

1. Identify the first garden city from the following in UK which gave physical expression to Howard's ideas
 - (A) Letchworth
 - (B) Welwyn
 - (C) Stockfield
 - (D) Brentham
 - (E) Answer not known

2. Method by which the last census is updated by simple apportioning based on previous statistics is called
 - (A) Migration rate
 - (B) Censal ratio
 - (C) Demographic ratio
 - (D) Decadal change
 - (E) Answer not known

3. List the characteristics of Urbanism on urban system as stated by Louis Wirth from the following
 - (i) Transiency
 - (ii) Superficiality
 - (iii) Anonymity
 - (iv) Individualism
 - (A) (i), (ii), (iii) and (iv)
 - (B) (ii), (iii) and (iv)
 - (C) (i), (iii) and (iv)
 - (D) (i), (ii) and (iii)
 - (E) Answer not known

4. Sir Patrick Geddes, used to describe the cities where a disproportionate amount of world's trade was carried out as
- (A) Financial city (B) Monetary city
(C) World city (D) Global city
(E) Answer not known
5. Name the only metropolitan area in united states which is without a formal zoning ordinance
- (A) San Francisco (B) Chicago
(C) Houston (D) Atlanta
(E) Answer not known
6. Match the correct matches
- | | | |
|------------|---|---|
| (1) IRDP | – | Integrated Rural development Programme |
| (2) TRYSEM | – | Training of Rural Youth for Self Employment |
| (3) MWS | – | Million Weaker Schemes |
| (4) SHG | – | Social Help Group |
- (A) (1) and (2) are correct
(B) (2) and (3) are correct
(C) (3) and (4) are correct
(D) (1) and (4) are correct
(E) Answer not known

7. Assertion [A] : Most of the Urban problems that concern us today can be traced to underlying changes in land use
- Reason [R] : The spatial origins and implication of such problems where his peculiar talents are most likely to be relevant.
- (A) [A] is true [R] is true
 (B) [A] is false [R] is true
 (C) [R] is false [A] is true
 (D) [A] is false [R] is false
 (E) Answer not known
8. The output of products for distribution solely to the urban area itself is referred to as a
- (A) City activity (B) Place activity
 (C) Basic activity (D) Non basic activity
 (E) Answer not known
9. ————— can be defined as a pattern of Urban and metropolitan growth that reflects low-density, automobile – dependent, exclusionary new development on the fringe of settled areas often surrounding a deteriorating city
- (A) Densification (B) Desertification
 (C) Redevelopment (D) Sprawl
 (E) Answer not known

10. Central place theory was proposed by ————— in the year 1935.
- (A) Walter Christaller (B) August Losch
(C) Walter Isard (D) Ernest W. Burgess
(E) Answer not known
11. Name the theory which was mainly concerned with the agricultural location, and is based upon the assumption that labour and capital are equal in unit rate and the cost of production at different places (excluding the transportation cost) is the same
- (A) Concentric zone theory (B) Von Thunen model
(C) Sector theory (D) Multi nuclei theory
(E) Answer not known
12. Labour market policy, as described by Overman and Puga, generates the biggest agglomeration benefits when
- (A) All sectors have identical productivity stocks
(B) Sectors have heterogeneous, in correlated stocks but worker can move between them
(C) There is only one dominant employer
(D) Worker cannot change jobs without relocating
(E) Answer not known
13. Concentric zone concept was conceived by
- (A) Ernest Burgess (B) Robert Park
(C) Louis Wirth (D) Jane Jacobs
(E) Answer not known

14. _____ is not a character of Rural communities?
- (A) Homogeneity in dress and culture
 - (B) Informal social control
 - (C) Higher social mobility
 - (D) Greater hospitality
 - (E) Answer not known
15. _____ is characterized by shared beliefs, strong sense of common identity, lasting and genuine form of living together
- (A) Gesellschaft
 - (B) Gemeinschaft
 - (C) Germanschaft
 - (D) Gesenshcraft
 - (E) Answer not known
16. As per IGBC Green Townships rating system, for the award of platinum certification, the points required are in the range of
- (A) 100-119
 - (B) 120-139
 - (C) 140-159
 - (D) 160-200
 - (E) Answer not known
17. Meaning of Brownfield site is
- (A) Contaminated site
 - (B) Site filled with earth
 - (C) Sustainable site
 - (D) Greenfield site
 - (E) Answer not known

18. The certification of a IGBC Green township is divided into three stages. What percentage of the total project infrastructure must be constructed for “Stage I” certification?
- (A) 25% (B) 50%
(C) 75% (D) 90%
(E) Answer not known
19. One of the common gaseous air pollutants which is known to be injurious to human health is
- (a) SO₂
(b) CO
(c) NO_x
(d) H₂S
- (A) (a), (b) (B) (b), (c)
(C) (c), (a) (D) (a), (b), (c), (d)
(E) Answer not known
20. The factors includes in Economic Environment are
- (1) Employment
(2) Politics
(3) Demand patterns
(4) Land value
- (A) (1), (3), (4) (B) (1), (2), (3)
(C) (2), (3), (4) (D) (1), (2), (4)
(E) Answer not known

21. What is the maximum imprisonment term for continuing environmental violation beyond one year after conviction under Section 15 of Environment (Protection) Act, 1986?
- (A) 5 years (B) 6 years
(C) 7 years (D) 10 years
(E) Answer not known
22. According to CRZ Notification 2019, what population density threshold distinguishes CRZ-III A from CRZ-III B areas?
- (A) 2161 per square kilometer as per 2011 census
(B) 1500 per square kilometer as per 2011 census
(C) 2500 per square kilometer as per 2011 census
(D) 3000 per square kilometer as per 2011 census
(E) Answer not known
23. Based on the IGBC Rating System select the correct answer.
- Assertion [A] : A sector (A combination of reversal sector form a community) is considered the basic module of a city.
- Reason [R] : The design of sectors emphasizes on walkability, interconnectivity, compactness and diversity.
- (A) Both [A] and [R] are true, and [R] is the correct explanation of [A]
(B) Both [A] and [R] are true, but [R] is not the correct explanation of [A]
(C) [A] is true, but [R] is false
(D) [A] is true, but [R] is true
(E) Answer not known

24. For which category of projects does the district level environment impact assessment authority primarily grant prior environmental clearance
- (A) All new projects or activities listed in the schedule
 - (B) Category 'A' projects requiring central government clearance
 - (C) Category 'B' projects requiring state level EIA clearance
 - (D) 'B2' category projects pertaining to mining of minor mineral of lease area less than or equal to 5 hectares
 - (E) Answer not known
25. TOD is defined as development apparel that
- (A) focuses exclusively on building metro rail network
 - (B) incorporate development around a transit node to induce preference for public transport over private transport
 - (C) only applies to commercial zones near transportation hubs
 - (D) Restrict all private vehicle access in urban areas
 - (E) Answer not known
26. _____ means any solid, liquid, or gaseous substance present in such concentration as may be, or tend to be injurious to environment.
- (A) Air Pollution
 - (B) Noise Pollution
 - (C) Environmental Pollutant
 - (D) Water Pollution
 - (E) Answer not known
27. Acceptable noise level recommended by Federal Highway Administration (U.S.A) for residential and schools areas is
- (A) 75 dB
 - (B) 60 dB
 - (C) 65 dB
 - (D) 70 dB
 - (E) Answer not known

