



TIME : 3 Hrs

SUBJECT : MICROBIOLOGY PAPER- II

Max. Marks : 100

Note: Attempt all questions. Answer PART- A and PART – B in separate answer books. All part of a question should be answered together.

Q.1 Long Answer Question

PART - A

PAPER CODE: 2212130006

(3 + 3 + 9 = 15)

A 45- years -old male on dialysis presents with low grade fever and jaundice. The treating physician suspects viral hepatitis.

- Enumerate agents of viral hepatitis.
- Discuss the likely etiology in this case
- Discuss the laboratory tests and approach that can be used to confirm etiological diagnosis of viral hepatitis.

Q.2 Short Notes Questions (within 500 words)

(5 x 3 = 15)

- Candida albicans
- Mycetoma
- Covid-19 laboratory diagnosis and vaccination

Q.3 Short Answer Questions (within 100 words)

(2 x 5 = 10)

- HIV virus
- Polio vaccine
- Epidermophyton floccosum
- Histoplasmosis
- Influenza A

Q.4 Multiple Choice Questions

(1 x 10 = 10)

1	The most common viral cause of diarrhoea in very young children is	2	Which of the following does not belong to the herpesvirus family?
a) Influenza virus		a) Varicella Zoster	
b) JK virus		b) Cytomegalovirus	
c) Poliovirus		c) Herpes Simplex virus	
d) Rotavirus		d) Rubella virus	
3	The most common type of Human Papilloma Virus associated with cervical cancer is	4	FALSE for Japanese encephalitis
a) Type 1		a) It occurs in rural areas	
b) Type 3		b) Is transmitted mainly by the Anopheles mosquitoes	
c) Type 11		c) Can be prevented by vaccination	
d) Type 16		d) Leads to neurological complications	
5	All the following are FALSE about Kyasanur Forest disease, EXCEPT?	5	Viruses belonging to which of the following groups are likely to establish latent infections?
a) Symptoms are mainly respiratory		a) Poxviruses	
b) It is a tick-borne infection		b) Filoviruses	
c) Transmission occurs from man to man		c) Herpesviruses	
d) It occurs mainly in Gujarat		d) Influenza viruses	
7	All the following are true with regards to dengue, EXCEPT	8	Which of the following is an important factor in the pathogenicity of Cryptococcus neoformans?
a) It is a flavivirus		a) Toxin	
b) Important cause of viral haemorrhagic fever		b) Pili	
c) Transmitted by the aedes mosquito		c) Flagella	
d) Never cause re-infections		d) Capsule	
9	Tinea versicolor is caused by	10	One of the following is not a dimorphic fungus:
a) Aspergillus fumigatus		a) Blastomyces dermatitidis	
b) Candida albicans		b) Cryptococcus neoformans	
c) Malassezia furfur		c) Coccidioides immitis	
d) Pichia anomala		d) Histoplasma capsulatum	



Q.1 Long Answer Question

A 23 years -old woman from a rural area presents with a two- months history of cough, low grade fever and night sweats. Her father had been treated for pulmonary tuberculosis two years back. She needs to be investigated for pulmonary tuberculosis.

Discuss the laboratory tests and approach that should be used in this case

Q.2 Short Notes Questions (within 500 words) (5 x 3 = 15)

- Wuchereria bancrofti with focus on life cycle and laboratory tests for filariasis.
- Amoebiasis
- Informed consent with practical examples

Q.3 Short Answer Questions (within 100 words) (2 x 5 = 10)

- Plasmodium falciparum gametocyte
- Stool concentration methods
- Taenia solium life cycle
- Giardia lamblia trophozoite
- Pinworm infection

Q.4 Multiple Choice Questions (1 x 10 = 10)

1	All are examples of atypical mycobacteria, EXCEPT	2	Sexual cycle of malaria parasite occurs in:
(a) M. bovis		(a) Male culex mosquito	
(b) M. fortuitum		(b) Male anopheles mosquito	
(c) M. kansasii		(c) Female anopheles mosquito ✓	
(d) M. marinum		(d) Female culex mosquito	
3	B12 deficiency occurs with which infection with one of the following:-	4	Katayama fever is associated with:-
(a) Schistosoma haematobium		(a) Diphylobothrium latum	
(b) Diphylobothrium latum		(b) Fasciola hepatica	
(c) Fasciolopsis buski		(c) Schistosoma japonicum	
(d) Clostridium viverrini		(d) Paragonimus westermani	
5	Kala-azar is caused by which of the following	6	Acid-fastness of mycobacteria is due to:
(a) Leishmania donovani ✓		(a) Peptidoglycan layer	
(b) Leishmania tropica		(b) Arabinogalactan layer	
(c) Trypanosoma brucei		(c) Mycolic acid layer ✓	
(d) Trypanosoma cruzi		(d) Lipoarabinomannan	
7	Adult of Ascaris lumbricoides most commonly causes:	8	Cyclops is intermediate host for?
(a) Cardiac symptoms		(a) Trichinella spiralis	
(b) Cerebral symptoms		(b) Schistosoma haematobium	
(c) Gastrointestinal symptoms		(c) Dracunculus medinensis ✓	
(d) Respiratory symptoms		(d) Taenia solium	
9	One of the following may cause hyperinfection in HIV patients	10	Mycobacterium leprae can be grown in
(a) Entamoeba histolytica		(a) Blood agar	
(b) Trichomonas intestinalis		(b) LJ media ✓	
(c) Trichomonas vaginalis		(c) MGIT system	
(d) Strongyloides stercoralis		(d) Nine banded armadillo	