



Choose the correct answer for each of the following questions: (100 marks)

- Blood granulocytes can be divided into:
a. Neutrophils, Basophils and Eosinophils b. Monocyte and lymphocyte
c. Monocytes and Neutrophils d. Thrombocytes and monocytes
- Irregular clumps of red blood corpuscular are called:
a. Sickle cells b. Red cell-agglutination c. Rouleaux formation d. Anisocytosis
- The anticoagulants do not exist in:
a. Serum b. Plasma c. Lymph d. Cerebrospinal fluid
- _____ is an anticoagulant not used for platelets counting.
a. Ammonium oxalate b. Heparin c. Sodium fluoride d. EDTA
- The Increase in the Size of a Red blood cell larger than normal in diameter is called:
a. Macrocytosis b. Normocytic cell c. Hypochromic cell d. Poikilocytosis
- The unit of main corpuscular Hemoglobin concentration (MCHC) is:
a. Picogram. b. g/dL. c. Femtoliters. d. IU.
- Plasma proteins include:
a. Albumin and Globulins. b. Fibrinogen and Sodium. c. Potassium and Heparin.
d. Lymph
- Plug contains only platelets is called:
a. White thrombus. b. Red thrombus. c. Activated platelets. d. Hemorrhage
- The Normal value of bleeding time in domestic animals is:
a. 2 – 5 minutes. b. 3 – 5 minutes. c. 2- 10 minutes. d. 1 hour.
- The principle function of the Eosinophils is:
a. Phagocytosis. b. Immunological. c. Detoxification by inactivation of histamine.
d. Oxygen transport.
- The thick smear is most useful for detecting the presence of:
a. Bacteria. b. Fungi. c. Parasites. d. Virus
- Bile pigment in the blood is known as:
a. Urobilinogen b. Bilirubin c. Sterobilinogen d. Hemoglobin
- A special stain used for bone marrow smear is:
a. Gram stain b. methylene blue c. wright- Giemsa stain d. Hematoxylin
- Albumin concentration varies by the species of animal, but it is generally between:
a. 5 -6 g/d. b. 2.5 -4.5 g/d c. .1 -2 g/d in plasma or serum.
d. 10- 12 g/ d
- The main method used for evaluation of fibrinogen in the serum is:
a. Heat precipitation test b. mathematically method c. Centrifugation d. Seiving
- Adhesive-tape method is used in horses for the detection of:
a. *Oxyuris equi* b. *Babesia caballi* c. *Theileria equi* d. *Anaplasma bovis*
- Baermann technique is used for the detection of:
a. Lung worm larvae b. Nematode eggs c. Trematode eggs d. Cestodes egg
- Cryptosporidium* spp. in the feces can be stained by:
a. Lugols iodine b. Acid-fast stain c. Giemsa stain d. Hematoxylin

