Sl. No. :

# ATP/18

## 2018
## TOWN PLANNING
### (P.G. Degree Standard)

Time Allowed : 3 Hours]

[Maximum Marks : 300

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

### IMPORTANT INSTRUCTIONS

1. The applicant will be supplied with Question Booklet 15 minutes before commencement of the examination.

2. This Question Booklet contains **200** questions. Prior to attempting to answer, the candidates are requested to check whether all the questions are there in series and ensure there are no blank pages in the question booklet. **In case any defect in the Question Paper is noticed, it shall be reported to the Invigilator within first 10 minutes and get it replaced with a complete Question Booklet. If any defect is noticed in the Question Booklet after the commencement of examination, it will not be replaced.**

3. Answer **all** questions. All 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 mark the answers.

6. You will also encode your Question Booklet Number <u>with Blue or Black ink Ball point pen</u> in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, action will be taken as per Commission's notification.

7. Each question comprises *four* responses (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.

8. In the Answer Sheet there are **four** circles Ⓐ, Ⓑ, Ⓒ and Ⓓ against each question. To answer the questions you are to mark with Blue or Black ink Ball point pen ONLY ONE circle of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. *e.g.* If for any item, Ⓑ is the correct answer, you have to mark as follows :

Ⓐ ● Ⓒ Ⓓ

9. 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 Hall during the time of examination. <u>After the examination is concluded, 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.</u>

10. **Do not make any marking in the question booklet except in the sheet before the last page of the question booklet, which can be used for rough work. This should be strictly adhered.**

11. Applicants have to write and shade the total number of answer fields left blank on the boxes provided at side 2 of OMR Answer Sheet. An extra time of 5 minutes will be given to specify the number of answer fields left blank.

12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.

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1. The planning approach based on incorporation of social and economic planning within physical framework is called

   (A) Blue print planning      (B) Process planning

   (C) Normative planning      (D) Advocacy planning

2. Blue print planning acts through the medium of

   (A) Structure plan      (B) Master plan

   (C) Area development plan      (D) Detailed development plan

3. Delphi Technique involves

   (A) Individual expert opinion      (B) Expert group opinion

   (C) Private organisation opinion      (D) Public opinion

4. PPBS (Planning – Programming – Budgeting System) is a model for executing

   (A) National policy      (B) State policy

   (C) Public policy      (D) Regional policy

5. In remote sensing, SMA denotes

   (A) Sensor Mixture Analysis      (B) Stratified Mixture Analysis

   (C) Spatial Mixture Analysis      (D) Spectral Mixture Analysis

6. Multiple regression, statistical technique is used in population analysis for

   (A) Forecasting birth rates      (B) Migration studies

   (C) Predicting changes      (D) Transportation studies

7. The concept of "Disjointed Incrementalism" was discussed in planning by

   (A) Catanese      (B) Lindbolm

   (C) Faludi      (D) Ratcliffe

8. The relationship between planning practice informed by theory is called

   (A) Systemics      (B) Praxis

   (C) Pragmatics      (D) Cybernetics

9. In economic analysis; the technique for projecting the future of exporting activity uses

   (A) Shift/share analysis      (B) ✓ Econometric methods

   (C) Ratio method      (D) Multiplier method

10. The model simulating flow of elements; through central location in response to laws of demand and supply is called

    (A) Demand model      (B) Queuing model

    (C) ✓ Inventory model      (D) Normative model

11. The application of the linear city concept to the redevelopment of London in 1937 was by

    (A) Soria Y mata      (B) Le Corbusier

    (C) ✓ MARS group      (D) Frank Llyod Wright

12. A value system that ascribes a relative value to each one of the events is called

    (A) Choice theory      (B) ✓ Utility theory

    (C) Decision theory      (D) Fiscal theory

13. The method of economic analysis to compare long run economic effects of a number of projects is called

    (A) Cost effectiveness analysis

    (B) ✓ Cost-benefit analysis

    (C) Fiscal impact analysis

    (D) PPBS (Planning Programming Budgeting System)

14. Cost-benefit and cost-effectiveness analysis are 2 analytical tools in

    (A) ✓ PPBS system (Planning-Programming Budgeting System)

    (B) Fiscal impact analysis system

    (C) Simulation system

    (D) Resource allocation system

15. Von Thunen's Land use Location theory/model was mainly based on

    (A)   Urban use                          (B)   Agricultural use

    (C)   Commercial use                      (D)   Industrial use


16. The planned community of Radburn was designed by

    (A)   Clarence Perry and Clarence Stein   (B)   Henry Wright and Clarence Stein

    (C)   Patrick Geddes                      (D)   F. J. Osborn


17. Hippodamian plan referred to

    (A)   Grid Iron pattern                   (B)   Radial pattern

    (C)   Radio-centric pattern               (D)   Linear pattern


18. The concept of Town Planning in Manasara and Mayamata was called

    (A)   Bhupariksha                         (B)   Padavinyasa

    (C)   Nagaravinyasa                       (D)   Bhumisamgraha


19. PPBS (Planning-Programming Budgeting System) includes programs designed around

    (A)   Short term goals                    (B)   Medium range goals

    (C)   Intermediary goals                  (D)   Long range goals


20. Systematic analysis of the Environmental effects of development policies, plans, programmes and proposed strategic actions is known as

