

**KARNATAKA VETERINARY, ANIMAL AND FISHERIES SCIENCES
UNIVERSITY, BIDAR**
Post Graduate Entrance Examinations : 2021 - 22
PhD in Aquatic Environment Management
Subject Code : P15

HALL TICKET NO. :

Date: 10th May 2022
Max Marks : 100
Duration : 2 Hrs.

Choose the correct answer from the four options given under each question and fill the relevant circle with black ball point pen in the OMR Sheet.

Note: 1) Do not use pencil for marking on the OMR Sheet.
2) Marking on the OMR sheet for more than one option for a question will be rendered invalid.

1	One of the following is not a Red Halophile			
	(a) <i>Halobacterium salinaria</i>	(b) <i>Halobacterium cutirubum</i>	(c) <i>Sarcina litoralis</i>	(d) <i>Aeromonas hydrophila</i>
2	Ambergris is produced by			
	(a) Whale	(b) Sardine	(c) Shark	(d) Dolphin
3	Botulism is associated with ----			
	(a) Tray packed food	(b) Frozen food	(c) Canned food	(d) Chilled food
4	The moisture content in dried fish products should be ideally below---%			
	(a) 20	(b) 15	(c) 10	(d) 02
5	HDPE stands for ----			
	(a) High Density Poly ether	(b) High Density Poly Ethylene	(c) Heavy Duty Poly Ester	(d) Heavy Density Poly Ethane
6	Squalene extracted from shark liver oil is mainly used as a ---			
	(a) Cooking media	(b) Nutraceutical	(c) Drug	(d) Lubricant
7	CSW stands for -----			
	(a) Chilled Sugar Water	(b) Cooled Sea Water	(c) Chilled Sea Water	(d) Cooled Salt Water

8	.--- is the chlorine level to be maintained in hand dip in processing plant .			
	(a) 2ppm	(b) 10ppm	(c) 20ppm	(d) 5ppm
9	---- is not a technique in Atomic Spectroscopy for analytical use			
	(a) Atomic emission	(b) Atomic counting	(c) Atomic absorption	(d) Atomic fluorescence
10	---is an example for a permitted Humectant.			
	(a) calcium phosphate	(b calcium citrate	(c) aluminium sulphate	(d) Glycerol
11	Sanitization of frozen fishery products by irradiation using a radiation dose of 4 to 6 kGy is known as			
	(a) Radurization	(b) Radicidation	(c) Radiation	(d) Rigor mortis
12	HIPP stands for ----			
	(a) High Impulse Poly Propylene	(b) High Impact Poly Propylene	(c) Heavy impact Poly Phenol	(d) High Insulated Poly Propane
13	Struvite formation is controlled by			
	(a) EDTA	(b) Magnesium Ammonium Phosphate	(c) Magnesium Ammonium Sulphate	(d) Hydrogen peroxide
14	Thetripole point of water exist at --- Pressure and at – temperature			
	(a) 10.5 mm Hg pressure & 0. 1 ⁰ C temperature	(b) 4.578 mm Hg pressure & 0.01 ⁰ C temperature	(c) 100 mm Hg pressure & 20 ⁰ C temperature	(d) 100 mm Hg pressure & 0. 10 ⁰ C temperature
15	Water activity (a _w) is defined as the			
	(a) Partial vapour pressure of water in a substance divided by the standard state partial vapor pressure of water.	(b) Partial pressure of water in a substance divided by the standard state partial vapour pressure of water.	(c) Partial vapour of water in a substance divided by the partial vapour of water.	(d) Moisture content of water in a substance divided by the standard state partial vapour pressure of water.

16	.----- is a gram negative rod shaped bacterium which causes gastro-intestinal disease called yersiniosis			
	(a) <i>Pseudomonas aeruginosa</i>	(b) <i>Chlamydia trachomatis</i>	(c) <i>Escherichia coli</i>	(d) <i>Yersinia enterocolitica</i>
17	Name the fungus which is the source of aflatoxins and has been recognized as the most potent carcinogen causing liver cancer if ingested in high concentrations			
	(a) <i>Batrachochytrium dendrobatidis</i>	(b) <i>Aspergillus flavus</i>	(c) <i>Batrachochytrium salamandrovorans</i>	(d) <i>Piptoporus betulinus</i>
18	Name any one of the serotypes of <i>Vibrio cholerae</i>			
	(a) enterica	(b) salamae	(c) ogawa	(d) indica
19	Name the freshwater toxin which composed of a group of neurotoxic alkaloids produced by cyanobacterial genera			
	(a) Anatoxins	(b) Microcystin	(c) Cytotoxin	(d) hepatotoxin
20	What is the maximum limit of <i>E.coli</i> count per gram of frozen shrimp as per EU export regulations?			
	(a) 50	(b) 100	(c) 20	(d) 40
21	What is the recommended dosage of oxygen in MAP of fresh lean fish?			
	(a) 30%	(b) 10%	(c) 40%	(d) 50%
22	.--- is an instrument which measures the masses of individual molecules that have been converted into ions.			
	(a) pH meter	(b) Photometer	(c) HPLC	(d) Mass spectrometer
23	natural interconnection of food ingestion by different organisms in an ecosystem and a graphical representation of what-eats-what in an ecological community			
	(a) food ecology	(b) Food web	(c) Food chain	(d) Nutrient cycle
24	The isolation medium used for identification of <i>Salmonella</i> is ---			
	(a) Phenol Red Brilliant Green Agar	(b) Blood agar	(c) Chocolate agar	(d) Anaerobic media

