QI) - Fill in the blanks: (20 marks)

1- Rupture of hydatid cyst is very dangerous because -----------------------------------  
-----------------------------------------------.

2- Method of infection of Hymenolepis nana are ---------------------------and  ---------  
-----------------------------------------.

3- The parasitic protozoa which manifested clinically by leucorrhea is --------------  
---------------------------------------------------------------------------.

4- The treatment of choice for *Schistosoma mansoni* is ------------------  
and for *Fasciola hepatica* is -----------------------------------------------.

5- Domestic dogs become infected with *Echinococcus granulosus* by ------------------  
--------------------------------------------------------------------------------.-

6- Cysticercosis take place by -------------------------------and --------------------------.

7- Tapeworm parasite common in children are ------------------------------- and ------------------  
--------------------------------------------------------------------------------.-

8- Charcot–leyden crystals accompanied the following parasitic infection:  
a- -----------------------------------------------  b- -----------------------------------------------  
c- -----------------------------------------------.

9- Vagabords disease is caused by -----------------------------------------------.
10- Centipedes have pair of large ---------------------------- arising from the first body segment.

11- The scorpion venom is believed to be a toxalbumin that affects the ----------------------------- -------------------------------

12- Scabies is acquired primarily in ----------------------------------- .

13- Toxoplasmosis is fatal in AIDS patient because it cause-----------------------------.

14- Malarial relapse is due to -----------------------------------------------------------------

15- Disseminated strongyloidiasis seen in patient with-----------------------------.

16- The largest intestinal nematode is -----------------------------------.

17- In hookworms, the blood loss in-----------------------------------species is more than that of ----------------------------------- species.

18- Modes of transmission in pinworms are  a- ----------------------------------------, b---------------------------------------, c- --------------------------- and d- --------------------.

19- The filarial worms transmitted to man through ----------------------------------- .

20- The gold standard method for the diagnosis of malaria is -----------------------------.
QII) – Select the single best answer for each of the following
( please encircle the appropriate answer ) (20 marks)

1- In hydatidosis, the false statement is:
   A- It is a zoonotic disease.
   B- Man act as definitive host.
   C- Man become infected by contamination with egg of dog tape worm pose in feces.
   D- The commonest site of hydatid cyst is the liver.

2- In human, the cysticerci of pork tape worm are mostly found in .
   A- Subcutaneous tissue and muscle.
   B- Lung and bone.
   C- Eye and muscle.
   D- Subcutaneous tissue, eye, brain.

3- Each of the following statements concerning *Trichomonas vaginalis* is correct except:
   A- It is transmitted sexually.
   B- It causes bloody diarrhea.
   C- Can be diagnosed by visualizing the trophozoite.
   D- Can be treated by metronidazole.

4- Intestinal amoebiasis in large bowel is characterized by:
   A- Atrophy of villi.
   B- Obstruction of intestine.
   C- Constipation.
   D- Flask-like ulceration.

5- Infection with *Fasciolopsis buski* is through:
   A- Skin penetration.
   B- Ingestion of egg.
   C- Ingestion of encysted metacercariae.
   D- Eating of infected liver.

6- Malabsorption seen in giardiasis is most likely due to:
   A- Mechanical barrier to absorption.
   B- Poor enzymatic digestion.
   C- Insolublising the proteins and fats.
   D- None of the above.
7- *Taenia saginata* and *Taenia solium* are similar in many way's, but *Taenia solium* is more dangerous because:
   A- It has an arranged scolex.
   B- It has fewer uterine branches than *T.saginata*.
   C- Man can be infected as an intermediate host by eating the eggs from *T.solium*.
   D- The cyst or larvae form ingested from pork is more potent than the cyst form beef.

8- The pathological changes in Schistosomiasis are caused mainly by :
   A- immature eggs.
   B- Mature eggs.
   C- Adult worm.
   D- Cercariae.

9- The following arthropods are wingless:
   A- Fleas.
   B- Centipedes.
   C- Mosquitoes.
   D- Mites.

10- The agent Rickettsia within the vector lice undergoes the followings:
    A- Propagative.
    B- Cyclopropagative.
    C- Cyclodevelopmental.
    D- Non of the above.

11- Plaque is severe disease transmitted by :
    A- Xenopsylla sp .
    B- Scorpions.
    C- Phlebotomus sp .
    D-Pediculus sp .

