuric iodide.-(red iodide / bin iodide of mercury)

67.The plant from which camphor is obtained.-(*Cinnamomum camphorae*)

68.The test by which antiseptic activity of a compound is measured .-(Ridal walker test)

69.The wood tar derivatives obtained by destructive distillation of wood.-(Turpentine, pine oil, pine tar)

70.Thick pasty preparation for local application externally.-(cataplasma/poultice)

71.The active ingredient of calomel.-(Mercurous chloride)

72.The active ingredient of oil of peppermint.-(menthol)

73.Three topical antibacterial antibiotics .—(Neomycin, Gentamicin, Bacitracin, Nitrofurazone)

74.Three antipruretic agent.-(Glucocorticoids like hydrocortisone, anti histamins like diphenhydramine, topical anaesthetics like Lidocaine, cooling agents like Menthol)

75.Three topical anti inflammatory agent.-(cold water application, glucocorticoids, dimethyl sulfoxide, aloe vera)

76.Three topically applied agents which will act against yeast.-(Clotrimazole, Iodine, Selenium sulfide, lime sulfur)

77.Three topical medicine for dermatophytes.—(lime sulfur, chlorhexidine, povidone iodine, ketoconazole)

78.Three iodophor preparation .-(povidone iodine, polysan, betadin)

79.Three metallic astringents.-(zinc oxide, zinc carbonate, alum)

80.Three class of medicinal preparation which produce therapeutic effect on the skin by physical action.-(emollients, demulcents, protectives, adsorbents)

81.Three class of medicinal preparation which produce therapeutic effect on the skin by chemical action.-(Astringents, irritants, caustics, escarotics)

82.Three natural hydrocarbons used as vehicles for the preparation of ointments.-(white paraffin , yellow paraffin and liquid paraffin)

83.Two derivative of phenol.-(cresylic acid, tricresol)

84.Two vegetable astringents.-(Tannic acid, gallic acid,catechu)

85.Two counter irritant .-(Iodine, turpentine, camphor, thymol, menthol)

86.Two antiseborrheic agents.-(selenium sulfide, cadmium sulfide, tellurium dioxide)

87.Two solid volatile oil.-(Camphor, menthol, thymol)

88.Two cationic surfactant –(benzalkonium chloride, benzethonium chloride)

89.Two medicated shampoos with anti seborrheic action .-(Seldan, Selsan)

90.Two melanising agent.-(Psoralen,trimethyl psoralen)

91.Two demelanising agent.-(Monobenzone and azelaic acid)

92.Two types of capsules.-(Hard and soft)

93.Two internal protective and adsorbent .-(Kaolin, charcoal)

94.Two vehicles used for the preparation of Electuary.-(Honey , Treacle, syrups)

95.Two alkaloids which are not be precipitated by tannic acid.-(nicotine, atropine, morphine)

II.State true or false:

1.Action of formalin is inhibited by organic matter.-(F)

2.Acriflavin is an orange red powder which gives yellow coloured solution with green fluorescence in water.(T)

3.Acriflavin is used as a dye and have no antiseptic action.-(F)

4.Activated charcoal is an adsorbent internally and externally.-(T)

5.Activated charcoal can be used to treat dyspepsia, flatulence, diarrhea.-(T)

6.Addition of glycerin to sterilization solution for instruments will aids manipulation of syringe.-(T)

7.After the application of liniments we have to rub the area to get better action.-(T)

8.Alkylated gluteraldehyde is more stable.-(F)

9.Aluminium chloride and aluminium hydroxide are used as antiperspirants.-(T)

10.All the volatile oils are counter irritants.-(T)

11.All the plant oils can be used as an emollient.-(F)

12.Alkaloids are the major active principle present in plants.-(T)

13.Allantoin is having keratolytic activity .-(T)

14.Ammoniated mercury ointment is used in dermatophytosis.-(T)

15.Ammonium alum is not a haemostatic.-(F)

16.Ammonium alum is aluminium sulphate with ammonium sulphate.-(T)

17.Antibiotics like nystatin and clotrimazole and antiseptics like iodine are effective in topical therapy against yeast.—(T

18.Argyrol can be used as antiseptic in eye.-(T)

19.Astringents are used locally to precipitate protein .-(T)

20.Atapulgite is an adsorbent .-(T)

21.At the time of production phenol is transparent crystalline in nature.—(T)

22.At the time of production phenol is a coloured syrupy liquid.-(F)

23.Azo dyes are specific against G +ve bacteria.-(F)

24.Bacteria may develop resistance against phenol.-(T)

25.Benzyl peroxide is a keratolytic and anti seborrheic agent.-(T)

26.Benzalkonium chloride1:1000 solution is used for sterilization of instruments.-(T)

27.Benzalkonium is less antimicrobial in presence of cotton and gauze.-(T)

28.Benzalkonium act as antiseptic by inhibiting the respiratory and glycolytic enzymes of bacteria.-(T)

29.Benzyl peroxide and ethyl lactate are having antibacterial action.-(T)

30.Betamethazone is more safer than mometazone for prolonged topical application. (F)

31.Bismuth salts adsorbs gases, toxins and bacteria.-(T)

32.Benzoic acid is fungicidal in action externally.-(T)

33.Bin iodide of mercury stimulate inflammation.—(T)

34.Bleaching powder 4 to 5 percent solution kill Newcastle disease virus.-(T)

35.Bleaching powder can be used as a disinfectant in places where milk is handling-(F)

36.Both gram +ve and gram -ve bacteria is susceptible to quaternary ammonium compounds.-(T)

37.Brilliant green is a basic dye.—(T)

38.Calamine is one of the ingredient of healing powder.-(T)

39.Calcium hypochlorite can be used for cleaning of necrotic tissue as it dissolve necrotic tissue and blood clots.-(T)

40.Carbolic soap is toxic to dogs and cats.-(T)

41.Carbowaxes are not water soluble.-(F)

42.Carbowaxes are solid at room temperature.-(T)

43.Carbowaxes will produce non greasy ointment.-(T)

44.Cationic surfactants antagonize with soap.-(T)

45.Cationic surface active agents are active in slightly alkaline solution.-(T)

46.Cationic surface active agents denature proteins and change surface tension.-(T)

47.Cetrimide 20% solution is available as cetavalon.-(T)

48.Cleansers are agents aids in the physical removal of foreign materials and not necessarily germicidal.-(T)

49.Coal tar is the most widely used keratoplastic agent in veterinary medicine.—(T)

50.Coal tar is not recommended in cats.—(T)

51.Coal tar ointment is used in eczema and dermatitis.-(T)

52.Cocoa butter is solid at room temperature and melts at body temperature hence used for the preparation of suppositories and passerines.-(T)

53.Concentrated sodium hydroxide can be used as a very powerful antiseptic.-(F)

54.Concentrated soda lye is a corrosive poison.-(T)

55.Colloidal silver preparations are non irritant.-(T)

56.Colloidal silver preparations are active even in presence of organic debris and chloride.-(T)

57.Cold creams are emollient.-(T)

58.Cresol is a coal tar derivative.-(T)

59.Cresol is three times active than phenol against acid fast bacteria.-(T)

60.Croton oil is a plant oil hence it can be recommended as an emollient.-(F)

61.Dakins solution can be used as a teat dips.-(T)

62.Dettol one percent is used as antiseptic on wounds.-(T)

63.Dettol cream 1.4 % can be used as antiseptic cream in obstetrical practice.-(T)

64.Dimethicone is a silicone based polymer.-(T)

65.Disinfectant will kill the micro organism while the antiseptics will prevent the growth and multiplication of microbes.-(T)

66.Drugs having similar action must have similar structure.-(F)

67.Ethyl alcohol 50% is an ideal antiseptic.-(F)

68.Ethyl alcohol 70% is an ideal antiseptic.-(T)

69.Eupad is a mixture of bleaching powder and boric acid.-(T)

70.Emollients restore the elasticity of cracked dry skin.-(T)

71.Eusol is a filtered solution (2.5%) of Eupad.-(T)

72.Ferric chloride can be used as an intestinal astringent.-(F)

73.Five percent Scarlet red stimulate epithelial growth .-(T)

74.Formalin is a gas with disinfectant property.-(F)

75.Formaldehyde 37 % in water is known as formalin.-(T)

76.Formalin is 100 % formaldehyde in water.-(F)

77.Formaldehyde is a liquid available as20% solution.-(F)

78.Formaldehyde is available as formalin.-(T)

79.Fungi and virus is susceptible to quaternary ammonium compounds.-(T)

80.Generalized yeast infection (*Malassezia*) can be treated with shampoos containing selenium sulfide.—(T)

81.Glucuronic acid conjugation is not well developed in felines.-(T)

82.Gluteraldehyde 2% solution is used for sterilizing surgical instruments.-(T)

83.Gluteraldehyde must be alkalinized to have sporicidal action.-(T)

84.Gluteraldehyde is a better sterilizing agent than formaldehyde for surgical instruments .-(T)

85.Glycyrrhiza can be used as sweetener and flavouring agent.-(T)

86.Glycerine 50—75 % can be used orally to reduce intracranial tension.-(T)

87.Glycerine 10% is used intra venously to reduce intra ocular tension.-(T)

88.Glycerine can be added to teat dips to prevent cracks on the teats.-(T)

89.Glycerine is a bye product of soap industry.-(T)

90.Glycerine on inflamed skin or mucous membrane can cause hypersensitivity reactions.-(T)

91.Heavy metal compounds combines with sulph hydril groups of enzymes of bacteria and exert its antiseptic action.-(T)

92.Hard soaps have long chains and so it is less active as an antiseptic -(T)

93.Heavy metal salts are astringents in nature.-(T)

94.Heat is an example for rubifacient.-(T)

95.Hyaluronidase reduce the diffusion of drug applied externally.-(F)

96.Hyaluronidase hydrolyse the intracellular cement substance hyaluronic acid.-(T)

97. Iodine is not a corrosive chemical.-(F)

98.Imiquimod has been used in various cutaneous neoplasms.—(T)

99.Ingredients of white lotion.-(Zinc sulphate and lead acetate)

100.Ingredients of calamine lotion.-(Calamine, zinc oxide, Bentonite, glycerin, phenol, water)

101.Isopropyl alcohol is less germicidal than ethyl alcohol.-(T)

102.Iodophors will stain the area of application.-(F)

103.Imiquimod is an immune response modifier.—(T)

104.Kino is a source of vegetable astringent.-(T)

105.Keratoplastic implies normalization of the cornification process by slowing epithelial turnover.—(T)

