Q.1 A 22-year-old man develops marked right lower quadrant abdominal pain over the past day. On physical examination there is rebound tenderness on palpation over the right lower quadrant. Laparoscopic surgery is performed and the appendix is swollen, erythematous and partly covered by a yellowish exudate. It is removed and a microscopic section shows infiltration with numerous neutrophils. The pain experienced by this patient is predominantly the result of the formation of which of the following two chemical mediators:
   a) Complement C3b and IgG
   b) Interleukin-1 and Tumor Necrosis Factor
   c) Histamine and serotonin
   d) Prostaglandin and bradykinin
   e) Leukotriene and HPETE

Q.2 A fifty year old woman, who is suffering from cirrhosis of the liver, presents with a distended abdomen to her physician, who taps the fluid and sends the specimen to the hospital laboratory for analysis. The fluid shows protein content and specific gravity less than 3.0 gm/dl and 1.015 respectively. The fluid is best described as:
   a) Exudate
   b) Transudate
   c) Effusion
   d) Isotonic fluid
   e) Serous fluid

Q.3 A group of sailors was rescued from a ship that was lost for a month. They lived on fish recovered from the sea. They were all fatigued and had gums bleeding on eating anything hard. What is the most likely cause?
   a) Scurvy
   b) Vitamin K deficiency
   c) Ehlers-Danlos syndrome
   d) Osteogenesis imperfecta
   e) Marfan syndrome

Q.4 A cholecystectomy specimen is examined fresh in the laboratory. It shows a large impacted gallstone in the neck. Fundus of the gallbladder shows engorgement of blood vessels on external surface. This is most likely due to:
   a) A malignant process
   b) Hemorrhage
   c) Hyperemia
   d) Congestion due to obstruction to outflow of blood
   e) Chronic inflammation
Q.5  A 40 years injured male is presented in emergency with complaints of increased respiratory rate, cold extremities, rapid pulse and oliguria. On examination B.P. is 60/40mmHg, Pulse 150/min and bluish discoloration of tip of tongue and nails. Which type of shock is developed in this patient?
   a) Cardiogenic shock
   b) Neurogenic shock
   c) Hypovolemic shock
   d) Septic shock
   e) DIC

Q.6  A 60-year old businessman lived for 40 years in Egypt. On return to Pakistan, he presents with painless gross haematuria. Cystoscopy was done by the urologist and the biopsy specimen obtained showed Transitional Cell Carcinoma. Urine examination shows pear shaped ova with large terminal spine. Which of the following is most likely responsible for this tumor:
   a) Schistosoma haematobium
   b) Schistosoma japonicum
   c) Schistosoma mansoni
   d) Wuchereria bancrofti
   e) Trypanosoma cruzi.

Q.7  A neonate was born with signs of encephalitis, chorioretinitis, hepatosplenomegaly, fever and jaundice. The mother gave a history of fever two to three times during pregnancy. History taking revealed that she has many cats as pet. On examination of neonate intra cranial calcifications were found. IgM Ab titer was also raised. What is the most likely Microorganism responsible?
   a) Pneumocystis carinii
   b) Toxoplasma gondii
   c) Cytomegalovirus
   d) Treponema palladium
   e) Rubella virus

Q.8  A forty year old man complains of upper abdominal pain, watery foul smelling diarrhea and flatulence for the past two weeks. He drank spring water on a camping trip near Abbotabad. Trophozoites were found on stool examination. Which is the most likely protozoan involved:
   a) Cryptosporidium
   b) Giardia lamblia
   c) Entamoeba coli
   d) Trichomonas
   e) Acanthamoeba

Q.9  A male baby is born at 39 weeks gestation with a petechial rash, low birthweight, hepatosplenomegaly and bilateral cataracts. This is thought to be due to an infection acquired while the baby was still in utero. Select the condition which is most likely to cause this clinical presentation:
   a) Cytomegalovirus
   b) Group B streptococcus
   c) Rubella virus
   d) Toxoplasma gondii
   e) Treponema pallidum
Q.10 A forty year old woman, has blurred vision and slurred speech. She is afebrile. She is well known in her neighbourhood for her expertise in home canned vegetables and fruits. The most likely cause of her illness is?

a) Clostridium perfringens toxin acting on neuromuscular junction
b) Clostridium botulinum toxin acting on the neuromuscular junction
c) Clostridium botulinum toxin acting on the cranial nerves
d) Clostridium difficile acting on the acetylcholine receptors
e) Clostridium botulinum toxin acting on the adrenergic receptors