

ENTRANCE EXAMINATION, 2018

M.A. GEOGRAPHY

[Field of Study Code : GEOM (221)]

Time Allowed : 3 hours

Maximum Marks : 100

INSTRUCTIONS FOR CANDIDATES

- (i) All questions are compulsory.
- (ii) This Question Paper consists of *four* Parts—Parts A, B, C and D.
- (iii) All the questions in Part—A carry 1 mark each. Answer all the 60 questions in Part—A in the OMR Sheet (see the separate instruction).
- (iv) Answer all the questions of Part—B, C and D in the space provided below each question in this booklet. Each question carries 5 marks.
- (v) Extra pages are provided for Rough Work at the end of the booklet.

ENTRANCE EXAMINATION, 2018

M.A. GEOGRAPHY

SUBJECT
(Field of Study/Language)

FIELD OF STUDY CODE

NAME OF THE CANDIDATE

REGISTRATION NO.

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CENTRE OF EXAMINATION

DATE

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(Signature of Candidate)

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(Signature of Invigilator)

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(Signature and Seal of Presiding Officer)

PART—A

1. Isodapane refers to
 - (a) a line of equal additional transportation cost
 - (b) a line of equal depth
 - (c) a line of equal rainfall
 - (d) a line of equal density

2. In Christaller's theory, threshold refers to the
 - (a) minimum population needed to bring about the selling of a particular good or service
 - (b) size of the population at the lowest-order settlement
 - (c) population of the largest settlement
 - (d) None of the above

3. Geographers use umland to denote
 - (a) core zone of forest
 - (b) landform created by running water
 - (c) area contiguous to a trade centre
 - (d) habitation area of a village

4. Lower child sex-ratio in large urban centre in India indicates
 - (a) male selective migration
 - (b) poor economic condition that does not allow poor to keep family in large cities
 - (c) son preference of the urban couples
 - (d) it is indicative of gendered work-force

5. Read the following statements and identify what is NOT true about gravity model of migration.
 - (a) A model in urban geography is derived from Newton's law of gravity.
 - (b) It is used to predict the degree of interaction between two places.
 - (c) The gravity model can be used to measure accessibility to services.
 - (d) The model was developed by T. Hagarstrand.

6. Which one of the following is NOT associated with the vector data of GIS?
 - (a) Points
 - (b) Lines
 - (c) Polygons
 - (d) Pixels

7. What is true about remote sensing satellites?
- (a) They are polar orbiting satellites
 - (b) They are used for navigation purpose
 - (c) They are geostationary
 - (d) All of the above
8. What is true about the great circles?
- (a) A great circle is formed by passing a plane through the centre of the sphere
 - (b) Great circles are used in calculation of distance between two points on a sphere
 - (c) Both are true
 - (d) None is true
9. Which is NOT true about cylindrical projection?
- (a) Equator is larger than its real size
 - (b) Equator is calculated as $2\pi r$
 - (c) Europe is larger in size than actual
 - (d) All meridians are equidistant on Equator
10. Which one is the relative measure of inequality?
- (a) Standard deviation
 - (b) Mean deviation
 - (c) Coefficient of variation
 - (d) Quartile deviation
11. What is NOT true about Remote-Sensing-Geographical Information System (RS-GIS) as of today?
- (a) Three-dimensional models can be generated
 - (b) Land use can be changed
 - (c) Regular update of data is possible
 - (d) Pollution can be measured
12. What is NOT true about Global Positioning System (GPS)?
- (a) It is used to determine position accuracy on Earth's surface
 - (b) It consists of a constellation of 24 satellites
 - (c) US system is called GPS while Russian system is called Glonass
 - (d) Signal from a minimum of four satellites is required to determine two-dimensional position

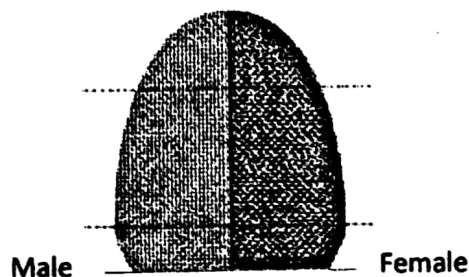
13. Consider the following about global warming and mark the incorrect.
- (a) An increase in global temperature
 - (b) Concentration of greenhouse gases resulting from human activities
 - (c) Kyoto Protocol was binding on all countries since 1997
 - (d) Global warming is key component of climate change
14. Who is NOT connected with the concept of Human Ecology?
- (a) H. H. Barrows
 - (b) A. Hawley
 - (c) Robert Park
 - (d) Neil Smith
15. 'Cartographic Scale' is crucial in geography. What is NOT true about the cartographic scale?
- (a) Scale refers to representation and abstraction
 - (b) Scale denotes the type of projection used
 - (c) Scale indicates what can be shown and what can't be shown on the map
 - (d) Scale is a ratio and a fraction
16. Topographical sheet of Survey of India is
- (a) a type of cylindrical projection
 - (b) a type of polyconic projection
 - (c) produced at the scale of 1 : 10000
 - (d) None of the above
17. A three-dimensional earth is converted to two-dimensional map using
- (a) scale factor
 - (b) globe
 - (c) projection
 - (d) survey methods

