

Question Booklet No. :

ADTP/2022

Register
Number

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2022

PAPER – I

**TOWN PLANNING (P.G. Degree Standard),
CIVIL ENGINEERING (U.G. Degree Standard) AND
ARCHITECTURE (U.G. Degree Standard)**

Duration : Three Hours]

[Total Marks : 300

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

1. You will be supplied with this question booklet 15 minutes prior to the commencement of the examination.
2. This question booklet contains 200 questions. Before answering the questions, you shall check whether all the questions are printed serially and ensure that there are no blank pages in the question booklet. **If any defect is noticed in the question booklet, it shall be reported to the invigilator within the first 10 minutes and get it replaced with a complete question booklet. If the defect is reported after the commencement of the examination, it will not be replaced.**
3. Answer all the questions. All the questions carry equal marks.
4. You must write your register number in the space provided on the top right side of this page. Do not write anything else on the question booklet.
5. An answer sheet will be supplied to you separately by the room invigilator to shade the answers. Instructions regarding filling of answers etc., which are to be followed mandatorily, are provided in the answer sheet and in the memorandum of admission (Hall Ticket).
6. You shall write and shade your question booklet number in the space provided on page one of the answer sheet with **BLACK INK BALL POINT PEN**. If you do not shade correctly or fail to shade the question booklet number, your answer sheet will be invalidated.
7. Each question comprises of five responses (answers) : i.e. (A), (B), (C), (D) and (E). You have to select **ONLY ONE** correct answer from (A) or (B) or (C) or (D) and shade the same in your answer sheet. If you feel that there are more than one correct answer, shade the one which you consider the best. **If you do not know the answer, you have to mandatorily shade (E).** In any case, choose **ONLY ONE** answer for each question. If you shade more than one answer for a question, it will be treated as a wrong answer even if one of the given answers happens to be correct.
8. You should not remove or tear off any sheet from this question booklet. You are not allowed to take this question booklet and the answer sheet out of the examination room during the time of the examination. After the examination, you must hand over your answer sheet to the invigilator. You are allowed to take the question booklet with you only after the examination is over.
9. **You should not make any marking in the question booklet except in the sheets before the last page of the question booklet, which can be used for rough work. This should be strictly adhered to.**
10. Failure to comply with any of the above instructions will render you liable for such action as the Commission may decide at their discretion.

SEAL

SPACE FOR ROUGH WORK

1. One of the following that does not fall under classification of planning region is
 - (A) Metropolitan or city region
 - (B) Satellite region
 - (C) Transitional region or depressed region
 - (D) River valley region
 - (E) Answer not known

2. Multi Nuclei Theory was developed by
 - (A) Chauncy Harris and Homer Hoyt
 - (B) Chauncy Harris and Edward Ullman
 - (C) Parks and Burgers
 - (D) Homer Hoyt and Ullman
 - (E) Answer not known

3. Identify the component which is not part of Greater London Plan 1944 by Patrick Abercrombie is
 - (A) Enforcement of Strick Zoning
 - (B) New open space standards
 - (C) Four rings of zoning into inner, sub urban, green belt and other country
 - (D) Rejuvenating Water bodies
 - (E) Answer not known

4. Traditional Indian Settlement pattern which is suitable for the site which is in the form of a bow or parabolic and mostly located near the seashore or river banks is called
- (A) Chaturmukha ~~(B) Karmuka~~
(C) Dandaka (D) Padmaka
(E) Answer not known
5. _____ development envisages application of selected smart solutions to the existing city wide infrastructure.
- ~~(A) Pan-city~~ (B) Green field
(C) Retrofitting (D) Area Based
(E) Answer not known
6. The urban and regional planning system in India has been divided under the two heads, namely _____ and _____
- (I) Core Area Planning
(II) Specific and Investment Planning
(III) Special Area Planning
(IV) Extinct and Independent Planning
- ~~(A) (I), (II) are correct~~
(B) (III), (IV) are correct
(C) (I), (IV) are correct
(D) (II), (III) are correct
(E) Answer not known
7. The minimum density of the area to be declared as 'URBAN' as per census of India 2011 is
- (A) 600 persons per square km.
(B) 500 persons per square km.
~~(C) 400 persons per square km.~~
(D) 300 persons per square km.
(E) Answer not known

8. The planning model that serves as goal towards which the actual system can be directed is the
- (A) Descriptive model (B) Prescriptive model
(C) Exponential model (D) Normative model
(E) Answer not known
9. Inductive statistics is used to derive
- (A) Generalisation (B) Descriptions
(C) Projections (D) Limitations
(E) Answer not known
10. The stages in the preparation of Development plan is as follows (sequential order)
- (i) Collection of data
(ii) Consideration of views from experts and public
(iii) Preparation of revised development plan
(iv) Implementation
(v) Preparation of Tentative draft of the development plan
- (A) (i), (v), (ii), (iii), (iv)
(B) (i), (ii), (iii), (iv), (v)
(C) (i), (v), (iii), (ii), (iv)
(D) (i), (ii), (iv), (iii), (v)
(E) Answer not known
11. Settlements upto a rate of growth of 1.50% per annum as per census 1971-81 were classified as
- (A) Normal (B) Sub-normal
 (C) Static (D) Dynamic
(E) Answer not known

12. The original layout known as plano pilots in Brasilia has been protected by strict zoning and in 1987, it was placed in the UNESCO world heritage list. This has lead to
- (i) Brasilia has a low density centre in contrast to other cities in Brazil
 - (ii) Forced poorer residents to seek accommodation beyond the city core.
 - (iii) Resulted in lower transport costs
- (A) (i) and (ii) only
- (B) (ii) and (iii) only
- (C) (i) and (iii) only
- (D) (i), (ii) and (iii) only
- (E) Answer not known
13. Who introduced the theory of location where the cost of transporting the raw materials to the plant and finished products to the market greatly influences the location of a plant?
- (A) Alfred Weber
- (B) Alfred Marshall
- (C) Adam Smith
- (D) Robbins
- (E) Answer not known
14. The law of diminishing returns in specially and quickly applicable to agriculture and other extractive occupation because of the following :
- (i) Agriculture is dependent on nature
 - (ii) The time lag between input and output is very small in agricultural production
 - (iii) Agricultural labour does not have work continuously
 - (iv) Soil does not get exhausted and fertility is not lost
- (A) (i) and (iii)
- (B) (ii) and (iv)
- (C) (ii)
- (D) (iv) and (iii)
- (E) Answer not known

15. When the national income is expressed in terms current prices, it is called

- (A) Nominal Income
- (B) Constant Income
- (C) Real Income
- (D) Constant price
- (E) Answer not known