28. According to Coastal Regulation Zone, 2011, _____ means the line on the land up to which the highest water line reaches during the spring tide.
- (A) High tower line (B) Head tide line
(C) High tide link (D) High tide line
(E) Answer not known
29. The central pollution control board derives its statutory powers from which Act?
- (A) Environmental Protection Act 1986 only
(B) Water (Prevention and Control of Pollution) Act, 1974 only
(C) Both Water Act 1974 and Air Act 1981
(D) An environmental act collectively
(E) Answer not known
30. In the context of Environmental Clearance process, what is the primary purpose of 'sloping'?
- (A) To conduct a site inspection for environmental impacts
(B) To determine the detailed and comprehensive Terms of reference for the preparation of EIA and environmental management report
(C) To ascertain the concerns of local affected persons through public hearings
(D) To make categorical recommendation for the grant or rejection of environmental clearance
(E) Answer not known

31. _____ is a technique of land development which separates the development potential of a land parcel for use elsewhere.
- (A) Land Acquisition
 - (B) Land Pooling
 - (C) Land Recreation
 - (D) Transferable Development Rights
 - (E) Answer not known
32. According to the Tamil Nadu Real Estate (Regulation and Development) Act, 2017, any refund of money along with the applicable interest and compensation payable by the promoter to the allottee shall be paid within _____ from the date on which such refund becomes due.
- (A) 90 days
 - (B) 45 days
 - (C) 30 days
 - (D) 120 days
 - (E) Answer not known
33. The applications for planning permit or building permit shall be accompanied by a Topo plan drawn to a scale of not less than 1 : 5000 showing the details within a radius of _____ m.
- (A) 250
 - (B) 500
 - (C) 750
 - (D) 1000
 - (E) Answer not known

34. Every area, beginning at the limit of the protected area or the protected monument, as the case may be, and extending to a distance of _____ metres in all directions shall be prohibited area.
- (A) 25 (B) 50
(C) 75 (D) 100
(E) Answer not known
35. Upon the registration of a project as per Section 5 read with Section 3 of the Act (Real Estate (Regulation and Development) Act, 2016) the Authority shall issue a registration certificate with a registration number in _____ to the promoter.
- (A) Form 'A' (B) Form 'B'
(C) Form 'C' (D) Form 'D'
(E) Answer not known
36. Permission for such private vending zones shall be given only if the number of vendors in such private vending zones together with the street vendors in that area shall not exceed _____ of the population of that vending zone, area or location.
- (A) 1% (B) 1.5%
(C) 2.0% (D) 2.5%
(E) Answer not known

37. As per Tamil Nadu street vendors scheme and rules 2015 _____ means an area in a town where vendors are permitted only during certain hours of the day or certain days of the week as fixed by the town vending committee.
- (A) Time restricted vending zone
 - (B) Restricted zone
 - (C) Town vending zone
 - (D) Street vending time
 - (E) Answer not known
38. Any land required, reserved or designated in a regional plan, master plan and detailed development plan for public purpose can be acquired through land acquisition Act 1894 as per section _____ of Tamil Nadu Town and Country Planning Act.
- (A) 36
 - (B) 26
 - (C) 46
 - (D) 16
 - (E) Answer not known
39. _____ means an area having a population of ten lakhs or more, comprised in one or two district and consisting of two or more municipalities.
- (A) Cantonment
 - (B) Metropolitan area
 - (C) Utopian area
 - (D) Rural area
 - (E) Answer not known

40. According to 74th CAA, the constitution of a Metropolitan Planning Committee (MPC) for planning a Metropolitan Area is done for a population of
- (A) > 50 lakh (B) > 10 lakh
(C) > 20 lakh (D) > 5 lakh
(E) Answer not known
41. Identify one parameter which is NOT the principles of urban renewal
- (A) be humane and provide social justice
(B) strike balance among, physical, economic and environmental
(C) conserve socio - cultural values
(D) involve stakeholders only during certain stage of the renewal process
(E) Answer not known
42. Which of the following is correct :
- (1) Seats shall be reserved for schedule castes and schedule tribes in panchayat election.
(2) 1/2 of the position are reserved for women.
(3) Chairpersons of the panchayats at all levels in proportion to their population.
- (A) (1) only correct
(B) (1) and (2) are correct
(C) (2) and (3) are correct
(D) (1) and (3) are correct
(E) Answer not known

43. Which of the following statement is correct?
- (1) The powers and function of the panchayats are endowed by Panchayat council.
 - (2) It implements the scheme of the central and state government.
 - (3) Panchayat have the power to enhance employment facilities.
- (A) (1) only correct
 - (B) (1) and (2) are correct
 - (C) (2) and (3) are correct
 - (D) (3) and (4) are correct
 - (E) Answer not known
44. Match the following 74th Amendment Act 1992 :
- | | |
|--------------------|---|
| (a) Article 243 W | 1. State Election Commission |
| (b) Article 243 V | 2. Finance Commission |
| (c) Article 243 Y | 3. Disqualification of member |
| (d) Article 243 ZA | 4. Powers of Municipalities in Urban Planning |
-
- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 1 | 2 | 3 | 4 |
| (B) | 4 | 3 | 2 | 1 |
| (C) | 3 | 2 | 1 | 4 |
| (D) | 2 | 1 | 4 | 3 |
| (E) | Answer not known | | | |

45. The Chennai city Municipal Corporation Act was first published during
- (A) 1919 (B) 1819
(C) 1920 (D) 1820
(E) Answer not known
46. Which of the following statement is correct as per the function of the Metropolitan Development Authority
- (1) To carry out a survey of the Chennai Metropolitan Area.
(2) To carryout a survey for the whole state.
(3) To prepare an existing land use map.
- (A) (1) only correct
(B) (1) and (2) are correct
(C) (2) and (3) are correct
(D) (1) and (3) are correct
(E) Answer not known
47. An Act to consolidate the laws relating to municipalities and municipal corporations in the State of Tamil Nadu is called as
- (A) Panchayat Act (B) Municipality Act
(C) Corporation Act (D) TNULB Act
(E) Answer not known

48. The following buildings and land shall not be exempted from the property tax
- (A) Ancient Monuments Protected Under ASI Act
 - (B) Burial and Burning Grounds
 - (C) Charitable Hospitals and dispensaries
 - (D) Residential quarters for EWS
 - (E) Answer not known
49. The right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act, 2013 was proposed, since land acquisition Act 1894 does not address the issues of
- (A) Rehabilitation and resettlement of affected person
 - (B) Compensation criteria
 - (C) Does not define what is public purpose
 - (D) Does not have a legal standing
 - (E) Answer not known
50. According to 'the right to fair compensation and transparency in land acquisition rehabilitation and resettlement Act, 2013. Compensation has to be given with in _____ from the date of award and monetary rehabilitation and resettlement are to be provided within _____ period from the date of the award.
- (A) 6 months and 1 year
 - (B) 4 months and 6 months
 - (C) 2 months and 4 months
 - (D) 3 months and 6 months
 - (E) Answer not known

51. As per, "The Tamil Nadu District Municipalities Act, 1920, the council may at any time, required the Executive Authority to produce _____ document which is in his custody.
- (A) Hazardous materials (B) Non-Hazardous materials
(C) Fire retardant (D) Any
(E) Answer not known
52. 73rd and 74th Constitutional Amendment Acts come into force on
- (A) 24th April 1993 and 1st June 1993
(B) 23rd April 1983 and 1st June 1983
(C) 24th April 2003 and 1st June 2003
(D) 20th April 1988 and 1st June 1988
(E) Answer not known
53. Article _____ of the Indian Constitution imposes duty on every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for the living creatures.
- (A) 46A (B) 47A
(C) 48A (D) 49A
(E) Answer not known
54. The panchayats have been entrusted with the implementation of schemes for economic development and social justice and listed in the _____ schedule.
- (A) eleventh (B) twelfth
(C) tenth (D) thirteenth
(E) Answer not known

