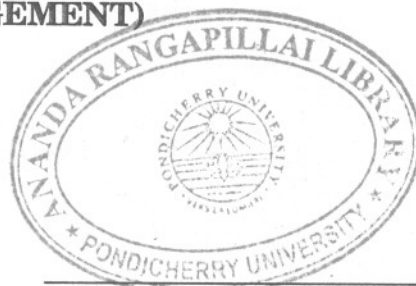


21/9
ENTRANCE EXAMINATION FOR ADMISSION, MAY 2010.

M.Sc. (COASTAL DISASTER MANAGEMENT)

COURSE CODE : 379

Register Number :



*Signature of the Invigilator
(with date)*

COURSE CODE : 379

Time : 2 Hours

Max : 400 Marks

Instructions to Candidates :

1. Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.
2. Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.
3. Read each question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.
4. Avoid blind guessing. A wrong answer will fetch you -1 mark and the correct answer will fetch 4 marks.
5. Do not write anything in the question paper. Use the white sheets attached at the end for rough works.
6. Do not open the question paper until the start signal is given.
7. Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.
8. On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.
9. Use of Calculators, Tables, etc. are prohibited.

1. The diagonal of a square is $4\sqrt{2}$ cm. The diagonal of another square whose area is double that of the first square is
 (A) 8 cm (B) $8\sqrt{2}$ cm (C) $4\sqrt{2}$ cm (D) 16 cm
2. A train starts with the speed of 70 km/hr with its speed increasing every two hours by 10 km/hr. In how many hours will it cover 345 km?
 (A) $2\frac{1}{4}$ hrs (B) 4 hrs 5 mins
 (C) $4\frac{1}{2}$ hrs (D) None of the above
3. How long does a train 110 metres long running at the speed of 72 km/hr take to cross a bridge 132 metres in length?
 (A) 9.8 sec (B) 12.1 sec (C) 12.42 sec (D) 14.3 sec
4. A boatman goes 2 km against the current of the stream in 1 hour and goes 1 km along the current in 10 minutes. How long will it take to go 5 km in stationary water?
 (A) 40 minutes (B) 1 hr
 (C) 1 hr 15 minutes (D) 1 hr 30 minutes
5. The value of

$$\frac{\left(\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}\right) \div \frac{1}{2}}{\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} \div \frac{1}{4}}$$
 is
 (A) 2 (B) $\frac{3}{2}$ (C) $\frac{4}{13}$ (D) $3\frac{6}{13}$
6. The ratio of the incomes of A and B is 5 : 4 and the ratio of their expenditure is 3 : 2. If at the end of each year, each saves Rs. 1600, then the income of A is
 (A) Rs. 3400 (B) Rs. 3600 (C) Rs. 4000 (D) Rs. 4400
7. Half of 1 per cent is equal to
 (A) 0.005 (B) 0.05 (C) 0.02 (D) 0.2
8. If $\frac{3}{5}$ th of a cistern is filled in 1 minute, how much more time will be required to fill the rest of it?
 (A) 40 sec (B) 30 sec (C) 36 sec (D) 24 sec

9. In what ratio must water be mixed with milk costing Rs. 12 per liter to obtain a mixture worth Rs. 8 per liter?
(A) 1 : 2 (B) 2 : 1 (C) 2 : 3 (D) 3 : 2
10. A number was divided successively in order by 4, 5 and 6. The remainders were respectively 2, 3 and 4. The number is
(A) 214 (B) 476 (C) 954 (D) 1908
11. Highest mountain peak in south India is
(A) Dotabetta (B) Anaimudi
(C) Permedu (D) Thengumerhada
12. How many states are constituted from Federal India?
(A) 30 (B) 26 (C) 27 (D) 28
13. Which narrow water body separates Sri Lanka from India?
(A) Gulf of Mannar (B) Palk Strait
(C) Bay of Bengal (D) Palk Bay
14. Which Mountain Separates Myanmar from India?
(A) Himalayas (B) Arakan Yoma
(C) Kosi Hills (D) Jaintiya Hills
15. Windward side of the mountain is the
(A) Rain shadow region
(B) Rainfall region
(C) Poor rainfall region
(D) Mountain which does not faces the moisture bearing winds
16. Silent Valley is found in
(A) Karnataka (B) Tamil Nadu
(C) Kerala (D) Andhra Pradesh
17. Which country has the longest Border with India?
(A) Pakistan (B) Bangladesh
(C) Nepal (D) Bhutan