16. Cohort survival method is used for forecasting

- (A) Housing
- (B) Population
- (C) Economic growth
- (D) Density
- (E) Answer not known

17. The following are not the special features of urban community

- (A) Moderate social contacts
- (B) Social homogeneity
- (C) Impersonality
- (D) Dynamic life
- (E) Answer not known

18. Choose the one which is not part of the EIA process
- (A) Project proponent
 - (B) SPCB
 - (C) Environmental consultants
 - (D) HUDCO
 - (E) Answer not known
19. In EIA the decision to hold the hearing has to be made within
- (A) 5 days
 - (B) 10 days
 - (C) 15 days
 - (D) 30 days
 - (E) Answer not known
20. How many Newspapers state pollution control boards are required to give notice mentioning the date, time and place of public hearing?
- (A) 2
 - (B) 4
 - (C) 6
 - (D) 8
 - (E) Answer not known
21. The following have been introduced to improve industrial activities and services
- (A) Life Cycle Assessment (LCA) and ISO-14000
 - (B) Life Cycle Assessment (LCA)
 - (C) ISO-14000
 - (D) Environmental Assessment
 - (E) Answer not known

22. The components of environment include
- (A) Biotic components
 - (B) Abiotic components
 - (C) Biotic and abiotic components
 - (D) Inert gases
 - (E) Answer not known
23. The volumetric concentrations of pollutants are measured and computed as mass emissions in _____ units.
- (A) gram/km
 - (B) ml/km
 - (C) gram/square metre
 - (D) gram/cubic metre
 - (E) Answer not known
24. A food chain
- (A) is transfer of energy from one organism to another
 - (B) is a relationship between different producers
 - (C) is a combination of organisms at different levels
 - (D) is comprising of any three organisms
 - (E) Answer not known
25. In a PPP mode of development of an urban infrastructure project, the interests of the public entity is
- (A) Presence of transparent laws/regulations
 - (B) Fair allocation of risks between the public entity and the private partner
 - (C) Continuity in service delivery, which benefits the community
 - (D) Stability in the political and economic environment
 - (E) Answer not known

26. If Q is the total quantity of water in litres required by a community per year having P as its population, then the per capita consumption or demand in litres per capita per day is given as _____.

(A) $\frac{Q}{P \times 365}$

(B) $\frac{P}{Q \times 365}$

(C) $\frac{365 \times Q}{P}$

(D) $\frac{365 \times P}{Q}$

(E) Answer not known

27. For Run-off co-efficient of park and undeveloped areas, the percentage of imperviousness as given by NDMA is

(A) 10-20%

(B) 70-90%

(C) 50-60%

(D) 80-90%

(E) Answer not known

28. Biological decomposition of Putrescible organic matter in solid waste is digested anaerobically and converted into humus and stable mineral compounds in

(A) Composting

(B) Incineration

(C) Pyrolysis

(D) Source segregation

(E) Answer not known

29. The ratio between Net profit and Net sales is
- (A) Gross profit margin
 - (B) Gross profit
 - (C) Net Profit
 - (D) Net profit margin
 - (E) Answer not known
30. The most popular risk assessment technique is
- (A) Financial ratio analysis
 - (B) Sensitivity analysis
 - (C) Economic analysis
 - (D) Cost analysis
 - (E) Answer not known
31. Name the term where the content is drafted by an engineer contains brief and adequate description of the required work and publicity advertised in the newspaper.
- (A) Tender notice
 - (B) Tender document
 - (C) Tender agreement
 - (D) Contract Document
 - (E) Answer not known

32. Identify the Quantifiable project from the following sectors

- (A) Defence
- (B) Education
- (C) Health
- (D) Industrial development
- (E) Answer not known

33. Practice of assigning high values to activities that are completed early and compensated for by assigning low values to activities that are completed late in the project is called

- (A) Front loading
- (B) Back loading
- (C) Priority value change
- (D) Binomial value
- (E) Answer not known

34. As per Tamil Nadu Real Estate (Regulation and Development) rules, 2017, any refund of money along with applicable interest and compensation if any shall be paid within _____ days.

- (A) 180
- (B) 90
- (C) 150
- (D) 45
- (E) Answer not known

35. Identify the Article which delegate powers and function to Panchayat as per Indian constitution from the following.

- (A) 243 and 243 A
- (B) 243 A and 243 B
- (C) 243 G and 243 H
- (D) 243 D and 243 F
- (E) Answer not known

36. According to 74th CAA Nagar Panchayats are

- (A) Smart Cities
- (B) Larger Urban Areas
- (C) Rural hamlet
- (D) Transition from rural to urban area
- (E) Answer not known

37. _____ mean a line which is in rear of the street alignment and to which the main wall of a building abutting on a street may lawfully extend.

- (A) Rear line
- (B) Building line
- (C) Set back
- (D) Side set back
- (E) Answer not known

38. Name the first planning legislation in India before Independence
- (A) Sanitary Commission (1864)
 - (B) Bombay Improvement Trust (1898)
 - (C) Mysore Improvement Trust (1903)
 - (D) Calcutta Improvement Trust (1911)
 - (E) Answer not known
39. The world's first National Planning Law was
- (A) United Kingdom's 1909 Housing, Town Planning, etc., Act
 - (B) New York – 1893 Housing and Town Planning Act
 - (C) Chennai – City Improvement Trust, 1921
 - (D) London – Town Planning Act, 1901
 - (E) Answer not known
40. Government of India issued NUTP in 2006, to bring about comprehensive improvements in urban transport services and infrastructure – What does NUTP stands for
- (A) National Urban Transit Policy
 - (B) National Urban Transport Policy
 - (C) National Urban Traffic Policy
 - (D) National Urban Trip Policy
 - (E) Answer not known

41. The Light Rail Transit (LRT) has the following advantages
- (i) Relatively cheaper than conventional suburban rail system
 - (ii) Free from pollution caused by motor vehicles
 - (iii) Suitable for pedestrian zones.
- (A) (i), (ii), (iii)
- (B) (i), (ii)
- (C) (ii), (iii)
- (D) (i)
- (E) Answer not known
42. A radar speedometer records
- (A) Lag
- (B) Instantaneous speed
- (C) Speed timed over a long distance
- (D) Speed timed over a short distance
- (E) Answer not known
43. The minimum gradient of about _____ % is needed to ensure effective drainage of carriage ways with kerbs on flat urban roads
- (A) 0.75
- (B) 0.25
- (C) 0.5
- (D) 1
- (E) Answer not known