19. In the fecal examination, Lugols iodine and New Methylene Blue are the common stains used with:
 a. Direct method. b. Flotation method. c. Sedimentation method.
 d. Centrifugation
20. Zinc sulfate flotation method is suitable for the detection of:
 a. Trematode eggs. b. Cestodes eggs. c. Nematode eggs. d. Mite mange
21. Sodium nitrate Flotation method is suitable for the detection of:
 a. Nematode egg. b. Mite eggs. c. Trematode eggs. d. Tick eggs
22. Methylene blue stain is used for staining of:
 a. *Fasciola hepatica*. b. *Chabertia ovina*. c. *Ostertagia ostertagi*. d. Virus
23. Giemsa stain that is used in blood smear is suitable for the detection of:
 a. Soft tick. b. Argasidae. c. Trypanosoma. d. Hard tick
24. The best laboratory method used for the detection of microfilaria in domestic animals is:
 a. Hematocrit (Buffy coat) method. b. Plasma concentration technique. c. Fixed smear technique.
 d. Baermann technique
25. Animal Lice are divided into two types:
 a. Biting and Sucking. b. Fleas and Flies. c. Mite and Demodex.
 d. Borrowing and non-borrowing
26. Ixodidae can be divided into:
 a. Hard and Soft tick. b. Soft and Lice tick. c. Hard and fleas tick. d. Trichophyton
 and Microsporum
27. The indirect leukocytes count test in milk is called:
 a. Hotis test. b. Whiteside test. c. Chloride test. d. PCR
28. _____ is the special stain used for milk film.
 a. Giemsa stain. b. New methylene blue stain. c. Newman-Lampert stain.
 d. Acid fast stain
29. A test detects abnormally acid milk by changing the color to the yellow when milk pH is below 5.2.
 a. Bromothymol blue test. b. Bromocresol purple test. c. Chloride test.
 d. Rose-bengal test
30. DNA release due to rupture of leukocytes of milk (somatic cells) by the reagent is the principle of:
 a. Catalase Test. b. California Mastitis Test. c. Whiteside Test d. Latex agglutination.
31. The physical examination of milk is done by:
 a. Bromothymol blue test. b. Chloride Test. c. Strip-cup test. d. PCR
32. The normal range of chloride in the milk is:
 a. 0.08 - 0.14 %. b. 0.14- 0.18 %. c. 0.04- 0.05 %. d. 14- 18 %.
33. Rumen fluid sample should be evaluated as soon as possible after the collection in order to:
 a. Prevent over growth of protozoa. b. Prevent drying of the sample.
 c. Minimize the effect of cooling and air exposure on protozoa activity and pH.
 d. Decrease rumen motility
34. The physical analysis of the ruminal fluid includes:
 a. Color, Odor and Consistency b. pH and Methylene blue reduction test.
 c. Glucose fermentation test. d. Rumen contraction
35. The normal rate of gas formation of rumen sample in Fermentation saccharometer is:
 a. 5-10 mL/hr. b. 20-23 mL/hr. c. 1-2 mL/hr. d. 40-50 mL/hr.
36. Rumen pH can be estimated by using:
 a. Logo's iodine. b. pH paper. c. Spectrophotometer d. Light microscope
37. Ammonia smell of Rumen fluid occurs in case of:
 a. Ruminant acidosis. b. Ketosis. c. Urea poisoning. d. Diarrhea

38. The type of specimens for bacteriological examination is generally determined by:
 a. History. b. Species of animals. c. Clinical sign and lesions.
 d. color of animal
39. _____ is a selective medium used to differentiate between types of Streptococci depending on the characteristic colonies.
 a. Mannitol salt agar. b. Sodium Azide-Crystal Violet Blood agar. c. Edward Medium.
 d. Agar media
40. Glycine tellurite agar media used for growing of _____, which is characterized by black colonies.
 a. Streptococci. b. Staphylococci. c. Micrococci. d. Microsporium
41. The sample that should be submitted to the laboratory for detection of Johne's disease must be:
 a. Milk sample. b. Fecal sample. c. Urine sample. d. Skin scrapy
42. Ziehl-Neelsen stain is used to determine:
 a. Fungi. b. *Brucella spp.* c. Mycobacterium. d. Staphylococcus spp
43. For bacteriological examination, proper method used for collection of urine in small animals is:
 a. Catheterization. b. Mid-stream. c. Cystocentesis. d. Intratracheal tube
44. Direct smear of cerebrospinal fluid is stained with:
 a. Gram stain. b. Methylene blue. c. Giemsa stain. d. Rose Bengal
45. The most potent pathogenic bacteria are:
 a. Aerobic. b. Anaerobic. c. Facultative anaerobic. d. Opportunistic bacteria
46. Overeating disease of sheep is caused by which type of *Clostridium perfringens*?
 a. Type A. b. Type B. c. Type C. d. Type D.
47. Common name for "tetanus" is
 a. Headache b. Fever c. Locked jaw d. Scurvy
48. The etiologic agent of Bovine Pyelonephritis is
 a. *Corynebacterium pseudotuberculosis* b. *Escherichia coli*
 c. *Corynebacterium renale* d. *Mycoplasma spp*
49. In Anthrax, the hemorrhage to the exterior from orifices of the animal at death is caused by:
 a. Severe itching. b. Action of the toxin.
 c. Exit of the bacteria from the orifices. d. Biting
50. A stellate scar on the nasal septum with dark honey colored pus are seen in:
 a. Ulcerative lymphangitis. b. Glanders. c. Strangles. d. Rabies
51. Magnesium sulfate flotation method is suitable for detection of:
 a. Trematode. b. Nematode. c. protozoa. d. Mite.
52. The normal form of feces in cattle are:
 a. Balls. b. Semisolid mass. c. pellets. d. Somewhat solid.
53. The Mosquitoes is the intermediate host for:
 a. *Babesia bigemina*. b. *Theileria equi*. c. *Dirofilaria immitis*. d. *Babesia bovis*.
54. The Mc master fluids that used in fecal examination is:
 a. Sugar solution. b. Tap water. c. Methyl alcohol. d. Formalin.
55. The time that is required for fecal culture is:
 a. 14 - 18 days. b. 14 - 21 days. c. 14 - 15 days. d. 14-30 days.
56. Baermann technique is used for detection of:
 a. Lung worm larvae. b. Lice eggs. c. Trematode eggs. d. Mite eggs.
57. Fecal culture used for detection the presence of _____ helminth.
 a. Third larvae stage. b. Nematode egg. c. Cestodes egg. d. Trematode eggs.
58. Anaplasma species are divided in to two species:
 a. Marginale and Centrale. b. Centrale and Vertical.
 c. Marginale and Vertical. d. Centrale and Horizontal.
59. The best laboratory method can be used for detection of microfilaria in domestic animals is:
 a. Hematocrit (Buffy coat) method. b. Plasma concentration technique.
 c. Fixed smear technique. d. Concentration and staining technique

