

Sr No.	PhD Marine Biology
1	In the series 357,363,369,..... What will be the 10th term?
Alt1	405
Alt2	411
Alt3	413
Alt4	417

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Moon: Satellite :: Earth : ?
Alt1	Sun
Alt2	Planet
Alt3	Solar System
Alt4	Asteroid

3	Door is related to Bang in the same way as Chain is related to .....?.....
Alt1	Thunder
Alt2	Clinch
Alt3	Tinkle
Alt4	Clank

4	Select the lettered pair that has the same relationship as the original pair of words: Emollient: Soothe
Alt1	Dynamo: Generate
Alt2	Elevation: Level
Alt3	Hurricane: Track
Alt4	Precipitation: Fall

5	Which of the following is the same as Count, List, Weight?
Alt1	Compare
Alt2	Sequence
Alt3	Number
Alt4	Measure

6	Spot the defective segment from the following:
Alt1	The downtrodden
Alt2	needs
Alt3	to be uplifted
Alt4	on a war footing

7	Choose the meaning of the idiom/phrase from among the options given: A close shave
Alt1	a nice glance
Alt2	a narrow escape
Alt3	an intimate
Alt4	a triviality

8	Lightning ----- in the same place twice.
Alt1	doesn't hit
Alt2	never strikes
Alt3	never attacks
Alt4	never falls

9	Choose the option closest in meaning to the given word: FLIPPANT
Alt1	serious
Alt2	unsteady
Alt3	irreverent
Alt4	caustic

10	Choose the antonymous option you consider the best: OBSOLETE
Alt1	obscure
Alt2	hackneyed
Alt3	current
Alt4	grasp

11	Akash scored 73 marks in subject A. He scored 56% marks in subject B and X marks in subject C. Maximum marks in each subject were 150. The overall percentage marks obtained by Akash in all the three subjects were 54%. How many marks did he score in subject C ?
Alt1	84
Alt2	86
Alt3	79
Alt4	73

12	A person starts from his house and travels 6 Km towards the West, he then travelled 4 Km towards his left and then travels 8 Km towards west and 3 Km towards South. Finally he turns right and travels 5 Km. What is the horizontal distance he has travelled from his house ?
Alt1	7 Km
Alt2	15 Km
Alt3	23 Km
Alt4	19 Km

13	If 1st Jan 2012 is a Tuesday then on which day of the week will 1st Jan 2013 fall ?
Alt1	Wednesday
Alt2	Thursday
Alt3	Friday
Alt4	Saturday

14	One morning after sunrise, Reeta and Kavita were talking to each other face to face at University. If Kavita's shadow was exactly to the right of Reeta, which direction was Kavita facing ?
Alt1	North
Alt2	South
Alt3	East

Alt4	West
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15	In an exam every candidate took History (or) Geography (or) both. 74.8% took History and 50.2% took Geography. If the Total number of candidates is 1500, how many took History and Geography both?
Alt1	400
Alt2	350
Alt3	750
Alt4	375

16	Which word includes the larger % of Vowels?
Alt1	GOOGLE
Alt2	AMAZON
Alt3	FACE BOOK
Alt4	DOE

17	A= Least prime >24; B=Greatest prime <28; Then
Alt1	A>B
Alt2	A<B
Alt3	A=B
Alt4	None

18	CL X VIII refers
Alt1	861
Alt2	701
Alt3	168
Alt4	107

19	Which of the following is larger than $\frac{3}{5}$ ?
Alt1	$\frac{1}{2}$
Alt2	$\frac{39}{50}$
Alt3	$\frac{7}{25}$
Alt4	$\frac{59}{100}$

20	Mr. Babu travelled 1200 km by air which formed $\frac{2}{5}$ of his trip. One third of the whole trip, he travelled by car and the rest of the journey was by train. What was the distance travelled by train?
Alt1	600km
Alt2	700 km
Alt3	800 km
Alt4	900 km

21	Reactive silica more in the coastal sea water because:-
Alt1	Atmosphere input
Alt2	Pollution
Alt3	Rainwater input
Alt4	Riverine input

22	Exoskeleton of crustaceans are formed of:-
Alt1	Heparin
Alt2	Dextrin
Alt3	Chitin
Alt4	Inuline

23	When any detergent is added to pure water its surface tension:-
Alt1	Increases
Alt2	Decreases
Alt3	Does not change
Alt4	Becomes zero

24	Which of the following is also called as water hemisphere?
Alt1	Eastern hemisphere
Alt2	Western hemisphere
Alt3	Southern hemisphere
Alt4	Northern hemisphere

25	Calcium Compensation Depth occurs at:-
Alt1	1000 to 2000 m
Alt2	2000 to 3000 m
Alt3	5000 to 6000 m
Alt4	3000 to 4000 m

26	In a population, which of the following can change the frequency of an allele?
Alt1	Selection, mutation, migration, inbreeding and random genetic drift
Alt2	Forward mutation, gene conversion, neutral evolution and recombination
Alt3	Gene interaction, gene transfer, gene mutation and outbreeding
Alt4	Dominance, family selection, fitness and random genetic drift