    (A)   EIA                                 (B)   EMP

    (C)   SEA                                 (D)   EIS


21. Under which Act EIA is made mandatory

    (A)   Indian Forest Act

    (B)   Air (Prevention and Control of Pollution) Act

    (C)   Wildlife Protection Act

    (D)   Environment (Protection) Act

22. The process of calculating projected effects that a proposed action or construction project will have on environmental quality is called as

    (A) Environmental Assessment     (B) Ecology Assessment

    (C) Environmental Report     (D) Environmental Survey

23. Which one is not the benefit of environmental assessment?

    (A) Reduced cost and time of project implementation

    (B) Cost-saving modifications in project design

    (C) Increase project acceptance

    (D) Increase cost of treatment and clean up

24. The Indian ministry requires ———— for giving environmental clearance.

    (A) Project assessment report     (B) Ecology assessment statement

    (C) Environmental impact assessment     (D) Environmental clearance statement

25. The distinct dimensions of environmental resources are

    (i) ecological

    (ii) economic

    (iii) ethnological

    (A) (i)     (B) (i), (ii) and (iii)

    (C) (ii)     (D) (iii)

26. 2010 World Environment Day themes are

    (A) Green cities – plan for the planet !

    (B) Many species. One planet. One fixture

    (C) Your Planet Needs You – Unite to combat climate change

    (D) Melting Ice – a Hot Topic?

27. World Environment Day, commemorated each year on

    (A) June 2nd     (B) June 3rd

    (C) June 4th     (D) June 5th

28. Biological Magnification is

   (A) Decrease in concentration with trophic level

   (B) Increase in concentration with trophic level ✓

   (C) Equilibrium in concentration

   (D) Magnification with time


29. 'Regional Survey' Technique is the concept by

   (A) Doxiadis                          (B) Patrick Geedes ✓

   (C) Lewis Mamford                     (D) Ebenazer Howard


30. Functional Regions are classified based on its

   (A) Basic Economic Activity ✓

   (B) Services offered

   (C) Major industrial activities

   (D) Distance Factor and Time scale parameters


31. Regional plan takes into Account of

   (A) Economy                          (B) Spatial aspects

   (C) Environmental aspects            (D) All the above ✓


32. Which one of the following is the Excellent Example of primate city

   (A) Paris ✓                          (B) Bombay

   (C) New York                         (D) Log Angeles


33. The main advantage of Multi level planning is

   (A) Bottom up Approach ✓

   (B) Public participation is more

   (C) Effective and Efficient implementation

   (D) All the above

34. The Zonal Development Plan shall show the broad outliner of the following

    (a) Boundaries of the neighbourhoods with gross residential density

    (b) Major internal road and services

    (c) Community Centre

    (d) Neighbourhood parks

    (e) Location of high schools and primary schools

    (A) (a), (b), (c), (d), (e)            (B) (a), (b), (d), (e)

    (C) (a), (b), (c)                       (D) (a), (d), (b)

35. The idea of structure plan was developed in ———————— in the year 1971.

    (A) Britain                             (B) France

    (C) New York                            (D) Delhi

36. Following facilities cannot be provided and regulated by an individual community for contiguous area sharing Common Interest – results in the formation of Regional Planning Authority

    (a) air pollution

    (b) unifies correlation system

    (c) water distribution

    (d) solid waste disposal

    (e) sewage treatment

    (A) (a), (b), (c), (d), (e)            (B) (a), (b), (c)

    (C) (b), (c), (d), (e)                  (D) (b), (d), (e)

37. In Chandigarh Master Plan the Dimension of each sector is

    (A) 1.2 km in length and 0.8 km in width

    (B) 1.5 km in length and 1 km in width

    (C) 2 km in length and 1.5 km in width

    (D) 1.2 km in length and 1 km in width

38. Meso regions are the Sub-divisions of

    (A) Macro-regions         (B) Micro-regions

    (C) Metropolitan region      (D) Functional region


39. The pressure behind regionalism comes from the following groups

    (a) Those seeking Administrative devolution from Central Government

    (b) Those seeking Local Government reorganisation

    (c) Those seeking a more efficient Land-use Planning System

    (A) (a), (b), (c)         (B) (a), (c)

    (C) (b), (c)            (D) (a), (b)


40. For Indian conditions, the hierarchy of Regional Planning can be classified in the following fourfold manner

    (a) Metropolitan on city regions

    (b) River Valley regions

    (c) Axial Development regions

    (d) Transitional or depressed regions

    (A) (a), (b), (c), (d)      (B) (a), (c), (d), (b)

    (C) (b), (c), (d), (a)      (D) (a), (c), (d), (b)