12- Scabies is caused by :
    A- Hard ticks.
    B- Itch mites.
    C- Soft ticks .
    D- Mosquitoes.

13- Microfilaria can be detected in the peripheral blood in the following disease except:
    A- *Onchocerca volvulus*.
    B- *Bancroftian filariasis*.
    C- Calabar swelling.
    D- *Malayon filariasis*. 
14- Loefler’s syndrome is caused by:
   A- Hook worm.
   B- Toxocara.
   C- Strongyloides.
   D- All of the above.

15- Which of the following is not soil transmitted:
   A- Strongyloides stercolaris.
   B- Ancylostoma duodenale.
   C- Ascaris lumbricoides.
   D- Trichinella spiralis.

16- World wide, the most prevalent helminth to infect human is:
   A- Enterobious vermicularis.
   B- Ascaris lumbricoides.
   C- Hook worm.
   D- Schistosoma mansoni.

17- Effective malarial control intervention include all the following except:
   A- Mass use of fansidar chemoprophylaxis.
   B- Use of pyrethroid impregnated mosquitoes net.
   C- Larviciding.
   D- Vaccination with SPF 66.

18- the following occur in chagas´ disease except
   A- Calabar swelling.
   B- Lymphadenopathy.
   C- Meningoencephalitis.
   D- periorbital odema (Romana´ s sign).

19- Routine method for the diagnosis of toxoplasmosis:
   A- Thick blood film.
   B- thin blood film.
   C- Serology.
   D- urinalysis.

20- The fever associated with visceral leishmaniasis may resemble that of:
   A- Cutaneous leishmaniasis.
   B- Oriental sore.
   C- Malaria.
   D- Drug sensitivity.
QIII)– Choose from column A what suits in column B. Please answer on the answer sheet provided below  
(5Marks)

1- Hetrophyes hetrophyes
2- Katayama fever
3 – Balantidium coli
4- Giardia lamblia
5- Dipylidium caninum
6- Clonorchis sinensis
7- Acanthamoeba species
8- Commensalism
9- Echinococcus granulosus
10- swimmer itch
11- Oxyuriasis
12- Iron deficiency anemia
13- Strongyloides stercolaris
14- Loa loa
15- Wucheraria bancrofti
16- Tachyzoite
17- Amastigote
18- Nephrotic syndrome
19- infective stage of leishmania species
20 Xenodiagnosis

A- Gravid proglottid containing many egg capsule
B- Hyperplasia and fibrosis of biliary epithelium
C- Amebic keratitis
D- brood capsule
E-genital sucker
F- serum-sickness like syndrome
G- diagnosis by duodenal aspiration
H- ciliate commonly associated with pig
i- pruritic rash
J- eating at the same table.
K- Hookworm infection
L- hyperinfection syndrome
M- calabar swelling
N- congenital toxoplasmosis
O- Non flagellate stage in hemoflagellates
P- Plasmodium malariae
Q- Promastigote
R- Chronic chagas disease.
S- Scotch tape techique
T- Elephantiasis

ANSWER SHEET FOR QUESTION III

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QIV) – Answer the followings:

A) Follow the life cycle of ONE blood flukes parasite (5 Marks)

B) Give the National strategies to control the above parasites ( in question A). (5 Marks)

C) Mention one parasite that cause the following : (5 Marks)

1- Baghdad boil
2- Rectal prolapse
3- cerebral malaria
4- Trichinosis
5- kala-azar

D) Compare between pinworm and hookworm regarding:
   Species name, infective stage, habitat of the adult, lung migration (5 Marks)
QV)
A-Case study (1): (5 Marks)
Thirty five years old male arrived from japan since 2 months. He complained from nausea, vomiting with loss of weight and hunger pain. Blood picture showed Hypochromic Macrocytic anemia and stool examination showed large Operculated eggs.

1- What is your diagnosis?

2- Is there a common name for that parasite?

3- What is the source of infection?
B- How would you describe amoebic and Blalantidial ulcer regarding
1- etiological agent
2- Shape of lesion produce
3- Level of digestive tract affected.