27	Euryhaline:-
Alt1	Low salinity tolerance
Alt2	Tolerance of wide variations of salinity
Alt3	High salinity tolerance
Alt4	None of the above

28	Presence of lateral line on both sides of fishes are responsible for:-
Alt1	Photo receptors
Alt2	Chemoreceptors
Alt3	Olfactory receptors
Alt4	Mechanoreceptors

29	Organic phosphate estimated by:-
Alt1	AAS and spectrophotometer method
Alt2	UV and spectrophotometer method
Alt3	Titration and spectrophotometer method
Alt4	Flame photometer and spectrophotometer method

30	Which of the following statement is correct for $\alpha$ -amino acids?
Alt1	Contain asymmetric carbon chain
Alt2	They are always present in the optically active form in nature
Alt3	They are present in both L and D form in nature
Alt4	They are present in L form

31	Solar energy is the chief source of energy for:-
Alt1	Birds
Alt2	Photosynthetic autotrophs
Alt3	Fishes
Alt4	Animals

32	Glass sponges live in
Alt1	Deep sea water
Alt2	Shallow sea water
Alt3	Brackish water
Alt4	Fresh water

33	Particulate organic carbon is defined as that will be retained by a glass fiber filter of:-
Alt1	0.65 m
Alt2	0.75 m
Alt3	0.45 m
Alt4	0.100 m

34	The term bio indicator envisages a wide spectrum of organisms serving as indicators of the:-
Alt1	Air
Alt2	Environment
Alt3	Water
Alt4	Climate

35	Mechanism of DNA replication was originally characterized in:-
Alt1	Bacteria
Alt2	Virus
Alt3	Algae
Alt4	Fungi

36	The species richness in an ecosystem best explains:-
Alt1	Biodiversity
Alt2	Forest
Alt3	Richness of species
Alt4	Ecosystem

37	The process of nutrient enrichment of water bodies is known as:-
Alt1	Nitrification
Alt2	Nutrition
Alt3	Eutrofication

Alt4	Nitrogen fixation
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38	When a large ice berg melts at the base but it does not melt at the top because:-
Alt1	Lowering of melting at its base due to high pressure
Alt2	At the base it is slightly warm
Alt3	At its base it contains impurities
Alt4	Elevation of melting at its base due to high pressure

39	Which of the following organism is not a part of the zooplankton?
Alt1	Copepod
Alt2	Zoea
Alt3	Nauplius
Alt4	Chlorella

40	Laminar layer exist between:-
Alt1	Turbulent shallow sea water and turbulent deep sea water
Alt2	Upper atmosphere and lower atmosphere
Alt3	Turbulent atmosphere and turbulent sea surface
Alt4	Surface water and deepwater

41	During the process of respiration, which of the following is produced?
Alt1	ATP
Alt2	ADP
Alt3	AMP
Alt4	ACP

42	During photosynthesis, the liberated oxygen comes from:-
Alt1	Phosphoglyceric acid
Alt2	Chlorophyll
Alt3	Water
Alt4	Carbon dioxide

43	Imaginary lines connecting places in oceans having equal salinity are:-
Alt1	Isotherms
Alt2	Isohalines
Alt3	Isobars
Alt4	Isohyets

44	Denitrification taken place in the order of:-
Alt1	NH <sub>4</sub> <sup>+</sup> , NO <sub>2</sub> <sup>-</sup> , NO <sub>3</sub> <sup>-</sup>
Alt2	NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , NH <sub>4</sub> <sup>+</sup>
Alt3	NH <sub>4</sub> <sup>+</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup>
Alt4	NO <sub>2</sub> <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NH <sub>4</sub> <sup>+</sup>

45	Which of the following groups is not exclusively marine?
Alt1	Anthozoa
Alt2	Scyphozoa

Alt3	Hydrozoa
Alt4	Ctenophora

46	Anticyclones are caused by:-
Alt1	Winds that flow spirally outward from the centre
Alt2	Winds that rotate round the centre of minimum of low barometer pressure
Alt3	Heavy rain fall
Alt4	Violent winds

47	The Minamata disease is associated with the pollution caused by:-
Alt1	Cadmium
Alt2	Lead
Alt3	Zinc
Alt4	Mercury

48	The Theory of Natural Selection was proposed by Darwin on the basis of:
Alt1	Mutation
Alt2	Environmental factors
Alt3	Chromosomal variation
Alt4	Use and disuse of organ

49	The dark reaction in photosynthesis is so named because:-
Alt1	It is a dark reaction
Alt2	Does not require light energy
Alt3	Needs darkness
Alt4	Cannot occur in light condition

50	Tidal waves in the sea are primarily due to:-
Alt1	wind effect
Alt2	gravitational effect of the moon on the earth
Alt3	gravitational effect of the sun on the earth
Alt4	atmospheric effect of the earth

51	Pluteus larval stage represents:-
Alt1	Shrimp
Alt2	Barnacle
Alt3	Oyster
Alt4	Sea urchin

52	Tectonic force is related with the building of various features of:-
Alt1	Earth's crust
Alt2	Cyclones
Alt3	Earth's surface
Alt4	Mountains