55. Which of the following is correct as per constitution of India
- (1) The objectives of the constitution: Justice, Liberty, Equality and Fraternity
 - (2) Justice in term of status and of opportunity
 - (3) Liberty in term of thought, expression brief, faith and worship
- (A) (1) only correct (B) (2) and (3) are correct
(C) (1) and (2) are correct (D) (1) and (3) are correct
(E) Answer not known
56. Which of the following statements is correct with respect to evaluating the impacts of projects and programs.
- (1) To identify the counterfactual it is necessary to clearly define control group
 - (2) To identify all variables which will impact on program outcomes
 - (3) All variables which will impact the program outcomes are directly measurable
- (A) (1) is correct
(B) (1) and (2) are correct
(C) (2) and (3) are correct
(D) (1) and (3) are correct
(E) Answer not known

57. Match the following alternative evaluation methods to reciprocal data requirements:

- | | |
|--------------------------|---|
| (a) Constructed controls | 1. Cross-section data on beneficiaries |
| (b) Reflexive controls | 2. Cross section data on representative |
| (c) Statistical controls | 3. Base line and follow up on beneficiaries |
| (d) Generic controls | 4. Large survey-census |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 4 | 3 | 2 | 1 |
| (B) | 3 | 2 | 1 | 4 |
| (C) | 1 | 4 | 3 | 2 |
| (D) | 2 | 3 | 1 | 4 |
| (E) | Answer not known | | | |

58. Match the methods of triangulation from the following :

- | | |
|---------------------------------|--|
| (a) Data triangulation | 1. Use of multiple perspectives |
| (b) Investigation triangulation | 2. Use of multiple method |
| (c) Method triangulation | 3. Use of several different evaluation |
| (d) Theory triangulation | 4. Use of a variety of data sources |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 3 | 2 | 1 | 4 |
| (B) | 4 | 3 | 2 | 1 |
| (C) | 1 | 2 | 3 | 4 |
| (D) | 2 | 3 | 4 | 1 |
| (E) | Answer not known | | | |

59. Match the following methods of impact evaluation :
- | | |
|-------------------------|--------------------------------|
| (a) Randomized control | 1. Compared to themselves |
| (b) Constructed control | 2. Judgement of experts |
| (c) Shadow control | 3. Equivalent group |
| (d) Reflexive control | 4. Randomly placed in 2 groups |
-
- | | | | | |
|-----|------------------|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| (A) | 4 | 3 | 2 | 1 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 3 | 4 | 2 | 1 |
| (D) | 4 | 1 | 2 | 3 |
| (E) | Answer not known | | | |
-
60. In project management schedule variance is the difference between
- (A) Earned Value (EV) and the Planned Value (PV)
- (B) Planned Value (PV) and the earned point
- (C) Planned Value and budget
- (D) Earned Value (EV) and actual cost
- (E) Answer not known
-
61. The term slack time refers to
- | | |
|-----------------------------|----------------|
| (A) An activity | (B) An event |
| (C) Both event and activity | (D) A schedule |
| (E) Answer not known | |

62. In project management for data representation _____ help find the strength of relationships among different factors, causes and objectives that exist between various factors. Depending on how many factors may be compared, project manager can use different shapes to represent this diagram
- (A) Matrix diagram (B) Flowcharts
(C) Mind mapping (D) Logical data model
(E) Answer not known
63. Which of the following pair are correct
- (1) Financial Appraisal – Domestic Resource Cost
(2) Environmental Appraisal – Government Policy
(3) Economic Appraisal – Capacity Utilization
(4) Managerial Appraisal – HR Management
- (A) (1) and (2) are correct
(B) (2) and (4) are correct
(C) (3) and (4) are correct
(D) (1) and (4) are correct
(E) Answer not known

64. In project management let a contractor have two brands of excavators. Both the brands are available for a down payment of 4 lakh rupees. Both brands can be useful for a period of 4 years. Brand A is estimated to give the return of Rs. 50,000 for the first year, Rs. 1,50,000 for second year, Rs. 2,00,000 for third year and the fourth year. Brand B on the other hand is expected to give a return of Rs. 1,50,000 for all 4 years. What is the pay backperiod for Brand B?
- (A) 2 years 8 months (B) 2 years
(C) 3 years (D) 2 years 3 months
(E) Answer not known
65. In case any tenderer asks for a clarification on the tender documents before _____ hours of the opening of tender, the tender Inviting Authority shall ensure that a replay is sent and copies of the reply to the clarification shall be communicated to all those who have purchased the tender documents
- (A) 72 (B) 48
(C) 36 (D) 24
(E) Answer not known

66. Match the following appraisal with factors :

- | | |
|-----------------------------|-------------------------|
| (a) Market Appraisal | 1. Capacity utilization |
| (b) Technical Appraisal | 2. Government policy |
| (c) Environmental Appraisal | 3. Plant and equipments |
| (d) Financial Appraisal | 4. Demand projection |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 4 | 3 | 2 | 1 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 2 | 3 | 4 | 1 |
| (D) | 3 | 2 | 1 | 4 |
| (E) | Answer not known | | | |

67. The Internal Rate of Return (IRR) of a project is the discount rate which makes its NPV equal to

- | | |
|----------------------|---------------|
| (A) ONE | (B) ZERO |
| (C) MINUS ONE | (D) MINUS TWO |
| (E) Answer not known | |

68. In project management the ratio of the earned value to the actual cost is

- (A) Cost Performance Index (CPI)
(B) Schedule Performance Index
(C) Earned Performance Index
(D) Profit Matrix
(E) Answer not known

69. Identify the three major dimension that defines the project performance, which is also referred as the 'Quality Triangle' of the project
- (1) Scope
 - (2) Cost
 - (3) Time
 - (4) Risk
- (A) (1), (2), (3) (B) (2), (3), (4)
- (C) (3), (4), (1) (D) (1), (3), (4)
- (E) Answer not known
70. The life cycle of a project from start to completion follow _____ shaped path
- (A) 'S' (B) 'U'
- (C) Inverted '^' (D) Straight Line
- (E) Answer not known
71. Identify the first earth observation satellite. Which was launched in April 1960 from the following?
- (A) TIROS – Television and Infrared Observation Satellite
- (B) ERTS – Earth Resources Technology Satellite
- (C) LANDSAT
- (D) SPOT
- (E) Answer not known

72. Remote sensing has the ability to record sequence of images, thereby representing changes in landscape patterns over time and this ability to record such a sequence at relatively close intervals generates a dataset with ————— resolution
- (A) Temporal resolution
 - (B) Fine Temporal resolution
 - (C) Coarse Temporal resolution
 - (D) Radiometric resolution
 - (E) Answer not known
73. The Grid based GIS spatial data can be stored, manipulated, analysed and referenced via the following method
- (i) GRID
 - (ii) IMGRID
 - (iii) MAP
- (A) (i), (ii) and (iii)
 - (B) (ii) and (iii)
 - (C) (i) and (ii)
 - (D) (i) and (iii)
 - (E) Answer not known
74. In raster data representation, the terrain is divided into a number of parcels called
- (A) Co-ordinates
 - (B) Grid cell
 - (C) Sub-division
 - (D) Layout
 - (E) Answer not known