- 18.** Which one of the following is NOT true about Hythergraph?
- (a) This is a type of climatic graph
 - (b) It depicts the relationship between precipitation and temperature
 - (c) It is used to measure amount of moisture in the atmosphere
 - (d) It is first used by Griffith Taylor
- 19.** What is true about orthographic projection?
- (a) This is type of a conical projection
 - (b) This is type of a perspective projection
 - (c) This projection is used to show polar region
 - (d) Scale is true at the centre of this projection
- 20.** What is true about gulf stream?
- (a) This is a warm ocean current
 - (b) It originated in the Gulf of Mexico and travel up to Newfoundland
 - (c) The region, where it culminates, is one of important marine resource regions
 - (d) All of the above
- 21.** What is NOT true about Gnomonic projection?
- (a) Gnomonic projection is a polar zenithal projection
 - (b) Equator is drawn as a great circle
 - (c) Scale is exaggerated at all places except at the pole
 - (d) All great circles are drawn as straight line and is useful for navigation
- 22.** A form of interaction among plant species in which a toxic substance released by the roots of one species inhibits the growth of other plant species is called by which one of the following?
- (a) Naturopathy
 - (b) Dendropathy
 - (c) Toxicopathy
 - (d) Allelopathy

23. The world has been divided into major land biomes. Which ONE of the following is correct sequence of these in terms of the area in percentage arranged in descending order?
- (a) Boreal-Savannah-Arid-semi-Arid and Polar
 (b) Savannah-Arid-semi-Arid-Boreal and Polar
 (c) Savannah-Boreal-Arid-semi-Arid and Polar
 (d) None of the above
24. At the equator east-west, the velocity of an object on the surface of earth is about 1700 km per hour. At which of the following parallels the velocity will be approximately half, i.e., 850 km per hour?
- (a) 30° (b) 45°
 (c) 60° (d) 70°
25. Which one of the following scientists invented the Foucault Pendulum to publically demonstrate that earth rotates?
- (a) Nicolaus Copernicus (b) Johannes Kepler
 (c) Issac Newton (d) Jean Bernard Leon Foucault
26. Which of the following numbers is considered the standard sea-level pressure in the mercurial barometer?
- (a) 74.0 cm (b) 75.0 cm
 (c) 76.0 cm (d) 77.0 cm
27. Which one of the following is NOT essential element in a distinctive combination of an air mass?
- (a) Precipitation (b) Environmental lapse rate
 (c) Specific humidity (d) Temperature
28. The total amount of water evaporated from land and ocean is approximately 488000 cu km, which comes back into the land and ocean through precipitation. Which of the following is NOT true?
- (a) The ocean receives more precipitation than the water it losses through evaporation.
 (b) Both land and ocean receive water through precipitation equal to the loss through evaporation.
 (c) Land receives more water through precipitation than it losses through evaporation.
 (d) Land receives less water through precipitation than it losses through evaporation.

29. Oil shale is believed to be tremendous reserve of hydrocarbon fuel it holds. Which two of the following are the main components of oil shale particularly in Rocky Mountain region?
- (a) Shale and petroleum
 - (b) Shale and calcium carbonate
 - (c) Petroleum and magnesium carbonate
 - (d) Calcium carbonate and magnesium carbonate
30. According to Murphy, Indo-Gangatic Plains are parts of which of the following World Structural Region?
- (a) Sedimentary covers outside shield exposure
 - (b) Continental Shelves
 - (c) Gondwana Shields
 - (d) Laurasian Shields
31. Scarification is a general term used for describing which one of the following human activities?
- (a) Land disturbances primarily done for construction of dams
 - (b) Land disturbances primarily done for construction of highways
 - (c) Land disturbances primarily done for real estate development
 - (d) Land disturbances primarily produced for the purpose of extracting mineral resources including accumulation of waste matter
32. Flowstone is a typical feature in which of the following?
- (a) Fluvial landform
 - (b) Volcanic landform
 - (c) Aeolian landform
 - (d) Karst landform
33. The name monadnock was given to a geographical feature by who among the following?
- (a) L. C. King
 - (b) Walther Penck
 - (c) W. M. Davis
 - (d) G. K. Gilbert
34. Oscillatory waves are generated by which of the following?
- (a) Tides
 - (b) Winds
 - (c) Rotation of the earth
 - (d) Centrifugal force

35. A delta resembling to a sharp tooth is called
- (a) arcuate delta (b) cusped delta
(c) estuarine delta (d) birdfoot delta
36. Which one of the following is the world's oldest and deepest freshwater lake?
- (a) Lake Superior (b) Lake Tanganyika
(c) Lake Victoria (d) Lake Baikal
37. According to W. M. Davis, evolution of landforms under action of running water constitutes the standard cycle, which could be modified under which one of the following conditions?
- (a) Hydrological conditions (b) Ecological conditions
(c) Anthropogenic conditions (d) Climatic conditions
38. Human life depends on continuous exchange of materials with the earth's environment made up of atmosphere, biosphere, lithosphere and hydrosphere. The three inputs taken by an adult human are in the form of oxygen, food and water taken in different proportions in kg. Which one of the following is correct sequence in ascending order?
- (a) Oxygen-food-water (b) Food-oxygen-water
(c) Water-food-oxygen (d) Food-water-oxygen
39. The following diagram depicts the population dynamics. Which one of the following is the most appropriately explained by the diagram?