44. Recommended design speed for arterial roads of urban area by Indian roads congress is
- (A) 80 kmph
 - (B) 60 kmph
 - (C) 50 kmph
 - (D) 30 kmph
 - (E) Answer not known
45. Level of services (LOS) index is recorded as
- (A) Seat miles per sq. mile
 - (B) Service miles per sq. mile
 - (C) Route miles per sq. mile
 - (D) Transit miles per sq. mile
 - (E) Answer not known
46. Satellite imagery is a vital source of _____ for producing and updating maps
- (A) Global, outdated and reliable information
 - (B) Regional outdated and reliable information
 - (C) Local, updated and unreliable information
 - (D) Global, frequently update and reliable information
 - (E) Answer not known
47. Polarised light is used in
- (A) Anaglyphs
 - (B) Stereophotos
 - (C) Nectographs
 - (D) Infrared photos
 - (E) Answer not known

48. Identify the correct statement from the following
- GPS surveying can be carried out without clear line of sight between stations
 - GPS surveying can be carried out at night
 - GPS surveying can be carried out underground
 - GPS surveying can be carried out in poor weather conditions
- (A) (i) and (ii) (B) (i), (ii) and (iii)
(C) (ii), (iii) and (iv) ~~(D) (i), (ii) and (iv)~~
(E) Answer not known
49. Identify the fundamental components of GPS in terms of basic segments
- Space, control and user
 - Space, time and resolution
 - Speed, control and connectivity
 - Space, control and service provider
 - Answer not known
50. In Electro magnetic remote sensing process, identify the correct sequence of steps from the following in relation to data acquisition and analysis
- Energy interaction with earth's surface
 - Energy sources
 - Generation of sensor data in the form of pictures
 - Air borne/space borne sensors to record the reflected energy
 - Propagation of energy through the atmosphere
- ~~(A) 2-5-1-4-3~~ (B) 2-4-5-3-1
(C) 3-5-4-2-1 (D) 3-5-1-4-2
(E) Answer not known
51. _____ is the important segment of Indian Space Research Organization (ISRO) with the mandate of providing Earth Observation (EO) data from space and aerial platforms to user's.
- National Remote Sensing Centre (NRSC)
 - Survey of India (SOI)
 - Aerial Photography Transaction Registry (APTR)
 - Air Survey Company (ASC)
 - Answer not known

52. _____ was constituted by the Ministry of Commerce and Industry to study the existing SEZ policy in India and submitted recommendation in Nov, 2018.

- (A) Chokle led Committee
- (B) Baba Kalyani led Committee
- (C) Panchi led Committee
- (D) Dharwad led Committee
- (E) Answer not known

53. _____ are fenced in, duty-free areas that offer warehousing, storage and distribution facilities for trade, transshipment and re-export operations.

- (A) Special warehouse
- (B) Warehouse
- (C) Super Economic zone
- (D) Free Trade Warehousing zones
- (E) Answer not known

54. URDPFI guidelines suggested that the terminology of City Development plan be renamed as _____ to avoid confusion as in many states statutory plans are named as Development plan.

- (A) Perspective plan
- (B) City Sanitation plan
- (C) Zonal Development plan
- (D) City Investment plan
- (E) Answer not known

55. National Rural Health Mission seeks to reduce the following in our Country
- (i) Maternal Mortality Ratio
 - (ii) Infant Mortality Ratio
 - (iii) Total Fertility Rate
 - (iv) Sex Ratio
- (A) (i), (ii), (iii) and (iv) (B) (i), (ii) and (iii) only
(C) (i) and (ii) only (D) (ii) and (iii) only
(E) Answer not known
56. Identify the thrust areas of AMRUT mission from the following
- (i) Water supply
 - (ii) NMT
 - (iii) Health
 - (iv) Public Transport Facilities
 - (v) Power
- (A) (i), (ii), (iii) and (iv) only (B) (ii), (iii), (iv) and (v) only
 (C) (i), (ii) and (iv) only (D) (iii) and (v) only
(E) Answer not known
57. Number of cities that will be covered under AMRUT (Atal Mission for Rejuvenation and Urban Transformation) scheme by the Government of India is
- (A) 400 (B) 500
(C) 300 (D) 100
(E) Answer not known
58. One of the following is not a Milestone of Swach Bharat Mission
- (A) Elimination of open defecation
 - (B) Penalise inefficient waste collection
 - (C) Transportation of waste
 - (D) Scientific disposal
 - (E) Answer not known

59. Modulus of Elasticity of concrete is

- (A) $5700 f_{ck} \text{ N/mm}^2$
- (B) $5700 (f_{ck})^2 \text{ N/mm}^2$
- (C) $5700 \sqrt{f_{ck}} \text{ N/mm}^2$
- (D) $5700 \times 10^5 \text{ N/mm}^2$
- (E) Answer not known

60. The tensile strength of concrete is expressed as

- (A) $f_{cr} = 0.72 \sqrt{f_{ck}}$
- (B) $f_{cr} = 0.71 \sqrt{f_{ck}}$
- (C) $f_{cr} = 0.70 \sqrt{f_{ck}}$
- (D) $f_{cr} = 0.69 \sqrt{f_{ck}}$
- (E) Answer not known

61. For a building on the side of a busy street, where the ordinary scaffolding will obstruct the traffic on road, the type of scaffolding provided is

- (A) Brick layer's scaffold
- (B) Mason's scaffold
- (C) Steel scaffold
- (D) Needle scaffold
- (E) Answer not known

62. Quoins are

- (A) The place where two or more stones meet
- (B) The internal corner or angle of a wall
- (C) The external corner or angle of a wall
- (D) A projection provided on the inside face of the wall
- (E) Answer not known

63. Gypsum is added in the manufacture of Portland cement in order to
- (A) Decrease the setting time of cement
 - (B) Increase the setting time of cement
 - (C) Decrease the burning temperature
 - (D) Increase the grinding time
 - (E) Answer not known
64. In analysis of rates, contractor profit is taken at the rate of
- (A) 4%
 - (B) 5%
 - (C) 10%
 - (D) 15%
 - (E) Answer not known
65. PERT stands for
- (A) Programme Estimation and Reporting Technique
 - (B) Process Estimation and Review Technique
 - (C) Programme Evaluation and Review Technique
 - (D) Planning Estimate and Resulting Technique
 - (E) Answer not known
66. In PERT analysis The standard deviation (σ) is given by _____.
Given that t_p = Pessimistic time, t_o = Optimistic time, t_m = Most likely time
- (A) $\sigma = \sqrt{\frac{t_m - t_o}{6}}$
 - (B) $\sigma = \frac{t_p + t_o}{6}$
 - (C) $\sigma = \sqrt{\frac{t_p - t_o}{6}}$
 - (D) $\sigma = \frac{t_p - t_o}{6}$
 - (E) Answer not known

