

8. Few students of college reported to medical officer incharge with the complaints of nausea, vomiting and diarrhoea after eating fried rice and manchurian in a mess. All the students reported to the doctor within 1-6 hours after having lunch. What would be the probable causative organism?
- Bacillus cereus
 - Staphylococcus aureus
 - Shigella dysenteriae
 - Salmonella Typhi
9. A 36 years male from Rewa, M.P. presented with fever, generalized weakness and breathlessness. His chest X-ray revealed bilateral diffuse infiltrates. Ultrasound of abdomen revealed hepatosplenomegaly and lymphadenopathy. Fungal culture of bone marrow aspirate (BMA) revealed septate hyphae with tuberculate macroconidia 10µm in diameter. The likely diagnosis is
- Disseminated histoplasmosis
 - Disseminated Blastomycosis
 - Candidiasis
 - Aspergillosis
10. A 35-year-old man comes to the emergency department complaining of high fever, chills, severe headache, and confusion. He has recently returned from Africa. A peripheral blood smear reveals multiple ring structures and crescent-shaped gametes. Which of the following organisms is the most likely cause?
- Plasmodium malariae
 - Plasmodium vivax
 - Leishmania species
 - Plasmodium falciparum
11. A 40 year old female was hospitalized on account of fever, anorexia abdominal pain episodes of loose stools with blood for 8 days. Examination of the stool revealed large motile trophozoites (approximately 60 µm length). The likely diagnosis is
- Balantidium coli infection
 - Amebic infection
 - Cryptosporidium infection
 - Giardia infection
12. A 30 year old male presented to Skin/VD OPD with chief complaint of penile chancre. He gave history of unprotected sexual intercourse with commercial sex workers. The consulted advised VDRL test. VDRL test is based on:-
- Precipitation reaction
 - Agglutination reaction
 - ELISA
 - Complement fixation Test
13. A 10 year malnourished child from village presented with history of loss of appetite, weight loss, diarrhoea, breathlessness, blood in stool and itchy rash. Peripheral blood smear examination reveals hypochromic, microcytic anaemia. The most probable causative agent is
- Entamoeba histolytica
 - Giardia lamblia
 - Ancylostoma duodenales
 - Ascaris lumbricoides
14. A 20 year old female admitted in the hospital with fever that was initially low and increased daily to reach as high as 104⁰ F. She also had headache, abdominal discomfort for last 5 days. On examination she was toxic with high grade fever. She had coated tongue. Her vital signs were normal. What is the probable clinical diagnosis ?
- Enteric fever
 - Malaria
 - Dengue
 - Brucellosis
15. A thirty eight years female from Patna (Bihar) presented with fever of 5 weeks duration, progressive weakness and abdominal discomfort. Physical examination revealed, enlarged spleen 4cms below left costal margin and associated hepatomegaly. Laboratory investigations revealed Hb level of 6.5 gm/dl. Bone marrow aspiration revealed 5µm ,round amastigote forms. The likely diagnosis is
- Visceral Leishmaniasis
 - Trypanosomiasis
 - Toxoplasmosis
 - Disseminated amoebiasis
16. A sixty five year old female complained of abdominal pain, flatulence and expulsion of small whitish segments. Patient gives history of consuming raw meat. Stool examination revealed roundish 41µm egg. The egg is likely to be of
- Taenia
 - Trichuris
 - H. nana
 - D. latum

17. A thirty one year old female presented with history of intense pruritus in perianal region. If a diagnosis of Enterobiasis is to be supported, then the eggs should be
- rounded
 - planoconvex
 - barrel shaped
 - operculated
18. After consumption of honey, an infant presents to the emergency department due to difficulty breathing, constipation, and anorexia. Upon examination, the physician notes flaccid paralysis. A toxin screen of the stool was done to identify causative the agent. What is the most probable causative agent?
- Staphylococcus aureus.
 - Non typhoidal salmonella
 - Clostridium botulinum
 - Vibrio parahaemolyticus
19. A 40 year woman, presented with nausea, vomiting and pain in right upper quadrant. Her abdominal examination revealed enlarged liver. Her hepatitis serologic tests profile revealed hepatitis C antibody test positive. Hepatitis C belongs to
- Picornaviridae
 - Hepadnaviridae
 - Flaviviridae
 - Retroviridae
20. A 30 years man from Bulandshahr, UP presented with 3 week history of pain in right flank and anorexia of 7 days duration. He gave history of loose motions of 8 days duration about 5 months back. His physical examination revealed enlarged liver. CECT examination of abdomen revealed a solitary cystic lesion in liver. Aspirate from the liver revealed about 20µm sized trophozoites. The case is likely to have
- Acanthamoeba infection
 - E. histolytica infection
 - Leishmania infection
 - Balantidium infection
- Q.2. A 10 year old child reported to Emergency Medicine Block/ Department with history of watery diarrhea for last 1 ½ days. Child, on examination is dehydrated. Gross examination of stool with microscopy shows rice water stool with presence of bacteria showing darting motility suggestive of vibrio cholera. [4+4+2+2]
- Enumerate steps on laboratory diagnosis of cholera.
 - Write about pathogenesis of cholera.
 - Enumerate steps in management of cholera.
 - List two methods of prevention of diarrhea at community level.
- Q.3. **Write short notes on:-** [5x4]
- Differences in active and passive immunity.
 - Differences between endotoxin and exotoxin
 - Differences between gram positive and gram negative bacterial cell wall
 - Principle of autoclave and list four articles that are routinely autoclaved in microbiology laboratory.
- Q.4. **Explain in short:-** [3x5]
- Mechanism of acute anaphylaxis
 - Causes, clinical presentation and management of food borne diarrhea
 - By diagram only- Serological markers of Hepatitis B
 - Applications of ELISA
 - Interpretation of widal test in diagnosis of enteric fever
- Q.5. **Short answers (applied aspects):-** [6x3]
- Laboratory diagnosis of dengue virus infection
 - Acute amoebic dysentery
 - Anaerobic culture techniques
- Q.6. **Write in brief about:-** [5x3]
- Father of Microbiology
 - Transduction in bacteria
 - Attitude in practice while disclosing positive reports to highly sick patients or their relatives