- (a) Stable population (b) Expanding population
(c) Contracting population (d) Stationary population

40. Which one of the following is a proper sequence of national parks listed from east to west in India?

I. Pench National Park

II. Dachigam National Park

III. Pine Valley National Park

IV. Balpakram National Park

(a) IV, III, I, II

(b) I, IV, II, III

(c) III, IV, I, II

(d) IV, I, III, II

41. The United Nations Conference on Environment and Development (UNCED) was held at Stockholm Conference of 1972 and agreed on which of the following numbers of principles?

(a) 20

(b) 24

(c) 26

(d) 28

42. The following table gives the names of the tribes and the areas of relatively more number. Identify the combination :

	<i>Tribes</i>				<i>States</i>			
	A.	B.	C.	D.	1.	2.	3.	4.
	Jaintia	Tangkhul Naga	Chenchu	Baiga	Andhra Pradesh	Madhya Pradesh	Meghalaya	Manipur
(a)	3	2	1	4				
(b)	3	4	1	2				
(c)	4	3	1	2				
(d)	2	4	1	3				

43. Which one of the following States has relatively the highest contribution to Scheduled Tribe population in total ST population in India in 2011?

(a) Jharkhand

(b) Chhattisgarh

(c) Gujarat

(d) Andhra Pradesh

44. Identify the State with the highest percentage of Scheduled Caste population as per 2011 Census.
- (a) West Bengal (b) Himachal Pradesh
(c) Haryana (d) Uttar Pradesh
45. Which of the following is the most visited city in 2015 by foreign tourists?
- (a) Mumbai (b) Delhi
(c) Agra (d) Jaipur
46. Which of the following is NOT a direct greenhouse gas?
- (a) CH₄ (b) CFC
(c) CO₂ (d) SO₂
47. Water is found in three forms in earth's environment. These forms are interrelated to each other through exchange of heat energy. Identify the combination of processes that constitute sublimation.
- I. From solid to liquid
II. From solid to gas
III. From liquid to gas
IV. From gas to solid
V. From liquid to solid
- (a) I, V (b) III, V
(c) II, IV (d) III, IV
48. Umium Lake is a major source of hydroelectricity production in which of the following States?
- (a) Mizoram (b) Meghalaya
(c) Manipur (d) Jharkhand
49. Which is NOT true about Mangrove forest?
- (a) Found near sea margins (b) Aerial roots
(c) Protect from tidal erosion (d) Dissected leaves

50. Which one of the following is NOT the aeolian landforms?
- (a) Barkhan (b) Mushroom Rock
(c) Stalactites (d) Dunes
51. The most number of migrations take place in India due to
- (a) economic reason
(b) marriage
(c) natural disasters
(d) development related displacement
52. In Food-chain system, at what level the highest energy transfer takes place?
- (a) Photosynthesis (b) Carnivorous
(c) Herbivorous (d) Omnivorous
53. Which one of the following States has more Members of Parliament in Lower House (Lok Sabha)?
- (a) Gujarat (b) Andhra Pradesh
(c) Karnataka (d) Odisha
54. If a continuous series of data is multiplied by a constant, the change in standard deviation will be
- (a) equal to the product of multiplication factors
(b) equal to less than the product of multiplication factors
(c) equal to more than the product of multiplication factors
(d) remain unchanged
55. The value of π is 3.14 (approx), what does it indicate?
- (a) Ratio between the circumference and area
(b) Ratio between the circumference and diameter
(c) Ratio between the radius and arc
(d) Ratio between the radius and area

56. Gond is a relatively large Scheduled Tribe in terms of their number. Which of the following States has the highest number of their population?
- (a) Madhya Pradesh
 - (b) Chhattisgarh
 - (c) Rajasthan
 - (d) Maharashtra
57. What value indicates the clustered settlement in nearest neighbour analysis?
- (a) Equal to 1
 - (b) Less than 1
 - (c) Greater than 1
 - (d) None of the above
58. Which one of the following is an example of antecedent river?
- (a) Mahanadi
 - (b) Narmada
 - (c) Sutlej
 - (d) Kaveri
59. Rostow has identified the following stages of development. Which one of the following is incorrect?
- (a) Stationary state
 - (b) Precondition to take-off
 - (c) Take-off
 - (d) Stage of mass consumption
60. "Who rules the ____ commands the world."
is a famous statement made by Mackinder in 1919.
Fill in the gap with appropriate word from the following :
- (a) East Europe
 - (b) rimland
 - (c) heartland
 - (d) World Island