53	Who of the following proposed the Theory inheritance of acquired characters?
Alt1	Drawin

Alt2	Weisemann
Alt3	Zimmermann
Alt4	Lamarck

54	Salinity can be determined by measuring:
Alt1	Light
Alt2	Turbidity
Alt3	Sodium content
Alt4	pH

55	Ink in devil fish is ejected through its:-
Alt1	Anus
Alt2	Genital pores
Alt3	Eyes
Alt4	Mouth

56	miRNA based silencing of gene is:-
Alt1	post translation gene silencing
Alt2	translation gene silencing
Alt3	transcription gene silencing
Alt4	post transcription gene silencing

57	Ocean currents have greater influence on:-
Alt1	Climate
Alt2	Land form
Alt3	Soil
Alt4	Ocean bottom structure

58	Net transport of water from Circumpolar to Pacific:-
Alt1	29Sv
Alt2	25Sv
Alt3	11Sv
Alt4	41Sv

59	The angle of the water bond is:-
Alt1	180°
Alt2	108
Alt3	150°
Alt4	105°

60	An oxygen minimum layer develops:-
Alt1	In a fjord at low tide
Alt2	Within the sediment, just above a burrowed zone
Alt3	At a depth in the water column in the open ocean
Alt4	All of the above

61	Most valuable mineral resources taken from beneath the sea floor:-
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Alt1	Calcium
Alt2	Petroleum
Alt3	Manganese
Alt4	Radiolarian

62	Canal system is a characteristic of which of the following?
Alt1	Sea anemone
Alt2	Sponge
Alt3	Hydra
Alt4	Sea urchin

63	The flow of solvent through a semi-permeable membrane towards the solution side is the phenomenon of:-
Alt1	Absorption
Alt2	Diffusion
Alt3	Transfusion
Alt4	Osmosis

64	Which of the following organisms lives on dead organic matter:-
Alt1	Parasites
Alt2	Predators
Alt3	Saprophytes
Alt4	Symbionts

65	When the velocity of sound in a medium is given by $A\sqrt{\frac{1}{2d}}$ , where 'd' is density of medium. Then A represents.
Alt1	Energy
Alt2	Elastic constant
Alt3	Volume
Alt4	Compressibility

66	Aghulas current occurs in the:-
Alt1	Barrent sea
Alt2	Bay of Bengal
Alt3	Arabian sea
Alt4	Red Sea

67	Sausage shaped body form is a characteristic of:-
Alt1	Ophiuroidea
Alt2	Asteriodes
Alt3	Holothuroidea
Alt4	Echinoidea

68	Which of the following is a living fossil?
Alt1	Holothuria (Sea cucumber)
Alt2	Echinus (Sea urchin)
Alt3	Ophiorthrix (Brittle star)

Alt4	Antedon (Feather star)
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69	Glycolipids are available almost in the exterior side not in the cytoplasmic side of the cell membrane:-
Alt1	Carbohydrates added only to lipids on the lumen side of ER and Golgi membrane
Alt2	Inner layer is not able to accommodate carbohydrates
Alt3	Carbohydrates removed by the enzyme glycylase from cytoplasmic side
Alt4	None of the above

70	Bilateral symmetry, metameric segmentation, coelom and open circulatory system found in:-
Alt1	Mollusca
Alt2	Echinodermata
Alt3	Annelida
Alt4	Arthropoda

71	The transition of a sperm from swimming to non-swimming form seen in:-
Alt1	Gymnosperms
Alt2	Ferns
Alt3	Bryophytes
Alt4	Green algae

72	Main difference between starfishes and brittle stars is in the:-
Alt1	Number of arms
Alt2	Structure of the ambulacral groove
Alt3	Tube feet
Alt4	Pedicellariae

73	Kuroshio current occurs in the:-
Alt1	Andaman sea
Alt2	Atlantic
Alt3	Indian Ocean
Alt4	Pacific Ocean

74	The animals which live near the sea floor is known as:-
Alt1	Demersal
Alt2	Pelagic
Alt3	Endemic
Alt4	Exogenic

75	Andaman sea lies on the:-
Alt1	Himalayan plate
Alt2	Burmese plate
Alt3	Sunda plate
Alt4	Eurasia plate

76	Which of the following is not the characteristic of echinoderms?
Alt1	Tube feet

Alt2	Skeleton with projecting spines
Alt3	Water vascular system
Alt4	Trochophore larva

77	The results of numerical taxonomy suggests:-
Alt1	Functional similarity
Alt2	Evolutionary relationship
Alt3	Overall similarity
Alt4	Phylogenetic relationship

78	Glycogen has:-
Alt1	No reducing ends
Alt2	One reducing end and several non-reducing ends
Alt3	One non-reducing end and several reducing ends
Alt4	No non-reducing ends

79	Which of the following peptide likely to be in the lipid bilayer of plasma membrane?
Alt1	Arg-His-Lys-Arg-His-Lys
Alt2	Ser-Thr-Ser-Thr-Ser-Thr
Alt3	Val-Leu-Ile-Val-Leu-Ile
Alt4	Asp-Glu-Asp-Glu-Asp-Glu