41. The National Development Council (NDC) consist of

    (a) Prime Minister

    (b) Chief Minister's of State

    (c) Member's of Planning Commission

    (d) Member of Parliament

    (A) (a), (b) & (c)       (B) (a), (b), (c) & (d),

    (C) (a), (c), (d)         (D) (a) & (b)


42. What type of Regional Plan was prepared for Aransol-Durgapur Complex

    (A) Metropolitan Region      (B) Industrial complex

    (C) Backward region        (D) River barin

43. The Desirable standard of water supply for a medium Town with a population of > 50,000 should be

(A) 135 – 150 LPCD  (B) 150 – 200 LPCD

(C) 120 – 135 LPCD  (D) 110 – 120 LPCD

44. How the employer holds the contractor?

(i) Security bond

(ii) Withholding around 10% on all on account bills

(iii) Withholding the materials dumped at site

(A) (i) and (ii)  (B) (i) and (iii)

(C) (ii) and (iii)  (D) (i), (ii) and (iii)

45. If $t_p$ and $t_o$ are the persimistic and optimistic time of an activity, the variance of the activity will be

(A) $\left(\dfrac{t_p - t_o}{6}\right)$  (B) $\left(\dfrac{t_p - t_o}{6}\right)^2$

(C) $\left(\dfrac{t_p - t_o}{6}\right)^3$  (D) $\left(\dfrac{t_p - t_o}{4}\right)$

46. Which one specify the unit rates required to supply labour and materials

(A) Bill of quantities  (B) Bill of schedule

(C) Tender bond  (D) Schedules for completion

47. One of the following method falls under non-deterministic approach or the probabilistic approach

(A) PERT  (B) CPM

(C) GANTT chart  (D) Bar chart

48. Bar chart was introduced by

(A) Catanese  (B) Henery Gantt

(C) Lowry  (D) Melville Branch

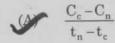49. In resource allocation, plotting the resources usage profile is called

(A) Bar diagram  (B) Histogram

(C) Slack diagram  (D) Milestone chart

50. If $C_c$, $C_n$, $t_n$ and $t_c$ are the crash cosh, normal cost, normal time and crash time respectively, the cost slope is given by

(A) $\dfrac{C_c - C_n}{t_n - t_c}$

(B) $\dfrac{C_n - C_c}{t_n - t_c}$

(C) $\dfrac{C_c - C_n}{t_c - t_n}$

(D) $\dfrac{C_n - C_c}{t_c - t_n}$

51. The following is an indication of ahead of schedule condition (excess resources)

(A) Zero slack

(B) Positive slack

(C) Negative slack

(D) Slack

52. If $T_S$, $T_E$, and $\sigma$ are the scheduled time of completion, expected time of completion and standard deviation respectively, the probability factor (Z) will be

(A) $\dfrac{TS - TE}{\sigma}$

(B) $\dfrac{TE - TS}{\sigma}$

(C) $\dfrac{\sigma}{TS - TE}$

(D) $\dfrac{\sigma}{TE - TS}$

53. When probability factor (Z) is positive, the chances of completing the project in time is

(A) More than 50%

(B) Less than 50%

(C) Fifty – Fifty

(D) Less than 30%

54. To accept a project, its Net present value should be

(A) Negative

(B) Zero

(C) Positive

(D) Minimum

55. Which of the following is categorised under deterministic approach

(A) PERT

(B) CPM

(C) Bar Chart

(D) Gantt Chart

56. The specific instant of time at which the part of the plan is achieved is called

(A) Event                            (B) Activity

(C) Design                         (D) Fram

57. In which of the following process of numbering, when an event is added later, it can be assigned a number between the number of immediate predecessor event and immediate successor event is

(A) Skip numbering

(B) Regular numbering

(C) Dual numbering

(D) Single numbering

58. Which of the following focus on certain episodic events like formation, issuance of capital, major expansion, merger, reorganisation and liquidation in the life cycle of the firm

(A) Capital budgeting

(B) Capital structure

(C) Financial management

(D) Working capital management

59. Eminant domain DOES NOT Provide the right to Government

(A) Acquire the land without compensation

(B) Acquisition of land for public use

(C) Power to take property from the individual

(D) None of the above

60. 73rd and 74th constitutional amendments related to

(A) Abolishing the urban land ceiling Act

(B) Providing restricted role to Judiciary to settle rural disputes

(C) Providing more responsibility to municipal and local bodies for planning and development

(D) Providing right to information to the public

61. The golden quadrilateral, as part of the National Highway Development Project (NHDP) connects

    (A)   Delhi – Mumbai – Chennai – Delhi

    (B)   Delhi – Mumbai – Kolkata – Delhi ✓

    (C)   Delhi – Mumbai – Bangalore – Delhi

    (D)   Delhi – Mumbai – Hyderabad – Delhi


62. In transport economics; VOC stands for

    (A)   Vehicle Operating Condition       (B)   Vehicle Operating Cost ✓

    (C)   Variable Operating Cost          (D)   Variable Operating Condition


63. In Indian Conditions, the highway systems for urban roads are generally classified in the following hierarchical order, namely

