

রেনেসাঁ of Aliah

(PART—I : Core Subject)

- 1.** Dendrochronology is a/an
 [A] age dating technique
 [B] mapping technique
 [C] geospatial technique
 [D] All of the above
- 2.** Nappe is a structure consisting of
 [A] only folds
 [B] only joints
 [C] folds with faults
 [D] folds with joints
- 3.** A river predates the uplift of the mountain and is often called as
 [A] superimposed river
 [B] antecedent river
 [C] antecedent river
 [D] consequent river
- 4.** Match the following and choose the correct answer :
- | Geological age | Geological/Biological events |
|-----------------------|---|
| (a) Devonian | 1. Appearance of fish |
| (b) Jurassic | 2. Appearance of earliest <i>Homo sapiens</i> |
| (c) Holocene | 3. Appearance of reptiles |
| (d) Pleistocene | 4. Ice age |
- [A] (a)-1, (b)-3, (c)-2, (d)-4
 [B] (a)-1, (b)-2, (c)-3, (d)-4
 [C] (a)-4, (b)-3, (c)-2, (d)-1 ✓
 [D] (a)-2, (b)-3, (c)-1, (d)-4
- 5.** OSL dating stands for
 [A] Optimization Subroutine Library
 [B] Optically Stimulated Luminescence
 [C] Oriented Strand Lumber
 [D] Open Shading Language
- 6.** Airy's theory of isostasy is based on
 [A] Newton's second law
 [B] Newton's third law
 [C] Pascal's law
 [D] Charles' law
- 7.** Which of the following statements is **false**?
 [A] The age of the earth is about 4.5 billion years
 [B] Quaternary is younger than tertiary
 [C] M-discontinuity separates crust from mantle
 [D] A brittle substance is more likely to produce folds than a ductile substance if the force from two opposite directions is applied
- 8.** The magnitude of the June, 2022 earthquake in Afghanistan was measured by USGS as
 [A] M_{wb} 4.9
 [B] M_{wb} 5.9
 [C] M_{wb} 5.8
 [D] M_{wb} 6.9

- ✓ 9. Volcanic mudflow is termed as
- [A] lahar ✓
 - [B] landslide
 - [C] subsidence
 - [D] crater
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10. Who propounded the theory of seafloor spreading?
- [A] M. Pichon
 - [B] Harry Hess
 - [C] A. Wegener
 - [D] W. Penck
11. "Present is the key to the past", states the philosophy of
- [A] environmentalism
 - [B] uniformitarianism
 - [C] catastrophism
 - [D] neo-catastrophism
12. Inverted relief connotes
- [A] anticlinal ridge
 - [B] anticlinal valley
 - [C] synclinal valley
 - [D] homoclinal valley
- ✓ 13. Which of the following weathering processes is mainly responsible for the development of the Karst landscape?
- [A] Carbonation ✓
 - [B] Oxidation
 - [C] Chelation
 - [D] Silicate weathering
- ✓ 14. Paternoster lake is commonly found in the
- [A] fluvial landscape
 - [B] glacial landscape ✓
 - [C] aeolian landscape
 - [D] coastal landscape
- ✓ 15. Which of the following processes develops 'tor'?
- [A] Fluvial erosion
 - [B] Fluvial deposition
 - [C] Weathering ✓
 - [D] Mass-wasting
- ✓ 16. Dynamic equilibrium theory was propounded by
- [A] Davis ✓
 - [B] Hack
 - [C] Penck
 - [D] King

✓17. The hardness of talc is rated as _____ on the Mohs scale.

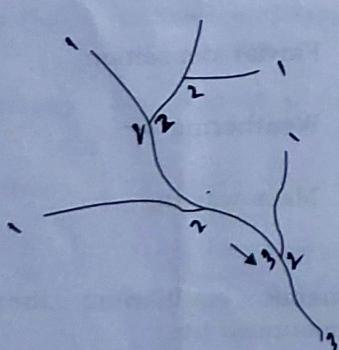
- [A] 1
- [B] 2 ✓
- [C] 3
- [D] 4

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18. A thin slide is used for

- [A] megascopic identification of rock and minerals
- [B] microscopic identification of rock and minerals
- [C] mapping forest resources
- [D] identification of resource-poor regions of the world

✓19. Identify the highest order of the given stream network as per the Hortonian scheme.