67. One of the types of information collected in vital survey is
- (A) Forest and other natural vegetation
 - (B) Mines and other location
 - (C) History of the past growth of population
 - (D) Location and classification of historic buildings
 - (E) Answer not known
68. The sum of the interior angles of a closed traverse is
- (A) $(2n + 4) 90^\circ$
 - (B) $(2n - 4) 90^\circ$
 - (C) $(2n - 8) 90^\circ$
 - (D) $(n - 4) 90^\circ$
 - (E) Answer not known
69. In visible region, the Red light is having a wavelength range of _____ μm .
- (A) 0.52 – 0.60
 - (B) 0.63 – 0.69
 - (C) 0.76 – 0.90
 - (D) 0.90 – 1.55
 - (E) Answer not known
70. In any case, to get a well proportioned or well-conditioned triangle in chain surveying, no angle should be less than
- (A) 20°
 - (B) 30°
 - (C) 40°
 - (D) 45°
 - (E) Answer not known

71. Match the items in List I with List II and select correct answer.

List I

List II

- | | |
|--------------------------|----------------|
| (a) Structure in a truss | 1. Bending |
| (b) Tie in a truss | 2. Compression |
| (c) Beam | 3. Torsion |
| (d) Rotating shaft | 4. Tension |

(a) (b) (c) (d)

(A) 1 3 2 4

(B) 2 4 1 3

(C) 3 4 2 1

(D) 2 4 3 1

(E) Answer not known

72. Tendon splices are required in

(A) Hoyer's long line method of prestressing

(B) Short span prestressed members

(C) Long span prestressed members

(D) Both (A) and (B)

(E) Answer not known

73. Maximum permissible shear stress given in IS 456 – 1978 is based on

(A) Diagonal tension failure

(B) Diagonal compression failure

(C) Flexural tension failure

(D) Uniaxial compression

(E) Answer not known

74. Match List - I (Type of structure) with List - II (Static indeterminacy) and select the correct answer using the codes given below the lists:

Number of members = m , number of joints = n , number of reaction elements = r

List I	List II
(a) Plane frame	1. $m+r-3n$
(b) Space truss	2. $6m+r-6n$
(c) Space frame	3. $6m+r-3n$
	4. $3m+r-3n$

Codes :

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

75. If a simply supported beam carrying a load whose intensity varies uniformly from zero at one end to 'W' per unit run at the other end, then the maximum bending moment is equal to

- (A) $\frac{WL^2}{8}$
- (B) $\frac{WL^2}{12}$
- (C) $\frac{WL^2}{24}$
- ~~(D)~~ $\frac{WL^2}{9\sqrt{3}}$
- (E) Answer not known

76. The value of Young's modulus of soil (E_s) used in immediate settlement equation can be found out using
- (A) Compression test
 - (B) Direct shear test
 - (C) Plate load test
 - (D) Triaxial test
 - (E) Answer not known
77. For a compact building site covering an area of 0.4 Hectre number bore notes required for soil investigation as per I.S. 1892- are
- (A) 1
 - (B) 4
 - (C) 5
 - (D) 3
 - (E) Answer not known
78. Unconfined compression test is applicable only to
- (A) fully saturated, non-fissured clays
 - (B) unsaturated clays
 - (C) partially saturated clay
 - (D) any type of clay
 - (E) Answer not known
79. Assertion [A] : The effective stress is equal to the total stress minus the pore water pressure.
- Reason [R] : The effective stress controls the volume changes and shearing resistance of soil.
- (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 not true
 - (D) Both [A] and [R] are not true
 - (E) Answer not known

80. The wastewater which is collected from bathrooms and kitchens are called as
- (A) Sewage
 - (B) Garbage
 - (C) Sullage
 - (D) Storm water
 - (E) Answer not known
81. The best system for distribution of water in a randomly planned city is
- (A) Dead end system
 - (B) Grid iron system
 - (C) Radial system
 - (D) Ring system
 - (E) Answer not known
82. The velocity of flow in a sedimentation tank not to exceed
- (A) 10 cm/minute
 - (B) 50 cm/minute
 - (C) 30 cm/minute
 - (D) 40 cm/minute
 - (E) Answer not known
83. The maximum permissible chloride content in water for domestic supplies should not exceed
- (A) 250 ppm
 - (B) 350 ppm
 - (C) 450 ppm
 - (D) 550 ppm
 - (E) Answer not known

84. As per Tamil Nadu combined DCR, high rise building means a building exceeding _____ height
- (A) 18.3 m
 - (B) 15.25 m
 - (C) 30.0 m
 - (D) 12.2 m
 - (E) Answer not known
85. The gradient of Ramps for drive ways shall not be more than
- (A) 1 in 6
 - (B) 1 in 8
 - (C) 1 in 10
 - (D) 1 in 12
 - (E) Answer not known
86. Identify the element that does not belong to ekistics
- (A) Man
 - (B) Society
 - (C) Nature
 - (D) Europolis
 - (E) Answer not known
87. Because of improvement of road surface and growth of motor traffic, it is natural tendency of everyone to build as near as possible to main road
- (A) Ribbon development
 - (B) Scattered development
 - (C) Satellite growth
 - (D) Concentric spread
 - (E) Answer not known

88. An area that is hard surfaced, centrally located and highly visible is called
- (A) The city Plaza
 - (B) The Tranzit zone
 - (C) The forecourt zone
 - (D) The arcade plaza
 - (E) Answer not known
89. As a provider of Housing the main focus area of Government is
- (A) Enabling Environment for public sector participation
 - (B) Urban Public Housing and Slum clearance
 - (C) Foundations of housing finance sector
 - (D) Infrastructure and Environment
 - (E) Answer not known
90. The local or regional destinations at the neighborhood village, town and Urban scale is called
- (A) District
 - (B) Centers
 - (C) Polis
 - (D) Preserves
 - (E) Answer not known

91. Identify the Incorrect statement about Urban agglomeration from the following list

- (i) A village with its adjoining out growth
- (ii) A town and its adjoining urban outgrowth
- (iii) Two or more contiguous towns with or without their outgrowths
- (iv) A city and one or more adjoining towns with their outgrowths together forming contiguous stretch.

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

92. Which one of the following is a characteristic feature of Renaissance city planning?

- (A) Construction of formal plazas at important places in town
- (B) Town sites were located in hilltops or islands
- (C) Fortified walls Introduced
- (D) Houses were built in rows along narrow streets
- (E) Answer not known

93. Which one of the following is feature character specific to medieval city planning?

- (A) Irregular pattern of roads
- (B) Fortified walls and trenches became irrelevant
- (C) Vista forming straight roads
- (D) Sewer system was introduced
- (E) Answer not known

94. Name the road which offers continuous route for thorough traffic but offering a lower level of traffic mobility than the Arterial roads.