    1.   Express way                2.   Collector street

    3.   Arterial road               4.   Sub arterial road

    5.   Local street

    (A)   1 – 3 – 4 – 2 – 5 ✓       (B)   1 – 4 – 3 – 2 – 5

    (C)   1 – 2 – 3 – 4 – 5         (D)   3 – 4 – 2 – 5 – 1


64. If a bus is travelling at 80 kilo meter per hour, the minimum intermediate right distance for over taking should be?

    (A)   240 m ✓               (B)   360 m

    (C)   180 m                 (D)   160 m


65. What should be the minimum slope of a camber as per Indian Road Congress for thin biluminous surface?

    (A)   2.0 – 2.5% ✓         (B)   1.5 – 1.9%

    (C)   2.6 – 3.0%           (D)   3.0 – 4.0%


66. If a bus is travelling at 100 KmpH along a major roads at priority intersection on rural roads, the minimum visibility distance should be
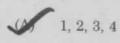
    (A)   270 m ✓           (B)   250 m

    (C)   190 m            (D)   290 m

[Turn over

67. In the inventory of public transport buses, the following datas are present

   1. Total number of buses
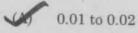
   2. Fare structure

   3. Routes and schedule

   4. Operating speed

   (A) ✓ 1, 2, 3, 4                    (B)  1, 2, 3

   (C)  1, 2, 4                         (D)  1, 2

68. Mons rail system is another variety of

   (A)  Light rail transit

   (B)  Sub urban train

   (C) ✓ Rapid rail transit

   (D)  Bus road transit system

69. The coefficient of rolling resistance for a vehicle on cement concrete and asphalt surfacing should be between

   (A) ✓ 0.01 to 0.02

   (B)  0.02 to 0.025

   (C)  0.015 to 0.3

   (D)  0.04 to 0.05

70. The main features of express way are as follows

   1. Complete seperation of opposing traffic

   2. Parking-loading and unloading of goods is permitted

   3. Elimination of all crossing at the road level

   4. Police and Traffic aid ports at convenient intervals

   (A)  1, 2, 4                         (B)  1, 2, 3, 4

   (C) ✓ 1, 3, 4                        (D)  1, 2, 3

71. The statement 'urban traffic was a function of land use' was made in 1954 by

    (A)  Lowry and garin

    (B)  Mitchell and Rapkin

    (C)  Buchanan

    (D)  Hutchinson

72. In division of zones for transportation survey; the central sector (CBD) is normally designated as :

    (A)  1                        (B)  3

    (C)  2                        (D)  0

73. India is moving towards ITS, which allows a person to make a journey that involves transfers within or between different transport modes with a single ticket. What does ITS stands for?

    (A)  Integrated Transit System

    (B)  Internal Ticketing System

    (C)  Intelligent Ticketing System

    (D)  Integrated Ticketing System

74. Which one among the following project is not considered as quantifiable projects?

    (A)  Family welfare

    (B)  Mineral production

    (C)  Power generation

    (D)  Water supply

75. In urban transport sector, SLB means

    (A)  Service Level Benchmarks

    (B)  System Level Benchmarks

    (C)  Station Level Benchmarks

    (D)  Standard Level Benchmarks

76. In cross-sectional elements in highway design; the line representing the nearest limits of future uncontrolled building activity in relation to a road is called as

   (A) Building line
   (B) Control line
   (C) Desire line
   (D) Curt line

77. In order to derive the travel characteristics of the whole population from the data derived from sampling; —————— factor is used.

   (A) correlation factor
   (B) choice factor
   (C) expansion factor
   (D) normalisation factor

78. A multi modal transport system, where in trucks are carried on ships over long distances are called as

   (A) Trailer on flat car system
   (B) Roll on Roll Off System
   (C) Piggy back system
   (D) Water-trailer system

79. Tonga & Matador Nan; vehicles found in Indian streets can be grouped under

   (A) Public transport
   (B) Para transit
   (C) Popular transport
   (D) Primary transport

80. A road junction laid out for traffic movement in 1 direction around a central island is called

   (A) Rotary island
   (B) Rotary intersection
   (C) Rotary merging
   (D) Rotary diverging