80	Lipids function as good store house of energy as:-
Alt1	They are all hydrophilic
Alt2	They are all hydrophobic
Alt3	They have large numbers of carbon-phosphorus bonds
Alt4	They have large numbers of carbon-hydrogen bonds

81	Which of the following contribute atomic nitrogen to purine and pyrimidine rings?
Alt1	Carbamoyl phosphate
Alt2	Glycine
Alt3	Carbon dioxide
Alt4	Aspartate

82	In pentose phosphate pathway:-
Alt1	no decarboxylation occur
Alt2	Only the C-1 carbon of glucose is oxidized to CO <sub>2</sub>
Alt3	C-4 and C-5 of glucose are oxidized to CO <sub>2</sub>
Alt4	all the carbons of glucose are oxidized to CO <sub>2</sub>

83	In a compound microscope, the image formed is:-
Alt1	Virtual
Alt2	Virtual and enlarged
Alt3	Real and enlarged
Alt4	Real and diminished

84	Most bacteria require vitamins as:-
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Alt1	Growth Factors
Alt2	Sources of electron donors
Alt3	Sources of energy
Alt4	Sources of carbon

85	Cilia help in locomotion over solid surfaces in:-
Alt1	Planaria
Alt2	Hydra
Alt3	Turbellaria
Alt4	Miracidium larva of Fasciola

86	Polymorphic cnidarians are the members of the class:-
Alt1	Actinozoa
Alt2	Scyphozoa
Alt3	Hydrozoa
Alt4	None of the above

87	Identify the larva which is present only in members of gastropods:-
Alt1	Glochidium
Alt2	Muller's larva
Alt3	Trochophore
Alt4	Veliger

88	Miracidium is a larval stage in the development of:-
Alt1	Taenia solium
Alt2	Echinococcus
Alt3	Ascaris
Alt4	Fasciola hepatica

89	Nematocysts are the specialized cells found in the members of the phylum:-
Alt1	Cnidaria
Alt2	Annelida
Alt3	Porifera
Alt4	Mollusca

90	What is the purpose of bacterial endospores?
Alt1	Help the bacterium to differentiate into faster growing stages of bacteria
Alt2	Allow the bacterium to survive the absence of oxygen
Alt3	Allow the bacterium to make hundreds of "seeds" to spread on the wind
Alt4	Allow the bacterium to survive extended periods of heat or dryness

91	The region where bacterial genome resides is termed as:-
Alt1	Cytoplasm
Alt2	Nucleus
Alt3	Nucleoid
Alt4	Ribosome free region

92	The principle involved in the streak plate method is:-
Alt1	Separation
Alt2	Dilution
Alt3	Streaking
Alt4	Isolation

93	Pronounced cephalisation is a characteristic:-
Alt1	Annelida
Alt2	Mollusca
Alt3	Arthropoda
Alt4	Echinoderms

94	Which is the following enzyme acts as a spreading factor?
Alt1	Hyaluronidase
Alt2	DNAase
Alt3	Catalase
Alt4	Coagulase

95	Ephyra is the larval form of:-
Alt1	Hydra
Alt2	Obelia
Alt3	Sea anemone
Alt4	Aurelia

96	The light emitted by luminescent bacteria is mediated by the enzyme:-
Alt1	Lactose dehydrogenase
Alt2	Carboxylase reductase
Alt3	Luciferase
Alt4	Coenzyme Q

97	The study of algae is known as:-
Alt1	Algology
Alt2	Phycology
Alt3	Mycology
Alt4	Bacteriology

98	Best method for getting pure culture is:-
Alt1	Streak-plate
Alt2	Agar slant
Alt3	Both a & b
Alt4	None of the above

99	Total marine annelids belong to the class:-
Alt1	Polychaeta
Alt2	Chaetopoda
Alt3	Hirudinea
Alt4	Oligochaeta

100	Histamine secreting cells are found in:-
Alt1	Nervous tissue
Alt2	Muscular tissue
Alt3	Lungs
Alt4	Connective tissues

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## 119 PU Ph D Marine Biology

### 1 of 100

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Which of the following is the larval stage barnacle?

- ☐ Zoea
- ☐ Bipinaria
- ☐ Nauplius
- ☐ Veliger

### 2 of 100

104 PU\_2016\_119\_E

The deficiency of this vitamin causes night blindness:-

- ☐ 'K'
- ☐ 'C'
- ☐ 'A'
- ☐ 'B'

### 3 of 100

162 PU\_2016\_119\_E

What is the basic difference between ultraviolet, visible, and infrared radiation?