106.Lime sulphur is very effective in the treatment of dermatophytes.-(T)

107.Liquid paraffin is otherwise called as mineral oil.-(T)

108.Liniments are intended for application over the mucous membranes.-(F)

109.Liq. Ammonia is a counter irritant and it is included in liniments.-(T)

110.Lysol two percent is a disinfectant.-(T)

111.Lysol is effective to kill hog cholera virus on five minutes exposure.-(T)

112.Mercurochrome one to two percent solution is used as an eye antiseptic.-(T)

113.Methyl phenol is otherwise called as cresol.-(T)

114.Methylene blue is an intestinal antiseptic which convert haemoglobin to meth haemoglobin.-(T)

115.Methyl salicylas is same as lemon grass oil.(F)

116.Most modern antiseptics have a phenol coefficient value of 500—1000.-(T)

117.Most disinfectant solution must apply while hot. Because hot solution have more action than cold solution. -(T)

118.Mercuric chloride is non toxic.-(F)

119.Mercurochrome is non irritant to mucous membrane.-(T)

120.Nalidixic acid is having antiseptic action in the urinary tract.—(T)

121.One percent phenol is bactericidal.-(T)

122.One in thousand solution of mercuric chloride is a disinfectant.-(T)

123.One in five thousand solution of sodium per borate can be used as antiseptic in mouth.-(T)

124.Oxalic acid can be used to remove stains due to potassium permanganate.-(T)

125.One to 2.5 % solution of gentian violet in alcohol is antiseptic.-(T)

126.One percent povidone iodine is antiseptic and more than 1% is less effective.-(T)

127.Phenol is a thick oily liquid.-(F)

128.Phenol is commonly used to cauterize infected wound.-(T)

129.Phenol is corrosive on tissues.-(T)

130.Picric acid crystals will explode on heating/ percussion.-(T)

131.Picric acid will produce haemolysis and kidney toxicity.-(T)

132.Podophyllum resin is a caustic agent.-(T)

133.Polysorbate -80 is a water soluble hydro carbon.-(T)

134.Potassium permanganate and formalin can be used together to disinfect refrigerator /Incubator.-(T)

135.Potassium alum is a haemostatic.-(T)

136.Potassium alum is a combination of aluminium sulphate with potassium sulphate.-(T)

137.Pseudomonas is resistant to quarterinary ammonium compounds.-(T)

138.Perfumed Talc is talcum powder.-(T)

139.Phenol is a colorless transparent crystal with characteristic odor-(T)

140.Retinoids can be recommended in the treatment of *Acanthosis nigricans* in dogs and feline acne in cats.-(T)

141.Rubifacients will produce vasodilatation and stimulate circulation.-(T)

142.Silver sulphadiazine is antiseptic against pseudomonas.-(T)

143.Silver sulphadiazine ointment is commonly used in burns.-(T)

144.Sodium hypochlorite solution is mostly used for sterilization of dairy utensils.-(T)

145.Sodium hypochlorite solution inactivate Foot and Mouth virus.-(T)

146.Soaps are antibacterial against G-ve and acid fast bacteria.—(T)

147.Soaps are anionic surface active agent.-(T)

148.Soaps are anionic detergent having antiseptic action.-(T)

149.Soap is inactivated by hard water.-(T)

150.Soap is inactivated by cationic detergents.-(T)

151.Sodium salicylate stimulate uric acid excretion.—(T)

152.Sodium salicylate is a keratolytic agent -(T)

153.Soft soaps have short chains and it is more active as an antiseptic than hard soap.-(T)

154.Spermaceti is a waxy substance obtained from the head of sperm whales.-(T)

155.Spermaceti is a waxy substance obtained from the sperm of whales._(F)

156.Strong Tr. of iodine is 7 % iodine in alcohol.-(T)

157.Strong Tr. of iodine is recommended as an antiseptic on wounds.-(F)

158.Stronger action than blister formation results in caustics/ corrosive action.-(T)

159.Streptokinase can be recommended to lyse the respiratory tract secretion.-(T)

160.Streptokinase or strepto dornase helps in the removal of clotted blood or fibrinous exudate.-(T)

161.Sulphur dioxide is an antiseptic included under the group of reducing agents.-(T)

162.Sulphur dioxide as such is a powerful disinfectant.-(F)

163.Sulphur dioxide dissolved in water gives Sulphurus acid which is the true disinfectant.-(T)

164.Sulphur is having keratolytic, antiparasitic, antiseborrheic action.-(T)

165.Sulphur dioxide as such is not having any disinfectant action.-(T)

166.Salicylic acid can be used to remove stains due to potassium permanganate.-(F)

167.Salicylic acid combined with sulphur is recommended for the treatment of primary seborrhoea sicca and oleosa.-(T)

168.Tannic acid is a vegetable astringent obtained from nut galls of oak tree.-(T)

169.Targeted delivery is used in the treatment of all types of disease.-(F)

170.The antiseptic action of furan dyes is reduced by serum.-(T)

171.The activity of quarterinary ammonium compounds are reduced by the presence of serum, blood and other tissues.-(T)

172.The activity of potassium permanganate is not affected by the presence of organic matter.-(T)

173.The most common use of carbolic acid is to cauterize infected area, snake bite, dog bite wound, infected umbilicus etc.-(T)

174.Thymol is having fungicidal action.-(T)

175.To treat deep penetration of phenol in to the tissues repeated application of alcoholic pads followed by glycerine pad is recommended.-(T)

176.To get the counter irritant action of ground mustard it must be mixed with warm water before application-(T)

177.Trypsin and chymotrypsin is obtained commercially from ox pancreas.-(T)

178.Trypsin and chymotrypsin can be used for the debridement of necrotic wound/ ulcer.-(T)

179.Trypsin and chymotrypsin can be used to hydrolyze protein and mucin.-(T)

180.Tubercle bacilli are susceptible to quarterinary ammonium compounds.-(T)

181.Turpentine is a counter irritant.-(T)

182.Two to 8 % formaldehyde is used for sterilization of instruments.-(T)

183.Tween-80 can be used for the preparation of emulsions for internal use.-(T)

184.Tween-80 is oily in nature and not miscible with water.-(T)

185.Tacrolimus has anti-inflammatory and immunomodulatory effect through calcineurin inhibition.-(T)

186.Tacrolimus is a macrolide antibiotic produced by streptomyces griseous.—(F)

187.Urine must be alkalinized with ammonium chloride while administering methenamine.-(F)

188.Use of hydrogen peroxide for mouth wash causes hypertrophy of filiform pappilae which is known as Hairy tongue-(T)

189.White lotion is advisable to apply on abraded skin.-(F)

190.White lotion is not advisable on abraded skin because of lead toxicity which is an ingredient of it.-(T)

191.Zinc stearate / carbonate is an adsorbent. –(T)

192.Phenol is having local numning effect on the skin.-(T)

193.Pectin can be recommended in diarrhea.-(T)

194.Resorcinol six percent ointment is used in dermatitis.-(T)

195.Soap is inactivated by calcium ions.-(T)

196. White lotion is sedative in action and can be applied on areas of sprain and bruise.-(T)

197.Ethylene oxide gas is fumigant and disinfectant.—(T)

198. Forty percent urea preparations are used in psoriasis , eczema, keratosis and corns.-(T)

199. Coal tar contain phenol, cresol, anthracene, naphthalene and benzene.—(T)

197. Two to three percent solution of Iosan kills foot and mouth virus in 3 hours. –(T)

III. Fill up the blanks with most appropriate words:

1.Above……..percentage boric acid lotion inhibits phagocytosis.—(5%)

2.Absolute alcohol is Ethyl alcohol …….% or more.-(99.5%)

3.Acetic acid ……% is known as vinegar and it is bactericidal.-(5%)

4.Active counter irritant principle present in ground mustard is ……..-(allyl iso thio cyanate)

5.Active potassium permanganate lotion is having ……..colour.-(purple)

6.Active ingredient of Tretinoin is ……----(retinoic acid)

7.Along with benzalkonium, 0.5 % ……is added in sterilization solution to prevent rusting of surgical instruments while sterilization.-(sodium nitrate)s

8.Antiseptic ointment BIPP consist of bismuth subnitrate, ……., …….--(iodoform, liquid paraffin)

9.A pH greater than …….will inhibit most bacteria.-(9)

10.Argyrol is ……% solution is an organic silver preparation used as antiseptic in eye.-(1/2 to 10)

11.As a disinfectant for animal house sulphur has to be ignited at the rate of …….kg./100 cubic feet air. –(0.5 kg)

12.A solution intended for washing the eye is called as……-(collyria)

13.Azol compounds like clotrimazole inhibit ……synthesis in fungi.—(ergosterol)

14.Benzalkonium ……(strength) is used as an antiseptic for mucous membranes.-(1/2000 to1/10000)

15.Bleaching powder must have ……% available chlorine.-(24 – 37%)

16.Boric eye lotion is ……..% boric acid in water.-(1%)

17.Boric acid ……..% ointment is used on skin as antiseptic -(10%)

18.Boroglycerin for application in mouth consist of ……..% boric acid in glycerin .-(30%)

19.Brom sulphalein dye is used to test ……..function .-(Liver)

20.Calcium hydroxide (0.1%) in water is known as …… it can be used in calcium deficiency-(Lime water)

21.Calamine is chemically ……..-(Zinc carbonate)

22.Cantharidin is highly toxic when taken internally , it is more toxic in …….(species)animal.--(horse)

23.Calcium hydroxide is otherwise known as……..-(Slaked lime)

24.Camphor is obtained from the plant……..-(*Cinnamomum camphorae*)

25.Cantharidin is obtained from……-(*Cantharis vesicatoria*)

26.Chemically Talc is …….silicate.-(Magnesium)

27.Chemically Tween -80 is ……-(polysorbate -80)

28.Chemically carbowaxes are……-(polyethylene glycols)

29.Chlorinated lime is known as …….-(Bleaching powder)

30.Chymopapaine is obtained from ……latex.-(Papaya)

31.Chrysarobin ……percent ointment is used on the skin as antiseptic.-(6%)

32.Chlorhexidine is available as……(preparation)--(Hibitane)

33.Contaminated water can be made sterile by adding …….drops of Tr. iodine/lit of water.-(3)

34.Chlorine dissolved in water to form ……..acid which is bactericidal in action.-(hypochlorus)

35.Chlorinated lime is otherwise known as …….(Bleaching powder)

36.Counter irritants are ……group of topically active drugs.-(stimulant)

37.Creosote is obtained during the ……..of wood.-(distructive distillation)