25	Running water streams are referred to as -			
	(a) Lentic	(b) Epilimnion	(c) Drifting	(d) lotic
26	Ecological study of soil is termed as -			
	(a) Pedology	(b) Edaphic	(c) Demecology	(d) Synecology
27	Organisms which can tolerate wide range of temperature is called -			
	(a) Stenothermal	(b) Epithermal	(c) Euthermal	(d) Eurythermal
28	What is the limit of Lead (Pb) as per in EC regulations in the muscle meat of fish?			
	(a) 20 ppm	(b) 10 ppm	(c) 25 ppm	(d) 30 ppm
29	Individuals of a species constitute			
	(a) individual	(b) stock	(c) population	(d) cohort
30	Collared flagellate algae belong to -			
	(a) Choanoflagellates	(b) Dinoflagellates	(c) Opilinales	(d) Euglenophytes
31	Ambulacral system is characteristic of -			
	(a) Amphipoda	(b) Amphineura	(c) Echinodermata	(d) Rotifera
32	Which among the following is associated with livefeed			
	(a) algae	(b) veliger	(c) hippa	(d) penaeus
33	Which among the following is biotic factor			
	(a) Soil	(b) temperature	(c) Oxygen	(d) plankton
34	a radar system that determines the range to a target using pulse-timing techniques, and uses the increase or decrease in frequency sound effect of the returned signal to determine the target object's velocity			
	(a) Emergency Warning system	(b) Pulse Doppler Radar	(c) Radiosondes	(d) Meteorological Radar
35	Extremely small solid particles, or very small liquid droplets, suspended in the atmosphere			
	(a) Seeds	(b) droplets	(c) suspended particles	(d) Aerosols
36	Imaginary lines run north to south from pole to pole, but they measure the distance east or west is called			
	(a) Latitude	(b) Longitude	(c) Degrees	(d) 0 line

37	The art and science of graphically representing a geographical area, usually on a flat surface such as a map or chart			
	(a) Cartography	(b) Landscape	(c) Longitude	(d) Geography
38	strong winds, storm surge flooding, and heavy rainfall that can lead to inland flooding, tornadoes, and rip currents and called hurricanes and the same at North-Pacific is called			
	(a) Cyclones	(b) Hurricanes	(c) unstable atmosphere	(d) Typhoons
39	A comparison between how much water is already in the air compared with how much water the air is able to hold at a certain temperature.			
	(a) Relative Humidity	(b) Humidity	(c) Transpiration rate	(d) Evaporation rate
40	Clouds are classified according to their height above and appearance (texture) from the ground. One of the following is not a cloud			
	(a) Cirrus	(b) Cirrostratus	(c) Cirrostimulus	(d) Cirri
41	TDS refers to			
	(a) suspended solid particles	(b) suspended plankton particles	(c) suspended air particles	(d) suspended degradable particles
42	Soils usually formed by the breakdown or fragmentation of rocks like granite, limestone and quartz and are low in nutrients and poor in water holding capacity is termed -			
	(a) Clay soil	(b) peat soil	(c) loam soil	(d) Sandy soil
43	pH requirement in freshwater for successful aquaculture			
	(a) 6.0-7.0	(b) 7.5-9.5	(c) > 9.0	(d) <4.0
44	Total Ammonia Nitrogen content in water should be			
	(a) < 1.0 ppm	(b) > 1.0 ppm	(c) > 1.5 ppm	(d) > 2.0 ppm
45	TDS is measured by			
	(a) Sediment meter	(b) Flow meter	(c) colorimeter	(d) Secchi Disc
46	Materials adsorbing toxic ammonia and gases, regulate pH level of pond water, provide micro nutrients, adsorb odors, bacteria, suspended solids, waste and organic matter in fish ponds			
	(a) Alum	(b) Zeolite	(c) Lime	(d) Deodorants