- ☐ Half-life
- ☐ Wave velocity
- ☐ Wavelength
- ☐ Temperature

### 4 of 100

144 PU\_2016\_119\_E

Pure water can be obtained from sea water by:-

- ☐ Centrifugation
- ☐ Sedimentation
- ☐ Plasmolysis
- ☐ Reverse osmosis

### 5 of 100

105 PU\_2016\_119\_E

Among the different organic food items, the highest energy is provided by:-

- ☐ Proteins
- ☐ Vitamin
- ☐ Lipid

- ☐ Starch

#### 6 of 100

140 PU\_2016\_119\_E

Prokaryotic genetic material consist of:-

- ☐ DNA but no histones
- ☐ Both DNA and histones
- ☐ Either DNA or histones
- ☐ Neither DNA nor histones

#### 7 of 100

155 PU\_2016\_119\_E

The term bleaching is associated with:-

- ☐ Seaweeds
- ☐ Corals
- ☐ Oysters
- ☐ Sea graesse

#### 8 of 100

125 PU\_2016\_119\_E

Pedal disc present in:

- ☐ *Hydra*
- ☐ *Aurelia*
- ☐ *Obelia*
- ☐ *Metridium*

#### 9 of 100

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The most primitive nervous system is found in:-

- ☐ Earthworm
- ☐ Amoeba
- ☐ Sponge
- ☐ Hydra

#### 10 of 100

147 PU\_2016\_119\_E

Seasonal temperature changes are the greatest in:-

- ☐ The deep sea
- ☐ The Equatorial region
- ☐ Mid-latitudes



- ☐ Polar waters

### 11 of 100

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Bioluminescent organisms mostly use:-

- ☐ Hemerythrin
- ☐ Luciferin
- ☐ Sodium ion
- ☐ Magnesium

### 12 of 100

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*Lepas* and *Balanus* are included in the order:-

- ☐ Thoracica
- ☐ Decapoda
- ☐ Amphipoda
- ☐ Rhizocephala

### 13 of 100

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Fertilium is secreted by:-

- ☐ *Nereis*
- ☐ male *Heteronereis*
- ☐ female *Heteronereis*
- ☐ None

### 14 of 100

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Pycnoclines are:-

- ☐ Vertical gradients in oxygen concentration
- ☐ Vertical gradients in temperature only
- ☐ Vertical gradients in sea water density
- ☐ Small scale changes in current structure

### 15 of 100

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Isinglass is obtained from:-

- ☐ Skin of fish
- ☐ Fins of fish
- ☐ Air bladder

- ☐ Fish scales

**16 of 100**

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*Nautilus* adjusts its vertical position in the water column by means of:-

- ☐ Use of low density ions
- ☐ Delicate projections from the shell that prevent sinking
- ☐ Swimming upwards continuously
- ☐ Gas secretion

**17 of 100**

119 PU\_2016\_119\_E

"*Historia animalium*" was written by:

- ☐ Aristotle
- ☐ John Ray
- ☐ Huxley
- ☐ Carlos Linnaeus

**18 of 100**

159 PU\_2016\_119\_E

Which pyramid will always be straight?

- ☐ Environmental factor
- ☐ Biomass
- ☐ Energy
- ☐ Number

**19 of 100**

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Tertiary sewage treatment would involve:-

- ☐ Removal of oxygen
- ☐ Removal of dissolved nutrients
- ☐ Removal of heavy metals
- ☐ The removal of very fine particulate matter

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Those are non-functional in higher chordates:-

- ☐ Pharyngeal gills
- ☐ Islets of langerhans
- ☐ Auditory organs

- ☐ Appendages

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Radiata include:-

- ☐ Porifera & Platyhelminthes
- ☐ Coelenterata & Ctenophora
- ☐ Porifera & Coelenterata
- ☐ Coelenterata & Platyhelminthes

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Visible light has the wavelength range of:-

- ☐ <200nm
- ☐ 400-700nm
- ☐ 700-900nm
- ☐ 200-400nm

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Poikilotherms:-

- ☐ Always lose heat to the surrounding sea water
- ☐ Are regulators with regard to body temperature
- ☐ Are conformers with regard to body temperature
- ☐ None of the above

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In the embryonic development, which is the starting phase:-

- ☐ Cleavage
- ☐ Fertilization
- ☐ Gametogenesis
- ☐ Gastrulation

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The blood in the body of the insects:-

- ☐ flows in open circulation
- ☐ resembles human beings in color
- ☐ contains hemoglobin in erythrocytes

- ☐ flows in arteries and veins

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In a sucker fish the sucker is a modification of:-

- ☐ Mouth
- ☐ Gill slit
- ☐ Dorsal fin
- ☐ Ventral fin

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Dissolved oxygen is usually measured chemically by:-

- ☐ Radiometric techniques
- ☐ The Calvin method
- ☐ The Winkler method
- ☐ The polarographic method

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Sea weeds are important source of:-

- ☐ Fluorine
- ☐ Chlorine
- ☐ Bromine
- ☐ Iodine

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Tidal range denotes:-

- ☐ High tide
- ☐ Difference between high and low tide
- ☐ Low tide
- ☐ None of the above

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Sea grasses differ from seaweeds:-

- ☐ In having the ability to spread asexually
- ☐ In living on soft sediment
- ☐ In having chlorophyll

- ☐ In having flowers

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Seasonal temperature changes are the greatest in:-

- ☐ The Equatorial region
- ☐ Mid-latitudes
- ☐ Polar waters
- ☐ The deep sea

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Which of the following well defines sea weeds?

