



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेंद्रम, केरल- 695 011
(एक राष्ट्रीय महत्व का संस्थान, विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार)
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ENTRANCE EXAMINATION - ACADEMIC SESSION JANUARY 2024

Program: Post Doctoral Certificate Course (PDCC) in Transfusion Transmitted Disease Testing

Time:90 Minutes

Max. Marks: 100

(Select the most appropriate answer)

(There are **no negative** marks for wrong answers)

1	The first case of HIV in India was detected in
a	Mumbai
b	Delhi
c	Kolkata
d	Chennai
2	In which year National Hemovigilance Programme was launched?
a	December 2010
b	December 2012
c	December 2013
d	December 2014
3	Commonest reaction observed after massive blood transfusion is
a	Acute hemolytic transfusion reaction
b	Transfusion associated circulatory overload
c	Transmission of viral disease
d	Iron overload
4	Which city hosted the first National CME of Indian Society of Transfusion Medicine?
a	Jaipur
b	Nagpur
c	Trivandrum
d	Chennai
5	Transfusion transmitted bacterial infection will cause all, except
a	High grade fever
b	Renal Shutdown
c	Hypotension
d	Dyspnoea
6	Which among the following is tested specifically for the detection of Occult Hepatitis B infection

	a	HBsAg
	b	HBeAg
	c	Anti-HBc
	d	HBX
7	What percent of the HCV infections becomes chronic?	
	a	10%
	b	30%
	c	60%
	d	90%
8	Identified genotypes of Hepatitis B are	
	a	A, B, C
	b	A, B, C, D, E
	c	A, B, C, D, E, F, G, H
	d	A, B, C, D, E, F, G, H, I, J
9	In malaria, the form of plasmodia transmitted from mosquito to human is the	
	a	Sporozoite
	b	Gametocyte
	c	Merozoite
	d	Hypnozoite
10	Hepatitis D is classified under the family	
	a	Anelloviridae
	b	Flaviviridae
	c	Deltaviridae
	d	Hepadnaviridae
11	National Blood Transfusion Council was established on	
	a	23 May 1996
	b	7 April 1998
	c	1 December 1992
	d	1 October 1997
12	HIV 2 is more prevalent in which part of the world?	
	a	Asia
	b	West Africa
	c	Northern Europe
	d	North America
13	Mandatory testing of HIV in Blood center is by all, except	
	a	Rapid test
	b	ELISA test
	c	Chemiluminescence test
	d	Nucleic Acid Amplification test
14	Who didn't receive Nobel prize for discovering Hepatitis C virus?	
	a	Harvey J Alter
	b	Bharuch Blumberg
	c	Michael Houghton
	d	Charles M Rice
15	Used surgical masks should be disposed in	
	a	Yellow colored bags

	b	Red colored bags
	c	White colored bags
	d	Green colored bags
16	Which of the following protease inhibitor drug is used as a Highly active antiretroviral therapy (HAART), in a combination regimen with other antiretroviral drugs.	
	a	Efavirenz
	b	Indinavir
	c	Ritonavir
	d	Zidovudine
17	First Lockdown due to COVID 19 declared in India	
	a	February 2020
	b	March 2020
	c	April 2020
	d	May 2020
18	Incubation period of Hepatitis A	
	a	15 – 50 days
	b	60 - 75 days
	c	100 – 120 days
	d	150 – 160 days
19	Choose the appropriate statement regarding Hepatitis A	
	a	It is a DNA virus
	b	It is an enveloped virus
	c	It is a Picornavirus
	d	Frequently leads to chronic liver disease
20	Blood donor who is a close contact of Hepatitis B individual should be deferred for	
	a	6 months
	b	1 year
	c	2 year
	d	Permanently deferred
21	WHO declared COVID-19 pandemic officially on	
	a	9 January 2020
	b	13 January 2020
	c	11 March 2020
	d	30 January 2020
22	If a disease jumps from a non-human animal to a human, then it is termed as	
	a	Zoonotic disease
	b	Congenital disease
	c	Iatrogenic disease
	d	Infectious disease
23	Jarisch-Herxheimer Reaction is seen in	
	a	Malaria
	b	AIDS
	c	Viral Hepatitis
	d	Syphilis
24	Which of the following bacterial infections is predominant in chronic HIV-infected patients or in AIDS?	