75. Identify the theme's generally used for urban land suitability analysis from the following
1. Land use
 2. NDVi
 3. Water potential
 4. Tasseled cap ratio and subtraction
 5. Roads
 6. NiR
 7. Drainage
 8. GiR
 9. Slope
 10. FiR
- (A) 2, 3, 4, 5, 6
(B) 2, 4, 6, 8, 10
(C) 1, 2, 3, 4, 5
(D) 1, 3, 5, 7, 9
(E) Answer not known
76. In vector data representation, anything that has a single co-ordinate (x,y) pair, not physically connected to any other coordinate pair is a _____ entity
- (A) Discontinuous entity (B) Zero-dimensional
(C) Isolated entity (D) Non Cartesian entity
(E) Answer not known

77. Match the following GIS data collection and sources.

- | | |
|-----------------------------------|--|
| (a) Satellite data IRS ID-PAN | 1. Ground truth |
| (b) Toposheets and 1:50,000 scale | 2. Survey of India, GOI |
| (c) Field data | 3. National remote sensing agency, GOI |

- | | (a) | (b) | (c) |
|-----|------------------|-----|-----|
| (A) | 3 | 2 | 1 |
| (B) | 2 | 1 | 3 |
| (C) | 1 | 2 | 3 |
| (D) | 3 | 1 | 2 |
| (E) | Answer not known | | |

78. Identify the primary attributes of landforms that can be estimated using DEM

1. Elevation
 2. Point in polygon
 3. Slope
 4. Aspect
 5. Line in polygon
 6. Flow path length
 7. Polygon on polygon
- (A) 2, 5, 7
(B) 1, 2, 6, 7
(C) 1, 3, 4, 6
(D) 2, 5, 6, 7
(E) Answer not known

79. Identify the incorrect statement with respect to vector data models in GIS platform from the following
- (A) It provides a compact data structure than the raster model
 - (B) It provides efficient encoding of topology
 - (C) Better suited to supporting graphics that closely approximate land drawn maps
 - (D) It provides easy overlay operations
 - (E) Answer not known
80. In the field of remote sensing and GIS, LULC – stands for.
- (A) Land Use Legal Category
 - (B) Land Use Land Cover
 - (C) Land Use Local Category
 - (D) Legal Urban Land Cover
 - (E) Answer not known

81. Arrange the remote sensing events in order from the following
1. Required information
 2. Sensor
 3. Data recorder
 4. Emitted energy/reflected energy
 5. Target
 6. EM energy source
- (A) 5, 4, 6, 2, 3, 1
(B) 6, 5, 4, 2, 3, 1
(C) 5, 2, 6, 4, 3, 1
(D) 6, 5, 3, 4, 2, 1
(E) Answer not known
82. Why is non spatial data called as attribute data
- (A) They give information about attributes like geometric orientation
(B) They give information about attributes like shape of a feature
(C) They give information about attributes like size and relative position of a feature
(D) They give information about attributes like population
(E) Answer not known

83. Match the following :
- | | | |
|---------------------|---|--|
| (a) Thematic maps | – | Relative magnitude of continuous variables within a boundary |
| (b) Choropleth maps | – | Location and magnitude of areas exhibiting relative uniformity |
| (c) Proximal maps | – | Spatial distribution of features by varying numbers and size |
| (d) Dot maps | – | Spatial variations of a single phenomenon |
- (A) 1, 3, 2, 4
(B) 2, 3, 1, 4
(C) 2, 4, 1, 3
(D) 4, 2, 1, 3
(E) Answer not known
84. In GIS, 'TIN' stands for
- (A) Traffic Internet Network
(B) Triangulated Irregular Network
(C) Traffic Integrated Network
(D) Temporal Interface Network
(E) Answer not known
85. Name the output product using GIS platform
- (A) Aerial photographs
(B) Aerial photogrammetry
(C) Satellite imageries
(D) Thematic maps
(E) Answer not known

86. In GIS, the functions of Database Management Systems (DBMS) includes the following
- (1) File handling and file management
 - (2) Adding, updating and deleting records
 - (3) Extraction of information from data
 - (4) Application building
- (A) (1) is wrong
(B) (2) and (3) is wrong
(C) (1), (3),(4) is wrong
(D) (1),(2),(3),(4) is correct
(E) Answer not known
87. Identify the spatial data entity types from the following
- 1. Point
 - 2. Line
 - 3. Areas
 - 4. Bar charts
 - 5. Pie charts
 - 6. Scatter plots
- (A) 4, 5, 6
(B) 2, 4, 6
(C) 1, 3, 5
(D) 1, 2, 3
(E) Answer not known

88. Identify the relatively sophisticated image processing package to accomplish the integration of remotely sensed data into vector based GIS from the following
1. ARC/INFO
 2. ERDAS
 3. ARC/GRID
 4. ER mapper
- (A) (1) and (2) are correct
(B) (1) and (3) are correct
(C) (2) and (3) are correct
(D) (2) and (4) are correct
(E) Answer not known
89. Assertion [A] : Remote sensing data can be readily merged with other sources of geo-coded information in a GIS.
Reason [R] : GIS helps to support the use and effective management of remote sensing data
- (A) [A] is true and [R] is true
(B) [A] is false and [R] is true
(C) [A] is true and [R] is false
(D) [A] is false and [R] is false
(E) Answer not known

90. Match the application area's of remote sensing and GIS from the following :

- | | |
|-------------------------|------------------------------------|
| (a) Street network | 1. Tracking energy use |
| (b) Natural resource | 2. Environmental impact statements |
| (c) Land parcel | 3. Flood plain |
| (d) Facilities managers | 4. Vehicle routing |

- | | | | | |
|-----|------------------|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| (A) | 4 | 3 | 1 | 2 |
| (B) | 3 | 4 | 1 | 2 |
| (C) | 4 | 3 | 2 | 1 |
| (D) | 1 | 2 | 3 | 4 |
| (E) | Answer not known | | | |

91. Identify the River Valley Project, which is part of a broader regional plan, initiated as part of Second Five Year Plan from the following.

- (A) Narmada Valley Development Project
- (B) Damodar River Valley Project
- (C) Durgapur River Valley Project
- (D) Bhilai Regional Development Plan
- (E) Answer not known

92. Taylor and Houston (1953) classified town on the basis of their age and visualised the age in physical terms. He defined _____ is when the settlement is characterised by mixed landuses without any separation of domestic and commercial areas or without any stratification based on the economic condition of the residents.