- ☐ Microalgae
- ☐ Autotrophic macrothalic algae
- ☐ Diatoms
- ☐ Heterotrophic algae

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Organisms which obtain energy by the oxidation of reduced inorganic compounds are called:-

- ☐ Photoautotrophs
- ☐ Coproheterotrophs
- ☐ Saprozoic
- ☐ Chemoautotrophs

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Red sea is a part of the:-

- ☐ Pacific Ocean
- ☐ Bay of Bengal
- ☐ Indian Ocean
- ☐ Atlantic Ocean

**35 of 100**

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Mutation was first observed by:-

- ☐ Mendel
- ☐ Emerson
- ☐ Darwin

- ☐ Hugo de Vries

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The carcinogenic effect of ultraviolet light causes:-

- ☐ RNA break down
- ☐ Mutation
- ☐ Pyrimidine dimers
- ☐ DNA destruction

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Sea pentagon is a:

- ☐ Mollusca
- ☐ Echinodermata
- ☐ Porifera
- ☐ Coelenterata

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The Coriolis effect causes a deflection to the right in:-

- ☐ The Southern Hemisphere
- ☐ The Pole
- ☐ The Equator
- ☐ The Northern Hemisphere

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143 PU\_2016\_119\_E

The blue green algae belong to:-

- ☐ Prokaryota
- ☐ Myxomycetes
- ☐ Eucaryota
- ☐ Cyanophyceae

### 40 of 100

100 PU\_2016\_119\_E

Chordates have evolved from:-

- ☐ Auricularia larvae
- ☐ Balanoglossus
- ☐ Holothurians

- ☐ Echinoderms

**41 of 100**

129 PU\_2016\_119\_E

The study of Mollusca is generally known as:

- ☐ Helminthology
- ☐ Malacology
- ☐ Herpatology
- ☐ Concoology

**42 of 100**

107 PU\_2016\_119\_E

Best example of Secondary adaption is:-

- ☐ Bat
- ☐ Star fish
- ☐ Whale
- ☐ Sea horse

**43 of 100**

131 PU\_2016\_119\_E

Wheel organ is a part of:

- ☐ Velum
- ☐ Oral hood
- ☐ Mouth
- ☐ Pharynx

**44 of 100**

166 PU\_2016\_119\_E

The two factors that most affect seawater density are:-

- ☐ Nitrogen and temperature
- ☐ Temperature and salinity
- ☐ Oxygen and salinity
- ☐ Temperature and oxygen

**45 of 100**

122 PU\_2016\_119\_E

What is meant by intracellular parasite?

- ☐ parasite between the cells
- ☐ parasite on the outer surface of cells
- ☐ parasite inside the cells

- ☐ parasite which interconnects neighboring cells

**46 of 100**

153 PU\_2016\_119\_E

Wood borers:-

- ☐ Involves chemical action only in bivalves
- ☐ Is found only in isopods
- ☐ Is found only in the bivalves
- ☐ Is found in bivalves and isopods

**47 of 100**

102 PU\_2016\_119\_E

The organ of fishes useful in detecting pressure changes:-

- ☐ Internal ear
- ☐ Blood pressure
- ☐ Lateral line sense organs
- ☐ Air bladder

**48 of 100**

112 PU\_2016\_119\_E

Maximum growth rate in a culture medium measured in the:-

- ☐ Exponential phase
- ☐ Senescence phase
- ☐ Stationary phase
- ☐ Log phase

**49 of 100**

121 PU\_2016\_119\_E

R.B.C. is found in the food vacuole of:-

- ☐ *Entamoeba histolytica*
- ☐ *Leishmania donovani*
- ☐ *Amoeba proteus*
- ☐ *Trypanosoma gambiense*

**50 of 100**

156 PU\_2016\_119\_E

Fecundity refers to the:-

- ☐ A method of locomotion
- ☐ Release of enzymes
- ☐ Release of eggs or offspring



- ☐ None of the above

**51 of 100**

110 PU\_2016\_119\_E

Polymers are well defined as:-

- ☐ Micromolecules
- ☐ Submicromolecules
- ☐ Macromolecules
- ☐ Normal molecules

**52 of 100**

132 PU\_2016\_119\_E

What kind of symmetry occurs in sea anemone?

- ☐ Bilateral
- ☐ Asymmetry
- ☐ Radial
- ☐ None of the above

**53 of 100**

133 PU\_2016\_119\_E

What is the blood colour of crayfish:-

- ☐ Green
- ☐ Blue
- ☐ White
- ☐ Red

**54 of 100**

164 PU\_2016\_119\_E

Trace elements in seawater include:-

- ☐ Sodium and chlorine
- ☐ Sodium and aluminum
- ☐ Chlorine and potassium
- ☐ Iron and strontium

**55 of 100**

128 PU\_2016\_119\_E

Ecdysone is:-

- ☐ PGH
- ☐ BH
- ☐ JH

☐ PTTH

**56 of 100**

106 PU\_2016\_119\_E

"Survival of the fittest" was propounded by:-

- ☐ Darwin
- ☐ Lamarck
- ☐ Spencer
- ☐ De Vries

**57 of 100**

109 PU\_2016\_119\_E

Ancestral history of an organism is known as:-

- ☐ Phylogeny
- ☐ Ontogeny
- ☐ Evolution
- ☐ Biogenetic law

**58 of 100**

146 PU\_2016\_119\_E

The mesopelagic zone ranges to depths of:-

- ☐ 150 m
- ☐ 4000 m
- ☐ bottom of tidal zone
- ☐ 2000 m

**59 of 100**

138 PU\_2016\_119\_E

The large conch shell "Shankh" is known as:-

- ☐ *Pila*
- ☐ *Turbinella*
- ☐ *Mytilus*
- ☐ *Pinctada*

**60 of 100**

154 PU\_2016\_119\_E

Brachiopoda are also called as:-

- ☐ Cowries
- ☐ Tusk shell
- ☐ Lamp shell

- ☐ Turban shell

**61 of 100**

253 PU\_2016\_119\_M

Sediments in the marine environment, which is formed as a result of chemical process:-