81. Which one of the following is a Raster data type?

    (A) Points                          (B) Polygons

    (C) Lines                           (D) Pixels


82. Which of the following statements is true about the capabilities of GIS?

    (A) Data capture and preparation

    (B) Data management, including storage and maintenance

    (C) Data manipulation, analysis and 3D virtual reality

    (D) Data capture, management, manipulation, analysis and interpretation


83. Digital land survey requires preparation of

    (A) Planimetric map

    (B) Contour map

    (C) Planimetric map and Contour map

    (D) Topographic map


84. Cadastral map refers to

    (A) Topography of Land

    (B) Statistical Data of Land

    (C) Contour of Land

    (D) Boundaries and Ownership of Land


85. In Network analysis, which one of the following determines the optimal path along the route?

    (A) Network Tracing

    (B) Network Routing

    (C) Network Allocation

    (D) All the above

86. Who is known as father of GIS?

(A) Boyle

(B) Roger Tomline ✓

(C) David Bickmore

(D) Mcharg

87. In GIS, area feature has

(A) 3 dimensions

(B) 2 dimensions ✓

(C) 1 dimension

(D) 1 and 2 dimensions

88. Creation of polygons that surround other points lines is known as

(A) Overlaying

(B) Reclassification

(C) Buffering ✓

(D) Thematic maps

89. Which among the following scale is not a Fractional Scale?

(A) 1 : 1000 ✓                    (B) 1 : 10,000

(C) 1 : 25,000                    (D) 1 : 1,00,000,00

90. Which of the following is not the GIS/GPS transport application?

(A) Tracking potholes in roads

(B) Collect data to develop database for roadways

(C) Aid in police and fire response to accidents

(D) Co-ordinate police speed traps ✓

91. Factor maps are created by assigning graduated values from

(A) 0 – 100                       (B) 0 – 200

(C) 0 – 255 ✓                     (D) 200 – 255

92. Which of the following is a negative effect of urbanization?

(A) Access to better infrastructure

(B) Access to advancements in technology

(C) Increased stress of the inhabitants ✓

(D) Exposure to other cultures

93. According to sociology, marriage and family are considered to be what?

(A) Association

(B) Institutions ✓

(C) Organization

(D) Grouping

94. The study of interactions among organisms and their environment is known as

(A) Sociology

(B) Ecology ✓

(C) Bio-science

(D) Relative studies

95. Which one of the following is not the component of the smart city mission?

(A) Application of ICT for Infrastructure

(B) Application of ICT for better Governance

(C) Promoting a variety of Transport options

(D) Industrial Development ✓

96. Which one of the following is not the internal source of income for municipalities?

(A) Property tax

(B) Service charges

(C) Licences charges

(D) Grants ✓

[Turn over

97. The concept of "Broad Acre Plan" was designed by

(A) Le Corbusier

(B) Constantine Doxiadis

(C) F.L. Wright

(D) Kenzo Tange

98. The most often used model in trip distribution-transportation planning is

(A) Matrix model

(B) Gravity model

(C) Lowry model

(D) Simulation model

99. The plan that is an official public document involving not only a set of goals but also a policy to attain those goals is called

(A) Master plan

(B) Structure plan

(C) Comprehensive plan

(D) Detailed development plan

100. In aerial photography, measurement taken at the centre of the picture is denoted as

(A) Vertical point

(B) Critical point

(C) Principal point

(D) Oblique point

101. Photo coverage in aerial photography varies with

(A) Exposure and Altitude

(B) Focal length and Camera angle

(C) Camera angle and Exposure

(D) Focal length and Altitude

102. The technique used to study employment, relation between regions and industries, calculation of ratios and multipliers are called

(A) Location co-efficient analysis

(B) Input output analysis

(C) Industrial complex analysis

(D) Growth analysis

103. Mapping of the "Digestive Process" of urban areas denotes

(A) Transportation

(B) Utilities

(C) Housing

(D) Land use

104. One of the 1ˢᵗ gravity models to be applied in practice was devised by

(A) ✓ T.R. Lakshmanan and W.G. Hansen    (B) Lowry and Garin

(C) Walter Christaller    (D) David Huff

105. Reilly's Law discussed the concept of

(A) Location theory    (B) Central place

(C) Structure plan    (D) ✓ Gravitational retailing

106. Limitations imposed by the urban form and pattern in planning analysis is called

(A) Physical threshold    (B) ✓ Structural threshold

(C) Spatial threshold    (D) Quantitative threshold

107. The threshold constituted by maximum potential capacity of public utilities is called

(A) Qualitative threshold    (B) Physical threshold

(C) ✓ Quantitative threshold    (D) Structural threshold

108. The physical limitations to growth encountered by towns are called

(A) Slack    (B) ✓ Threshold

(C) Backlash    (D) Trickle-Down

109. Models that consider more than one form of activity or land use and respective relationships simulated are called as

(A) Partial models    (B) ✓ General models

(C) Lowry model    (D) Descriptive models

110. The model that assumes that population and non-basic employment can be uniquely derived from basic employment is called

(A) ✓ Ira Lowry model    (B) Garin model

(C) Reilly's model    (D) Chapin model

111. The statistical method used to measure the inter-dependency among variables is called

    (A)    Multivariate analysis method        (B)    Multiple regression method

    (C)    Linear regression method            (D)    Correlation method


112. The statistical analysis technique which displays inter-relationship between all variables and their observations is called