- [A] 1
- [B] 2
- [C] 3
- ✓[D] 4

✓20. What would be the RF when 2 cm represents 0.2 km?

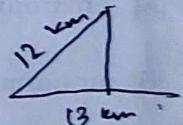
- [A] 1 : 10000
- [B] 1 : 2000
- [C] 1 : 50000
- [D] 1 : 500

✓21. Suppose you and your friend are located on the two opposite ends of a straight line. What would be the bearing of that line?

- [A] 90°
- ✓[B] 180°
- [C] 270°
- [D] 360°

✓22. If any right-angled triangle is having a perpendicular of 12 km and a hypotenuse of 13 km, what would be the base?

- [A] 2 km
- [B] 5 km
- [C] 8 km
- [D] 10 km



✓23. Which of the following map projections is commonly used in the GIS?

- [A] Mercator projection
- ✓[B] Universal transverse Mercator projection
- [C] Bonne's projection
- [D] Polyconic projection

24. Which of the following instruments **does not** have any Vernier scale?

- [A] Slide caliper ✓
- [B] Planimeter
- [C] Theodolite
- [D] Dumpy level

25. Match the following and choose the correct response :

Geometric figure	Dimension
(a) Dots	1. One dimension
(b) Sphere	2. Two dimensions
(c) Circle	3. Three dimensions
(d) Line	4. Dimension tends to zero

[A] (a)-1, (b)-2, (c)-3, (d)-4
✓[B] (a)-4, (b)-3, (c)-2, (d)-1
[C] (a)-2, (b)-1, (c)-3, (d)-4
[D] (a)-3, (b)-2, (c)-4, (d)-1

26. Land use and land cover maps are most suitably depicted using

- [A] isopleth technique
- [B] choropleth technique
- [C] chorochromatic technique
- [D] choroschematic technique

27. Which of the following combinations is used to calculate HDI?

- [A] Life expectancy, expected year of schooling, mean year of schooling and per capita GNI
- [B] Life expectancy, mean year of schooling and per capita GNI
- [C] Life expectancy, expected year of schooling and per capita GNI
- ✓[D] Life expectancy, expected year of schooling and per capita GDI

28. The distribution of soil textural data can best be presented using

- [A] bar graph
- [B] histogram
- [C] pie-chart
- ✓[D] ternary graph

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29. Alidade is used in

- [A] dumpy level survey
- [B] prismatic compass survey
- [C] theodolite survey
- [D] plane table survey

30. What would be the median for the following distribution?

12, 15, 16, 18, 22, 19, 21, 78, 72

- [A] 16
- [B] 18
- [C] 19
- [D] 22

w → ↘ ↙ ↖ s

✓ 31. Identify the **correct** sequence (highest to lowest) of albedo by different objects.

- [A] Desert sand, bare soil, open ocean, fresh snow
- ✓ [B] Fresh snow, desert sand, bare soil, open ocean
- [C] Bare soil, open ocean, fresh snow, desert sand
- [D] Open ocean, fresh snow, desert sand, bare soil

✓ 32. Tornadoes typically form on

- [A] land surface ✓
- [B] ocean surface
- [C] forest
- [D] land-ocean boundary

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✓ 33. Cyclone Amphan originated in

- [A] May, 2020 ✓
- [B] June, 2020
- [C] April, 2021
- [D] April, 2019

✓ 34. The index cycle is associated with

- [A] tropical cyclone ✓
- [B] temperate cyclone
- [C] jet stream
- [D] tornadoes

35. NLM on Indian Daily Weather Report generally indicates

- [A] limit of northward advancement of the North West Monsoon
- ✓ [B] limit of northward advancement of the South West Monsoon
- { [C] limit of northward advancement of the South East Monsoon
- ✓ [D] limit of northward advancement of the North East Monsoon