18. How many countries forms as apart of SAARC?
(A) 7 (B) 6 (C) 8 (D) 5
19. Which is the southern most Tip of India?
(A) Kanayakumari (B) Indira Point
(C) Cape of Good Hope (D) Dhanush Kodi
20. Which Island of India is nearest to Thailand?
(A) Car Nicobar (B) Kamorta
(C) Tillanachang (D) Nancowrie
21. Peninsula is one which is surrounded by ;
(A) water on two sides (B) water on three sides
(C) water on four sides (D) water on one side
22. Seismograph is an instrument which measures
(A) pressure (B) humidity
(C) earth quakes (D) cyclone
23. Earthquake is caused because of
(A) gravity (B) rotation of earth
(C) faulting (D) ocean currents
24. Sumatra-Andaman earth quake occurred 26th December 2004, was formed because of collision of
(A) Pacific and Australian plates (B) Indian and Burmese plates
(C) Australian and African plates (D) American plates and Asian plates
25. Age of the earth is
(A) 3.5 billion years (B) 4.5 billion years
(C) 2.5 billion years (D) 6 billion years
26. Deepest portion of sea is found in
(A) Pacific ocean (B) Atlantic ocean
(C) Indian (D) Arctic sea

27. In Which mountain, the highest peak is located?
(A) Rockies (B) Andes
(C) Himalayas (D) Appalachian
28. Which is the biggest ocean?
(A) Pacific (B) Atlantic
(C) Indian (D) Bay of Bengal
29. Density is equal to
(A) mass/volume (B) mass/velocity
(C) mass/gravity (D) mass/area
30. Velocity is equal to
(A) distance/time (B) distance/area
(C) volume/area (D) speed \times time
31. Nautical mile is equal to
(A) 1.85 km (B) 2.5 km (C) 5 km (D) 4 km
32. Biggest continent
(A) Asia (B) Africa
(C) North America (D) Europe
33. Which of the following planets show the same "Size-bearing"?
(A) Earth – Mars (B) Earth – Venus
(C) Mars – Venus (D) Venus – Mercury
34. Olympus Mons, the largest known volcano in the solar system is found on the surface of
(A) Earth (B) Moon (C) Mars (D) Jupiter
35. Which of the following planets has the least density?
(A) Earth (B) Mars (C) Venus (D) Saturn
36. The earth's crust is thickest under
(A) Shield areas (B) Platforms
(C) Phanerozoic orogenic belts (D) Archaen greenstone belts

37. The Neotectonic movements of the Indian plate suggests that in about 50 M.Y. the Indian sub-continent will drift further towards :
- (A) North (B) South (C) East (D) West
38. Which of the following cities is Not Subsiding?
- (A) Mumbai (B) Chennai (C) Kolkata (D) Srinagar
39. In Indian sub continent, the main earthquake belt runs along the Himalayan ranges and south-west to the Rann of Kutch. Which of the following earthquakes did NOT occur in this belt?
- (A) Utter Kashi (1975) (B) Lattur (1993)
(C) Buj (2000) (D) Mushafarbad (2005)
40. According to the recent views, Narmada-son lineament has originated due to :
- (A) Normal fault tectonics (B) Wrench fault tectonics
(C) Taphrogenic movements (D) Oscillatory tectonic movements
41. India was separated from the Antartica about 140 M.Y. ago. When did it joining South Asia?
- (A) 120 MY ago (B) 80 MY ago (C) 60 MY ago (D) 45 MY ago
42. The sunda Trench do NOT runs parallel to the island of
- (A) Java (B) Sumatra (C) Maldives (D) Nicobar
43. Choose the correct answer
- (A) Andaman & Nicobar Isls --- Diastrophic Isls
(B) Madagascar --- Barrier Reef
(C) Maldives --- Continental Isls
(D) Mauritius --- Volcanic Isls
44. Which one of the following places is more likely to be affected by chemical weathering?
- (A) Thar Desert (B) Tibetan plateau
(C) Leh (D) Siwalik