- ☐ hydrogenic
- ☐ Biogenic
- ☐ Terrigenous
- ☐ Authigenic

**62 of 100**

229 PU\_2016\_119\_M

Fluorescence microscopy is based on the ability of certain molecules to:-

- ☐ Absorb light of different wavelength
- ☐ Absorb light of a given wavelength and emit light at shorter wavelength
- ☐ Absorb light of a given wavelength and emit light of a longer wavelength
- ☐ Absorb light of a constant wavelength

**63 of 100**

234 PU\_2016\_119\_M

What is the most advance method of classification of organism?

- ☐ Morphology
- ☐ 16S RNA sequence
- ☐ Biochemical characterization
- ☐ Gram staining

**64 of 100**

255 PU\_2016\_119\_M

White caps in the sea are formed due to:-

- ☐ Tsunami waves
- ☐ Tidal phenomena
- ☐ Storm surges
- ☐ Wind and water interaction

**65 of 100**

227 PU\_2016\_119\_M

When sunlight is on the chloroplast, pH is lowest in the:-

- ☐ Space enclosed by the inner and outer membranes
- ☐ Stroma
- ☐ Space enclosed by the thylakoid membranes

- ☐ Cytosol

**66 of 100**

246 PU\_2016\_119\_M

The light emitted by Noctiluca is due to:-

- ☐ Fluorescence
- ☐ Bioluminescence
- ☐ Reflection of light
- ☐ None of the above

**67 of 100**

241 PU\_2016\_119\_M

When a solvent passes through a semi-permeable membrane towards the solution the process is called as:-

- ☐ Adsorption
- ☐ Osmosis
- ☐ Transfusion
- ☐ Diffusion

**68 of 100**

235 PU\_2016\_119\_M

Hfr bacterium contains:-

- ☐ A plasmid integrated into its chromosome
- ☐ Ability to undergo transduction
- ☐ Chromosome acquired from recipient cell
- ☐ Usual Plasmids

**69 of 100**

248 PU\_2016\_119\_M

Polymorphism occurs due to:-

- ☐ Monogenic inheritance
- ☐ Polygenic inheritance
- ☐ Both of the above
- ☐ None of the above

**70 of 100**

233 PU\_2016\_119\_M

What is the mechanism behind the movement of eukaryotic cilia and flagella?

- ☐ Dynein moving on microfilaments
- ☐ Myosin moving on microfilaments

- ☐ Kinesin moving on microfilaments
- ☐ Dynein moving on microtubules

**71 of 100**

247 PU\_2016\_119\_M

Which of the following is not an amino acid?

- ☐ Benzidine
- ☐ Arginine
- ☐ Lysine
- ☐ Aprotic acid

**72 of 100**

220 PU\_2016\_119\_M

Hydrogen bonds in  $\alpha$ -helix are:-

- ☐ Within a single chain
- ☐ Only between amino acids of opposite charge
- ☐ Between the chains that run side by side
- ☐ Between polar amino acids and water

**73 of 100**

242 PU\_2016\_119\_M

Water is a liquid due to:-

- ☐ Hydrogen bond
- ☐ Covalent bond
- ☐ Sigmoid bond
- ☐ Ionic bond

**74 of 100**

256 PU\_2016\_119\_M

In the vertebrates, the type of blood circulation is:-

- ☐ Made of blood vessels
- ☐ Made of blood sinuses
- ☐ Open type
- ☐ Closed type

**75 of 100**

228 PU\_2016\_119\_M

Cyanobacteria differ from purple and green photosynthetic bacteria as:-

- ☐ Do not require light
- ☐ Use  $H_2S$  as an electron donor

- ☐ They have nucleus enclosed by membrane
- ☐ Produce oxygen during photosynthesis

#### 76 of 100

243 PU\_2016\_119\_M

The acid in which -COOH group is not present:-

- ☐ Picric acid
- ☐ Palmitic acid
- ☐ Ethanoic acid
- ☐ Lactic acid

#### 77 of 100

221 PU\_2016\_119\_M

The Bohr effect in hemoglobin refers to the:-

- ☐ Reduced affinity for O<sub>2</sub> at lower pH
- ☐ Increased affinity for O<sub>2</sub> at lower pH
- ☐ Effect of pH on hemoglobin and myoglobin
- ☐ Higher pH found in actively metabolizing tissues

#### 78 of 100

244 PU\_2016\_119\_M

In the earth's atmosphere, electrical conductivity increases with the altitude due to:-