- | | |
|----------------------|--------------------|
| (A) infantile stage | (B) juvenile stage |
| (C) maturity stage | (D) senility stage |
| (E) Answer not known | |

93. The Regional Planning Association of America in 1923 was formed by the following people.
- (a) Clarence stain
 - (b) Lewis Mumford
 - (c) Henry Wright
 - (d) Charles H. Whitaker
 - (e) Benton Mackaye
- (A) (a), (b), (c), (d), (e) (B) (a), (b), (c), (d)
- (C) (a), (b), (c) (D) (a), (b)
- (E) Answer not known
94. One great regional planning effort supported by President Roosevelt and congress is
- (A) Tennerree Valley Authority (TVA)
 - (B) The control valley of California
 - (C) Los Angels country Regional Planning Commission
 - (D) The Red River Authority
 - (E) Answer not known
95. The programme introduced in the Sixth Five Year Plan having the aim to improve infrastructure in selected towns to make them act as regional center's for economic growth and arrest migration to bigger cities is
- (A) Integrated development of small and medium towns
 - (B) Million plus cities
 - (C) JNNURM
 - (D) AMRUT
 - (E) Answer not known

96. In terms of settlement the sphere of influence of an area for which it is the trading nexus is called its
- (A) hinter land (B) urban field
(C) sphere field (D) Umland
(E) Answer not known
97. Sequence of steps involved in process of regional planning
- (1) Identifying the regionalism present.
(2) Making a plan for the region.
(3) Implementing the plan.
(4) Demarketing the region.
(5) Review of the plan.
(6) Determine the needs of the region.
- (A) (1), (4), (6), (2), (3), (5) (B) (4), (1), (6), (2), (5), (3)
(C) (1), (4), (2), (3), (6), (5) (D) (6), (1), (2), (4), (3), (5)
(E) Answer not known
98. A planning region should possess the following characteristics.
- (a) Large enough to enable substantial changes in distribution of population and employment
(b) Small enough for its planning problem to be seen as a whole
(c) Large enough to take investment decisions of an economic size
(d) Contain at least one growth point
- (A) (a), (b), (c), (d) (B) (a), (b), (c)
(C) (a), (c), (d) (D) (a), (c),
(E) Answer not known

99. The idea of central place theory was first put forward by _____
- (A) Walter Christaller (B) Carter
(C) Edward and Arnold (D) Dickinson
(E) Answer not known
100. Christaller believed that the hierarchy of central places may be organised according to _____ principles.
- (A) 3 (B) 4
(C) 7 (D) 8
(E) Answer not known
101. The Human Development Index (HDI) has been used for classifying countries and rank them in terms of education, life, expectancy, per capita income etc. The High human development has value
- (A) 0.800 and above (B) 0.500 and above
(C) 0.500 to 0.899 (D) 0.700
(E) Answer not known
102. In Regional Planning _____ explains the impact of the growing region (nucleus) and the rest of the economy with the help of two opposite kinds of forces which he calls the “spread effect” and “Back wash effect”.
- (A) Myrdal (B) Alfred Weber
(C) Odum (D) H.E. Moore
(E) Answer not known

103. According to Ebenezer Howard, when the town was established 6000 acres should be purchased; and of this no less than _____ would be left as Green belt, the town itself occupying the remainder.
- (A) 4500 Acres (B) 5000 Acres
(C) 3500 Acres (D) 4000 Acres
(E) Answer not known
104. Identify the first Garden city built on the idea of Ebenezer Howard from the following.
- (A) Letchworth
(B) Welwyn
(C) Wythenshawe
(D) Hampstead Garden Suburb
(E) Answer not known
105. The Maximum height of the buildings to be fixed on hills as per URDPFI guide lines is _____, which is already being followed in the State of Meghalaya.
- (A) 10 meters (B) 15 meters
(C) 5 meters (D) 20 meters
(E) Answer not known
106. According to Lewis Mumford the city which is in the worst stage and unfit for dwelling and it is called as dead city. It is termed as _____
- (A) Necropolis (B) Anthropopolis
(C) Ecumenopolis (D) Tyrannopolis
(E) Answer not known

107. According to URDPFI Guidelines, a compact city can have a high average density upto _____ people per hectare, with large open spaces and inter-block margins.
- (A) 800-1000 (B) 500-800
(C) 1000-1200 (D) 1200-2000
(E) Answer not known
108. Sir Patrick Geddes came to India in 1915 at the invitation of Lord Pentland gave his expert advice for the improvement of about _____ major towns in India.
- (A) Eighteen (B) Seventeen
(C) Sixteen (D) Fifteen
(E) Answer not known
109. According to smart cities mission, who will be the convener of the smart city Advisory forum.
- (A) District Collector (B) CEO of the SPV
(C) Mayor (D) Local Area MLA
(E) Answer not known
110. Under the smart cities mission, what is the equity shareholding pattern required between State/UT and Urban Local Bodies (ULB) in the Special Purpose Vehicle (SPV)?
- (A) 60 : 40 in favour of State/UT
(B) 70 : 30 in favour of ULB
(C) 50 : 50 equal share holding
(D) Variable based on project size
(E) Answer not known

111. As per Manasara of ancient town planning Forts are first divided into _____ classes.
- (A) 8 (B) 10
(C) 12 (D) 16
(E) Answer not known
112. During Buddhist period under Emperor Chandragupta Maurya. Kautilya or Chanakya wrote the famous
- (A) Arthashastra (B) Prastara
(C) Manyasa (D) Taxila
(E) Answer not known
113. Match the following :
- (1) 100 Roman Feet (P) 2/3 of an acre
(2) 1 Hectare (Q) 208.7 ft. square
(3) 1 Acre (R) 2.47 acres
(4) 1 Lugerum (S) 97 English feet
- (A) (1)-(S), (2)-(R), (3)-(Q), (4)-(P)
(B) (1)-(P), (2)-(R), (3)-(S), (4)-(Q)
(C) (1)-(Q), (2)-(R), (3)-(S), (4)-(P)
(D) (1)-(R), (2)-(S), (3)-(P), (4)-(Q)
(E) Answer not known
114. Name the city, where the first improvement trust in India was established by British Government in 1898, in the aftermath of the plague that had struck the city two year's earlier.
- (A) Surat (B) Bombay
(C) Madras (D) Calcutta
(E) Answer not known

118. The burning of refuse in a controlled manner is called
- (A) Composting
 - (B) Incineration
 - (C) Land filling
 - (D) Pulverizing
 - (E) Answer not known
119. Which of the following factors NOT to BE considered while selecting a site for a Reservoir?
- (A) The geological conditions of the catchment area should be such that perolation losses and maximum and minimum run-off
 - (B) Quantity of leakage is minimum
 - (C) Site should be founded on a sound water tight rock base
 - (D) Reservoir basin should have narrow opening in the valley
 - (E) Answer not known
120. The minimum Domestic water consumption of a person living in Indian Towns and cities with full flushing system as per IS : 1172-1993 is
- (A) 100 l/h/d
 - (B) 200 l/h/d
 - (C) 225 l/h/d
 - (D) 70 l/h/d
 - (E) Answer not known
121. The method in which solid waste is dumped in low lying area and then covered with earth is called as
- (A) Incineration
 - (B) Sanitary land filling
 - (C) Pyrolysis
 - (D) Recycling
 - (E) Answer not known

122. For estimating the quantity of water required in the future for a town depends on the following factor's
- (a) Rate of Demand
 - (b) Population
 - (c) Air Pollution
 - (A) (a) and (b)
 - (B) (b) and (c)
 - (C) (a)
 - (D) (a), (b) and (c)
 - (E) Answer not known
123. The length of the main sewer leading to treatment or disposal unit is called
- (A) Lateral
 - (B) Branch sewer
 - (C) Trunk sewer
 - (D) Outfall sewer
 - (E) Answer not known
124. After secondary or Tertiary treatment, the waste water which is a clear sparkling liquid is known as
- (A) Sludge
 - (B) Sullage
 - (C) Effluent
 - (D) Sewage
 - (E) Answer not known
125. A Networks of interconnected sewers in an area, district on town is called
- (A) Sewage
 - (B) Sewerage
 - (C) Septage
 - (D) Septic tank
 - (E) Answer not known