36. Match the following and select the correct response :

Köppen Symbol **Climate type**

- | | |
|--------|------------------------|
| (a) Af | 1. Tropical Monsoon |
| (b) Am | 2. Tropical Rainforest |
| (c) Bw | 3. Semi-arid |
| (d) BS | 4. Arid |

- [A] (a)-1, (b)-2, (c)-4, (d)-3
- [B] (a)-2, (b)-3, (c)-1, (d)-4
- ✓ [C] (a)-2, (b)-1, (c)-4, (d)-3
- [D] (a)-4, (b)-3, (c)-1, (d)-2

37. Which of the following gases has the highest intensity to induce global warming?

- [A] CO₂ ✓
- ✓ [B] CFC
- [C] SO₂
- [D] CH₄

38. High relative humidity and high wet-bulb temperature are plotted as ____ in the Taylor Hythergraph.

- [A] keen
- [B] scorching
- [C] raw
- [D] muggy

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39. Mull-humus is found in

- [A] podzol soil ✓
- [B] chernozem soil
- [C] laterite soil
- [D] brown earth soil

40. Rendzina is an example of ____ soil.

- [A] zonal
- [B] azonal
- [C] intrazonal
- [D] interzonatal

41. The feel method is a popular technique used to test

- [A] soil structure
- [B] ped strength
- [C] soil texture ✓
- [D] soil colour

42. USLE is popularly used to estimate

- [A] soil erosion
- [B] soil pollution level
- [C] soil fertility
- [D] soil productivity

43. Ecocline refers to

- [A] a transition zone between two terrestrial ecosystems
- [B] a transition zone between a terrestrial and an aquatic ecosystem
- [C] a transition zone between two aquatic ecosystems
- [D] a transition zone between two marine ecosystems

44. An epiphyte is commonly found in the ____ biome.

- [A] savannah
- [B] tropical deciduous
- [C] equatorial rainforest
- [D] steppe

45. Who propounded the concept of biodiversity hotspot?

- [A] P. Odum
- [B] N. Myers
- [C] E. Kormondy
- [D] E. Haeckel ✓

46. Ecological succession in a water-stressed area is termed as

- [A] hydrosere
- [B] xerosere
- [C] mesosere
- [D] troposere

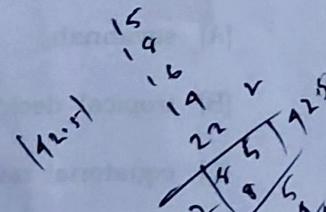
47. Select the correct sequence (lowest to highest) of the scales of measurement in terms of richness of data and quantitative measurements.

- [A] Nominal, ordinal, interval, ratio
- [B] Ordinal, interval, ratio, nominal
- [C] Interval, ordinal, ratio, nominal
- [D] Ratio, nominal, interval, ordinal

48. What would be the harmonic mean of the following distribution?

15, 18, 16, 0, 14, 22

- [A] 14.17
- [B] 17
- [C] 0
- [D] 15



49. What does b indicate in a linear equation $Y_c = a + bx$?

- [A] Y -intercept with x
- [B] The slope of the line
- [C] Correlation coefficient
- [D] Determination of correlation

50. What would be the mode of the following distribution?

1, 5, 8, 9, 6, 2, 5, 7, 5

- [A] 2

- [B] 5

- [C] 6 *রেনেসাঁ of Aliah*

- [D] 8

51. Karez soil is found in the _____ region of India.

- [A] vale of Kashmir
- [B] Assam valley
- [C] Marusthal
- [D] Sundarbans

52. Deccan Trap is formed due to

- [A] tectonic uplift
- [B] fissure eruption
- [C] vent eruption
- [D] alluvial deposits