    (A)    Multivariate analysis               (B)    Regression analysis

    (C)    Correlation analysis                 (D)    Matrix analysis


113. The trickle down theory in 60's and 70's was replaced by

    (A)    Choice theory                        (B)    Trade off theory

    (C)    Filter down theory                   (D)    Functional theory


114. The theory of planning that treats its subject matter as a researchable phenomenon is called as

    (A)    Functional theory                    (B)    Choice theory

    (C)    Normative theory                     (D)    Positive theory


115. A descriptive statement involving definitions, postulates and asserting truth in relationship in planning is called

    (A)    goal                                 (B)    fact

    (C)    value                                (D)    agenda


116. Advocacy planning was formulated in the 1960's by

    (A)    Peter Hall                           (B)    Melville C. Branch

    (C)    Paul Davidoff                        (D)    A. Faludi


117. What is meant by RWG strategy?

    (A)    Regeneration with growth             (B)    Redevelopment with growth

    (C)    Redistribution with growth           (D)    Resettlement with growth

118. The Environmental (Protection) Act was enacted in the year

(A) 1986 ✓

(B) 1992

(C) 1984

(D) 1974

119. The impact of developmental activities on the hydrosphere causes

(A) Air pollution

(B) Soil pollution

(C) Soil erosion

(D) Water pollution ✓

120. Select one of the method which is NOT an example of an approach to impact assessment

(A) Expert Judgement

(B) Social impact assessment

(C) Matrices and interaction diagrams

(D) One-off impact assessment ✓

121. Purpose of the "Screening" in EIA

(A) To assess the quality of the project design

(B) To assess the potential impacts of project

(C) To determine whether a proposal requires EIA or not ✓

(D) To assess project life cycle

122. It contains a detailed plan for managing and monitoring environmental impacts both during and after implementation

(A) Environmental Impact Assessment

(B) Environment Management Plan

(C) Detail Project Report

(D) Environmental Impact Statement ✓

123. Risk assessment is a system of analysis that includes

(i) Identification of a substance.

(ii) Scenarious for exposure to the toxicant.

(iii) An estimate of the probability.

(A) (i)

(B) (ii)

(C) (iii)

(D) (i), (ii) and (iii) ✓

124. Air (Prevention and Control of Pollution) Act has been in existence since

    (A)   1980                     (B)   1981

    (C)   1988                     (D)   1986

125. The following is the most common form of environmental degradation in the cities of both developed and developing countries

    (A)   Air pollution            (B)   Water pollution

    (C)   Noise pollution          (D)   Physiological and Ergonomics

126. Which one of the following effects odour pollution in environment?

    (A)   Physiological effects and psychological effects

    (B)   Psychological effects

    (C)   Environmental effects

    (D)   Physiological effects

127. Which one of the pollution is mainly associated with built-up areas, its significance extends for beyond that of urban climates

    (A)   Air pollution            (B)   Noise pollution

    (C)   Water pollution         (D)   Physiological pollution

128. Environmental (Protection) Rules "Environmental Statement" has been in existence since

    (A)   1991                     (B)   1993

    (C)   1994                     (D)   1999

129. Standards for emission or discharge of environmental pollutants is set by

    (A)   The Environment (Protection) Rules, 1986

    (B)   The Water Act (2000)

    (C)   Environment (Protection) Act, 1986

    (D)   Environment (Protection) Act, 2000

130. Comprehensive Development plan aims at

    (A)    Comprehensive Zoning Regulations

    (B)    Identity and improve major Roads

    (C)    Assign Areas for Housing Development

    (D)    All the above

131. What is the main contribution to town planning by Ebenazer Howard

    (A)    Combining town and country to have advantage of both

    (B)    Publicly owned or Co-operative land ownership

    (C)    Communities that are limited in size and density to have human identity

    (D)    All the above

132. What must be the main characteristics of Development Plan

    (A)    Policy framework for overall Development

    (B)    Development of ideas and policy making

    (C)    Put forth the major issues and policies before the public and authorities of the State

    (D)    All the above

133. The Chambal Project – an irrigation – cum – hydro – power project – is controlled by two states, namely

    (A)    Rajasthan and Madhya Pradesh       (B)    Rajasthan and Punjab

    (C)    Madhya Pradesh and Maharashtra    (D)    Punjab and Hariyana

134. Madras Town Planning Act was passed in the year

    (A)    1920                                (B)    1925

    (C)    1957                                (D)    1971

135. Soil stack collects waste waters from

    (A)    Baths                               (B)    Sink and wash basins

    (C)    Urinals and kitchen                 (D)    Toilets

136. In Gandhi nagar, the dimension of each sector is

    (A)  1 km in length and 0.75 km in width

    (B)  1.2 km in length and 0.8 km in width

    (C)  1.5 km in length and 1 km in width

    (D)  0.75 km in length and 0.5 km in width

137. A density of ——————— familier per acre was suggested by Ebenezer Howard and become the standard density for the Garden cities

    (A)  12                              (B)  10

    (C)  15                              (D)  8

138. The structure of the Greater London Plan 1994 was based an Zoning in four rings. They are

    (a)  The Inner Ring

    (b)  The Suburban Ring

    (c)  The Middle Ring

    (d)  The Green belt Ring

    (e)  The Outer country Ring

    (f)  The Outer Ring

    (A)  (a), (b), (d), (e)             (B)  (a), (c), (d), (f)

    (C)  (a), (c), (d), (e)             (D)  (b), (c), (d), (e)