60. Ixodidae can be divided in to:
 a. Hard and Soft tick. b. Soft and Lice tick. c. Hard and fleas tick. d. Mite and hard tick.
61. Quantitative examination method of feces is used to examination of:
 a. Trematode eggs. b. Identification of type in feces.
 c. Coprological examination. d. Counting of the number of egg in feces.
62. Sodium nitrate flotation method is suitable for detection of:
 a. Nematode egg. b. Mite eggs. c. Trematode eggs. d. *Fasciola hepatica*.
613. The flotation fluid used in fecal examination is:
 a. Sugar and Salt solution. b. Tap water and Chloride. c. Salts and Tap water. d. Tap water.
64. ----- are type of Plasma protein.
 a. Albumin and Globulins b. Fibrinogen and Sodium.
 c. Potassium and Heparin. d. Albumin and Sodium
65. Lugols iodine and New Methylene Blue are the common stain feces used in:
 a. Direct method. b. Flotation method. c. Sedimentation method. d. Fecal cultures.
66. _____ is the type of Babesiosis in cattle.
 a. *Babesia bovis*. b. *Babesia motasi*. c. *Babesia canis*. d. *Babesia felis*.
67. The Demodex mite are live in the:
 a. Hair follicles and Sebaceous glands. b. Salivary glands. c. Parotid glands. d. Pituitary glands.
68. Common genus of the larval flies include:
 a. *Oestrus ovis* and *Hypoderma bovis*. b. *Oxyuris equi*. c. Nematode spp. d. Fleas and Flies.
69. The sedimentation fluid that used for fecal examination is:
 a. Tap water. b. Physiological saline. c. Sodium chloride. d. Sugar solution.
70. Flies are divided in to:
 a. Biting and Nuisance flies. b. Biting and Sucking flies. c. Sucking flies. d. Biting flies.
71. Intensely sour odor of rumen fluid is observed in cases of:
 a. Esophageal groove failure. b. Alkalosis. c. Acidosis. d. frothy bloat.
72. Physical examination of rumen fluid included:
 a. Color, Odor, Consistency. b. PH, Sedimentation activity test.
 c. Microscopic. d. Motility of microflora.
73. Normal pH of rumen fluid is ranges between:
 a. 5-5.5 b. 6-7. c. less than 4. d. above than 9.
74. The normal time needed for color changed by ruminal microflora in Methylene blue reduction test is:
 a. 3 minutes. b. 10 minutes. c. 12 minutes. d. 15 minutes.
75. Flexible piece of plastic tubing with a bulbous-shaped end designed to collect of rumen fluid is called:
 a. Rumen fistula. b. Rumenocentesis. c. Stomach tube. d. Needle puncture of the rumen.
76. The normal odor of rumen fluid is:
 a. Ammonia smell. b. Intensely sour odor. c. putrefy odor. d. aromatic.
77. The pH of rumen fluid can be estimated by:
 a. Acid base balance b. Saccharometer. c. pH paper d. pH tube.
78. One of the indirect leukocytes count test of milk examination is:
 a. Hotis test. b. Whiteside test. c. Bromothymole blue. d. chloride test.
79. The abnormally acid milk and pH below 5.2 can be detected by:
 a. Chloride test. b. Bromocresol purple test. c. Whiteside test. d. Bromothymol blue test.
80. The Special stain of milk (milk film) is:
 a. Gram stain. b. Newman-Lampert stain. c. New methylene blue stain. d. Ziehl-Neelsen stain.
81. The selective medium differentiate between types of Streptococci depending on characteristic colonies is:
 a. Mannitol salt agar. b. Edward medium.
 c. Sodium Azide-Crystal Violet Blood agar. d. Nutrient agar.
82. The causative agent of pyelonephritis is:
 a. *E. coli*. b. *Corynebacterium renale*. c. *Mycobacterium bovis*. d. *Campylobacter fetus*.
83. Modified Ziehl-Neelsen stain is used to determine:
 a. *Pasteurella spp.* b. *Brucella spp.* c. *Mycobacterium spp.* d. *Clostridium spp.*
84. Which cell is the precursor of erythrocytes?
 a. Myeloblast b. Rubriblast c. Lymphoblast d. Progranulocyte
85. The selective media used for culture of milk sample is:
 a. Nutrient agar. b. Mannitol salt agar. c. Blood agar. d. Chocolate agar.