38.Dressing powder consist of Zinc oxide, Boric acid and Iodoform in the ratio ……—(2:2:1)

39.Dressing powder consist of Zinc oxide, …….. and ……--(boric acid, iodoform)

40.Dettol ……..percent is used on skin as antiseptic .-(5)

41.De glycyrrhizinised liquorice is used to promote healing of ……-(peptic ulcer)

42.Dornavac contain ……dornase as active ingredient.--(Pancreatic)

43.Disinfectants for premise must have a value of ……at a dilution factor of 30 to 50.-(78)

44.Disinfectants have bactericidal activity and is usually applied to ……..objects—(inanimate)

45.Dr. Joseph Lister is considered as the father of antiseptic, he used .....for the first time as antiseptic in the history of aseptic surgery.-(Carbolic acid/ Phenol)

46.Dimethyl sulfoxide give the skin and breath a smell of .....-(Garlic)

47.Ethyl alcohol ……% is a very good antiseptic.-(70)

48.EPA –registered disinfectants agents are capable of killing all infected organism (fungus and bacterial spores usually in …….hours.-(10)

49.Ethyl alcohol ……..% is known as rectified spirit.-(90)

50.Ethyl alcohol inhibits the release of …….. and stimulate the urine production.-(ADH)

51.Eventhough sulphuric acid is having disinfectant action it is not used for this purpose because of its ……action.-(corrosive)

52.Excess silver nitrate can be neutralized by …….-(sodium chloride)

53.Ferric oxide with zinc carbonate is known as……..-(prepared calamine)

54.Five percent alcoholic solution of picric acid is recommended in ……-(.eczema and other skin disorders)

55.Fluorescein dyes stains only ……..tissues.(Necrotic)

56.For fumigation of incubator 17.5 gm potassium permanganate and ……ml formalin for…….. cubic feet space is recommended.-(35, 100)

57.For bactericidal, fungicidal and viricidal action of aldehyde require ……hours of contact .-(6-12)

58.Formaldehyde convert toxin to ……..-(Toxoid)

59.Formaldehyde ……..% in water is known as formalin.-(37 – 40 %)

60.For sterilization of instruments ……strength solution of savlon is used,-(1/30)

61.Fifty ppm iodine in solution can kill most spores in ……minutes.-(5)

62.For getting action with hexamine the urine must be made ……..-(acidic)

63.Gentian violet and Brilliant green comes under ……group of dyes.-(Rosaniline and para rosaniline)

64.Hard soaps are ……. salts of fatty acids.-(sodium)

65.Hypochlorus acid is antibacterial because of its …….action.-(oxidizing)

66.Hydrated colloidal aluminium silicate is otherwise called as ……-(Bentonite)

67.Hexyl resorcinol is used as a urinary ……-(antiseptic)

68.Hydrogen peroxide solution is generally available as ……..volume solution.-(20)

69.Hydrogen peroxide is an ……agent.—(Oxidising)

70.Hydrated wool fat is otherwise called as ……..-(Lanolin)

71.Isopropyl alcohol is otherwise known as ……alcohol.-(rubbing)

72.Ichthamol is obtained from ……scales.-(fish)

73.In acidic medium hexamine release ……..which produce antiseptic action -(Formaldehyde)

74.Iodophors carry as high as ……percent iodine.-(30%)

75.Isopropyl alcohol 50% is known as ……alcohol,-(rubbing)

76.Inactive/reacted potassium permanganate solution will be ……in colour.-(Brown)

77.In dogs urine can be made acidic by ……-(Sodium acid phosphate, Ammo. chloride, Ascorbic acid)

78.Long wave ultraviolet light have a wave length of……..A^0 (3000—4000)

79.Leugols iodine is 5% solution of iodine in ……-(water)

80.Lunar caustic is mostly used for ……..of wounds/horn buds.-(Cauterisation)

81.Lunar caustic is ……..salt of ……metal.-(nitrate, silver)

82.Mercuric chloride is otherwise known as ……..-(corrosive sublimate)

83.Mercurus chloride is commonly known as ……-(calomel)

84.Mandel's paint which is used for sore throat consist of iodine …….% with potassium iodide , glycerin and peppermint -(1.25%)

85.Methylene blue is an intestinal ……-(Antiseptic)

86.Methyl alcohol is oxidized to ……& ……in the body.-(formaldehyde and formic acid)

87.Mandelic acid is bactericidal in acidic medium and is used as …… antiseptic against gram negative bacteria.-(urinary)

88.Methyl salicylas is commonly known as ……..-(Oil of winter green)

89.Mildest degree of counter irritation is ……..-(Rubefacient)

90.Modern antiseptics have a phenol coefficient of ……to ……..—(500 to 1000)

91.Methylated spirit is ethyl alcohol mixed with .....% methyl alcohol.-(5%)

92.Methenamine will act as antiseptic in urinary tract only in .....urine pH.-(acidic)

93.Nalidixic acid is active against gram……..organism.-(negative)

94.Nalidixic acid can be used as a ……..antiseptic.-(urinary)

95.Nitrofuracin ……. ointment is used as antiseptic .-(0.2 %)

96.Methyl salicylas is ……..in action and so it is included in liniments.-(counter irritant)

97.Oil of wintergreen is ……salicylas.-(methyl)

98.One percent ointment of yellow oxide of mercury is known as ……ointment.-(Golden)

99.Phenazopyridine is used as a urinary antiseptic and……..-(Analgesic)

100.Phenol sulfonphthalein dye is used to test ……function test.-(kidney)

101.Phenol crystals on exposure to air becomes……-(liquid)

102.Potassium permanganate is oxidized to ……dioxide which gives brown colour to the solution.(manganese)

103.Potassium permanganate lotion is antiseptic at a dilution range of ……-(1:1000 –1: 3000)

104.Phenol can kill anthrax spores at …….% concentration.-(5)

105.Pyrophyllite has been widely used on surgeons gloves to prevent ……-(sticking together)

106.Red iodide of mercury ointment at a strength of ……are used as a vesicant. –(1: 4 to 1: 8)

107.Resorcinol is having ……and……..action.-(bactericidal and fungicidal)

108.Saponated cresol is otherwise known as ……(Lysol or saprol)

109.Salol is otherwise known as…….salicylas.-(phenyl)

110.Saprol consist of …….+ soap.-(cresol)

111.Salicylic acid is having only mild germicidal action, however 2-3% ointment is used as…….-(*Keratolytic*)

112.Savlon consist of chlorhexidine and ……in alcohol.-(cetrimide)

113.Scarlet red is used as an antiseptic and it is an …….dye having more action on ……..type of bacteria,-(Azo, Gm –ve)

114.Scarlet red is a member of ……(class) dyes.-(Azo)

115.Short wave ultra violet light have a wave length ……A^0 and below-(3000)

116.Silver nitrate is commonly known as ……-(Lunar caustics)

117.Silver nitrate 1:1000 to 1: 10000 solution is ……in action.-(antiseptic)

118.Slaked lime with water is known as ……wash-(White)

119.Sodium hydroxide (soda lye) ……..% solution kills foot and mouth and hog cholera virus.-(2%)

120.Sodium hydroxide is generally recommended to ……..animal shed and drainages.-(disinfect)

121.Soft soaps are ……..salt of fatty acids.-(potassium)

122.Soaps are antibacterial against ……. bacteria.-(Gm –ve)

123.Soaps are ……..detergents.—(Anionic)

124.Stains due to picric acid on the skin can be removed with …….-(magnesium carbonate)

125.Sulphur dioxide in water gives …….acid which is bactericidal.-(Sulphurous acid)

126.Tannic acid is obtained from nut ……..of …….tree.-(galls, Oak)

127.The active ingredient of Gaultheria oil is ……..-(methyl salicylas)

128.The active ingredient of crystoid is…….—(Hexyl resorcinol.)

129.Tannic acid form insoluble complex with ……and ……-(heavy metals , alkaloids)

130.The contact time of yeast to shampoos must be at least …….minutes to destroy it —(10)

131.The colour of iodoform is ……..-(light yellow)

132.The concentration of Acriflavin antiseptic lotion is ……..—(1/1000 to 1/ 10000)

133.The mechanism of antimicrobial action of alkali is related to the concentration of ……ions and is more effective against virus.-(OH)

134.The most modern antiseptics are under the group ……--(Ampholytic surfactants biocides)

135.The other name for methyl salicylas is ……--(Oil of winter green)

136.The percentage of Tr. iodine antiseptic is……--(2—2.5 %)

137.The potency of antiseptic is measured and expressed as ……(phenol coefficient /chickmartin ratio/Ridal walker ratio)

138.The strength of Tr. iodine recommended on wound is ……-(weak/ 2-2.5%)

139.The stains by acridine dyes on the skin can be removed by ……-(dilute sulphuric acid)

140.The stains on skin /hairs due to potassium permanganate can be removed by ……..or ……..-(oxalic acid/sulphurus acid)

141.The ultra violet light for sterilization is having a wave length of …… A^o)-(2540—2800)

142.To get the effect of povidon iodine at least ……..minute contact time is required.-(2)

143.To get antiseptic action with Tr. iodine on skin at least ……min. contact is required.-(3)

144.To make contaminated water sterile for drinking purpose at least ……..gm of bleaching powder/lit. has to be added to it .-(half a gram)

145.To protect hexamine from gastric acidity give it as……tabs/capsule.-(enteric coated/salol coated/ keratin coated)

146.Turpentine is obtained from …….tree.-(Pine)

147.Twenty volume solution of hydrogen peroxide can be diluted ……..times before use for antiseptic purpose.-(3)

148.U.V light of ..... A^o wave length is anti bacterial.-(2540—2800)

149.Use of dusting powder on wet/moist skin may helps the growth of …….-(Bacteria and fungus)

150.Ultraviolet light of ……wave length is antimicrobial and used for sterilization of rooms/ kennel.-(2540 ----2800 A^0)

151.Weak Tr.Iodine is a very powerful antiseptic it contain .....% Iodine.-(2- 2.5)

152.Weak Tr. of iodine is ……..percent iodine in alcohol.-(2 to 2.5%)

153.Wintergreen oil is a volatile oil distilled from the leaves of …….. or from the bark of ……-(*Gaultheria procumbens, Betulalenta*)

154.White lotion is astringent and ……. In nature.-(sedative)

155.....is a counter irritant obtained from a fly.-(Cantharidine)

156……dilution of potassium permanganate can be used as antiseptic.-(1/ 1000 ---1/3000)