126. In water supply project, the distribution system has to be designed to cater.
- (A) Present population
 - (B) Future population at the end of 5 years
 - (C) Future population at the end of 30 years
 - (D) Future population at the end of 150 years
 - (E) Answer not known
127. In the project area identification using remote sensing and GIS tools the delineation of watersheds boundary on using toposheets are done to _____ scale.
- (A) 1 : 10000
 - (B) 1 : 20000
 - (C) 1 : 2000
 - (D) 1 : 30000
 - (E) Answer not known
128. As per URDPFI guidelines, the recommended upper limit of BOD of treated sewage quality for reuse as toilet flushing should be
- (A) 0
 - (B) 10
 - (C) 30
 - (D) 100
 - (E) Answer not known
129. The concept of FSI is used to control the
- (A) Density of population in residential areas
 - (B) Height of buildings
 - (C) Unplanned growth of town
 - (D) Land values of a town
 - (E) Answer not known

130. Identify the factors which affect the efficiency of any street lighting system from the following
- (a) Siting of posts
 - (b) Overhang
 - (c) Spacing of lamps
 - (d) Mounting height
- (A) (a), (b) and (c) only (B) (b), (c) and (d) only
- (C) (a), (b), (c) and (d) (D) (a) and (b) only
- (E) Answer not known
-
131. In urban research methods ————— proceeds from some a priori premise to statements about particular events or set of events.
- (A) Deductive theory (B) Inductive theory
- (C) Data theory (D) Sequential theory
- (E) Answer not known
-
132. In urban systems modelling which model has the following features:
- (i) It relates population and employment at one particular time zone.
 - (ii) It assumes an economic base mechanism where employment is divided into basic and non-basic sectors.
- (A) Lowry model (B) Empiric model
- (C) Delphi technique (D) Accessibility model
- (E) Answer not known

133. In urban planning methods in a situation where the researcher attempts to make inferences from knowledge about group behaviour to that of an individual is referred to as
- (A) Ecological fallacy (B) Ecological fantasy
(C) Ecological fallassy (D) Eco fallassy
(E) Answer not known
134. In planning research theory and design ————— can be defined as a unitary relationship, that is one-to-one relationship between an observation and some real world phenomenon.
- (A) A datum (B) A data
(C) A phenomenon (D) Database
(E) Answer not known
135. Residential density is normally expressed as
- (i) Accommodation density
(ii) Population density
(iii) Houses per unit land (dwelling units/hectare)
(iv) FSI
- (A) (i), (ii), (iii) (B) (iv)
(C) (ii) and (iv) (D) (i), (ii), (iv)
(E) Answer not known

136. Identify important sources of published sources used as secondary data

- (i) Reports submitted by economists, research scholars, bureaus.
- (ii) Statistical abstracts, census reports by ministries of the governments.
- (iii) Records maintained by private firms and business enterprises which are not disclosed.
- (iv) Journals, magazines and periodicals.

- | | |
|----------------------|----------------------------|
| (A) (i), (ii), (iv) | (B) (i), (ii), (iii), (iv) |
| (C) (iii) and (iv) | (D) (i), (iii), (iv) |
| (E) Answer not known | |

137. The planning approach that focuses on specific actions to be taken is

- (A) Normative planning
- (B) Functional planning
- (C) Blue print mode of planning
- (D) Incrementalism mode of planning
- (E) Answer not known

138. In land suitability analysis ————— method also known as “map overlay method”, which makes use of gradual colours to represent the suitability levels in the same scale, and overlay all the factor map in a certain order.

- | | |
|----------------------|----------------|
| (A) Grey tone | (B) Sieve tone |
| (C) Sieve mapping | (D) Gradient |
| (E) Answer not known | |

139. Planning is a sequential multi-staged process in which many phases are linked to their predecessors by:

- | | |
|----------------------|--------------------|
| (A) Reversible loops | (B) Systemic loops |
| (C) Backward loops | (D) Feedback loops |
| (E) Answer not known | |

140. In planning, a moral statement/a statement of preference of criteria or of ends and goals is referred to as:

- | | |
|----------------------|---------------|
| (A) Fact | (B) Postulate |
| (C) Value | (D) Theory |
| (E) Answer not known | |

141. Match the following

- | | |
|---------------------|--|
| (a) Eopolis | 1. Organically grown neighborhood |
| (b) Mohallas | 2. Housing clusters of particular caste/occupation and religion |
| (c) Pols and katras | 3. Extensive deterioration of socio-economic structure, urban governance, services etc |
| (d) Tyrannopolis | 4. Village showing signs of transformation from rural to urban |

- | | | | | |
|----------------------|-----|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| (A) | 4 | 1 | 2 | 3 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 3 | 4 | 1 | 2 |
| (D) | 2 | 1 | 3 | 4 |
| (E) Answer not known | | | | |

142. The cul-de-sac plan for radburn was developed by:
- (A) Stein and Wright
 - (B) Perry and Stein
 - (C) Lowry and Garin
 - (D) Lynch and Rodwin
 - (E) Answer not known
143. According to census of India 2011, urban settlements should satisfy the following criteria
- (1) Minimum population of 5,000
 - (2) Atleast 75% of male main working population engaged in non agricultural pursuits
 - (3) A density of population of atleast 200 persons/sq Km
 - (4) Minimum population of 10,000
- (A) (1) and (2) are correct
 - (B) (3) and (4) are correct
 - (C) (1) and (4) are correct
 - (D) (2) and (3) are correct
 - (E) Answer not known
144. Philadelphia grid was planned by:
- (A) Inigo Jones
 - (B) William Penn
 - (C) Christopher Wren
 - (D) Thomas Adams
 - (E) Answer not known

145. In planning techniques _____ is wisely used when population projections by age and sex are needed for 5 years, 10 years or longer periods of time. It allows planners to project the total size of the population
- (A) Cohort component method
 - (B) Matrix Model
 - (C) Ratio Model
 - (D) Ratio component Method
 - (E) Answer not known
146. As per URDPFI guidelines under several mechanisms and avenues for people's participation _____ is a multiple - day interactive meeting, workshops and site walks/visits that fosters diverse and community sourced ideas
- (A) Community Design charrettes
 - (B) Focus group
 - (C) Discussion Feedback
 - (D) Congregation activities
 - (E) Answer not known
147. As per URDPFI guidelines Mixed layer development is based on the principal of high intensity with vertical Integration. It is also under the category of multi functional land use termed as
- (A) Layering Development
 - (B) Layered Development
 - (C) High - Rise Development
 - (D) Mixed use high rise
 - (E) Answer not known

148. As per URDPFI guidelines _____ is the zone which is within the planning area limits but outside the limit of the municipal corporation/authority or metropolitan planning committee or authority.
- (A) Peri - Urban (B) Semi – Urban rural
(C) Hinter land (D) Threshold area
(E) Answer not known
149. As per URDPFI guidelines under residential density occupancy rate is calculated using the formula.
- (A) $\frac{\text{Population density}}{\text{Accommodation density}}$
(B) $\frac{\text{Accommodation density}}{\text{Population density}}$
(C) $\frac{\text{Population density}}{\text{Total area of study area}}$
(D) $\frac{\text{No of habitable rooms}}{\text{Total area of Net study}}$
(E) Answer not known
150. As per CRZ (Coastal Regulation Zone) Land area between HTL and Low Tide Line (LTL) is termed as
- (A) Intertidal zone (B) Intermediate zone
(C) Intratidal zone (D) Interhazard zone
(E) Answer not known