45. Circular reefs enclosing a shallow body of water are called
(A) Lagoons (B) Atolls
(C) Fringing reefs (D) Barrier reefs
46. Glaciers approximately occupy _____ % of the world's area
(A) 10 (B) 15 (C) 18 (D) 20
47. Soils in which sand, clay and humus are found more or less in equal proportions are called
(A) Loamy soils (B) Regur (C) Chernozem (D) Pedalfer
48. Which of the following is NOT a feature associated with fluvial geomorphic cycle?
(A) Cascade (B) Bluff (C) Slough (D) Matterhorn
49. Seas which are nearly surrounded by land masses are called
(A) Relict seas (B) Epeiric seas
(C) Marginal seas (D) Shelf seas
50. Which of the following dunes appear U-shaped in plan view?
(A) Barchans (B) Parabolic dunes
(C) Seifs (D) Dome dunes
51. The sudden collapse of vapour bubbles in the water of a stream is due to the process of
(A) Solution (B) Cavitation
(C) Corrosion (D) Corrasion
52. A Plain formed by the growth and joining of floodplains is called
(A) Pedepain (B) Peneplain
(C) Panplain (D) Etch plain
53. All the elements and their isotopes are believed to have synthesized from the nuclei of
(A) Hydrogen (B) Helium
(C) Oxygen (D) Nitrogen

54. The most abundant minerals in the earth's crust belongs to
 (A) Quartz (B) Pyroxenes
 (C) Plagioclase feldspars (D) Potash feldspars
55. Which of the following layers of the earth can be described as 'oxysphere'?
 (A) Biosphere (B) Atmosphere
 (C) Asthenosphere (D) Lithosphere
56. The most important source of radiogenic heat production in the earth just after its accretion was
 (A) U^{238} (B) U^{236} (C) Th^{232} (D) U^{235}
57. Which of the following has the least ionic radius?
 (A) Na^+ (B) Mg^{+2} (C) Al^{+3} (D) Si^{+4}
58. B-decay of K^{40} leads to the formation of
 (A) Ar^{40} (B) Ca^{40} (C) K^{39} (D) Ar^{39}
59. Rainwater is distinguished from groundwater by
 (A) Tritium method (B) Beryllium method
 (C) Rb-Sr method (D) Radio carbon method
60. By Volume, oxygen occupies about _____ of the continental crust
 (A) 94% (B) 63% (C) 47% (D) 27%
61. Two ions can replace each other in a crystal structure only if the difference between their ionic radii does not exceed
 (A) 5% (B) 10% (C) 15% (D) 20%
62. Chemical composition of Sea water is
 (A) $CaCl_2$ (B) $NaCl$ (C) $Mg Cl_2$ (D) KCl
63. Structural Geology deals with matters in the
 (A) Solid state (B) Liquid state
 (C) Gaseous state (D) All of the above

64. The behavior of perfectly elastic bodies is governed by
 (A) Hooke's law (B) Hilt's law
 (C) Lambert's law (D) Bode's law
65. When the strain is recoverable but is also time dependent, the deformation is known as
 (A) Elastic (B) Anelastic (C) Plastic (D) Ductile
66. A fold which is convex upwards and having younger rocks in its core may be described as a/an
 (A) Anticline (B) Antiform (C) Anticlinorium (D) Synform
67. Thickening and thinning of beds at crests and troughs is found in
 (A) Open folds (B) Similar folds
 (C) Parallel folds (D) Concentric folds
68. A material which basically obeys the viscous law but which behaves elastically for stresses of short duration is termed
 (A) Viscoelastic (B) Elastoviscous
 (C) Plastic (D) Ductile
69. Which of the following secondary structures is a combination of planar and linear fabric components?
 (A) Joints (B) Faults (C) Fold axes (D) Schistosity
70. The vertical sectional view of an area along a define line is known as a/an
 (A) Isolith (B) Outcrop (C) Contour (D) Profile
71. Higher contours always enclose the lower ones in the case of a
 (A) Hill (B) Valley (C) Basin (D) Spur
72. Contour lines cannot cross or touch each other except in the case of
 (A) Escarpments (B) Scarp slope
 (C) Waterfall (D) Plateau
73. The exoskeleton of sponges is made up of
 (A) Silica (B) Calcite
 (C) Aragonite (D) Calcium Phosphate