- (A) Sub-arterial road
- (B) Local streets
- (C) Intra city roads
- (D) Arterial roads
- (E) Answer not known

95. The planning principle of Mughal gardens are based on

- (A) Xeriscaping
- (B) Char Bagh concept
- (C) Cultural and Historic
- (D) Minimalistic
- (E) Answer not known

96. Contour interval is

- (A) The vertical distance between two consecutive contour
- (B) The horizontal distance between two consecutive contour
- (C) The vertical distance between two points on same contour
- (D) The horizontal distance between two points on same contour
- (E) Answer not known

97. Which of the following is not a characteristic of an Ideal Ecosystem?
- (i) The population of any species is limited to the available food resource potential
 - (ii) The species diversity is adequate for efficient re-cycling of materials in the ecosystem
 - (iii) The system is continuing indefinitely without heading up towards a dead end
 - (iv) The energy consumption of the system is maximum and is also dependent on non-renewable resources
- (A) (ii) and (iii)
 - (B) (iii) and (iv)
 - (C) (iv) only
 - (D) (iii) only
 - (E) Answer not known

98. Match the following in the correct sequence:
- | | | |
|-------------------------------|----|--|
| (a) Environmental science | 1. | Promotes regard for social, physical and economic environment of the enterprise or the projects |
| (b) Environmental Engineering | 2. | Deals with the scientific study of the environmental system (air, water, soil, land) and the inherent or induced changes and environmental damages due to human interaction with environment |
| (c) Environmental Management | 3. | Deals with the study of technical processes involved in the protection of the environment |

- | | (a) | (b) | (c) |
|---|------------------|-----|-----|
| (A) | 3 | 1 | 2 |
| <input checked="" type="checkbox"/> (B) | 2 | 3 | 1 |
| (C) | 3 | 2 | 1 |
| (D) | 2 | 1 | 3 |
| (E) | Answer not known | | |

99. Among military region of India, the Southern Command the incharge of two presidencies of
- (A) Bombay and Madras
 - (B) Bombay and Cochin
 - (C) Mysore and Telangana
 - (D) Cochin and Madras
 - (E) Answer not known
100. A city with ten lakhs or one million population or more is known as
- (A) Metropolitan City
 - (B) Town
 - (C) Megalopolis
 - (D) Polis
 - (E) Answer not known
101. The Los Angeles country regional planning commission was created in
- (A) 1923
 - (B) 1920
 - (C) 1970
 - (D) 1974
 - (E) Answer not known
102. Under _____ Analysis, we study the theoretical forces of attraction between centres instead of actual flows as under the flow analysis.
- (A) Pressure
 - (B) Force
 - (C) Gravitational
 - (D) Resource
 - (E) Answer not known

103. As per Lewis Mumford, classification of Town's, what is the term refers to a small town which grows as one entire unit and its economy is based on agriculture?
- (A) Necropolis
 - (B) Dynapolis
 - (C) Eopolis
 - (D) Tyrannopolis
 - (E) Answer not known
104. Tiruvallur, Gummidipoondi and Maraimalainagar were the 3 proposed _____ towns for Chennai, 1st Master Plan
- (A) Industrial
 - (B) Satellite
 - (C) Fringe
 - (D) Commercial
 - (E) Answer not known
105. One of the following is not a component of Master Plan
- (A) Building Groups
 - (B) Land Scape
 - (C) Energy
 - (D) Circulation
 - (E) Answer not known

106. PPBS refers to
- (A) Planning, Programming and Budgeting systems
 - (B) Process, Programming and Budgeting systems
 - (C) Planning, Programming and Banking systems
 - (D) Process, Programming and Borrowing systems
 - (E) Answer not known
107. Multivariate analysis used in planning incorporates
- (A) 2 variables only
 - (B) Large number of variables
 - (C) No variables
 - (D) 1 variable
 - (E) Answer not known
108. The model that covers routine or recurring processes, abstracts processes is called
- (A) Inventory model
 - (B) Queueing model
 - (C) Demand model
 - (D) Normative model
 - (E) Answer not known
109. The emphasis on the inter-relationship between traffic and buildings in a town with movements of origins and destination in a building was given by
- (A) Buchanan
 - (B) Lowry
 - (C) Guarin
 - (D) Rapkin
 - (E) Answer not known

110. The reason which have lead to the thinking of having a development plan for the town are
- (A) To discourage the development of various industries in a systematic way
 - (B) To encourage the grown of town in an unplanned manner
 - (C) To give a perspective picture of a fully developed town
 - (D) To control the development in an unscientific way
 - (E) Answer not known
111. The basic plan for central Washington was designed by
- (A) Pierre L'enfant
 - (B) Christopher Wren
 - (C) George Washington
 - (D) Henry Wright
 - (E) Answer not known
112. An urban area can be defined
- (A) Demographically only
 - (B) Sociologically only
 - (C) Sociologically and Economically
 - (D) Demographically and Sociologically
 - (E) Answer not known
113. The Building activity expands in a natural way along the sides of main road, and this type of development can be called as
- (A) Satellite Growth
 - (B) Ribbon development
 - (C) Scattered development
 - (D) Concentric spread
 - (E) Answer not known

114. In utility analysis of demand changes in the “amount demanded” in response to changes in prices are called

- (A) Extension or contraction
- (B) Increase or decrease
- (C) Rise or fall
- (D) Negative or positive demand
- (E) Answer not known

115. The term “Conurbation” was coined by

- (A) Von Thunen
- (B) Doxiadis
- (C) Charles Abrams
- (D) Patrick geddes
- (E) Answer not known

116. In concentric zone model (1925), Burgers considered city as a

- (A) Social organism
- (B) Ecological organism
- (C) Political organism
- (D) Cultural organism
- (E) Answer not known

117. A part of a city, especially a slum area occupied by a minority group is called a
- (A) Notified slum
 - (B) Ghetto
 - (C) Urban center
 - (D) Dilapidated area
 - (E) Answer not known
118. _____ became laboratory and important centre of high learning in US where group of scholars works was epitomized as progress in social science and social reform
- (A) The Maine School
 - (B) The School of Virginia
 - (C) The Chicago School
 - (D) The School of Georgia
 - (E) Answer not known
119. The minimum points required to get a green certificate from GRIHA is
- (A) 25
 - (C) 50
 - (B) 40
 - (D) 60
 - (E) Answer not known
120. _____ is an ideal habitat with a benign ecological circulation in which technology and nature fully merge; human creativity and productivity reach a maximum level; the residents health and environmental quality are well protected; and energy materials, and information are efficiently used
- (A) Peri urban city
 - (B) Edge city
 - (C) Compact city
 - (D) Ecocity
 - (E) Answer not known