157……is the active principle of creosote.-(guaiacol)

158.....% potassium permanganate is used as antiseptic.-(0.1 –0.03)

159……..percent sodium hydroxide is required to kill bacterial spores.-(5%)

160……..are derivatives of nalidixic acid.-(Quinolones)

161……..lime moistened with water is known as slaked lime.-(Quick)

162……..% benzoic acid is used as food preservative.-(0.1%)

163……..Normal Hydrochloric acid/Sulphuric acid can be used to disinfect excreta contaminated area.-(0.1 to 1 Normal)

164……..(dilution) acriflavin is a good antiseptic.-(1/10000 to 1/1000)

165……percent potassium permanganate solution is astringent-(5%)

166……..percent formaldehyde in water is known as formalin.-(37%)

167……..percent formaldehyde in water is bactericidal.-(1-2%)

168……..percent formaldehyde is sporicidal.-(4%)

169……..percent formalin , 20 lit/ cubic meter can destroy Anthrax spores.-(5%)

170……..percent formalin is bactericidal. (2.5 –5.0 %)

171……is the phenolic compound of creosote.-(Guaiacol)

172.Triple dye used as antiseptic include Gential violet,……and……..— (brilliant green, proflavin)

IV. Odd one out and state why?

1.Bismuth carbonate, calcium carbonate, magnesium silicate ,zinc sterate, activated charcoal --(calcium carbonate- all are adsorbent except calcium carbonate which is an anti diarrhoeal agent)

2.Boric acid, benzoic acid, salicylic acid, nalidixic acid, mandelic acid.--(boric acid-all are organic acid except boric acid)

3.Boric acid, salicylic acid, benzoic acid, mandelic acid, acetic acid.--(acetic acid-all are solid in nature except acetic acid)

4.Biniodide of mercury, red oxide of mercury, yellow oxide of mercury, mercurochrome.--(mercurochrome-all are inorganic mercurial except mercurochrome which is organic.)

5.Chloramine-T, sodium hypochlorite, calcium hypochlorite, Eupad.--(chloramine T-all are inorganic except chloramines-T)

6.Castor oil, peppermint oil, clove oil, turpentine oil.--(castor oil) all are volatile oils except castor oil.

7.Calcium hydroxide, potassium hydroxide, sodium hydroxide, vinegar.-(vinegar- all are alkaline except vinegar which is acidic)

8.Coconut oil, linseed oil, olive oil, cocoa butter.-(cocoa butter- only semisolid one all others are liquid at room temperature)

9.Coconut oil, olive oil, wool fat, glycyrrhiza.-(glycyrrhiza- all are emollient except glycyrrhiza which is a demulcent)

10.Catechu, kino, nutmeg, zinc carbonate, -(Zinc carbonate- a metallic astringent all others are of plant origin)

11.Ferrous sulphate, alum, zinc carbonate, catechu.-(catechu-all are heavy metal astringents except catechu which is a plant product.)

12.Gum mucilage , cocoa butter, honey, syrup, glycerin.-(cocoa butter)the only semisolid one.

13.Gentian violet, crystal violet, euflavin, brilliant green.-(euflavin)all basic dyes except euflavin.

14.Hydrogen peroxide, potassium chlorate, sodium perborate, potassium permanganate.-(potassium permanganate- all will release nacent oxygen except potassium permanganate)

15.Hydrogen peroxide, potassium permanganate, borax, sulphur dioxide.-(sulphur dioxide-all are oxidizing agents except sulphur dioxide which is a reducing agent)

16.Kaolin, zinc oxide, boric acid, calamine,mag. Trisilicate.-(Kaolin) the only internal protective in this list

17.Methyl salicylas, turpentine, oil of eucalyptus, camphor.-(camphor- all are counter irritant liquids except camphor which is solid in nature)

18.Mineral oil, cotton seed oil, castor oil, linseed oil.-(Mineral oil)-all are veg. oils except mineral oil

19.Potassium laurate, sodium stearate, triethanolamine, benzalkonium chloride.-(benzalkonium chloride- all are anionic surface active agents except.benzalkonium)

20.Phenol, cresol, picric acid, ichthammol, thymol.-(ichthammol) all coaltar derivative except ichthammol.

21.Red iodide of mercury, black mustard, iodine, methyl salicylas.-(methyl salicylas- all are counter irritants solid except methyl salicylas which is liquid.)

22.Scarlet red , acriflavin, brillient green, gentian violet, methylene blue.-(methylene blue-all are used externally except methylene blue which can be used internally)

23.Sulphur dioxide, hydrogen peroxide, formaldehyde, chlorine, iodoform.-(iodoform)all gaseous form except iodoform.

24.Tr. iodine, leugols iodine, mandels' paint, povidon iodine.-(povidone iodine- all are inorganic form except povidone which is organic)

25.Vasoconstrictors, hyaluronidase, spansules, subcutaneous implants.-(hyaluronidase- all helps to reduce absorption except hyaluronidase.

26.White petrolatum, yellow Vaseline, tween 80, liquid paraffin.-(Tween 80) the only one water soluble one

VII.Write the active ingredients of

1. BIPP: -- (bismuth sub nitrate, iodoform, liquid paraffin)

2.Calamine lotion:-- (zinc carbonate, zinc oxide, glycerine, phenol, bentonite)

3.Dettol;-- (Chloroxylenol, terpinol)

4.Weak Tr. of Iodine:-- (Iodine, potassium iodide, alcohol)

5.White lotion:-- (Zinc sulphate, lead acetate, water)

6.Hexamine.—(Methenamine mandelate)

7.Gramoneg.—(nalidixic acid)

8.Polysan -(-Ioidophor preparation.)

9.Dakins solution.—(bleaching powder, sodium carbonate and boric acid in water)

10.Eusol- (filtered solution of eupad)

11.Tr.iodine --(Iodine, potassium iodide, alcohol)

12.Eupad (Bleaching powder , boric acid)

13.Iosan—(is a combination of iodine with phosphoric acid

14.Merbromin --(mercurochrome)

15.Saprol --(saponated cresol, cresol and soap)

V. Choose the correct answers from the given ones.

1. An ideal antiseptic must have the following qualities a) good antibacterial action b) active in presence of pus and necrotic tissues c) low toxicity d) all the above.-(d)

2.As an emollient we can use a) vegetable oils b) animal fat c) Vaseline d)all the above,-(d)

3.All the following are liquid volatile oil except a) turpentine b) eucalyptus c) camphor d) methyl salicylas.-(c)

4.Anionic surface active agents are inactivated by the presence of a) free calcium b) hard water c) cationic detergents d) all the above.-(d)

5.All the following are solid volatile oils except a) camphor b) menthol c) thymol d) methyl salicylas.-(d)

6.Benzoic acid is having the following action a) keratolytics b) Antiseptic c) anti seborrhoeic d) fungicide e) all the above.-(e)

7.BIPP consist of a) Bismuth subnitrate and Iodoform b) Biimuth subnitrate and liquid paraffin c) Iodoform and liquid paraffin d) all the above.-(d)

8.Bleaching powder is a) deodorant b) disinfectant c) highly irritant d) organic matter reduce the action e) all the above.-(e)

9.Chlorine is a good disinfectant however it a) corrode metal b) bleaches colour c) rot fabrics d) odor absorbed by milk e) all the above.-(e)

10.Chlorine is an antiseptic- a) it corrode metal b) bleach and rot fabrics c) poison to living protoplasm d) odour absorbed by food e) all the above-(e)

11.Collodion act as a) Antiseptic b) Protective c) Adsorbent d) Demulcent.-(b)

12.Crystal violet is an example of a) azo dye b) fluorescene dye c) rosaniline dye d) coal tar derivative --(c)

13.Carbolic acid is chemically : a) phenol b) cresol c) benzalkonium d) none.—(a)

14.Disinfectants coming under reducing agents include a) sulphur dioxide b) carbon dioxide c) zinc oxide d) all the above.-(a)

15.Demulcents include a) honey b) syrups c) mucilage d) all the above.-(d)

16.Emollients can be used on a) dry skin b) flaky skin c) crusty skin d) all the above.-(d)

17.Father of antiseptic. a) Joseph Lister b) J.J.Abel c) Hippocrates d) none of the above –(a)

18.Following cutaneous factors affect the drug disposition a) thickness of the stratum corneum b) integrity of the stratum corneum c) alterations in physiological behavior d) temperature e) hydration status of the epidermis f) all the above.-(f)

19.Following drugs are less potent as antiseptic but has good keratolytic and antipruritic activity. a) Resorcinol b)Lysol c) Povidone iodine, d)Chloramine T.-(a)

20.Ferric chloride is used for the control of bleeding . a) externally b) internally c) both internally and externally d) not used.-(a)

21.Following compounds are examples for counter irritant a) strong Tr. of iodine b) ground black mustard with warm water c) cantharidine d) all the above.-(d)

22.Following compounds are caustics a) silver nitrate b) trichloroacetic acid c) sodium hydroxide d) all the above.-(d)

23.Golden ointment is a) sulphur ointment b) blistering ointment c) iodine ointment d) yellow oxide of mercury ointment -(d)

24.Gentian violet is an a) acidic dye b)basic dye c) neutral dye—(b)

25.Germicide applied to living objects are called : a) antiseptics b) detergents c) disinfectants d) cleansing agent.--(a)

26.Germicide applied to inanimate objects are called : a) antiseptic b) detergents c) disinfectants d) cleansing agent.--(c)

27. Iodine will act as antiseptic by a) Interfere with bacterial metabolic reactions b) Disruption of protein and nucleic acid structures c) both the above.-(c)

28.Hydrogen peroxide act as an antiseptic by releasing a) nascent oxygen b) nitrogen c) carbon dioxide d) chlorine.-(a)

29.Lunar pencil is a) hard lead pencil b) glitter pencil c) silver nitrate sticks d) argyrols -(c)

30.Mandels' paint for sore throat consist of the following a) iodine b) potassium iodide c) glycerine d) methanol e)all the above.-(e)

31.Methenamine is a urinary antiseptic acting by the release of formaldehyde in urine, it require the following condition for the release of formaldehyde. a) basic urine b)acidic urine c) neutral urine d)diuretics.—(b)

32.Methyl salicylate is otherwise known as a) salol b) aspirin c) oil of wintergreen d) none of the above.-(c)

33.One of the following antiseptic is a surface active agent . a) toilet soap b) mercuric chloride c) acriflavin d) all the above .-(a)

34.One of the following is an organic iodine preparation a) Iodoform b) Tr. iodine c) Iodex d) none of the above.-(a)