(5 Marks)
C- Case study (2)

A newly born baby was born with microcephaly and convulsion. The mother gave a history of having a cat at home

1- what is the parasite would you suspect of causing this clinical presentation? (2 Marks)

2- How was the baby infected? (1 Marks)

3- How can you confirm your diagnosis? (1 Marks)
D- Write short assay about the pathogenesis of cyclical fever in African trypanosomiasis. (5 Marks)
Answers to Sample C

Q2 MCQS
1- b 2- a 3- b 4- d 5-c 6- a 7- c 8- b, 9-c, 10-a, 11-a, 12-b, 13-a, 14-d, 15-d, 16-a, 17-d, 18-a, 19-c, 20-c

Q1 Fill in the blanks
1- Liberation of hydatid fluid into the peritoneal cavity produce anaphylactic shock
2- direct ingestion of food contaminated with faeces containing eggs, indirect by eating food contaminated with beetle containing cysticercoids
3- Trichomonas vaginalis
4- Praziquantel, Bithionol
5- By ingestion of sheep flesh containing hydatid cyst
6- Heteroinfection, external and internal autoinfection
7- Hymenolepis nana, Dipylidium caninum
8- a – Entamoeba histolytica, b- sparganosis c- Paragonimus westermani
9- lice
10- poison claws
11- nervous system
12- millitary installation, prisons, mental institution, crowding and poor sanitation.
13- disseminated encephalitis
14- hypnozoite activation
15- immune compromised status
16- Ascaris lumbricoides
17- Ancylostoma duodenale, Necator americanus
18- autoinfection, retroinfection, inhalation, swallowing fully developed eggs with food or water
19- insect bite
20- thick and thin blood film

Q 3

Q 4 A

A- Schistosoma haematobium

Adult in vesical plexus ------- mature eggs in urine (diagnostic stage )------
miracidium in water ------- penetrate Bulinus snail intermediate host ------- 1&2
generations sporocyst ------- cercaria (infective stage )------- schistosomula------
via Heart -------lung -----liver----- by portal blood vessels to ----- inferior mesenteric
vein----------- Rectal vessels ------ vesical plexus

OR

B- Schistosoma mansoni
Adult in inferior mesenteric vein----embryonated eggs in faeces (diagnostic stage)------miracidium in water------penetrate Biomphalaria snail intermediate host------1&2 generation of sporocyst in snail------cercaria (infective stage)------penetrate human skin------schistosomula------migrate via heart------lung------liver------inferior mesenteric veins

OR

C-Schitosoma japonicum

Adult in tributaries of superior mesenteric veins----embryonated eggs in water------hatch to miracidium------penetrate Oncomelania sp snail intermediate host------1&2 generation sporocyst------cercaria (infective stage)------penetrate human skin------schistosomula------migrate via heart------lung------liver------superior mesenteric veins

B-

1- Chemotherapy

2- Snail control

a- chemical (Niclosamide)

b- biological

1-predator (Thiara spp)

3- Environmental sanitation

4- Health education

C-

a- L.tropica minor

b- Trichuris trichiura
c- Plasmodium falciparum
d- Trichinella spiralis
e- L.donovani

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<thead>
<tr>
<th></th>
<th>Pinworm</th>
<th>Hookworm</th>
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<tbody>
<tr>
<td>Sp. name</td>
<td>Enterobious vermicularis</td>
<td>Ancylostoma duodenale</td>
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<tr>
<td></td>
<td></td>
<td>Necator americansnus</td>
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<tr>
<td>Infective stage</td>
<td>Fully Embryonated egg</td>
<td>3rd stage larva</td>
</tr>
<tr>
<td>Adult habitat</td>
<td>Large intestine(unattached)</td>
<td>Small intestine (Attached)</td>
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<tr>
<td>Lung migration</td>
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Q 5 A

1- Infection with Diphyllobothrium latum
2- Fish tapeworm
3- Eating row or undercooked fish containing plerocercoid

B-

1- Entamoeba histolytica , Balantidium coli
2- In Ent. Histolytica flask-shaped ulcer with narrow opening, while in B. coli circular with irregular edge and wide opening
3- In E nt . histolytica the parasite invade the mucosa and reach serosa , while in B. coli restricted to mucosa.
C-

1- Toxoplasma gondii

2- transplacental transmission of the parasite in case of acute infection of the mother during the pregnancy or few months (Not more than 3 -4 months ) before conception.

3- by serological test of the baby (IgM increased)

   Molecular diagnosis (PCR)

D-

In the acute form, a cyclical fever spike (approximately 2 weeks) occurs that is related to antigenic variation of the surface glycoprotein hundreds of antigenic types found. One antigenic type will coat the surface of the parasites for approximately 10 days, followed by other types.

These antigenic variations allow the organism to evade the host immune response.