121. Acid rain is because of

- (A) SO_2 and NO_x
- (B) CO_x
- (C) COH
- (D) H_2S
- (E) Answer not known

122. 'The presence in the outdoor atmosphere of one or more contaminants such as dust, fumes, gas, mist and odour in quantities' is defined as

- (A) Water pollution
- (B) Noise pollution
- (C) Air pollution
- (D) Physiological and Ergonomics
- (E) Answer not known

123. Identify the renewable energy sources from the following :

- (i) Solar
 - (ii) Falling water
 - (iii) Wind
- (A) (i)
 - (B) (ii) and (iii)
 - (C) (i) and (ii)
 - (D) (i), (ii) and (iii)
 - (E) Answer not known

124. Expand BOOT, which is commonly adopted practice in physical infrastructure development in India.

- (A) Build, Operate, Own and Transfer
- (B) Built, Own, Operate and Transport
- (C) Build, Operate, Own and Transist
- (D) Build, Overhawl, Own and Transfer
- (E) Answer not known

125. The process of passing water through beds, granular material such as sand is called

- (A) Screening
- (B) Filtration
- (C) Sedimentation
- (D) Flocculation
- (E) Answer not known

126. The water supply requirement for domestic use for a large town is

- (A) 100 lp cd
- (B) 75 lp cd
- (C) 135 lp cd
- (D) 180 lp cd
- (E) Answer not known

127. Identify the component from the following which is not part of solid waste management.

- (A) Sanitary land fill
- (B) Flocculation
- (C) Pyrolysis
- (D) Incineration
- (E) Answer not known

128. As per CPHEEO manual, 80% of water supply may be expected to reach the sewers however it recommend designing the system by considering minimum wastes water flow of _____ litres per capita per day.
- (A) 150 (B) 100
(C) 200 (D) 120
(E) Answer not known
129. The Drainage system of any city/town is governed mainly by
- (a) Natural drainage course
(b) Topography
(c) Climate and hydrological considerations
(d) Impact of regional level of development
- (A) (a), (b), (c), (d)
(B) (a), (b), (c)
(C) (b), (c), (d)
(D) (a), (b), (d)
(E) Answer not known
130. As per URDPFI guidelines, 2014, water requirement for the town /city will be _____ LPCD. (litres per capita per day)
- (A) 135-150 (B) 140-160
(C) 150-175 (D) 175-195
(E) Answer not known
131. _____ method of laying distribution pipes in water supply system will result in free circulation of water and hence, it is not liable for pollution due to stagnation.
- (A) Dead-end system
(B) Tree system
(C) Interlaced system
(D) One pipe partially ventilating system
(E) Answer not known

132. The _____ of a project is the sum of the present values of all the cash flows including inflows and outflows over a period of time.

- (A) Internal rate of return
- (B) Cost Benefit Ration
- (C) Net present value
- (D) Annuity
- (E) Answer not known

133. The length of time required to recover the initial outlay on the project is called

- (A) Pay back period
- (B) Internal rate of return
- (C) Accounting rate of return
- (D) Modified internal rate of return
- (E) Answer not known

134. The concept of justifying expenditures from a zero base rather than as incremental increases or decreases is known as

- (A) Zero based budgeting
- (B) Zero based banking
- (C) Zero based borrowing
- (D) Zero based benchmarking
- (E) Answer not known

135. _____ means a line dividing the lands comprised in and forming part of a street from the adjoining land.

- (A) Survey alignment
- (B) Street alignment
- (C) Future alignment
- (D) Neighborhood alignment
- (E) Answer not known

136. The ancient monument and archaeological sites and remains Act was introduced in

- (A) 1936
- (B) 1947
- (C) 1958
- (D) 1976
- (E) Answer not known

137. 73rd and 74th constitution Amendment Act Enables/provides

- (A) Constitutional Status to PRI (Panchayat Raj) and Urban local bodies (ULB)
- (B) Dissolve the Panchayat Raj and Urban Local Bodies
- (C) Powers to Panchayat Raj
- (D) Provide financial support to Panchayat Raj
- (E) Answer not known

138. Town Planning Act has existed since 1915 with the formation of Bombay Improvement Trust Act, and then Madras and ——— in 1920.
- (A) Andhra Pradesh
 - (B) Calcutta
 - (C) Karnataka
 - (D) Kerala
 - (E) Answer not known
139. A person shall not be qualified for appointment as Presiding Officer of unless —————
- (A) he is a District Collector
 - (B) he is or has been a City Mayor
 - (C) he is or has been District Judge
 - (D) he is or has been a City Commissioner
 - (E) Answer not known
140. According to Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013, Monetary Rehabilitation and Resettlement entitlements are to be provided within a period of ————— from the date of the award.
- (A) 3 months
 - (B) 6 months
 - (C) 9 months
 - (D) 1 year
 - (E) Answer not known

141. The average speed maintained by a vehicle over a particular stretch of road, while the vehicle is in motion is called as
- (A) Spot speed
 - (B) Time - mean speed
 - (C) Running speed
 - (D) Space - mean speed
 - (E) Answer not known
142. The operating level of service as per Highway Capacity Manual (HCM) are of _____ No's
- (A) 6 No's
 - (B) 5 No's
 - (C) 4 No's
 - (D) 3 No's
 - (E) Answer not known
143. The method commonly used for measuring running speed and journey speed are
- (i) Moving observer method
 - (ii) Registration number method
 - (iii) Travellers passing method
 - (iv) Elevated observer method
- (A) (iv) alone is wrong
 - (B) (iii) alone is wrong
 - (C) (i), (ii) are correct (iii) and (iv) are wrong
 - (D) (i), (ii), (iii), (iv) are correct
 - (E) Answer not known

144. In India, the two lane pavement (without raised curbs) is generally fixed as

- (A) 7.0 meters wide
- (B) 7.2 meters wide
- (C) 6.8 meters wide
- (D) 7.5 meters wide
- (E) Answer not known

145. The functions of curbs (kerbs) are

- (i) To facilitate and control drainage
- (ii) To delineate the pavement edge
- (iii) To strengthen and protect the pavement edge
- (iv) To present a more finished appearance

- (A) (iv) alone is wrong
- (B) (i) and (iii) are right and others are wrong

- (C) (i), (ii), (iii) and (iv) are right
- (D) (ii) alone is wrong
- (E) Answer not known

