

CET (PG)-2015

Sr. No. : 258087

Question Booklet Series : A

Important: Please consult your Admit Card / Roll No. Slip before filling your Roll Number on the Test Booklet and Answer Sheet.

Roll No.

In Figures

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In Words

O.M.R. Answer Sheet Serial No.

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Signature of the Candidate :

Subject : Masters in Remote Sensing & GIS

Time : 90 minutes

Number of Questions : 75

Maximum Marks : 75

DO NOT OPEN THE SEAL ON THE BOOKLET UNTIL ASKED TO DO SO

INSTRUCTIONS

1. Write your Roll No. on the Question Booklet and also on the OMR Answer Sheet in the space provided and nowhere else.
2. Enter the Subject and Series Code of Question Booklet on the OMR Answer Sheet. Darken the corresponding bubbles with **Black Ball Point / Black Gel pen**.
3. Do not make any identification mark on the Answer Sheet or Question Booklet.
4. To open the Question Booklet remove the paper seal gently when asked to do so.
5. Please check that this Question Booklet contains 75 questions. In case of any discrepancy, inform Assistant Superintendent within 10 minutes of the start of test.
6. Each question has four alternative answers (A, B, C, D) of which only one is correct. For each question darken only one bubble (A or B or C or D), whichever you think is the correct answer, on the Answer Sheet with **Black Ball Point / Black Gel pen**.
7. If you do not want to answer a question, leave all the bubbles corresponding to that question blank in the Answer Sheet. No marks will be deducted in such cases.
8. Darken the bubbles in the OMR Answer Sheet according to the Serial No. of the questions given in the Question Booklet.
9. Negative marking will be adopted for evaluation i.e., 1/4th of the marks of the question will be deducted for each wrong answer. A wrong answer means incorrect answer or wrong filling of bubble.
10. For calculations, use of simple log tables is permitted. Borrowing of log tables and any other material is not allowed.
11. For rough work only the sheets marked "Rough Work" at the end of the Question Booklet be used.
12. The Answer Sheet is designed for **computer evaluation**. Therefore, if you do not follow the instructions given on the Answer Sheet, it may make evaluation by the computer difficult. **Any resultant loss to the candidate on the above account, i.e., not following the instructions completely, shall be of the candidate only.**
13. After the test, hand over the Question Booklet and the Answer Sheet to the Assistant Superintendent on duty.
14. In no case the Answer Sheet, the Question Booklet, or its part or any material copied/noted from this Booklet is to be taken out of the examination hall. Any candidate found doing so, would be expelled from the examination.
15. A candidate who creates disturbance of any kind or changes his/her seat or is found in possession of any paper possibly of any assistance or found giving or receiving assistance or found using any other unfair means during the examination will be expelled from the examination by the Centre Superintendent/Observer whose decision shall be final.
16. **Telecommunication equipment such as pager, cellular phone, wireless, scanner, etc., is not permitted inside the examination hall. Use of calculator is not allowed.**

SEAL

1. **Which statement describes cartography most accurately ?**
 - (A) It is the science of map making and map designing
 - (B) It is the science of symbolic representation
 - (C) It deals with construction of projections
 - (D) Cartography is the science of data collection

2. **The graticule is :**
 - (A) The networks of latitudes and longitudes
 - (B) The system of directions in a compass
 - (C) An instrument for map making
 - (D) A mark put on a map for future reference

3. **The cardinal points are the :**
 - (A) Four corners of a map
 - (B) Four main directions on a compass
 - (C) Position of the two poles
 - (D) Four critical positions on the earth in its orbit around the sun

4. **The latitude of a place is measured at a distance from the :**
 - (A) Equator in kms
 - (B) Equator as an angle
 - (C) Prime meridian as an angle
 - (D) Poles as an angle

5. **A map can be defined as a/an :**
 - (A) Representation of earth or its part to some scale
 - (B) Visual representation of the earth surface
 - (C) Line diagram of the earth or its parts
 - (D) Outline of the various types of landforms

6. **The actual height of places above the sea level are shown by :**
 - (A) Contours
 - (B) Spot heights
 - (C) Hachures
 - (D) Hill shading

7. **The scale is the :**
 - (A) Ratio between vertical height and ground distance between two points
 - (B) Ratio between actual and map distance between two points
 - (C) It is overall size of the area shown on a map
 - (D) It is an instrument used for measuring areas on maps

8. When a very long distance is shown by a small map distance, the scale is called a :
 (A) Large scale (B) Small scale
 (C) Universal scale (D) Ordinary scale
9. The spacing of contour lines indicates :
 (A) Degree of slope (B) Direction of slope
 (C) Land use (D) Length of slope
10. An instrument used for reducing or enlarging a map is :
 (A) Pantograph (B) Barograph
 (C) Planimeter (D) Orthometer
11. The planimeter is used for measuring the :
 (A) Directions on a map (B) Areas on a map
 (C) Distances on a map (D) Altitude on maps
12. Which of the following is the largest scale map ?
 (A) Atlas map (B) Wall map
 (C) Topographical map (D) Cadastral map
13. The topographical maps of India are published by :
 (A) Government of India (B) Geographical Survey of India
 (C) Survey of India (D) Geological Survey of India
14. What is usually shown with the help of a Cadastral map ?
 (A) Cultural features (B) Land use
 (C) City morphology (D) Mineral resources
15. The thematic map is a/an :
 (A) General purpose map (B) Special purpose map
 (C) Atlas map (D) Large scale map
16. A scale showing a particular ground distance by a line of a definite length is called :
 (A) R.F. (B) Plain scale
 (C) Graphical scale (D) Statement scale
17. In case of a graphical scale the zero is shown on :
 (A) The left hand end (B) The right hand end
 (C) One division before the right hand end (D) One division after the left hand end