139. Sir Patrick Geddes gave his expert advice for about ——————— major towns in India

    (A)  18                             (B)  15

    (C)  20                             (D)  10

140. The Actual physical area of a Regional Planning is

    (A)  Lier between National and Local Level

    (B)  Same as Local Level

    (C)  At National Level

    (D)  None of the above

141. Damodhar Valley Corporation is the first inter-state river development regional agency, constituted in the year

  (A) 1948 ✓                                    (B) 1952

  (C) 1955                                       (D) 1949


142. A factor affecting domestic demand of water

  (A) Dead and system of network of pipes    (B) Turbidity of water

  (C) Hardness of water                       (D) Climatic conditions ✓


143. Which one of the following is not a solid waste disposal method

  (A) Incineration                             (B) Composting

  (C) Land fill                                (D) Activated sludge process ✓


144. Design period of sewage systems will be in the range of

  (A) 5 – 50 years ✓                           (B) less than 5 years

  (C) 60 – 70 years                            (D) 80 – 90 years


145. A Sanitary Sewer is expected to run

  (A) Full                                     (B) Half full

  (C) 2/3 full ✓                               (D) 90% full


146. Which calculating the standards, the participation of work force is taken as ———————— of total population.

  (A) 33% ✓                                    (B) 35%

  (C) 40%                                      (D) 50%


147. Provision of one electric sub station of 11 kV for a population of ——————— is recommended as a general standard for all categories of towns / cities.

  (A) 15,000 ✓                                 (B) 20,000

  (C) 10,000                                   (D) 5,000

148. The Normal Probability Distribution is also called as

(A) Cartesian distribution
(B) Beta distribution
(C) Alpha distribution
(D) Gaussian distribution

149. In a network diagram, any path of activities that leads back into itself is called

(A) Network cycle
(B) Looped cycle
(C) Cyclic network
(D) Loop network

150. In a big network, rules for numbering was devised by :

(A) D.R. Fulkerson
(B) Henery Gantt
(C) Melville C. Branch
(D) A. Faludi

151. Negative float for any activity means that the activity is

(A) Super-critical
(B) Sub-critical
(C) Critical
(D) Either (A) or (C)

152. Cost slope of the direct cost curve is given by

(A) $\dfrac{\text{Crash cost} - \text{normal cost}}{\text{Crash time}}$
(B) $\dfrac{\text{Crash cost} - \text{normal cost}}{\text{Crash time} - \text{normal time}}$

(C) $\dfrac{\text{Normal cost} - \text{crash cost}}{\text{Crash time} - \text{normal time}}$
(D) $\dfrac{\text{Crash cost} - \text{normal cost}}{\text{Normal time} - \text{Crash time}}$

153. The following is the longest path (time wise) connecting the initial and end event

(A) Critical path
(B) Non-critical path
(C) Network
(D) Slack path

154. If $t_O$, $t_P$ and $t_L$ are the optimistic, pessimistic and most likely time estimates of an activity respectively, the expected time of the activity will be

(A) $\dfrac{t_O + 3t_L + t_P}{5}$
(B) $\dfrac{t_O + 2t_L + t_P}{4}$

(C) $\dfrac{t_O + 4t_L + t_P}{5}$
(D) $\dfrac{t_O + 4t_L + t_P}{6}$

155. If PVB and I are the present value of benefits and initial investment, the Net Benefit Cost Ratio (NBCR) will be

(A) $\dfrac{PVB}{I}$

(B) $\dfrac{I}{PVB}$

(C) $\dfrac{PVB - I}{I}$ ✓

(D) $\dfrac{I - PVB}{I}$

156. How can be networks constructed?

(i) Either by forward planning

(ii) Either by backward planning

(iii) Combination of both forward and backward planning

(A) (i)

(B) (ii)

(C) (iii)

(D) (i), (ii) and (iii) ✓

157. When the float of the activity is positive, such activity is called

(A) Sub-critical activity ✓

(B) Critical activity

(C) Super critical activity

(D) Non-critical activity

158. The difference between the present value of future cash benefits and the initial outlay represents

(A) Net present value ✓

(B) Present value of benefits

(C) Net benefit-cost ratio

(D) Present investment

159. Which one marks the beginning of an activity

(A) Head event

(B) Dual role event

(C) Dual role node

(D) Tail event ✓

160. The event represents the end of the activity is known as

(A) Head event ✓

(B) Tail event

(C) Dual role event

(D) Activity

161. Impetus behind the formulating IDSMT (Integrated Development of Small and Medium Town) is

   (A)   Economic development of town through industrial development

   (B)   Identity and provide financial assistance to towns

   (C)   Small and medium towns to act as a growth centers to check the migration to larger cities

   (D)   All the above

162. Nagar Panchayats and District planning committees in India were introduced as a result of

   (A)   National Urbanisation Policy

   (B)   JNNURM

   (C)   Electoral reforms

   (D)   73rd and 74th Constitution Amendment Act

163. The section which declares regional planning areas, local planning areas and their amalgamation and sub division and inclusion from other regions and local area is