53. Which of the following States has the highest population density in India as per the Census 2011?

- [A] Bihar
- [B] West Bengal
- [C] Uttar Pradesh
- [D] Jharkhand

54. Jarawa is mainly found in

- [A] Uttar Pradesh
- [B] West Bengal
- [C] Little Andaman
- [D] Lakshadweep

55. The first oil refinery in India was set up at

- [A] Bongaigaon
- [B] Digboi ✓
- [C] Guwahati
- [D] Naharkatia

56. Which of the following is **not** yet an active nuclear plant in India?

- [A] Trombay
- [B] Kalapakkam
- [C] Banswara ✓
- [D] Narora

57. Bhadla Solar Park is located in

- [A] Andhra Pradesh
- [B] Kerala
- [C] Uttar Pradesh
- [D] Rajasthan

58. Brachycephalics refers to

- [A] western race with broad head
- [B] western race with fair skin complexion
- [C] western race with sharp nose
- [D] western race with well-built body

59. Who propounded the maximum positive deviation method of crop combination?

- [A] Shafi
- [B] Rafiullah
- [C] Weaver ✓
- [D] Eneyedi

60. The Planning Commission of India divided India into ____ agroclimatic regions.

- [A] 12 ✓
- [B] 13
- [C] 15
- [D] 18

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61. Select the **correct** sequence of the zones from the city centre as per the theory of Von Thunen.

- [A] Dairy, forestry, three-field system, fallow
- [B] Forestry, three-field system, fallow, dairy
- [C] Three-field system, fallow, dairy, forestry
- [D] Fallow, dairy, forestry, three-field system

62. If the weight of the iron ore (raw materials) is 50 kg and the weight of the steel (finished product) is 30 kg, what would be the material index?

- [A] 1
- [B] > 1
- [C] < 1
- [D] > 2

63. Gini Coefficient is used to measure

- [A] inequality in the distribution of income and wealth
- [B] soil fertility
- [C] industrial location
- [D] degree of agricultural transformation

64. Operation flood is associated with

- [A] Green Revolution
- [B] White Revolution ~~x~~
- [C] Blue Revolution
- [D] Red Revolution

65. What would be the gamma index when edges are 6 and vertices are 5 for a transport network?

- [A] 0.85
- [B] 0.25
- [C] 0.66
- [D] 1

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66. DEM is generally applied for showing

- [A] topographic undulation and drainage network
- [B] relief and vegetation
- [C] transport, communication and drainage
- [D] telecom services and ferry

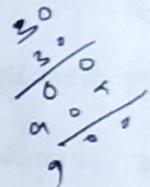
67. A pixel of 30 m denotes an area of

- [A] 900 m

- [B] 900 m³

- [C] 900 m²

- [D] 90 m



68. Point, line and polygon are the common formats for

- [A] raster data

- [B] vector data

- [C] raster and vector data

- [D] analog data

69. NDVI is commonly applied to detect

- [A] health of land

- [B] health of water

- [C] health of people

- [D] health of vegetation

70. Which of the following data are provided by the GPS?

- [A] Latitude and longitude

- [B] Latitude, longitude and altitude

- [C] Latitude, longitude, altitude and time

- [D] Longitude

71. Who propounded the growth pole model?

- [A] Misra
- [B] Chand
- [C] Burges ✓
- [D] Perroux

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✓72. Sopher's index is useful to assess

- [A] agricultural diversification
- [B] cropping intensity
- [C] regional disparity ✓
- [D] population density

✓73. Snowball sampling is a type of

- [A] chain referral sampling
- [B] simple random sampling ✓
- [C] stratified sampling ✓
- [D] quota sampling

74. Which of the following is **not** generally considered a good technique in qualitative research?

- [A] Participatory rural appraisal
- [B] Focus group discussion
- [C] Narrative
- [D] Large sample size

✓75. Which of the following techniques can be used to understand human behaviour and decision making?