35.One of the following is an adsorbent a) silver nitrate b) activated carbon c) zinc oxide d) all the above.-(b)

36.Potassium iodide is added while preparing Tr. Iodine because a) It give stability to the preparation b) prevent conversion of iodine to hydrogen iodide and ethyl iodide(which is not soluble and so will precipitate) c) help the spread of solution d) adhere to the treated skin easily e) all the above. –(e)

37.Phenol is included in toilet soap. a) It become more active b) it become less active c) it become inactive d) none of the above,-(b)

38.Resorcinol is a) bactericidal b) fungicidal c) keratolytic d) all the above –(d)

39.Slaked lime is a) quick lime b) calcium hydroxide c) calcium carbonate d) none of the above-(b)

40.Strong Tr.of iodine is a) 7% b) 2.5% c) 10% d) 1% --(a)

41.Strong Tr. of iodine is used as a) antiseptic as such with out dilution b) a stock solution for 42.preparing antiseptic iodine c) disinfectant with out dilution e) antifungal by strengthening.-(b)

43.Some of the topically used antibiotics include a) Neomycin b) Gentamicin c) Bacitracin d) Nitrofurazone e) Mupirocin f) all the above.-(f)

44.Soaps are more active in a) slightly acidic medium b) Alkaline medium c) Neutral medium d) all the above.-(a)

45.Some of the petroleum products used as emollient include a)white petrolatum b) yellow petrolatum c) liquid petrolatum d) all the above.-(d)

46.Some of the emollients used in teat dips include a) glycerin b) liquid paraffin c) arachis oil d) Vaseline.-(a)

47.Some of the metallic astringents include a) alum b) zinc carbonate c) ferric chloride d) all the above.-(d)

48.Soap is a surface active agent coming under a) Cationic b) Non ionic c) Anionic d) Amphoteric.-(c)

49. Soft soap is a surface active agent included under a) anionic b) cationic c) switter d) none of the above.-(a)

50.The first antiseptic used by Joseph Lister is a) Bleaching powder b)chlorine c) alcohol d) phenol e) potassium permanganate.-(d)

51.The activity of Benzalkonium chloride is reduced by the presence of a)soft soap b)hard soap c) liquid soap d) all the above.-(d)

52.The disadvantages of Lysol is a) odour will be absorbed by food b) not mixed with hard water c) both the above.-(c)

53.The activity of antiseptic is expressed in a) Millimole/lit b) International unit, c) Phenol coefficient d)None of the above.-(c)

54.The best disinfectant for a livestock house against viruses, bacterial spores and helmintic ova is a) cresol b) povidone iodine c) mercuric chloride d) hot sodium hydroxide .-(d)

55.The ranking of organism from least to most resistant to antiseptic is in the following order . a) vegetativebacteria—fungi—mycobacterium--bacterialendospores. b) bacterialendospores-mycobacterium--fungi-- vegetativebacteria. c) fungi--mycobacterium—bacterial endospores--vegitativ bacteria.-(a)

56.The ideal characters of a disinfectant include a) broad spectrum of action b) should not corrode instruments c) fast action d) active in presence of organic matter e) all the above –(e)

57.White lotion consist of a) zinc sulphate b) lead acetate c) both the above.—(c)

VI.Underline / indicate the WRONG answers.

1.Ethyl alcohol is produced by a) fermentation of molasses b) fermentation of grains c) destructive distillation of wood .—(c)

2.Guaiacol is obtained from a) creosote , b)pine tar, c) coaltar, d)wood tar.-(c)

3.Resorcinol is a a) bactericidal b) fungicidal c) parasiticidal ._(c)

4.The first antiseptic used by the father of antiseptic is a) chlorine b) phenol c) carbolic acid.—(a)

5.Examples for caustics are a) phenol b) cresol c) silver nitrate d) copper sulphate.—(b)

6.Talc mainly consist of a) creta b) magnesium silicate c) kaolin --(a)

VII. Choose the correct answers and state why ?

1.Which one of the following shampoo ingredients would be most suitable for treatment of dogs with Malassezia dermatitis , the dog is severely greasy and has 4+ yeasts on the skin. A) Benzoyl peroxide B) sulfur/ salicylic acid C) tar/ sulfur D) selenium disulfide E) salicylic acid alone.

The answer is D:selenium disulfide is the best and most powerful degresing agent listed as an option. It also appears to have some direct anti-yeast activity. Benzoyl peroxide is also an excellent degreasing agent, but has no activity on yeast. If the patient was greasy and had a bacterial infection, the answer would have been benzoyl peroxide.

2.What is the main objective of using an emollient after shampooing? A) to prevent secondary bacterial infection B) to act as an occlusive dressing to trap water and hydrate the skin C) To activate the active ingredient of the shampoo D) To remove the active ingredient to prevent irritation E) to suppress pruritus

The answer is B: An emollient is used to act as an occlusive dressing. This will trap water to enhance water absorption by keratinocytes and slow the evaporation process that is inevitable. Emollients allow the skin to stay hydrated for along time period.

3.Which shampoo ingredient is used primarily for its keratoplastic property? A) Tar B) Sulfur C) Salicylic acid) Selenium sulfide E) Benzoyl peroxide

The answer is A. Tar has many pharmacological properties, but its keratoplastic properties are their main indication for use. Tar is also mildly antipruritic , mild degreasing and has keratolytic properties, but we use it in dermatology for the keratoplastic effects. Other agents listed also have mild keratoplastic properties, but they are primarily used for other qualities.

4.Which of the following delivery vehicles would be the most occlusive? In other words, which would be best used on a dry lesion in an attempt to treat the lesion and hydrate the area? A) powder B) rinse C) Lotion D)Ointment E) Gel.

The answer is D:Ointments contain lipids that act as a barrier or occlusive dressing. This will trap medications and water on the skin to facilitate hydration. This barrier also serves to slow trans epidermal water loss through the epidermis.

5.which of the following is used to allow mixture of an oil (for lipid) material with an aqueous material? A) Gel B) An emulsifierC) A humectants D) An emollient E) An alcohol

The answer is B. Emulsifiers are the agents that allow for oil and water –based materials to effective disperse and mix. Emulsifiers include sodium lauryl sulfate, soaps, quaternary ammonium salt, and polyoxyethylene glycols, fatty acids, and alcohols.

6.In general shampoos should be applied and allowed to act for what period of time ? A) A few moments B) 2-3 minutes C) 10 minutes D) 30 minutes E) The time is not important.

The answer is C in general , 10 minutes is the ideal time to allow a shampoo to sit on a patient. Shorter time will not allow the active ingredients to be effective topically or diffuse in to the epidermis. Long times become tedious for pet owners and could result in over hydration of the skin.

7. the term used to describe the pharmacological behavior of the skin is A) hydrophilic B) lipophilic C) two –compartment system D) complete barrier. E) completely soluble system.

The answer is C:the skin is considered a two-compartment system because it has lipophobic (hydrophilic) keratinocytes that are surrounded by lipophilic (hydrophobic) lipids. Any topical agents must be able to transverse these structures, and to be active topically, must be able to be compatible with areas.

8.Keratolytic agents work primarily by A) lysing keratinocytes by destroying sulfur bonds. B) acting as softening agents by hydrating keratinocytes. C) slowing epidermal turnover. D) dissolving the keratinocytes. E) stopping the production of keratin within keratinocytes.

The answer is B: the term keratolytic is somewhat confusing. While these agents do cause some changes in the keratinocytes and desmosomes, they primarily allow increased hydration and softening of the keratinocytes. These softer cells are then more easily desquamated or removed.

9. Which of the following delivery systems would most likely be the most esthetically acceptable to pet owners? A) Paste B) Water in oil ointment C) Poultices D) Oil in water ointment E) Gel.

The answer is E : Gels evaporate leaving little to no residue behind. Even the oil in water ointments leave some residue after absorption. Most pet owners prefer topical medications that do not leave such a residue that could stain clothing carpets, and furniture, or be detected by handling the pet.

10.Phytosphingosines are A) plant extracts used for dermatology therapy B) oil derived from marine mammals C) lipid produced by keratinocytes D) emulsions of lipids and aqueous sweat. E)structures found on keratinocytes that act as drug receptors.

The answer is C: Phytosphingosines are produced naturally by keratinocytes in lamellar bodies .these lipids then are released in to intercellular space where the help from the lipid layer found between epithelial cells. They are key part of the barrier produced by the epidermis

VIII.Give the percentage of the following solution as antiseptic.

1.Tri nitro phenol.—(5%)

2.Pot. Permanganate.—(1/3000 to 1/1000)

3.Acriflavin.—1/10000 to 1/1000)

4.Tr. iodine.—(2.5%)

5.Ethyl alcohol .—(70%)

IX.Match each one in A to those in B and C

A	B	C
1. Boric acid	vinegar --- 4	corrosive poison---6
2. Salicylic acid	soda lye ---6	toxic to optic nerve.—10
3. Mandelic acid	scarlet red---12	used in HCN poisoning-15
4. Acetic acid 5%	orange red crystal-13	red solution with green fluorescence-14
5. Nalidixic acid	intestinal antiseptic--15	promote epithelial growth-12
6. Sodium hydroxide	fermentation of grains—9	yellow sol. with green fluoracens-13
7. Calcium hydroxide	inorganic acid-1	keratolytics-2
8. Bleaching powder	organic acid-2	bacteriostatic-1
9. Ethyl alcohol	destructive distil. of wood-10	fumigation-11

10. Methyl alcohol	organic mercurials-14	hexamine-3
11. Formaldehyde	slaked lime-7	sterilise water-8
12. Azo dyes	methenamine-3	edible alcohol-9
13. Acriflavin	formalin-11	white wash-7
14. Mercurochrome	gramoneg-5	edible food-4
15. Methylene blue	chlorinated lime-8	urinary antiseptic-6

Match each one in A to all the matching ones in B and C

A	B	C
1.Iodine	bleaching powder-6	cauterisation-10, 11
2.Glycerine	purple crystal-14	first antiseptic -16
3.Mercurochrome	eupad-6	sore throat-1
4. Calcium	sea weeds-1	brown staining of tissues-14
5. Mandelamine	iodophors-1	inactive brown solution-14
6.Chlorine	nacent oxygen-13	Tr. iodine-1
7.Boric acid	carbolic acid-16	oxidising agent-6
8.Mercuric iodide	blue vitriol-11	dehorning-10,11
9.Golden ointment	Weak Tr. iodine -1	hairy tongue-13
10.Silver nitrate	local numning effect-16	bordeaux mixture-11
11.Copper sulphate	mandel's paint-1	deodorant-6
12.Zinc sulphate	Joseph lister-16	eusol-6
13.Hydrogen peroxide	oxalic acid remove stain-14	oily liquid darken on exposure-16
14.Pot. permanganate	argyrols-10	highly irritant-1
15. Sod. chloride	bleaching powder-6	iodoform-1
16.Phenol	lunar caustic-10	sterilise water-6
17.pot.nitrate	hypochlorus acid-6	bound iodine-1

Match each one in A to those in B and C

A	B	C
1.Picric acid	cetrimide-6	zwitter ions- 8
2.Resorcinol	oleoresin-7	terpinol-3
3.Dettol	fungicidal-2	benzalkonium chloride-5
4.Gun powder	antagonist with soap-5	foaming and detergent action-6
5. Cationic surfactant	ampholytes-8	disinfection of rooms-4
6.Cetavalon	trinitro phenol-1	kerato lytics-2
7.Balsam of peru	chloroxylinols-3	yellow crystals-1
8. Polymeric biguanides	sulphur dioxide-4	promote wound healing-7

Match each one in A to those in B and C.