47	Plankton having a size range of 0.2 to 20mm			
	(a) Femtoplankton	(b) Micro plankton	(c) Macroplankton	(d) Mesoplankton
48	Tropic state Index of 0-40 is characteristic of -			
	(a) Oligotrophic lake	(b) Eutrophic lake	(c) Hypereutrophic lake	(d) Mesotrophic lake
49	coastal wetlands that form in intertidal areas where sediments have been deposited by tides or rivers.			
	(a) Mud flats	(b) Lagoons	(c) Backwaters	(d) Brackishwaters
50	Light produced by a chemical reaction within a living organism.			
	(a) Light emulation	(b) Photosynthesis	(c) Bioluminescence	(d) None of these
51	The alternate name of red tide			
	(a) Red algae	(b) Harmful algal bloom	(c) Photosynthetic algae	(d) chemosynthetic algae
52	Aquatic animals that are able to swim and move independently of water currents			
	(a) Nekton	(b) swimmers	(c) plankton	(d) benthos
53	One of the following is a fouling organism in sea water			
	(a) Copepods	(b) ostracods	(c) diatoms	(d) barnacles
54	Estuaries are places where rivers meet sea and this region is aptly referred as -			
	(a) mixed zone	(b) Ecotone	(c) confluent zone	(d) ecosystem
55	Vegetation seen on the bank of rivers and lakes is referred to as			
	(a) grass land	(b) bank vegetation	(c) riparian vegetation	(d) None of these
56	A lagoon that was formed when a sand bar interrupted the return flow to the ocean is -			
	(a) backwater	(b) brackishwater	(c) mud flats	(d) coastal lake
57	Around 30% of ocean floor is thickly covered with calcareous shells of foraminifera and globigerina is termed as			
	(a) encrusted bed	(b) bioaccumulation	(c) empty shells	(d) Ooze

58	Both the physical and environmental conditions a species requires (like temperature or terrain) and the interactions it has with other species (like predation or competition).			
	(a) Habitat	(b) abode	(c) niche	(d) food web
59	the variation in the genetic composition among individuals of a population, a species, an assemblage, or a community			
	(a) Genetic diversity	(b) species diversity	(c) functional diversity	(d) ecosystem diversity
60	Out of relationship between animals, benefits both species, sometimes one species benefits at the other's expense, and in other cases neither species benefits, under mutually agreeable terms			
	(a) Association	(b) Energy flow	(c) parasitism	(d) Symbiosis
61	A type of flood pond in the Lower Ganges – Brahmaputra flood plains			
	(a) Lake	(b) backwater	(c) bheels	(d) Lagoons
62	Clean energy, comes from natural sources or processes that are constantly replenished.			
	(a) Renewable energy	(b) Energy consumed	(c) energy lost	(d) non-renewable energy
63	Primary consumer is			
	(a) omnivore	(b) carnivore	(c) consumer	(d) Herbivore
64	Changes take place continuously in the community structure, organization, physiognomy, the associated animals and the environment at a place in the course of time and the phenomenon is called -			
	(a) animal succession	(b) ecological succession	(c) plant succession	(d) microbial succession
65	----- gave the first energy flow model in a freshwater ecosystem and is unidirectional			
	(a) Whipple	(b) Ward	(c) Claud E Boyd	(d) Linderman
66	In an ecosystem, the early dominated organisms are green plants and followed by animals and energy flow is maintained indefinitely called			
	(a) Autogenic succession	(b) Autotrophic succession	(c) Heterotrophic succession	(d) Allogenic succession

67	Successful establishment of a migrated animal or plant in a new aquatic ecosystem and undergoing all biological processes without any hindrance, such an action is called			
	(a) Invasion	(b) Agregation	(c) stabilization	(d) Ecesis
68	A correct food chain is			
	(a) Zooplankton – phytoplankton – sardines - carnivore	(b) phytoplankton – sardine - carivore	(c) zooplankton – phytoplankton – carnivore - sardine	(d) Phytoplankton – zooplankton – carnivore - sardine
69	In an ecosystem, the number of organisms decrease from primary producers to final consumers and its representation is termed			
	(a) Ecological food chain	(b) Ecological food web	(c) Ecological energy flow	(d) Ecological pyramid
70	Mineralization of organic matter in an aquatic ecosystem is done by			
	(a) Producers	(b) Autotrophs	(c) Decomposers	(d) Consumers
71	Floating plants and animals in an aquatic ecosystem is called			
	(a) Periphyton	(b) Neuston	(c) Epifauna	(d) Epiflora
72	Indian Biodiversity Act was promulgated by the Parliament in the year			
	(a) 2002	(b) 2004	(c) 2006	(d) 2008
73	One of the following fish is an alien species			
	(a) <i>Osphronemus cupanus</i>	(b) <i>Garra mullya</i>	(c) <i>Puntius sarana</i>	(d) <i>Oreochromis mossambicus</i>
74	One among the following is not a RAMSAR SITE			
	(a) Ashtamudi Lake	(b) Periyar Lake	(c) Sasthamkotta Lake	(d) Cochin backwaters
75	One of the following is not a hotspot of biodiversity of the world			
	(a) Western Ghats of India	(b) Andes	(c) Madagascar	(d) Eastern Ghats of India
76	One of the following is not an Endangered species of India			
	(a) <i>Sardinella longiceps</i>	(b) <i>Crocodylus palustris</i>	(c) <i>Crocodylus gangeticus</i>	(d) <i>Lepidochelys olivacea</i>