- ☐ Accelerated proton
- ☐ The charge
- ☐ Voltage
- ☐ Reflection of atmosphere

#### 79 of 100

240 PU\_2016\_119\_M

Two taxonomically different species are distinguished from each other due to:-

- ☐ Their inability to interbreed
- ☐ Discontinuity in a set of correlated characters
- ☐ Ability to exchange genes freely
- ☐ Similarity in morphological characters

#### 80 of 100

226 PU\_2016\_119\_M

In the pyrimidine ring, atoms are derived from:-

- ☐ Carbamoyl phosphate and aspartate
- ☐ Glycine

- ☐ Aspartate
- ☐ Glutamine

**81 of 100**

279 PU\_2016\_119\_D

The cells which secrete male sex hormone testosterone are:-

- ☐ Isthmus
- ☐ Lieberkiihn
- ☐ Leydig's cell
- ☐ Crypt cells

**82 of 100**

293 PU\_2016\_119\_D

Fungal disease in human is caused by:

- ☐ Inhalation of conidia
- ☐ Contamination of wounds with conidia or mycelial fragments
- ☐ Invasion of mucous membrane
- ☐ All of the above

**83 of 100**

267 PU\_2016\_119\_D

Ink glands as a means of escape from predators are present in:-

- ☐ Unio (Pelecypoda)
- ☐ Sepia (Cephalopoda)
- ☐ Pila (Gastropoda)
- ☐ Dentalium (Scaphopoda)

**84 of 100**

273 PU\_2016\_119\_D

Among coelenterates medusoid individuals are absent in members of the class:-

- ☐ Anthozoa
- ☐ Scyphozoa
- ☐ Hydrozoa
- ☐ None of the above

**85 of 100**

271 PU\_2016\_119\_D

The planula larva is found in the life history of:-

- ☐ Anthozoan
- ☐ Hydrozoan

- ☐ Scyphozoan
- ☐ All of the above

**86 of 100**

262 PU\_2016\_119\_D

Nereis is commonly called:-

- ☐ Ring worm
- ☐ Earthworm
- ☐ Calm worm
- ☐ Round worm

**87 of 100**

268 PU\_2016\_119\_D

Devil fish is the common name of:-

- ☐ Sepia
- ☐ Teredo
- ☐ Loligo
- ☐ Octopus

**88 of 100**

264 PU\_2016\_119\_D

Internal shell is present in:-

- ☐ Lamellidens
- ☐ Sepia
- ☐ Chiron
- ☐ Pila

**89 of 100**

281 PU\_2016\_119\_D

Collagen is:-

- ☐ Lipid
- ☐ Carbohydrate
- ☐ Fibrous protein
- ☐ Globular protein

**90 of 100**

282 PU\_2016\_119\_D

Skeletal muscle fibre is:-

- ☐ anucleated
- ☐ uninucleated



- ☐ binucleated
- ☐ Multinucleated

**91 of 100**

278 PU\_2016\_119\_D

The central fluid filled cavity of the blastula is known as:-

- ☐ Morula
- ☐ Blastocyst
- ☐ Archenteron
- ☐ Blastocoel

**92 of 100**

289 PU\_2016\_119\_D

The iodine used in Gram staining serves as a:-

- ☐ Chelator
- ☐ Cofactor
- ☐ Mordant
- ☐ Catalyst

**93 of 100**

296 PU\_2016\_119\_D

Multiple antibiotic resistance is mediated by:-

- ☐ a) Episome
- ☐ b) Plasmid
- ☐ c) Colplasmid
- ☐ d) Both b and c

**94 of 100**

287 PU\_2016\_119\_D

Gas vesicles in bacteria:-

- ☐ Store oxygen for growth anaerobically.
- ☐ Are bounded by a membrane impervious to gas
- ☐ Help move cells to optimal nutrient levels.
- ☐ Are bounded by a lipid bilayer membrane.

**95 of 100**

260 PU\_2016\_119\_D

The echinoderms are related to chordates by their similarity in the development of:-

- ☐ coelom
- ☐ gut

- ☐ nervous system
- ☐ heart

**96 of 100**

270 PU\_2016\_119\_D

The poisonous fluid present in the nematocysts of Hydra is:-

- ☐ Haematin
- ☐ Hypnotoxin
- ☐ Venom
- ☐ Toxin

**97 of 100**

283 PU\_2016\_119\_D

*Fasciola hepatica* is an endoparasite that lives in the:-

- ☐ spleen of sheep
- ☐ Intestine of sheep
- ☐ blood of sheep
- ☐ liver of sheep

**98 of 100**

290 PU\_2016\_119\_D

Hanging drop method for motility study was first introduced by:-

- ☐ Robert Koch
- ☐ Jenner
- ☐ Louis Pasteur
- ☐ Leeuwenhock

**99 of 100**

276 PU\_2016\_119\_D

The first invertebrates to develop a true nervous system are:-

- ☐ Annelids
- ☐ Flat worms
- ☐ Coelenterates
- ☐ Sponges

**100 of 100**

266 PU\_2016\_119\_D

The respiratory organs in a freshwater mussel are:-

- ☐ Pulmonary sacs
- ☐ Gills

- ☐ Respiratory siphons
- ☐ Book lungs