A	B	C
1.Pot.bitartrate	boricacid-5	calamin-6
2.Bismuth carbonate	vesicant-10	nut galls-7
3.Bentonite	protective-1	sinigrin-11
4.Kaolin	ammimajus-15	Blistering-12
5. Zinc oxide	allyl iso thiocynate—11	used in dandruff-14
6.Starch	Antiseborrheic-14	sod. morrhuate inj.-16
7. Astringents	adsorbent-2	melanising agent-15
8.Catechu	zinc sulphate-9	harmlessly dispose by body-1
9. White lotion	obliterate varicose vein-16	spanish fly-10
10. Cantharidin	tannic acid-7	ingredient of pain balm-13
11. Ground mustard	bin iodide of mercury-12	combine with iodoform-5
12. Mercuric iodide	hydrated al. silicate-4	used to control diarrhea-3
13. Methyl salicylas	chalk-6	lead acetate-9
14. Resorcinol	oil of wintergreen-13	used in gastritis-2
15. psoralen	precipitate protein-8	aluminium salt-3,4

16.Sclerosing agent hydrated colloidal al. silicate-3 adsorb bacteria, toxin,gases-4

X. Define / Explain in 1-2 sentences:

1.Antiseptics:-- Chemical substances destructive to the bacteria and sufficiently non injurious to the skin and mucous membrane to permit their application to the living tissue. Does not kill the microbs but prevent /inhibit the rate of growth and multiplication. It must be registered with food and drug administration(FDA)

2.Antiseborrheics:--Antiseborrheics are agents used to control seborrheic dermatitis and dandruff.

3.Bentonite:-- Hydrated colloidal aluminium silicate which form a gel with 7—10 part water. It is used as an internal protective.

4.Bleaching powder: Bleaching powder (calcium oxy chloride) is a mixture of calcium chloride, calcium hydroxide and calcium hypo chlorate. Contain 24-37 % available chlorine. Used as a disinfectant for contaminated areas(not recommended for milking areas, as the odor is absorbed by the milk.

5.Cleansers : cleansers are surfactants / detergents –remove dirt and contaminating organism by solubilizing and physical means . classified in to Anionic , Cationic and Non ionic.

6.Clyster— otherwise called as Enemas-liquid preparation administered through the rectal cavity-medicinal or nutritional enemas- retention enemas –as a treatment of constipation.

7.Collodion: --Collodion is nitrated cellulose in highly volatile solvent. On application to skin solvent will evaporate leaving a thin film of cellulose which protect the underlying tissues.

8.Collutoria and collunaria—Collutoria is a liquid preparation intended to wash the oral cavity, Collunaria is a liquid preparation intended to wash the conjunctival mucous membranes.

9.Counter irritants : --Counter irritants stimulate the sensory nerve endings and induce inflammation at the site.

10.Creams:-- Creams are ointments with water soluble base-emulsions of either a water soluble medication or a lipid soluble medication in an aqueous base.

11.Dermojet/ hypo-spray--. Use of very high pressure spray of liquid medicine on to the surface of body-as a substitute for injection.

12.Demulcents: Demulcents are inert agents used to coat over inflamed irritated abraded surfaces to protect underlying tissues from irritant contacts—used on mucous membranes internally- high molecular weight water soluble viscous substances – mostly used as vehicles- gum, mucilages, starch, honey, syrup etc.

13.Disinfectants: Disinfectants have bactericidal activity usually applied to inanimate objects-most disinfectants are destructive to host protoplasm also. Used on inanimate objects-surfaces-instruments . It is regulated by environmental protection agency(EPA)

14.Dusting powder:-- are smooth powder used to cover and to protect epithelial surfaces –prevent friction to epithelium –protect abraded surfaces –commonly used compound is Magnesium silicate (Talc)

15.Gels:--Gels are semi solid preparation form a clear greaseless and water soluble base in which medicinal agents are incorporated.

16.Gums:--Gums are polysaccharides obtained from plants which are widely used in industries as thickening agents , gelling agents, emulsifying agents and stabilizers. Widely used as suspending agent, emulsifying agents and in lozengens. Eg. Acacia and gum tragacanth . Gum tragacanth swells about 50 times in presence of water.

17.Innunctions—Otherwise called as rubbing- administration of medicinal agent by rubbing- for mostly for counter irritat action--local action –causes breakage of epithelial layer and causes more penetration of medicine-liniments/counter irritant ointments are applied with rubbing

18.Iodophors: --Iodophors are iodine in carriers like solubilizers, detergents, and wetting agents.

19.Keratoplastic agents: Keratoplastic agents are agents which attempts to normalize keratinisation.

20.Levigation: is a process of reduction of size of the medicinal agents to a fine powder with the help of a mortar and pestle by grinding to get a homogenous mixture.

21.Ointments: Ointment is a semisolid preparation intended for external application consist mainly oil based product.

22.Paste: Is water miscible non greasy semisolid preparation contain bone or more very fine particles of solid active ingredients uniformly distributed .meant for external use.

23.Phenol coefficient: Phenol coefficient phenol coefficient is the ratio of minimum concentration of test drug required to kill 24 hour culture of B. typhosa in 7.5 min. at 37.5 degree centigrade to that of phenol under similar condition.

24.Povidone iodine: It is a complex of iodine with non ionic surface active agent like polyvinyl pyrrolidone. It is most popular among Iodophors one percent solution is used for teat dips. More than one percent is less effective because of reduced iodine release. Spray, ointment, solution etc. are available.

25.Protectives and adsorbents: Protectives are certain chemically inert finely ground substances applied locally as mechanical protectives. Adsorbents are agents which adsorbs toxins gases and bacteria to its surfaces .

26.Sunscreens- substances that protect the skin from harmful effect of sun light-absorb/ reflex some of the suns u/v radiation.

27.Venoclysis. –is otherwise called as intra venous –administration of medicine / nutrition via vein in to the system

XI. Answer the following:

1.Classify emulsifiers with examples.-- A) Natural agents like hydrophil colloids b) synthetic agents like soaps, sulfonates. C) finely divided solids eg. Colloidal clays, metallic hydroxides.

2.Classify drugs acting on skin and mucous membrane with one eg. :-- Local anti infective drugs , cleansers, Antiseptics, disinfectants, emollients, demulcents, Protectives, Adsorbents, Astringents, Antiperspirants, Deodorants, Healing powder, Counter irritant, Escarotics and Caustics

3.How dry heat sterilize the articles? dry heat oxidize/ incinerate microorganism-eg.hot air oven, Platinum loop, Flame.

4.How moist heat sterilize articles. Moist heat coagulate protein (more penetrability) eg. Autoclave, boiling water/steam)

5.How soaps will act as antiseptic: It dissolves in water to give hydrophilic and hydrophobic portion. It emulsify and solubilize hydrophobic dirt, fat and protoplasmic membrane . The ability to solubilize membrane render soaps as antibacterial against gm positive and acid fast bacteria.

6.What are ampholytes?-- Ampholytes are agents which dissociate in water to yield anion, cation and zwitterions-possess biocidal and detergent properties.

7.What are blisters /vesicants? Agents which produce higher degree of action than counter irritation- increase counter irritation causes vasodilatation –plasma escape in to tissue space and fluid collected under epidermis to form blisters / vesicles. Eg. Cantharidin.

8.What are the general principles to be observed while using antiseptics and disinfectants? Cleanliness is of great importance, dirt will act as a physical barrier- surface tissue must be scrubbed and clean of dirt and adhered bacteria by surfactants/ cleansers. This must be followed by thorough rinsing with water and then use alcohol / ether to remove skin oils (which protect bacteria). Most disinfectant must apply while hot, liquid form is more active than powder or emulsions.

9.What is glycotechnology in topical therapy? It is recognized that some monosaccharides or polysaccharides will bind to lectins found on microbs. These lectins or binding sites are used by the bacteria to attach to keratinocytes which contain other sugar on their surface this competitive inhibition is incorporated in some shampoos for antimicrobial action.

10.What are the factors affecting drug disposition in topical application? A) thickness of the stratum conium. Drug movent is difficult when the stratum conium become thicker , enhanced by application in areas where the epidermis is thinner like axial, inguinal region, and abdominal region B) Integrity of the stratum conium -damage like abarations, will reduce the effectiveness of the barrier function and increase the drug absorption. C)Alterations in physiological behavior- Desqumation is an important factor in epithelial turnover. Inflammatory diseases ,metabolic disorders, and familial conditions such as familial seborrhea, may alter the desquamation of epithelium. D) Temperature-- increase temperature of the skin will allow for enhanced absorption of most drugs by increasing the solubility of the drug and increasing vascular flow to the area.

11.What are the indications for topical therapy in veterinary practice? The most common use in veterinary dermatology are a) for the control of ectoparasites, for control of pruritis , for control of

cutaneous infection by bacteria, yeast, dermatophytes, as an aid for the management of seborrhea and other scaling disorders.

12.What are Liposomes? When phospholipids disperse in liquids they swell hydrate and form multilamellar concentric layers of aqueous materials separated by the lipid bilayers . these aggregates are called liposomes. They are used as carriers of water / various drugs and macromolecules that can be trapped between these layers for dispersal in or on the skin.

13.What are Soaks? Soaks are a form of hydrotherapy containing medications usually keratolytic agents. Animals are either allowed to sit in the medicated solution or the solution is applied with sponge and allowed to remain for several minutes for drying.