77	Conservation of wild life in captivity under human care			
	(a) In-situ conservation	(b) In-vitro conservation	(c) ex-situ conservation	(d) In-vivo conservation
78	Name a national park in Karnataka state			
	(a) Nagarhole	(b) Cubbon	(c) Kaginele	(d) Pampavana
79	Percentage composition of oxygen in the atmosphere			
	(a) 78	(b) 21	(c) 30	(d) 10%
80	Wild life protection Act was promulgated in the year			
	(a) 1970	(b) 1971	(c) 1973	(d) 1972
81	Climate pattern that describes the unusual warming of surface waters in the eastern tropical Pacific Ocean			
	(a) ENSO	(b) La Nina	(c) El-Nino	(d) NOAA
82	On average, seawater in the world's oceans has a salinity of about			
	(a) 35 ppt	(b) 25 ppt	(c) 20 ppt	(d) 28 ppt
83	Average density at the sea surface			
	(a) 0.525 kg/l	(b) 0.725 kg/l	(c) 0.225 kg/l	(d) 1.025 kg/l
84	Algal blooms are caused due to			
	(a) Stratification	(b) Eutrophication	(c) Algal multiplication	(d) None of these
85	One of the following is not a zoonotic protozoan parasite in sea water			
	(a) <i>Toxoplasma gondii</i>	(b) <i>Cryptosporidium parvum</i>	(c) <i>Giardia enterica</i>	(d) <i>Litonotus sp.</i>
86	The CRZ-IIIB areas will have a no development zone of --- meters from the HTL			
	(a) 500	(b) 200	(c) 50	(d) 300
87	HIV virus belongs to			
	(a) Adenoviridae	(b) Retroviridae	(c) Herpesviridae	(d) Togaviridae
88	Coriolis effect in ocean current is related to			
	(a) temperature	(b) break water	(c) Cabbelling	(d) wind
89	Tsunami occurred in India during			
	(a) 2004	(b) 2006	(c) 2007	(d) 2008

90	Technology that uses plants to clean up polluted sites (apt term)			
	(a) Bioaccumulation	(b) Bioremediation	(c) Remediation	(d) phytoremediation
91	Name a plant which removes contaminants in water is -			
	(a) Duck weed	(b) Sun flower	(c) Cotton weed	(d) Mustard green
92	An animal which can monitor hydrocarbons, organochlorine and metals in marine environment			
	(a) Fish	(b) Prawn	(c) Limpet	(d) None of these
93	The method of burning solid waste in very high temperature until it turns into ashes is called -			
	(a) Incineration	(b) Combustion	(c) Burning	(d) None of these
94	Renewable organic material that comes from plants and animals			
	(a) Biowaste	(b) Animal waste	(c) Biomass	(d) Plant waste
95	Distribution of a taxon limited to a small geographic area			
	(a) Isolated species	(b) Wide spread species	(c) Endemic species	(d) Discontinuous species
96	Accumulation over time of a substance and especially a contaminant			
	(a) Biological index	(b) Biological indicator	(c) Biomagnification	(d) Bioaccumulation
97	Amount of dissolved oxygen (DO) demanded by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period			
	(a) BOD	(b) COD	(c) Respiratory quotient	(d) Oxygen Demand
98	A measure of the capacity of water to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals such as Ammonia and Nitrite			
	(a) BOD	(b) COD	(c) Respiratory quotient	(d) Oxygen Demand

99	Rise in the temperature of rivers or lakes that is injurious to water-dwelling life and is caused by the disposal of heated industrial waste water or water from the cooling towers of nuclear power plants.			
	(a) Thermal pollution	(b) Chemical pollution	(c) solid waste pollution	(d) Radionucleotide pollution
100	EIA- expand			
	(a) Environmental index Assessment	(b) Environmental Invasive Assessment	(c) Environmental Inducing Agents	(d) Environmental Impact Assessment