74. Which of the following is NOT a living fossil?
- (A) Lingula (B) Nucula
(C) Nautilus (D) Nummulites
75. Homeomorphy is an example of
- (A) Convergent evolution (B) Divergent evolution
(C) Parallel evolution (D) Adaptive specialization
76. The fauna which comprises exclusively of active swimmers is described as
- (A) Plankton (B) Nekton (C) Benthic (D) Pelagic
77. The time of rapid evolutionary change of a new taxa or the adaptive radiation is also described as
- (A) Tachytelic evolution (B) Bradytelic evolution
(C) Orthogenesis (D) Paragenesis
78. Living fossils exhibit the phenomenon of
- (A) Bradytelic evolution (B) Orthogenesis
(C) Palingenesis (D) Tachgenesis
79. Fossil fecal pellets of ancient animals are described as
- (A) Gastriliths (B) Coproliths
(C) Beekite rings (D) Pseudo-fossils
80. 'Biplication' is a feature commonly exhibited by
- (A) Brachiopods (B) Gasteropods
(C) Pelecypods (D) Cephalopods
81. The most gigantic of all the mollusks were
- (A) Pelecypods (B) Gasteropods
(C) Nautiloids (D) Ammonites
82. The fastest moving species among the invertebrates belong to
- (A) Pelecypods (B) Gasteropods
(C) Cephalopods (D) Brachipods

83. The type area for the Sausar group is
 (A) Western Rajasthan (B) Nagpur – Bhandara
 (C) Singhbhum (Bihar) (D) Chindwara (M.P.)
84. Among the following, the oldest rocks belong to
 (A) Sargur Schist Complex (B) Banded Gneissic Complex
 (C) Older Metamorphic Group (D) Iron ore Group.
85. The younger succession of rocks in the Kutch basin is known as
 (A) Bhuj formation (B) Umia formation
 (C) Porbzander formation (D) Madh formation
86. The Siwalik group of rocks were deposited in the Himalayan for deep during the _____ stage of Himalayan orogeny
 (A) First (B) Second (C) Third (D) Fourth
87. Which of the following areas is described as the “Field Museum in Paleontology”?
 (A) Vriddachalam (T.N) (B) Duddukuru (A.P.)
 (C) Shevroy Hills (T.N) (D) Rapur (Punjab)
88. The trend of the Spiti synclinorium is similar to that of
 (A) The Eastern Ghats (B) The Aravallis
 (C) The Himalayas (D) The Satpuras
89. In the Upper Gondwana rocks of the Godavari graben fossils are present in all the formations except
 (A) Yerrapalli formation (B) Bhimavaram Formation
 (C) Maleri formation (D) Kanthi formation
90. To be classified as ‘laminae’ the thickness of each layer should be
 (A) > 1 cm (B) < 1 cm (C) > 2 cm (D) < 2 cm
91. Ripples formed by water and wind differ in their
 (A) Symmetry (B) Scale
 (C) Azimuth (D) Ripple index

92. In nature roundness varies between
 (A) 0.01 to 0.05 (B) 0.05 to 0.1
 (C) 0.1 to 0.9 (D) 1.0 to infinity
93. The different colours of 'limonite' indicate the presence of
 (A) Oxides (B) Shuphides
 (C) Carbonates (D) Sulphates
94. Detailed survey for oil and gas is done by
 (A) Seismic reflection (B) Seismic refraction
 (C) Geomagnetic methods (D) Gravimetric methods
95. In the M.K.S system the magnetic field strength is expressed in the units called
 (A) Oersted (B) Tesla (C) Weber (D) Maxwell
96. Antartic Ocean is located in
 (A) North pole (B) South Pole
 (C) Equator (D) Tropic of Capricorn
97. Which is the only existing Igneous Volcano in India?
 (A) Narcondum (B) Diglipur
 (C) Barren Island (D) Baratang
98. Which area has the highest rainfall in India?
 (A) Bagamandala (Western ghats) (B) Saddle peak (Andaman Island)
 (C) Minicoi (Laccadive Islands) (D) Chirapunji (Meghalaya)
99. 117 is divisible by
 (A) 7 (B) 11 (C) 13 (D) 17
100. Highest Peak in the world is located in
 (A) Andis (B) Alps
 (C) Himalayas (D) Urals