14.What are the types of drugs used for topical action Demulcents, Emollient, Protectives, Adsorbents, absorbable haemostatic, Styptic, Astringents, Anti microbials, Irritants, Anti inflammatory, Sunscreens, keratolytics, Sclerosing agents, Melanizing and demelanizing agents, Deodorants, Antiperspirants, Mucolytics, Antiseborrheic ,Enzymes.

15.Who designate alcohol as the “Gold standard” against which all other antiseptics are measured? --World Health Organisation.

16.While disinfecting rooms by burning of sulphur the floor, walls and cealing of the rooms must be moistened with water. Why? While burning sulphur , sulphur dioxide is produced which has to dissolved in water to give sulphurus acid which is the actual disinfectant. To get this action rooms must be moistened.

17.What are sclerossing agents:--Sclerossing agents are irritant substances used to obliterate varicose vein. They are used for the closure of hernial ring, fibrosis of un complicated haemorrhoids.eg. Sodium morrhuate injection-(sodium salt of fatty acids of cod liver oil)

18.What are the mechanisms by which Iodine act as antiseptic –It interfere with metabolic reactions in bacteria and disrupt the proteins and nucleic acid structures,

19.What are the advantages of iodophors over iodine as an antiseptic- iodophors are more safe ,less toxic, free of odor, good stability, less irritant, no staining.

20.What are internal protectives and adsorbents.- Agents which form a smooth coating over intestinal mucosa, useful in diarrhea, dysentery, colitis etc.- eg. Bismuth carbonate, bismuth salicylate.

21.What are the differences between low level and high level disinfectant :Low level disinfectants will kill most bacteria, some virus and fungi, but not tubercle bacilli and bacterial spores. High level disinfectants inactivate all microbs except large number of spores.

22.What are the different classes of chemical agents used as antiseptics and disinfectants.-Acids, Alkali, Alcohol, aldehyde, Dyes, Furan derivatives, Halogens, Heavy metals, Oxidizers, Phenols, Cresols, Reducing agents, Surfactants and miscellaneous.

23.What is cold sterilization.(Immersion sterilization) Sterilization by immersion of articles in solution- using EPA registered chemical solution which kills all infectious organism including spores in 10 minutes.,

24.What is creosote ?-is a mixture of phenols obtained from wood tar, 2-3 times potent than phenol.

25.What are the treatment of consumption of phenolic compounds in dogs and cats? Stomach lavage, give beaten egg albumin, milk, vegetable oils, and other symptomatic treatment.

26.What are keratolytics? Give examples. They are drugs used to soften and remove thickness of cornified skin.eg. Salicylic acid 3% ointment, salicylic acid 10—20% solution in propylene glycol to dissolve corns, Benzoic acid 5% ointment, resorcinol 15% ointment,

27.What are the mechanisms by which antiseptics acts on bacteria? Accumulate in protoplasm and interfere with normal metabolic activity of bacteria .Altered permeability characteristic of the membrane, Precipitation of bacterial cell protein.

28.What are the ideal characters of an antiseptic: Must have the following qualities- good antibacterial action, lack of irritation, active in presence of pus and necrotic tissues, high penetrability, low toxicity, non interfere with healing, colour to differ the area of application, (but not staining) should not allow the development of resistant strains -available and economic.

29.What are the ideal characters of a disinfectants: An ideal disinfectant must have the following qualities. Broad spectrum of action, fast action, active in presence of organic matter, compatible with detergents, low toxicity, should not corrode instruments or metallic surface, should not disintegrate rubber / plastics, should be odorless and economic.

30.Why potassium iodide is added while preparing Tr. of Iodine? 1) It give stability to the preparation , prevent conversion of iodine to hydrogen iodide and ethyl iodide which will precipitate. Helps the spread of solution, help the iodine to adhere to the skin easily.

31.Why 70% ethyl alcohol is considered as ideal antiseptic?- It is strongly germicidal-- wets the skin properly-- spreads smoothly-- less irritant-- more firm of action.

32.Why 90% ethyl alcohol is having less antiseptic action than 70 %? Higher concentration than 70% causes initial dehydration of bacterial cellular proteins and become resistant to denaturing of protein by alcohol.

33.Why hydrogen peroxide is not advisable in closed wounds? In closed wounds when hydrogen peroxide reacts with organic matter -- release hydrogen peroxide-- can not escape and may cause bursting of closed wound.

XII. Differentiate :

1.Antiseptics and disinfectants: Antiseptics are chemical substances destructive to the bacteria and sufficiently non injurious to the skin and mucous membranes to permit their application to the living

tissues. They inhibit the growth and multiplication of bacteria (bacteriostatic). Disinfectants have more stronger action-bactericidal in action(germicide) usually applied to inanimate objects.

2.Astringents and styptics: Astringents are used locally to precipitate protein- not penetrate deeply after precipitation. The permeability of the cell membrane is reduced but the cells remain viable. Styptics- agents which precipitate the cell protein permanently and cause destruction. Used to arrest bleeding from capillaries and small blood vessels (it precipitate blood proteins)

3.Absorbents and adsorbents: Adsorbents are agents which will adsorb gases , toxins, bacteria etc. to their surface. As the surface area is increases the adsorbing property is also increase. Activated charcoal is an example. Activation(heating) increases the surface area. Absorbents are agents which absorb soluble substances in to it.

4.Emollient and demulcents: Emollients are oily of fatty substances applied to the skin to soften it, medicinal agents are incorporated in to this- form an occlusive film over the skin and prevent evaporation and dryness, restore elasticity of cracked dry skin. Demulcents are agents used internally to coat over inflamed, irritated or abraded areas to protect the underlying tissue from irritant contacts used on mucous membranes.

5.Protectives and adsorbents: Certain insoluble chemically inert finely ground substances applied locally as mechanical protectives. Adsorbents are materials adsorb chemicals, toxins bacteria, and gases.

6.Rubefacients and blisters: Rubefacients are mild counter irritation- vasodilatation and increase circulation give red colour to the area. Blisters are agents with higher degree of action and produce blisters or vesicles because of irritation. Fluid is collected underneath the epidermis .

XIII. Write short notes on

1.Acridine dyes-(Yellow dyes, acriflavin) Acriflavin is an orange red crystalline powder soluble in water , give yellow coloured solution with green fluorescence . 1/10000 –1/1000 is antiseptic . 1:1500 acriflavin is effective in mastitis. Proflavin and euflavin –more active against proteus. The stains by acridin dyes on skin can be removed by dilute sulphuric acid

2.Alcohols as antiseptics: Ethyl alcohol 50—90 % is antiseptic- 70% is the most ideal (strong germicidal, wets the skin properly, spread smoothly, less irritant, more time of action,) high concentration initially dehydration of the cell protein and make them resistant to denaturing – solubilise the lipid cell membrane of the organism –reduce the surface tension. Synergestic with other antiseptic – most effective on a clean skin. Active against G+ve and G-ve and tubercle bacilli but not spores, active against fungi and virus. Isopropyl alcohol 50% (rubbing alcohol) is more germicidal than ethyl alcohol.

3.Anionic surface active agent as antiseptic. Anionic surface active agents are antibacterial against G+ve and acid fast bacteria. The anionic nature is inactivated in presence of certain +ve ions such as free calcium in hard water and cationic detergent. Soaps, sodium lauryl sulphate, sodium cetyl sulphate, triethanolamine are examples. Soaps dissociate in water to (R—COO-Na to R—COO-) the

hydrophobic and hydrophilic molecule is liberated –it emulsify and solubiliise hydrophobic dirt, fat and protoplasmic membrane. The ability to solubilise membrane render soaps as antibacterial . Hard soaps are sodium state and palmitate-long chain and less active. Soft soaps are potassium oleate and laurate –short chain and more active.

4.Antipruretic agents-agents which reduce pruritus , include hydrocortisone, diphenhydramine, hydrating agents, sulfur, tar, topical anaesthetics, menthol, camphor. Any preparation which moisturizes the skin also tends to reduce pruritus these include bathing and or the use of occlusive dressing. Thus antipruritic agents reduce pruritus in allergic, parasitic , seborrheic, neoplastic and other skin condition where inflammation of dry skin is present .

5.Astringents . astringents are used locally to precipitate protein-permeability is reduced. Two types- heavy metals and vegetables. Example for heavy metals are silver salt, zinc oxide, zinc carbonate, alum-not commonly used for this purpose. Vegetable astringents are obtained from plants (eg. Catechu, tannic acid, kino, gallic acid) used therapeutically

6.Caustics; they are otherwise called as corrosive agents/escarotics. Causes destruction of tissues at the site of application. If a corrosive also precipitate cell protein leading to scab and scar formation called as escarotics or cauterizers. used to destroy excessive granulations, warts, horn buds. Eg . Silver nitrate, phenol, TCA, glacial acetic acid, caustic soda, caustic potash and copper sulphate. Explain each….

7.Cationic surface active agent: the hydrophobic portion is + vely, charged more active in slightly alkaline solution, denature protein and change surface tension. Both G+ve and G-ve bacteria are susceptible. Fungi and virus are also susceptible (pseudomonas tubercle bacilli and spores are resistant). Combine readily with protein , fat-so limited value in the presence of serum, blood or other tissues. Less antibacterial in presence of cotton, and gauze pads. Benzalkonium chloride 1:1000 for sterilization of instruments, rubber articles, inhibits respiratory and glycolytic enzymes in organisms . alcohol potentiate the antibacterial action, cleaning and emulgent property, benzethonium chloride, cetrimide are other eg.

8.Collodions: are liquid preparation for external use- containing pyroxylin(nitrated cellulose) in a mixture of ethyl ether and alcohol-generally applied on skin as a protective. On application alcohol evaporate leaving a thin film of pyroxylin which is not permeable to air and moisture, it is a water repellant. Flexible collodion is commonly used (collodion with , 2% castor oil, 3% colophony resin).

9.Counter irritants. Agents which will act on intact skin to cause irritation and hyperaemia in an attempt to relieve irritation , pain and inflammation in underlying and adjacent tissue. –stimulate sensory nerve endings - increase blood supply- induce inflammation-injure the protoplasm-local tissue reaction occurs as a defense mechanism to protect affected tissue Eg. Cantharidin, black mustard, iodine, capsicum, mercuric iodide, turpentine, methyl salicylas.--Explain……

10.Demulcents: Demulcents are inert agents used to coat over inflamed irritated abraded surfaces to protect underlying tissues from irritant contacts. Substances with demulcent properties include algenate, mucilage, stararch, dextran, gum, sugars, polymeric polyhydric glycols. The most common demulcents used for skin and ear application in veterinary practice are propylene glycol, glycerin, polyethylene glycols. It provide physical protection and to allow prolonged topical exposure of drug

that might be suspended in the preparation used. Some demulcents such as propylene glycol is having bacteristatic and fungicidal properties. Most demulcents have hydrophilic colloidal properties that allow them to serve as emulsifiers and suspending agents for water soluble agents. Used to relive irritation especially of abraded tissues or mucous membrane.