151. Assertion [A] : GIS has led to the development of planning decision support systems.

Reason [R] : GIS enables analysis to be made based on many layer of interaction

- (A) Both [A] is [R] is true
- (B) [A] is true [R] is false
- (C) [A] is false [R] is true
- (D) [A] and [R] are false
- (E) Answer not known

152. Which of the following are correct

- (1) CRZ – I – Ecologically sensitive
- (2) CRZ – II – Rural area
- (3) CRZ – III – Develop area
- (A) (1) only correct
- (B) (2) and (3) are correct
- (C) (1) only (3) are correct
- (D) (1) and (2) are correct
- (E) Answer not known

153. Match the following value capture method with frequency of Incidence

- | | |
|-------------------------|-------------------------------|
| (a) Land value tax | 1. One time at time of charge |
| (b) Development charges | 2. Recurring |
| (c) Vacant Land tax | 3. Onetime |
| (d) Fees for charging | 4. Annual rate base |

Land Use

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 3 | 4 | 1 | 2 |
| (B) | 2 | 3 | 4 | 1 |
| (C) | 1 | 2 | 3 | 4 |
| (D) | 4 | 3 | 2 | 1 |
| (E) | Answer not known | | | |

154. Which of the following are Biotic Resources

- | | |
|------------------------------|------------------------------|
| (1) Living things | |
| (2) Trees | |
| (3) Land form | |
| (4) Air | |
| (A) (1) and (2) only correct | (B) (2) and (3) only correct |
| (C) (3) and (4) only correct | (D) (1) and (4) only correct |
| (E) Answer not known | |

155. What does CRZ – I typically includes in the costal zone management classification?

- (A) Beach front development
- (B) Ports and Shipyards
- (C) Ecologicals sensitive areas
- (D) Costal villages
- (E) Answer not known

156. As per CRZ guidelines a buffer Zone of ————— is provided when mangrove area is > 1000 sqm.

- (A) 50 m
- (B) 150 m
- (C) 100 m
- (D) 200 m
- (E) Answer not known

157. Match the following

- | | |
|----------------|--|
| (a) CRZ – IA | 1. Ecologically sensitive Areas |
| (b) CRZ – IB | 2. Inter Tidal Zone |
| (c) CRZ – II | 3. Developed land Areas |
| (d) CRZ – IV A | 4. The water area and the sea bed between the Low Tide line upto 12 nautical miles on seaward side |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 1 | 2 | 3 | 4 |
| (B) | 4 | 1 | 2 | 3 |
| (C) | 2 | 1 | 4 | 3 |
| (D) | 2 | 3 | 4 | 1 |
| (E) | Answer not known | | | |

158. Which of the following statement is true

- (1) Land cover is defined as physical material at the surface of the earth
- (2) Land cover includes forest and baseground
- (3) Land cover involves the management and modification of natural environment
- (A) (1) only correct
- (B) (1) and (2) are correct
- (C) (2) and (3) are correct
- (D) (1) and (3) are correct
- (E) Answer not known

159. Match the value capture method with frequency to Incidence

- | | |
|------------------------------------|---|
| (a) Transfer of Development rights | 1. One time upfront before project initiation |
| (b) Additional FSI | 2. Recurring for a fixed period |
| (c) Tax increment financing | 3. One time |
| (d) Land Pooling system | 4. Transaction – based |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 3 | 4 | 1 | 2 |
| (B) | 2 | 3 | 4 | 1 |
| (C) | 4 | 3 | 2 | 1 |
| (D) | 1 | 2 | 3 | 4 |
| (E) | Answer not known | | | |

160. _____ is a strategy that aims at making an otherwise deteriorated system of Urban governance/management better by introducing changes necessary to improve its performance, accountability and effectiveness.
- (A) Reform (B) Rehabilitation
(C) Restoration (D) Re-development
(E) Answer not known
161. Transfer of Development Rights (TDR) allows a landowner to
- (A) Transfer unused development rights from one land parcel to another
(B) Transfer property tax
(C) Transfer development right on agricultural land
(D) Transfer land directly to foreign buyers
(E) Answer not known
162. Sustainable Development Goals 6 aims to
- (A) Increase water use efficiency
(B) Adders pollution
(C) Construct sewage treatment plants
(D) Construction and maintenance of electrical distribution network
(E) Answer not known

163. Expand

AMRUT –

- (A) ATAL Mission for Rehabilitation and Urban Transport
- (B) ATAL Mission for Rejuvenation and Urban Transformation
- (C) ATAL Mission for Rehabilitation and Urban Transformation
- (D) ATAL Mission for Rejuvenation and Urban Transport
- (E) Answer not known

164. AMRUT 2.0 is a step towards Aatma Nirbhar Bharath with aim of

- (A) Making the cities water screen
- (B) Making the cities clean
- (C) Making the cities traffic free
- (D) Making the cities eco friendly
- (E) Answer not known

165. Pradhan Mantri Awas Yojana aims to provide

- (A) Affordable housing the poor families in Rural Area
- (B) Affordable housing for all in Urban areas
- (C) Affordable housing to the urban poor
- (D) Provision of Affordable Housing to all
- (E) Answer not known

166. When was the Swachh Bharat Mission Launched?

- (A) 15 August 2014
- (B) 2 October 2014
- (C) 26 January 2015
- (D) 15 August 2015
- (E) Answer not known

167. Assertion [A] : Transit Oriented Development (TOD) is a new concept focusing on efficient mode of transportation other than automobile.

Reason [R] : TOD necessitate the creation of compact, walkable, mixed - use communities.

- (A) Both [A] and [R] are true
- (B) [A] is true [R] is false
- (C) [A] is false [R] is true
- (D) Both [A] and [R] are false
- (E) Answer not known

168. The 3R concept are

- (A) Reduce, Recycle and Reuse
- (B) Reuse, Repair, Recycle
- (C) Reuse, Reduce, Regain
- (D) Repair, Regain, Recycle
- (E) Answer not known

169. Assertion [A] : The Ecological foot print measures the rate of human consumption and waste generation.

Reason [R] : In comparison to how fast nature can absorb human wastes and generates new resources

- (A) [A] and [R] are true
- (B) [A] is true [R] is false
- (C) [A] is false [R] is true
- (D) Both [A] and [R] are false
- (E) Answer not known

170. Identify the Abiotic resource from the following :

- (1) Water
- (2) Plants
- (3) Temperature
- (4) Bacteria
- (A) (i) and (ii) only correct
- (B) (i) and (iii) only correct
- (C) (ii) and (iii) only correct
- (D) (iii) and (iv) only correct
- (E) Answer not known

171. Name, Sustainable development Goal 11

- (A) Innovation and Infrastructure
- (B) Reduced In equalities
- (C) Sustainable cities and communities
- (D) Climate Action
- (E) Answer not known

172. Consider the following statements and choose the correct options with respect to sustainable urban development

- (1) Able to feed itself with a sustainable reliance within its surrounding hinter land
- (2) Able to generate enough energy
- (3) Able to generate higher ecological foot print
- (4) Produce the lowest amount of environmental pollution, to efficiently use land
- (5) Compost used materials, recycle it or convert waste to energy
- (A) (1), (2), (3) and (4)
- (B) (2), (3), (4) and (5)
- (C) (1), (3), (4) and (5)
- (D) (1), (2), (4) and (5)
- (E) Answer not known