146. In highway classification, what is the PCU equivalency factor for horse-drawn vehicle as per Indian practice?

(A) 3.00

(B) 4.00

(C) 3.50

(D) 2.00

(E) Answer not known

147. To identify or eliminate unsuitable area in land use/land cover analysis
_____ maps are used
- (A) Factor map
 - (B) Constraint map
 - (C) Spatial data map
 - (D) Thematic map
 - (E) Answer not known
148. VR (Virtual Reality) combined with GIS enable
- (A) Realistic visualization of traffic data
 - (B) Upto data residential information
 - (C) Traffic management
 - (D) Realistic visualization of traffic data, updated residential Information, Traffic management
 - (E) Answer not known
149. _____ is the file structure that stores the geometry, topographic information and attribute information of the geographical features in a data set file
- (A) Map file structure
 - (B) Later access file structure
 - (C) Co-ordinated file structure
 - (D) Shape file structure
 - (E) Answer not known
150. The software package of the GIS consists following basic technical modules
- (i) Data input and verification
 - (ii) Data storage and database management
 - (iii) Data transformation and manipulation
 - (iv) Data output and presentation
- (A) (i), (ii) and (iii) only
 - (B) (i), (ii), (iii) and (iv) only
 - (C) (i) and (ii) only
 - (D) (i), (iii) and (iv) only
 - (E) Answer not known

151. LULCC stands for

- (A) Land Use and Land Cover Change
- (B) Land Utility and Land Cover Change
- (C) Land Use and Land Condition Change
- (D) Land Utility and Land Cover Condition
- (E) Answer not known

152. The reflectivity of a surface is dependent upon

1. Angle of incidence
2. The refractive index
3. Planks coefficient
4. The extinction coefficient

- (A) 3 alone is wrong
- (B) 3 and 4 is wrong
- (C) 1 and 4 is wrong
- (D) 2 and 3 is wrong
- (E) Answer not known

153. Which among the following is not a spatial data?

- (A) Location
- (B) Size
- (C) Shape
- (D) Mass
- (E) Answer not known

154. The process of transformation of _____ inevitably distorts atleast one of the properties namely shape, area, distance or direction and often more than one.

- (A) two dimensional map into a three dimensional space
- (B) three dimensional space into a three dimensional map
- (C) three dimensional space into a two dimensional map
- (D) two dimensional map into a two dimensional space
- (E) Answer not known

155. Land pooling scheme was first introduced in _____ regional and Town Planning Act, in 1966.

- (A) Maharashtra
- (B) Gujarat
- (C) Madras
- (D) Delhi development authority
- (E) Answer not known

156. _____ is a way of consolidating land for development of projects by making land owners as partners in development.

- (A) Land repugnancy
- (B) Land Subdivision
- (C) Land re-adjustment
- (D) Land formation
- (E) Answer not known

157. The intent of _____ is to concentrate development in areas where it is wanted and to restrict it in areas where it is not.

- (A) Transfer of Development Rights (TDR)
- (B) Property tax
- (C) Garden City Movement
- (D) Urban design
- (E) Answer not known

158. The maximum number of individuals, that can be supported by a given environment is called
- (A) Biotic potential
 - (B) Carrying capacity
 - (C) Environmental resistance
 - (D) Population size
 - (E) Answer not known
159. Principle 22 of Rio Declaration on Environment, June 1992 discusses mainly about
- (A) Warfare
 - (B) Environment
 - (C) Indigenous people
 - (D) Natural disaster
 - (E) Answer not known
160. New development separated from existing development by substantial vacant land is called
- (A) Lateral Development
 - (B) Leap Frog Development
 - (C) Blight Development
 - (D) Grey Development
 - (E) Answer not known
161. Which one of the following mix has higher workability?
- (A) Well graded aggregate with richer mix
 - (B) Well graded aggregate with poorer mix
 - (C) Uniform grade aggregate with rich mix
 - (D) Uniform grade aggregate with poor mix
 - (E) Answer not known

162. Soundness is the indication of

- (A) Excessive sulphate during burning
- (B) Excessive hydration
- (C) Excessive iron oxide during burning
- (D) Excessive lime caused by inadequate burning of cement
- (E) Answer not known

163. The minimum crushing strength of first class bricks should not be less than

- (A) 14 N/mm²
- (B) 10.5 N/mm²
- (C) 7 N/mm²
- (D) 3.5 N/mm²
- (E) Answer not known

164. C₂S content in the composition of cement clinker results in

- (A) Poor cementing value
- (B) Greater resistance to chemical attack
- (C) Resistance against chemical attack
- (D) Causes initial setting of cement
- (E) Answer not known

165. The hierarchy of hydration rate of cement is

- (A) C₂S, C₄AF, C₃S and C₃A
- (B) C₃A, C₃S, C₄AF and C₂S
- (C) C₄AF, C₂S, C₃S and C₃A
- (D) C₃A, C₂S, C₄AF and C₃A
- (E) Answer not known

166. The planning of the modern town is absolutely necessary to correlate any one of the following as
- (A) The function of town with population
 - (B) The function of town with the physical characteristics of site
 - (C) The function of town with neighborhood
 - (D) The function of town with a village
 - (E) Answer not known
167. In the design of residential areas, the desirable limit of population of a residential unit is about
- (A) 1,000 to 2,000
 - (B) 3,000 to 12,000
 - (C) 14,000 to 18,000
 - (D) 19,000 to 27,000
 - (E) Answer not known
168. The information such as history of roads, geometry of roads and traffic are gathered from a survey called
- (A) Social survey
 - (B) Territorial survey
 - (C) Functional survey
 - (D) Vital survey
 - (E) Answer not known
169. Advantage of zone is to
- (A) To control the growth of population
 - (B) Uncontrolled future growth of town
 - (C) Develop new road
 - (D) To minimise fire occurrences
 - (E) Answer not known

170. The horizontal angle between true meridian and magnetic meridian is called

- (A) Magnetic meridian
- (B) Magnetic declination
- (C) True meridian
- (D) Included angle
- (E) Answer not known

171. Assertion [A] : The Drawback of a lap joint is causing undesirable bending in the connection leading to failure of bolts in tension

Reason [R] : The centre of gravity of load in one member and centre gravity of load in the second member do not coincide and hence eccentricity is created

- (A) [A] is true but [R] is false
- (B) Both [A] and [R] are true; and [R] is the correct explanation of [A]
- (C) [A] is false, [R] is true
- (D) Both [A] and [R] are true, but [R] is not the correct explanation of [A]
- (E) Answer not known

172. The maximum slenderness ratio permissible in steel tiers is

- (A) 250
- (B) 350
- (C) 450
- (D) Indirectly controlled by deflection
- (E) Answer not known

173. Assertion [A] : The transverse reinforcement in flanged beam section should be more than 60 percent of the main area of steel provided at the midspan of the slab

Reason [R] : Such transverse reinforcement should extend on either side of the beam to a distance not less than one-fourth of the span of beam.