11.Dispersants and penetration enhancers. Different categories are there Azones, terpenes, urea and aparotive solvents like DMSO and transcutol (diethyleneglycol monoethyl ether). May alter lipids in the stratum cornium or induction of a more porous intracellular matrix of the epidermis. They enhance penetration of water antibodies, steroids etc.

12.Emollients: they are bland fatty substances that are applied locally to soften the skin. They increase tissue moisture content by preventing moisture loss by acting as an occlusive dressing , increase the water holding capacity through the use of humectants and after the desquamation of the stratum cornium. Indicated in patients with dry and scaly skin to stimulate cutaneous hydration and soften skin-mainly used as vehicle for many topical preparation. Eg. vegetable oils like coconut oil, olive oil etc-animal fats like lanolin, lard, hydrocarbons like white petroleum jelly, yellow petroleum. jelly, liquid paraffin, bees wax, spermaceti, polysorbate 80, carbowaxes are other examples.

13.General principles to be observed to disinfect animal sheds- clean the surfaces by scrubbing, all manure must be scrubbed off- removed and burn it/treat with lime or chlorine water. If the floor is dirty remove four inches or more of surface soil – treat with disinfectants, replace with fresh soil. Disinfectant must be sprayed with force to reach the cracks and crevices- after drying white wash the area.

14.Halogens as antiseptic agents: Among halogens Iodine is the most important member—Iodine is active against G+ve and G-ve bacteria, spores, fungi and most virus. Interfere with metabolic reactions , disruption of protein synthesis and nuclic acid structures. Obtained from sea weeds, insoluble in water , highly corrosive(handle carefully) Strong Tr. of iodine is highly irritant-destroy tissues-used as stock solution. Weak Tr. of iodine is 2-2.5% used as antiseptic on wounds, require 3 min. of contact time. Leugols iodine (5%) 0.2 % leugols iodine is used for irrigation of vagina. Iodine 50 ppm kills most bacteria in one min. and spores in 5 min. Iodoform- organic form –preparation release iodine slowly. BIPP- ointment preparation of iodoform. Iodophores- iodine bearers-povidone iodine.

15. Humectants and moisturizing agent. Agents with hygroscopic qualities - It include alphahydroxy acids eg. Lactic acid, malic acid, glycocolic acid, urea, propylene glycol, glycerine, DMSO. They attract water molicules which are chemically bound to the agent. They are often used in conjunction with an emollient to retain water that has been attracted or bound to the skin. Indicated whenever the skin is dry or dehydrated.

16.Iodophors (iodine bearers) Iodine in combination with detergent wetting agent, solubilisers and other carriers (called tamed iodine) contain iodine as high as 30% of their weight of which 70-80% is available for reaction , they are safe, low toxicity, free of odor, less irritant, no staining of area of application, good stability. Povidone iodine is the most popular one –complex of iodine with nonionic surface active agent (polyvinyl pyrolidone) 1% solution is used for dipping teats, more than

1% is less effective because of stronger complexation with reduced iodine release, spray, ointment, solution etc. are available, betadin, polysan, isodin, piodin etc. are products.

17.Keratolytics and keratplastics: Keratolytics solubilise the intracellular cement (that binds scales together in the stratum cornium) and to soften and swell the epidermal cells – also cause the dead or dying cells of stratum cornium to hydrate , swell and soften thereby hastening their desquamation. Keratoplastic implies normalization of the cornification process by slowing epithelial turnover, slowing the basal cell proliferation through inhibition of DNA synthesis . Keratolytics and keratoplastics are used mainly on hyperkeratotic lesions such as cornea, warts, psoriasis, chronic dermatitis, fungal infection, cornified skin. Eg. Salicylic acid, benzoic acid.sulphur, urea, benzoyl peroxide,resorcinol, selenium disulfide. . Coaltar is the most widely used keratoplastic agent in veterinary medicine. keratoplastic agent used primarily in shampoo therapy for the management of seborrhea and other scaling disorders.

18.Liposomes: When phospholipids disperse in liquids, they swell ,hydrate and form multi lamellar concentric layers of aqueous materials separated by the lipid bilayers. These aggregates are called liposomes- are used as carrier of water ,various drugs, macromolicules than can be trapped between these layers for dispersal on the skin . Eg. Novosomes, spherulites.

19.Occlusive dressing: This may include a physical dressing or a layer of the vehicle that prevent loss of the drug from the surface of the skin, bandages, even band aids act as occlusive dressing by preventing removal of the drug by mechanical means or evaporation. An oil preparation may also act as an occlusive dressing when applied after other medications, oil applied after bathing is an example of the use of an occlusive dressing. The oil slows down water loss through the skin and from keratinocytes that have absorbed water in the bathing process.

20.Phenol (Carbolic acid) Phenols are coaltar or wood tar derivatives. Pure phenol is a colourless transparent crystals with characteristic odor- on exposure to air and light it become a liquid first and then attain a dark colour . Five %destroy anthrax spores in 48 hours. It is a protoplasmic poison – have antiseptic- irritant- local numning effect. Corrosive action depend on duration of exposure. It coagulate protein and penetrate to deeper tissues and cause burns. Used to cauterize infected area, umbilicus in new bourn, snake bite wound, dog bite wound (2%), 0.2 % ia bacteriostatic, 1% is bactericidal, 1-3% is fungicidal, 3-4% for disinfection of instruments, 0.5% is included in lime for increase the disinfection.

21.Protectants:. Agents form an adherent film that may be flexible or inflexible , provide physical and occlusive layers on the skin or mucous membrane -also serves as vehicle for medication-block contact with irritant substance or friction.it may absorb exudate and toxin. It include kaolin, pectin, magnesium silicate and aluminium hydroxide as (intestinal protective) , mineral oil, olive oil, zinc stearate, petrolatum, lanolin, silicons,collodion, talc, hydrated magnesium silicate, bentonite, calamine, starch, magnesium stearate, zinc stearate, zinc oxide etc. as external protectives. . Some preparation contain monosaccharide that may serve as protectves against microbes. It may be applied to wounds or non healing ulcers. Since they are occlusive and may therefore allow infections to spread without the appropriate antimicrobial therapy in infected skin,

22.Potassium permanganate as antiseptics. Potassium permanganate is a dark purplish crystals with metallic luster ,give permanganate colour in solution strong oxidizing property, not penetrate

deeply- activity is reduced when come in contact with organic matter and solution become brown in colour(due to manganese dioxide) brown stains on skin and hair can be removed with oxalic acid and sulphurus acid. It is astringent, irritant, caustic depend on the concentration 5% solution is astringent used to reduce excessive granulation tissues 1:1000 to 1:3000 solution is antiseptic

23.Precaution to be taken before applying antiseptics: surface tissue must be scrubbed and cleaned of dirt and adhesive bacteria by surfactants/ cleansers-followed by thorough rinsing with water and then use alcohol /ether to remove skin oils (which protect bacteria). Then apply the antiseptic.

24.Qualities of an ideal antiseptic. It must have the following characters. Good anti bacterial action-lack of irritation-active in presence of pus and necrotic tissue-high penetrability-low toxicity- non interference with healing- colour to define the area of application-(but no staining) should not allow the development of resistant organism-available and inexpansive.

25.Qualities of an ideal disinfectant: Broad spectrum of action, fast action, active in presence of organic matters, compatibility with detergents, low toxicity, should not corrode instruments or metallic surface or disintegrate rubber or plastic or other materials, should be odorless , economic and available

26.Topical treatment for yeast infection: several antibiotics and antiseptics are effective against yeast- Azoles,iodine, nystatin, chlorhexidins, selenium sulfide. Local infection- mostly seen in areas of high humidity – clean and dry the affected area-apply preparations containing miconazole and chlorhexidine or acetic acid+ boric acid, Acetic acid and boric acid is useful in treating perioccular infection. For generalized infection, generalized yeast infection require wide application of medication, shampoos or rinse are best for this, which contain selenium sulfide, miconazole, ketoconazole, lime sulfur, acetic acid + boric acid etc. Shampoos must be applied 2-3times weekly to control yeast on skin . contact time of 10 min. must be there.

27.Topical therapy for dermatophytes: Commercial preparation include lime sulfur, enilconazole, chlorhexidine, povidone iodine, ketoconazole, antiseptics like sod. hypochlorite . Topical antifungal agents can be used as adjunctive therapy for dermatophytes in companion animals. Formulations are applied once or twice weekly as lotions sprays, rinses and shampoos.

28.Topical astringents: They precipitate protein and reduce permeability of the cell membrane and reduce transcapillary movement of plasma protein and thus inflammatory oedema and exudation. The principal astringents are salts of aluminium , zinc, iron, and. Tannic acid and other polyphenolic compounds . Zinc sulphate and Aluminium acetate are commonly used.

29. Glycerin as a therapeutic agent: Glycerin is a hygroscopic trihydric alcohol- clear colourless viscous liquid with sweet taste miscible with water and alcohol. It is a bye-product of soap industry-coat over the skin prevent evaporation of moisture from the skin-restore softness and elasticity – used as vehicle for cough remedies-added to teat dips to reduce cracks, added to skin and hair care products, absorb water and exert high osmotic effect on open wounds which allow serum or lymph to enter in to the wound and help to clean it (lymph wash) . Glycerin suppository for evacuation of bowel- systemically used to reduce intracranial and intraocular pressure. Magnesium sulphate with glycerin is used externally to reduce oedema.

XIV. Write Essays on

1. What are Antiseptics and Disinfectants? Explain the different class of antiseptic and disinfectants in detail.

2.Classify local anti infective agents with examples-explain topical antifungal agents.

3.Explain in detail antiseptics used in veterinary practice.

4.Disinfection of animal buildings and vehicles used for transportation.

5.Differentiate antiseptics and disinfectants , explain halogen compounds as antiseptics.

6.What are counter irritants. Explain the different degree of counter irritation-What are their applications in veterinary practice?

7.Explain in detail topically active drugs included under sedatives.

8. Explain in detail topically active drugs included under stimulants.

COURTESY

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