173. One of the following is not a feature and part of benefits of sustainable transportation system

- (A) Reducing the transportation demand reduces the use of scarce resource
- (B) Reducing traffic congestion
- (C) Reducing air pollution
- (D) Reducing public transportation
- (E) Answer not known

174. Active transport is often referred as
- (A) Motorised transport
 - (B) Non-motorised transport
 - (C) Public transport
 - (D) Private transport
 - (E) Answer not known
175. As per municipal solid waste management, primary collection refers to collection of waste from
- (A) Community bins
 - (B) Waste storage depot
 - (C) Households
 - (D) Transfer stations
 - (E) Answer not known
176. Which statistical model is commonly used to estimate modal split based on travel time, cost and other factors?
- (A) Regression model
 - (B) Logit model
 - (C) Gravity model
 - (D) Matrix model
 - (E) Answer not known
177. As per National Transit Oriented Development (TOD) policy, TOD promotes densification in the influence area by providing higher FAR/FSI.
- To ensure sustainable development the minimum FAR should be _____ and can be higher, depending on the city size.
- (A) 300 – 500%
 - (B) 100 – 150%
 - (C) 100 – 250%
 - (D) 300%
 - (E) Answer not known

178. A woman starts from her residence and uses the following mode in sequence to reach her office. Cycle rickshaw to railway station, then train to destination station, followed by auto rickshaw her office. Which of the following describes her sequence of transit usage?
- (A) Non-Motorised transit – Para transit – Mass Transit
 - (B) Para-Transit – Public Transit – Non Motorised Transit
 - (C) Private Transit – Public Transit – Non Motorised Transit
 - (D) Non Motorised Transit – Mass Transit – Para Transit
 - (E) Answer not known
179. It has been found that the cost of travel between two places is Rs. 100 and Rs. 50 by car and bus respectively. The time taken for travel by car is 25 min and by bus is 50 min. The value of time of the traveller is Rs. 30/hr. Find the probability of a traveller choosing a car.
- (A) 34%
 - (B) 66%
 - (C) 44%
 - (D) 56%
 - (E) Answer not known
180. As per IRC – 103 guidelines for pedestrian facilities, tactile pavers should be laid _____ away from the edge of foot path kerb edge, compound wall and any other obstructions to avoid collision.
- (A) 600 mm
 - (B) 600 cm
 - (C) 700 mm
 - (D) 70 cm
 - (E) Answer not known

181. In transport survey the type of survey that provides wide range of data for monitoring and impact evaluation
- (A) Household survey
 - (B) During the trip survey
 - (C) At the destination end of the trip
 - (D) Start trip survey
 - (E) Answer not known
182. In India, for multi lane pavements, the minimum width provided for a single lane
- (A) 3.5 m
 - (B) 3.6 m
 - (C) 3.4 m
 - (D) 3.3 m
 - (E) Answer not known
183. Recommended values of camber for Earthen roads as per Indian roads congress is
- (A) 1 in 50 to 1 in 60
 - (B) 1 in 40 to 1 in 50
 - (C) 1 in 33 to 1 in 40
 - (D) 1 in 25 to 1 in 33
 - (E) Answer not known
184. A one way turning roadway that curves about 270° to the left to accommodate a right-turning movement is called
- (A) Interchange
 - (B) Ramp
 - (C) Loop
 - (D) Intersection
 - (E) Answer not known

185. As per current Indian practice, the road way width of national and state highways with two lanes in plain terrain is
- (A) 14 m (B) 12 m
(C) 10 m (D) 8 m
(E) Answer not known
186. The right stopping distance is also expressed as
- (A) Lag distance
(B) Braking distance
(C) Lag distance + braking distance
(D) (Lag distance) 2
(E) Answer not known
187. The minimum space standards for urban roads in express way (6 lane divided) is
- (A) 60 m (B) 50 m
(C) 40 m (D) 75 m
(E) Answer not known
188. The total number of vehicles parked in an area at a specified moment is called
- (A) Parking Standard (B) Parking Index
(C) Parking Accumulation (D) Parking Key
(E) Answer not known

189. The term 'PCU' in vertical volume count denotes
- (A) Passenger Car Unit
 - (B) Passenger Car Union
 - (C) Portable Car Unit
 - (D) Post Car Unit
 - (E) Answer not known
190. Identify the apex body of road sector engineer's and professional in our country. Which sets guidelines and technical standards for road and bridge construction?
- (A) Tamil Nadu Road Development Corporation (TNRDC)
 - (B) Indian Roads Congress (IRC)
 - (C) Regional Transport Office (RTO)
 - (D) Planning Commission
 - (E) Answer not known
191. In Rotary design intersection, weaving mean
- (A) Dividing of a single stream of traffic into separate streams
 - (B) Converging of separate streams of traffic into single stream
 - (C) The combined movement of merging and diverging of traffic streams moving in the same general direction
 - (D) Converging of dividing the multiple stream
 - (E) Answer not known
192. Identify the type of curb can be easily crossed by vehicle, if required
- (A) Barrier
 - (B) Mountable
 - (C) Both barrier and mountable
 - (D) Kerb
 - (E) Answer not known

193. Maximum number of vehicles, passengers on the like, which can be accommodated by a given facility or system under given condition at a given level of service is called
- (A) Service volume (B) Volume count
(C) Design volume (D) Packing count
(E) Answer not known
194. Various factor's which control the allignment of a road in plain area are
1. Gradient
 2. Curves
 3. Sight distance
 4. Obligatory points
- (A) 1, 2, 3, 4 (B) 1, 2, 3
(C) 1, 3, 4 (D) 2, 3, 4
(E) Answer not known
195. Arrange the road hierarchy of transport in the Urban Environment as per Institute of Highway Technology IHT (1997) is
- (A) Primary distributor, Access road, Pedestrian street, Pedestrian route
(B) Access road, Primary distributor, Pedestrian street, Pedestrian route
(C) Primary distributor, Pedestrian street, Access road, Pedestrian route
(D) Primary distributor, Access road, Pedestrian route, Pedestrian street
(E) Answer not known

196. The portion of the roadway which lies between the outer edge of the carriageway and the inner edge of the ditch, gutter or slope is known as
- (A) Camber (B) Shoulder
(C) Cross-Fall (D) Barrier
(E) Answer not known
197. A rotary intersection is a specialized form of _____ intersection laid out for movement of traffic in one direction around a control island.
- (A) At grade (B) Grade
(C) T junction (D) Y junction
(E) Answer not known
198. As per URDPFI guidelines for bus stop proximity – locate the project within _____ walking distance (measured from a main building entrance) of 1 or more stops for 2 or more public, campus or private bus lines usable by building components.
- (A) 1/4 mile (B) 1/2 mile
(C) 1 mile (D) 3/4 mile
(E) Answer not known
199. In transportation, the perception - reaction time depends greatly on the effectiveness of drivers vision perceiving the objects. The most fairly clear vision is within
- (A) 10 to 12 degrees (B) 3 to 5 degrees
(C) 15 to 30 degrees (D) 120 to 180 degrees
(E) Answer not known

200. The map which is represented by thick lines along the route helps to find traffic volume distribution at a glance is referred as

- | | |
|-----------------------|---------------------------|
| (A) Traffic trend map | (B) Traffic variation map |
| (C) Traffic flow map | (D) Volume flow map |
| (E) Answer not known | |