18. Which type of scale facilitates a direct measurement of distances from the map ?
- (A) Graphical (B) R.F.
(C) Statement (D) Beaufort
19. In case of R.F., the denominator of the fraction shows the :
- (A) Ground distance (B) Map distance
(C) Any distance (D) It does not show any distance
20. Two or three closed contour lines drawn very close to each other with a large space left empty in the centre indicate a :
- (A) Conical hill (B) Plateau
(C) Steep slope (D) Gentle slope
21. Contours drawn at a uniform distance indicate :
- (A) Gentle slope (B) Steep slope
(C) Uniform slope (D) Convex slope
22. Dots marked on maps with a number indicating its altitude are called :
- (A) Hachures (B) Bench marks
(C) Spot heights (D) Trigonometrical stations
23. Small triangles on topographical maps with figures written against them are called :
- (A) Spot height (B) Reference points
(C) Trigonometric stations (D) Bench marks.
24. By what colour are the contours shown on topological maps ?
- (A) Blue (B) Green
(C) Brown (D) Black
25. The bearing is the angular distance of an object from :
- (A) The magnetic north measured in clockwise direction
(B) The geographical north measured in anti-clockwise direction
(C) Magnetic north measured in anti-clockwise direction
(D) Any one cardinal point measured clockwise

26. A uniform but steep slope is shown by :
 (A) Close but equi spaced contours
 (B) Sparse but equi spaced contours
 (C) Closely spaced contours in pairs
 (D) Form lines and hachures
27. Which of the following represents steepest gradient ?
 (A) 1 : 200
 (B) 1 : 50
 (C) 1 : 100
 (D) 1 : 20
28. The loxodrome is a :
 (A) Line of constant bearing crossing all meridians at the same angle
 (B) Straight line on a map projection
 (C) Line drawn parallel to the equator
 (D) Line representing a small circle on the globe
29. The term local relief of an area implies the :
 (A) Altitude of the highest point in the area
 (B) Average height of the area above sea level
 (C) Altitude of the lowest point in the area
 (D) Difference between the highest and the lowest points in the area
30. An isopleth is a line connecting places :
 (A) With equal altitude
 (B) With equal cloudiness
 (C) Having the same value of phenomena
 (D) With the same time
31. The gradient can be defined as the :
 (A) Height above sea level
 (B) Difference between the highest and lowest points
 (C) Decline in height per unit of vertical distance
 (D) Decline in height per unit of horizontal distance
32. The magnetic declination is the :
 (A) Magnetic bearing
 (B) Difference between geographical and magnetic north
 (C) True geographical bearing of a point
 (D) Error in the bearing due to local interference
33. Which of the following statements describe a projection most accurately ?
 (A) The network of latitudes and longitudes
 (B) Transformation of spherical earth on to a plane surface
 (C) Drawing a map of the world or a part thereof
 (D) Representation of the relief features on a map

34. What is the contour interval on toposheets with a scale of 1 : 50,000 ?
 (A) 10 meters (B) 20 meters
 (C) 50 meters (D) 100 meters
35. What will be the R.F. of a map with scale 1 cm to half a km ?
 (A) 1 : 50,000 (B) 1 : 25,000
 (C) 1 : 1,00,000 (D) 1 : 500
36. The developable surface is a/an :
 (A) Surface which can be converted to any shape
 (B) Surface which can be converted into plane surface
 (C) Surface which resembles the earth surface
 (D) Area which can be developed economically
37. What kind of developable surface is used for drawing conventional projections ?
 (A) Plane surface (B) Conical surface
 (C) Spherical surface (D) No developable surface
38. What will be the projection called when the developable surface touches the globe at the equator ?
 (A) Cylindrical (B) Equatorial
 (C) Conical (D) Zenithal
39. When the developable surface touches the globe at the pole the resulting projection is called :
 (A) Polar projection (B) Oblique projection
 (C) Zenithal projection (D) Equatorial projection
40. When the projection is obtained by projecting the graticule onto the developable surface using light, it is called a :
 (A) Zenithal projection (B) Perspective projection
 (C) Conical projection (D) Conventional projection
41. When no use of light is made it yields a _____ projection.
 (A) True shape (B) Homolographic
 (C) Perspective (D) Non perspective
42. Which is not sought after quality of a projection ?
 (A) Accuracy of area (B) Accuracy of shape
 (C) Correct directions (D) Size of the map