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

174. Minimum shear reinforcement is to be provided in the form of stirrups in all beams where the calculated nominal shear stress τ_v

- (A) $\geq 0.5 \tau_c$
- (B) $\leq 0.5 \tau_c$
- (C) $\geq 0.25 \tau_c$
- (D) $\leq 0.25 \tau_c$
- (E) Answer not known

175. According to westerguard, the equivalent radius of resisting section 'b' in terms of radius of load distribution 'a' and slab thickness 'h'. When a is less than 1.724h is

- (A) $b = \sqrt{1.6a^2 + h^2} - 0.675h$
- (B) $b = 1.6a^2 + h^2 - 0.675h$
- (C) $b = \sqrt{1.6a^2 + h^2} - 0.675h$
- (D) $b = \sqrt{1.6a + h} - 0.675h$
- (E) Answer not known

176. Negative skin friction on piles

- (A) does not influence the pile capacity
- (B) increases the pile capacity
- (C) decreases settlement
- (D) reduces the pile capacity
- (E) Answer not known

177. The immediate settlement of the footings based on the theory of elasticity is where,

S_i – Immediate settlement

q – Net applied pressure

B – Width or diameter of loaded area

μ – Poisson's ratio

E_s – undrained modulus of deformation

I_w – Influence factor

(A) $S_i = qB \frac{(1 - \mu^2)}{E_s} I_w$

(B) $S_i = qE_s \frac{(1 - \mu^2)}{B} I_w$

(C) $S_i = qB \left(\frac{E_s}{1 - \mu_2} \right) I_w$

(D) $S_i = qB \left(\frac{1 - \mu^2}{I_w} \right) E_s$

- (E) Answer not known

178. The critical hydraulic gradient for a sand deposit if the void ratio is 0.4 and specific gravity is 2.40
- (A) 0.9 (B) 2.4
~~(C) 1.6~~ ~~(D) 1.00~~
 (E) Answer not known
179. A soil is termed as 'non-plastic', if its plasticity index is
- (A) unity (B) infinity
~~(C) zero~~ (D) negative
 (E) Answer not known
180. The equation of A-line in plasticity chart is
- (A) $I_p = 0.73(W_L - 10)$ ~~(B) $I_p = 0.73(W_L - 20)$~~
 (C) $W_L = 0.73(I_p - 10)$ (D) $W_L = 0.73(I_p - 20)$
 (E) Answer not known
181. The poorly mixed, anaerobic, deeper zone of a lake is
- (A) Epilimnion zone ~~(B) Hypolimnion zone~~
 (C) Metalimnion zone (D) Thermocline zone
 (E) Answer not known
182. A septic tank is a
- (A) Sedimentation tank
 (B) Digestion tank
 (C) Aeration tank
~~(D) Combination of sedimentation and digestion tank~~
 (E) Answer not known

183. What is the yield of an open well 4.0 m diameter for a safe draw down of 2.0 m and specific capacity per unit well area be 0.460 h^{-1} ?
- (A) $5.75 \text{ m}^3/\text{h}$
 - (B) $11.50 \text{ m}^3/\text{h}$
 - (C) $23.0 \text{ m}^3/\text{h}$
 - (D) None
 - (E) Answer not known
184. For a trapezoidal channel section to be a most economical, the value of θ , side slope with the horizontal, be
- (A) 45°
 - (B) 60°
 - (C) 75°
 - (D) 90°
 - (E) Answer not known
185. The flow is said to be turbulent when Reynolds number is
- (A) Less than 1000
 - (B) Equal to 2000
 - (C) Greater than 4000
 - (D) Between 1000 to 4000
 - (E) Answer not known
186. The colour code for institutional and use in CMDA master plan 2026 is
- (A) White
 - (B) Yellow
 - (C) Black
 - (D) Red
 - (E) Answer not known

187. The garden city showing the combination of the advantages of both town and country is led by
- (A) Doxiadis (B) Le Corbusier
(C) Patrick Geddes ~~(D) Ebenezer Howard~~
(E) Answer not known
188. Monocentric city developing in one direction is known as _____ according to Doxiadis.
- ~~(A) Dynapolis~~ (B) Dynametropolis
(C) Dynamegapolis (D) Ecumenopolis
(E) Answer not known
189. In Tamil Nadu there are several temple cities in the shape of a concentric rectangle with a large Hindu temple at its centre which reflects the ideal city plan described in
- ~~(A) Shilpashastra~~ (B) Dharmashastra
(C) Mannadishastra (D) Natyashastra
(E) Answer not known
190. In ancient texts the art studios are called as
- (A) Naga Sala (B) Gow Sala
~~(C) Silpa Sala~~ (D) Satya Sala
(E) Answer not known
191. _____ also known as cross – slope, which facilitates drainage of the pavement laterally.
- (A) Kerbs
(B) Gradient
(C) Entry Speeds
~~(D) Camber~~
(E) Answer not known

192. "The use of sidewalk : safety", the famous statement was narrated by

(A) William Whyte

(B) Kevin Lynch

(C) Jane Jacobs

(D) Rossi

(E) Answer not known

193. Find the element which is missing in these

'Paths, Edges, Nodes, Landmarks'

(A) Buildings

(B) District

(C) Focal point

(D) Parks

(E) Answer not known

194. The capital complex in Chandigarh was located in

(A) Sector 2

(B) Sector 3

(C) Sector 1

(D) Sector 15

(E) Answer not known

195. A map prepared by a civil engineer or surveyor showing the sub division of land into four or fewer lots is
- (A) Parcel map
 - (B) Lot map
 - (C) Parent map
 - (D) Panel map
 - (E) Answer not known
196. A system in which vegetation is not only attached to a building facade, but is fully integrated into the facade construction in which plants and planting media are both placed on the vertical surface of the exterior wall.
- (A) Facade – Integrated living walls
 - (B) Facade – Supported Green walls
 - (C) Bio shaders
 - (D) Envelope protection
 - (E) Answer not known
197. A earther mound designed to provide visual interest on a site, screen undesirable views, reduce noise or fulfill other such purposes is called
- (A) denude
 - (B) barrier
 - (C) berm
 - (D) bet berth
 - (E) Answer not known

198. LiDAR is associated with study and Analysis of

- (A) Structural analysis
- (B) Remote sensing/geomorphology
- (C) Construction Management
- (D) Energy Simulation
- (E) Answer not known

199. It is the first Engineering survey which is carried out to study the details of the proposed project

- (A) Reconnaissance survey
- (B) Preliminary survey
- (C) Location survey
- (D) Planning survey
- (E) Answer not known

200. The following could be the most important socio-economic impact of dams

- (A) Loss of biodiversity
- (B) Poorly managed involuntary displacement and loss of livelihood
- (C) Loss of forest and wildlife habitat
- (D) Water logging
- (E) Answer not known

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