- [A] Lorenz curve
- [B] Bid rent curve
- [C] Lewin's equation ✓
- [D] Isodapane

76. 'Antipode' is associated with

- [A] radical geography
- [B] behavioral geography
- [C] feminist geography
- [D] agricultural geography

✓77. 'Who gets what, where, and how', explains the very basic notion of

- [A] humanistic approach
- [B] quantitative approach
- [C] welfare approach
- [D] structural approach

✓78. Stop and go determinism was propounded by

- [A] G. Taylor ✓
- [B] Y. F. Tuan
- [C] W. M. Smith
- [D] E. Huntington

✓79. Mariana Trench is located in the

- [A] Atlantic Ocean
- [B] Pacific Ocean ✓
- [C] Indian Ocean
- [D] Arctic Ocean

80. A balance created by a shear stress force, Coriolis force and the water drag results in

- [A] Ekman spiral
- [B] geostrophic wind
- [C] gradient wind
- [D] rip current

PART-II

(General Knowledge, General English & Islamic History and Culture)

81. Who was the first Indian to go into space?

- [A] Ravi Malhotra
- [B] Satish Dhawan
- [C] Kalpana Chawla ✓
- [D] Rakesh Sharma

82. Which of the following is **not** a vertebrate?

- [A] Snail ✓
- [B] Bird
- [C] Kangaroo
- [D] Fish

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83. _____ is/are called the 'power house' of the cell.

- [A] Lungs
- [B] Pituitary gland
- [C] Arteries
- [D] Mitochondria ✓

84. Who is regarded as the principal architect of the Constitution of India?

- [A] B. R. Ambedkar
- [B] Rajendra Prasad
- [C] Jawaharlal Nehru
- [D] C. Rajagopalachari

85. Kangaroo is the National Emblem of

- [A] Canada
- [B] Australia ✓
- [C] Italy
- [D] Ireland

86. Select one word for the given definition :

A Government by one person.

- [A] Aristocracy
- [B] Autocracy
- [C] Democracy
- [D] Bureaucracy

87. Select one word for the given definition :

Movement from one country to another.

- [A] Transfer
- [B] Shift
- [C] Entrance
- [D] Immigration ✓

88. Complete the following proverb/phrase :

Practice makes a man _____.

- [A] perfect ✓
- [B] idle
- [C] angry
- [D] handsome

89. Complete the following proverb/phrase :

A little knowledge is a _____ thing.

- [A] sweet
- [B] beautiful
- [C] good
- [D] dangerous ✓

90. Fill in the blank with the correct word given below :

He saved her _____ certain death.

- [A] from
- [B] with
- [C] of
- [D] in ✓

✓91. The Battle of ___ was held in 1757.

- [A] Plassey ✓
- [B] Panipat
- [C] Buxar
- [D] Mysore

✓92. How long is Ramadan?

- [A] 1 day
- [B] 1 month ✓
- [C] 4-12 days
- [D] 1 week

✓93. How many daughters did Prophet Muhammad (PBUH) have?

- [A] 7
- [B] 3
- [C] 4 ✓
- [D] 2

✓94. Eid-al-Adha is also known as

- [A] Ramadan Eid
- [B] Bakri Eid ✓
- [C] Eid-e-Gadhir
- [D] Eid-e-Milad

✓95. Eid-al-Adha falls in which month of the Muslim Calendar?

- [A] Muharram
- [B] Ramadan
- [C] Zil-Hajj ✓
- [D] Safar

✓96. What does 'Eid-al-Adha' mean?

- [A] Festival of Sacrifice ✓
- [B] Festival of Peace
- [C] Festival of Sheep and Cattle
- [D] Festival of Colors

✓97. The word Ramadan comes from

- [A] Arabic ✓
- [B] Persian
- [C] Turkish
- [D] Latin

✓98. Ramadan is celebrated in the honor of

- [A] A great Muslim Victory
- [B] Islam was founded
- [C] Prophet Muhammad (PBUH) was born
- [D] The Quran was first revealed ✓

✓99. During Ramadan, the meal eaten at sunset is called the

- [A] Ishtar
- [B] Iftar ✓
- [C] Imtar
- [D] None of the above

✓100. Basic pillars of Islam are

- [A] 4 ✓
- [B] 5
- [C] 6
- [D] 7