86. Laboratory diagnosis of leptospirosis can be done by using:
 a. direct examination. b. fluorescent examination.
 c. dark field examination d. supernatant examination.
87. *Corynebacterium renale* can be confirmed by microscopic examination of:
 a. blood sample. b. fecal sample. c. urine sample. d. milk sample.
88. Confirmation of a clinical diagnosis of Actinomycosis is based upon the demonstration of so-calledin a purulent exudate.
 a. Gram positive rods. b. Gram negative short rods. c. ray fungus. d. Gram positive bacilli.
89. Glycine tellurite agar used to grow of Staphylococci bacteria which characterized by:
 a. yellow colonies. b. red colonies. c. black colonies. d. blue colonies.
90. In physical examination of milk, we can see the abnormalities in inside the cup, such as:
 a. pH of milk. b. chloride of milk. c. color of milk. d. leukocytes of milk.
91. The normal pH of milk is:
 a. 6.4- 6.8. b. 7.4- 7.8. c. 5.4- 5.8. d. 8.2- 8.6.
92. *Brucella species* in smear examination appear as extracellular:
 a. red coccobacillary rods. b. blue coccobacillary rods.
 c. yellow coccobacillary rods. d. black coccobacillary rods
93. The silver nitrate solution and potassium chromate solution are the reagents of:
 a. chloride test. b. catalase test. c. CMT. d. PH test.
94. The MCV is used to classify erythrocytes into:
 a. Microcytic, normocytic and macrocytic b. Microcytic and Normocytic
 c. Normocytic and Macrocytic d. Normocytic and Monocytic
95. *Streptococcus agalactia* produce _____ on Edward medium:
 a. Gray to blue colonies. b. Light purple colonies. c. Brown colonies. d. Black colonies.
96. The total number of thrombocytes in peripheral blood can be determined by:
 a. Direct methods. b. Indirect methods. c. Direct and indirect methods. d. EDTA methods.
97. Heinz bodies are may easily be seen in blood smear stained with:
 a. Methylene blue. b. Polychrome methylene blue. c. Crystal violet. d. Giemsa stain.
98. The MCV is used to classify erythrocytes as:
 a. Microcytic, normocytic and macrocytic. b. Microcytic. c. Normocytic. d. Macrocytic.
99. Thrombocytes are small cytoplasmic fragments from:
 a. Megakaryocytes. b. Intestine. c. liver. d. Kidneys.
100. The unit of mean corpuscular Hemoglobin (MCH) is:
 a. mg/L. b. g/dL. c. Femtoliters. d. Picogram.

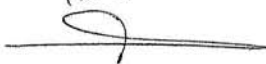
Best Wishes



أ. د. هادي كماله من



أ. د. طه إبراهيم



أ. د. ياسين عبد الفتاح