	a	Tuberculosis
	b	Candidiasis
	c	Toxoplasmosis
	d	Pneumocystis carinii pneumonia
25	Which of the following is psychrophilic?	
	a	Yersinia enterocolitica
	b	Yersinia Pestis
	c	Salmonella paratyphi
	d	Salmonella typhi
26	Antigen binding sites are present in	
	a	Fab region of an antibody
	b	Fc region of an antibody
	c	Only in the light chain
	d	Only in the heavy chain
27	When was the first case of human AIDS reported in the USA?	
	a	1980
	b	1981
	c	1982
	d	1983
28	Genes for ABO blood groups are inherited as	
	a	Autosomal Recessive
	b	Autosomal Dominant
	c	X-linked Recessive
	d	X-linked Dominant
29	Under Hemovigilance Programme of India, which transfusion reaction has the scope for reporting	
	a	Transfusion transmitted HIV
	b	Transfusion transmitted Malaria
	c	Transfusion transmitted bacterial infection
	d	Transfusion transmitted Syphilis
30	Who is the primary host of plasmodium	
	a	Man
	b	Rat
	c	Anopheles
	d	None of the above
31	Which area considered as Hot Pots area of COVID -19	
	a	Red Zone
	b	Orange Zone
	c	Yellow Zone
	d	Green Zone
32	Which of the following has the longest incubation period?	
	a	P. falciparum
	b	P. vivax
	c	P. ovale
	d	P. malariae
33	National Viral Hepatitis Control Organization was launched in	
	a	2004
	b	2010

	c	2016
	d	2018
34	HIV transmission through blood transfusion is known as	
	a	Acute Immune transfusion reaction
	b	Delayed Immune transfusion reaction
	c	Acute Non-Immune transfusion reaction
	d	Delayed Non-Immune transfusion reaction
35	Prion proteins are implicated in the etiology of	
	a	Spongiform encephalopathy
	b	Viral encephalitis
	c	Perivenous encephalomyelitis
	d	Progressive multifocal leukoencephalopathy
36	Fifth disease is caused by	
	a	CMV
	b	EBV
	c	HTLV-II
	d	Parvovirus B19
37	Certain microorganisms as <i>Salmonella</i> , <i>Listeria</i> , <i>Neisseria</i> , and <i>Cryptococcus</i> consist of specific carbohydrate moieties on the surface antigen that activate	
	a	Alternative pathway
	b	Classical pathway
	c	Lectin binding pathway
	d	All of the above
38	The Reservoir host for West Nile Virus is	
	a	Birds
	b	Horse
	c	Human
	d	Bats
39	Which of the following vial markers were studied in the context of behavioral risk factors associated with donations as part of Retrovirus Epidemiology Donor (RED-II) study	
	a	HIV, HBV, HCV and HTLV
	b	HIV, HBV, HCV and WNV
	c	WNV, CMV, EBV and HIV
	d	CMV, EBV, HIV and HCV
40	The bacterium <i>Yersinia pestis</i> causes	
	a	Bubonic Plague
	b	Rubella
	c	Mumps
	d	Measle
41	Which period is the stage of disease during which the patient begins to present general signs and symptoms?	
	a	Convalescence
	b	Illness
	c	Incubation
	d	Prodromal
42	Most common bacteria isolated from stored RBC units is	
	a	<i>Salmonella paratyphi</i>
	b	<i>Yersinia pestis</i>

	c	Yersinia enterocolitica
	d	Salmonella typhi
43	Each of the following statements concerning malaria is correct, except	
	a	The female anopheles mosquito is the vector
	b	Early infection, sporozoites enter hepatocytes
	c	Release of merozoites from red blood cells causes fever and chills
	d	The principal site of gametocyte formation is the human G.I. tract.
44	Which of the following is an important molecule present in the outer membrane of HIV that helps the virus to enter and infect host cells?	
	a	Lipopolysaccharide
	b	Protein
	c	Polysaccharide
	d	Glycoprotein
45	How does Ebola spread from human to human?	
	a	Spreads through direct contact with blood and bodily fluids
	b	Spreads through inhaling infected droplets
	c	Spreads through contaminated water
	d	None of the above
46	What is the CD4 T-cell count at which AIDS is considered to have developed?	
	a	Below 1000 per cubic milliliter
	b	Below 500 per cubic milliliter
	c	Below 200 per cubic milliliter
	d	Below 100 per cubic milliliter
47	Which is not an iron containing protein?	
	a	Lactoferrin
	b	Transferrin
	c	Hemosiderin
	d	Ceruloplasmin
48	Most frequent indication for liver transplantation among the following	
	a	Hepatitis B
	b	Hepatitis C
	c	Hepatitis D
	d	Hepatitis E
49	HIV 2 is more prevalent in which part of the world?	
	a	Asia
	b	West Africa
	c	Northern Europe
	d	North America
50	Agents with sufficient low to high scientific/epidemiologic evidence of risk in regard to blood safety with the potential for severe clinical outcomes. belongs to	
	a	White priority
	b	Yellow Priority
	c	Orange Priority