43. What is shown correctly by a homolographic projection ?
 (A) Area (B) Shape
 (C) Direction (D) Azimuth
44. What is shown correctly on an azimuthal projection ?
 (A) Shapes (B) Areas
 (C) Directions (D) Size
45. What is the source of light kept in gnomonic projections ?
 (A) Centre of the globe (B) Periphery of the globe
 (C) At infinity (D) May be anywhere
46. Polar areas are represented more accurately on _____ projection.
 (A) Conical (B) Zenithal
 (C) Cylindrical (D) Mercators
47. In cylindrical projections the meridians are shown as :
 (A) Circles (B) Horizontal straight lines
 (C) Arcs or curves (D) Vertical straight lines
48. Which projections represent the parallel as horizontal straight lines ?
 (A) Cylindrical (B) Conical
 (C) Zenithal (D) Bonne's
49. What is the characteristic of Bonne's projection :
 (A) Equal area (B) Orthomorphic
 (C) Equidistant (D) Azimuthal
50. International map projection is a modification of :
 (A) Bonne's Projection (B) Conical projection
 (C) Polyconic projection (D) Mercators projection
51. Bearings of a prismatic compass are with reference to :
 (A) Geographical north (B) Magnetic north
 (C) True north (D) Grid north
52. Choropleth suits better when the data are :
 (A) Location specific (B) Point specific
 (C) Area specific (D) Qualitative in nature

53. In a dot map the value of the dots :
- (A) Remains constant (B) Varies in various parts of map
(C) May or may not vary (D) There is no value of dots
54. Pie diagrams are also known as :
- (A) Pictorial diagrams (B) Circle and Sector diagrams
(C) Ring diagrams (D) Spherical diagrams
55. What is the appropriate technique for showing the rural and urban population on a single map ?
- (A) Rural population by dots and urban by choropleth
(B) Rural population by dots and urban by proportional circles
(C) Urban population by dots and rural by proportional circles
(D) Rural population by Choropleth and urban by dots
56. A graph showing the relationship between wet bulb temperature and relative humidity for 12 months is called :
- (A) Climograph (B) Climatograph
(C) Hythergraph (D) Climatic comfort graph
57. What is the spectral range of human eye ?
- (A) 0.3 to 0.7 microns (B) 0.4 to 0.7 microns
(C) 0.3 to 0.9 microns (D) 0.2 to 1.0 microns
58. The primary colours are :
- (A) White, Red, Green and Blue (B) Red, Green, Blue and Yellow
(C) Red, Green and Blue (D) Red, Violet and Indigo
59. The term FCC applies to :
- (A) Aerial photographs (B) Digital images
(C) Satellite Imageries (D) Scanners
60. In the interior of the earth _____.
- (A) The temperature falls with increasing depth (B) The pressure falls with increasing depth
(C) The temperature rises with increasing depth (D) Pressure remains constant with varying depth

61. What does sial refer to ?
 (A) Earth's surface layer
 (B) The core part of the earth
 (C) Ocean bottom rocks
 (D) A rock which is rich in calcium
62. Which of the major earthquake waves are lost or absorbed in the core part of the earth ?
 (A) P-Waves
 (B) S-Waves
 (C) L-Waves
 (D) None
63. The sky looks blue because of :
 (A) Selective absorption of radiation by atmosphere
 (B) Selective scattering of radiation by atmosphere
 (C) Reflection of blue colour in the oceans
 (D) Absorption of blue light in the oceans
64. When the data pertains to a total and various components thereof, it can be easily shown by a :
 (A) Choropleth map
 (B) Pie diagram
 (C) Flow chart
 (D) Line graph
65. What is shown with the help of profiles ?
 (A) Relief features
 (B) Population distribution
 (C) Weather elements
 (D) Industrial production
66. Which of the following is an example of a space borne remote sensing platform ?
 (A) Aircraft
 (B) Satellite
 (C) Microwave tower
 (D) Balloon
67. Most of the communication satellites are placed in _____ orbit.
 (A) Geostationary
 (B) Polar
 (C) Sun synchronous
 (D) Neither geostationary nor polar
68. Which satellite has been called the Earth observation Satellite ?
 (A) Cartosat-I
 (B) IRS-P2
 (C) IRS-1D
 (D) EDUSAT

69. Which one of the following is not a GIS software ?
- (A) ARC VIEW (B) OSIRIS
(C) ILWIS (D) IDRISI
70. The name given to an instrument for viewing stereo pairs for interpretation is a :
- (A) Stereogram (B) Stereograph
(C) Stereomata (D) Stereoscope
71. Which of the following methods is most suitable to show density of population ?
- (A) Dot method (B) Isopleth
(C) Choropleth (D) Pie diagram
72. Which among the following is not the component of GIS ?
- (A) Hardware (B) Software
(C) People (D) Map scale
73. The pole is represented on cylindrical projection as a :
- (A) Straight line (B) Point
(C) Circle (D) Semi circle
74. Which one of the following is more useful in navigation and aviation ?
- (A) Mercators projection (B) Gnomonic projection
(C) Sinusoidal projection (D) Mollweid's projection
75. National Atlas and Thematic Mapping Organisation is located at :
- (A) Kolkata (B) Dehradun
(C) Pune (D) New Delhi