	d	Red Priority
51	P. falciparum differs from other plasmodia in following aspects except	
	a	It does not have exo-erythrocytic stage
	b	It parasitizes only juvenile red cells
	c	It causes malignant malaria
	d	One red cell may contain more than one parasite
52	Syphilis is often called	
	a	The Invisible
	b	The terrorizing
	c	The Great Imitator
	d	The Great Terminator
53	In the case of SARS in human beings, the mode of infection is	
	a	From Mosquito
	b	From person to person
	c	From poultry birds
	d	From Domestic dogs
54	Anti HBs in the plasma as a marker suggests	
	a	Acute infection of Hepatitis B
	b	Active infection of Hepatitis B
	c	Chronic infection of Hepatitis B
	d	Resolved infection
55	Mosquito-borne viral haemorrhagic fever include the following examples, except	
	a	Dengue fever
	b	Yellow fever
	c	Rift valley fever
	d	Kyasanur Forest fever
56	Swine flu influenza virus is	
	a	H5N1
	b	H1N1
	c	H5N2
	d	H1N2
57	In the classical pathway, which of the following complement complex serve as C3 convertase	
	a	C4aC2a
	b	C4bC2b
	c	C4bC2a
	d	C4aC2b
58	AABB has approved alternative to gamma irradiation to prevent TA-GVHD	
	a	Mirasol
	b	Intercept
	c	Theraflex
	d	Theraflex UV
59	Pathogen reduction technology is approved for all except	
	a	Packed Red Cells
	b	Fresh Frozen Plasma
	c	Platelets
	d	Source Plasma

60	Type I hypersensitivity involves	
	a	IgM
	b	IgG
	c	IgD
	d	IgE
61	Vertical transmission of Hepatitis B occurs usually at the	
	a	First trimester of pregnancy
	b	Second trimester of pregnancy
	c	Third trimester of pregnancy
	d	There is no vertical transmission
62	From which city HIV was first reported?	
	a	New York
	b	Chicago
	c	Washington DC
	d	San Francisco
63	Which of this does not inhibit dietary iron absorption?	
	a	Vitamin C
	b	Calcium
	c	Phytates
	d	Polyphenol
64	Dengue haemorrhagic fever is characterised by following laboratory, findings except	
	a	Leucopenia
	b	Lymphocytosis
	c	Thrombocytopenia
	d	Decreased Hematocrit
65	In which year screening of HCV was made mandatory in India for the collected blood units	
	a	1989
	b	1992
	c	1996
	d	2001
66	World Hemophilia day is on	
	a	7 April
	b	17 April
	c	7 May
	d	17 May
67	The mode of inheritance of Hemophilia B is	
	a	Autosomal Dominant
	b	Autosomal Recessive
	c	X-linked Dominant
	d	X-linked Recessive
68	Which among them is a non-structural protein in HCV genome	
	a	C protein
	b	NS 5A
	c	P 7
	d	E 1

69	Which among the following can be used as treatment for Hepatitis C?	
	a	Pyglated Interferon
	b	Declatasvir
	c	Cyclophilin B
	d	All of the above
70	Creutzfeldt-Jakob disease (CJD) is a	
	a	Parasitic disorder
	b	Prion disorder
	c	Bacterial disorder
	d	Fungal disorder
71	Hepatitis D is a	
	a	ss DNA virus
	b	ds DNA virus
	c	ss RNA virus
	d	ds RNA virus
72	Most common genotype of HCV in India	
	a	Genotype 3 and 1
	b	Genotype 4 and 2
	c	Genotype 1 and 4
	d	Genotype 2 and 1
73	Blood donor with unknown hepatitis should be deferred for	
	a	Permanently deferred
	b	3 months
	c	6 months
	d	12 months
74	Chikungunya is transmitted to humans by	
	a	Aedes
	b	Anopheles
	c	Tic
	d	Culex
75	Which among the following Hepatitis virus has long incubation period?	
	a	G
	b	E
	c	D
	d	C
76	HBV screening for collected blood units was initiated in India in	
	a	1975
	b	1980
	c	1986
	d	1992
77	Pigs or dogs are the sources of human infection by each of the following parasites, except	

	a	Echinococcus granulosus
	b	Taenia solium
	c	Ascaris lumbricoides
	d	Trichinella spiralis
78	Which type of disinfectant useful in surface cleaning purpose on COVID-19 exposure?	
	a	Chlorohexidine
	b	Phenol
	c	Sodium hypochlorite
	d	Glutaldehyde
79	Which one is not an Open Reading Frame (ORF) of Hepatitis B Genome	
	a	C
	b	P
	c	R
	d	X
80	Shape of nucleocapside core of Hepatitis B is	
	a	Circular
	b	Square
	c	Rectangular
	d	Icosahedral
81	Which of the following enzyme is required for the viral replication process and plays a critical role in the pathogenesis of HIV infection?	
	a	RNA polymerase
	b	DNA polymerase
	c	RNA polymerase II
	d	Reverse transcriptase
82	Generally in Occult Hepatitis B infection	
	a	HBsAg +ve and Anti HBc +ve
	b	HBsAg +ve and Anti HBc -ve
	c	HBsAg -ve and Anti HBc +ve
	d	HBsAg -ve and Anti HBe -ve
83	Which of the following statement is true for acute hemolytic transfusion reaction?	
	a	Rarely life threatening
	b	Complement mediated hemolysis is seen
	c	Renal blood flow is well maintained
	d	There is no fall in Blood pressure
84	Clostridia are implicated in the following, except	
	a	Botulism
	b	Necrotizing enterocolitis
	c	Bacillary dysentery
	d	Pseudomembranous colitis
85	Intercept blood system is	
	a	Psoralen + UV light
	b	Methylene Blue + UV light
	c	Amotasalen + UV light
	d	Riboflavin + UV light

86	Which of the following organisms has showed the most resistance to pathogen inactivation using photochemical method?	
	a	Plasmodium falciparum
	b	Pseudomonas aeruginosa
	c	HIV
	d	HAV
87	First photochemical pathogen reduction technology was	
	a	Amotalsalen + UV light
	b	Methylene Blue + UV light
	c	Psoralen + UV light
	d	Riboflavin + UV light
88	Which method is used for viral inactivation of Albumin for human use	
	a	Heat inactivation
	b	Nano-filtration
	c	Solvent detergent treatment
	d	Psoralen
89	Donor deferral period suggested after live virus immunization with the Yellow Fever 17D vaccine is	
	a	1 week
	b	2 weeks
	c	4 weeks
	d	6 months
90	Hepatitis B markers: HBsAg +ve IgM and Anti HBc +ve suggests	
	a	Chronic Hepatitis B with low infectivity
	b	Chronic Hepatitis B with high infectivity
	c	Acute Hepatitis B with low infectivity
	d	Acute Hepatitis B with high infectivity
91	Which among the following marker is detectable first in Hepatitis C?	
	a	HCV - RNA
	b	Elevation of Alanine Aminotransferase (ALT)
	c	Anti-HBc
	d	HCV - DNA
92	A blood donor who received Hepatitis B Immunoglobulin should be deferred for	
	a	14 days
	b	28 days
	c	1 year
	d	Permanently deferred
93	Pre-exposure prophylaxis is required for	
	a	Health workers
	b	Hemodialysis patients
	c	People with multiple sex partners
	d	All of the above
94	Wrong statement about Hepatitis E virus	

	a	It is an RNA virus
	b	It is an enveloped virus
	c	Classified under Hepaviridae
	d	Incubation period is around 40 days
95	Exponential growth of bacteria occurs in platelet concentrates on	
	a	Immediately after collection
	b	After 5 days of collection
	c	After 3 days of collection
	d	24 hours after collection
96	In DNA, cytosine binds with	
	a	Thymine
	b	Adenine
	c	Guanine
	d	Uracil
97	Streptococci are commonly implicated in the etiology of the following, except	
	a	Rheumatic heart disease
	b	Glomerulonephritis
	c	Breast abscess
	d	Sub-acute bacterial endocarditis
98	Fungi in general can be identified by the following stains, except	
	a	Giemsa
	b	Silver stain
	c	Periodic acid Schiff
	d	Mucicarmine
99	The chemokine receptor cell present in the host macrophages that helps in the primary attachment of HIV is	
	a	CxCR4
	b	CCR5
	c	Both of the above
	d	None of the above
100	World Hepatitis Day is celebrated on	
	a	7 April
	b	14 June
	c	28 July
	d	1 December