   (A)   Section 10 of Tamil Nadu Town and Country planning Act

   (B)   Section 110 of Tamil Nadu Town and Country planning Act

   (C)   Section 210 of Tamil Nadu Town and Country planning Act

   (D)   Section 310 of Tamil Nadu Town and Country planning Act

164. The fee for exempting the development of any land or building or class of lands or buildings referred to in section 113 A as per Tamil Nadu town and country planning Act is

   (A)   Building fee                          (B)   Regularisation fee

   (C)   Development fee                     (D)   Approval fee

165. AASHTO refers to

   (A)   American Association of Sectoral Highway and Transport officials

   (B)   American Association of State Highway and Transport officials

   (C)   American Association of State Highway and Traffic Officials

   (D)   American Association of State Highway and Transportation Officers

166. The common levels of measurement of vehicle flow are

1. Average annual flow

2. Annual average daily traffic

3. Hourly flow

Which of the above levels of measurement of flow is correct?

(A) 1, 2, 3          (B) 1, 3

(C) 1, 2          (D) 2, 3

167. In origin and destination survey, the internal to internal travel is best studied using

(A) Home Interview survey

(B) Commercial vehicle survey

(C) Public transport survey

(D) Tag survey

168. Speed and delay studies along routes are best done using the following method

(A) Moving Observer Method

(B) Registration Number Method

(C) Elevated Observer Method

(D) Photographic method

169. The length of time spent in a parking space is called as

(A) Parking duration          (B) Parking load

(C) Parking volume          (D) Parking Index

170. A speed of ———————— meter in half an hour is a useful guide when doing parking useage survey by patrol.

(A) 1000          (B) 900

(C) 800          (D) 700

171. What are Tangible benefits in the following?

   (i)   Additional Property tax

   (ii)  Providing better service to the customers

   (iii) Improving quality of Company's products

   (iv)  Savings due to reducing investment

   (A)   (i) and (ii)

   (B)   (ii) and (iii)

   (C)   (i) and (iv)

   (D)   (i) and (iii)

172. The no: of vehicles passing a specified point during a stated period of time is called

   (A)   Speed

   (B)   Flow

   (C)   Movement

   (D)   Headway

173. The median separating dual carriageways is also referred to as

   (A)   Shoulder

   (B)   Mid reservation

   (C)   Central reservation

   (D)   Split reservation

174. Park and walk; park and ride; refer to

   (A)   Multi-storey car parking scheme

   (B)   Mechanical parking scheme

   (C)   Roof parking scheme

   (D)   Peripheral parking schemes

175. The process of laying out/layout of the centre-line of the highway is called as

   (A) alignment

   (B) centering

   (C) grade separation

   (D) merging

176. In highway design; the maximum gradient is also called as

   (A) multigrade

   (B) manageable grade

   (C) main grade

   (D) momentum grade

177. The "father of modern highway engineering" was

   (A) Sully

   (B) Tresaguet

   (C) John Mac Adam

   (D) Thomas Telford

178. In the context of Rural Road Development Plan; PMGSY refers to

   (A) Pradhan Manti Gram Sadak Yojna

   (B) Pracheen Mukya Gram Sadak Yojna

   (C) Pradhan Mantri Gram Seva Yojna

   (D) Pradhan Mantri Gram Sangh Yojna

179. The imaginary lines dividing the study area taken for survey into parts is called as

   (A) External cordon lines

   (B) Internal cordon lines

   (C) Desire lines

   (D) Screen lines

180. The use of gentler gradients because of Topography compulsion is called as

    (A)   Steep gradient

    (B)   Limiting gradient

    (C)   Exceptional gradient

    (D)   Moderate gradient


181. The freeway restricted to pleasure vehicles and having scenic qualities is called as

    (A)   Highway           (B)   Express way

    (C)   Pathway           (D)   Parkway


182. The concept of reducing the negative aspects of trip making is called

    (A)   Cost reduction

    (B)   Impedance minimization

    (C)   Trip distribution

    (D)   Impedance normalisation


183. The main components of GIS

    1.   people           2.   hardware

    3.   software         4.   data

    5.   methods         6.   website

    (A)   1, 2, 3, 4 and 5        (B)   1, 3, 4, 5 and 6

    (C)   1, 2, 3, 4 and 6        (D)   2, 3, 4, 5 and 6


184. 'GPS' stands for

    (A)   Geographic Positioning System

    (B)   Geographic Parking System

    (C)   Global Parking System

    (D)   Global Positioning System

185. DEM represents ———————— in GIS.

(A) Terrain ✓

(B) Vegetation Data

(C) Elevation Data

(D) Rainfall

186. Buffering technique in GIS is used for

(A) land use mapping

(B) Time distance Analysis

(C) Time-Delay Analysis

(D) Location Analysis ✓

187. Spatial objects with No Area is represented in GIS by

(A) Point ✓      (B) Line

(C) Polygon      (D) Nodes

188. Geographic Information System combines map with

(A) Computer automation, Statistics and Topology

(B) Computer graphics, database and analytical tools ✓

(C) Computer graphics, informatics and quantitative tools

(D) Computer informatics, database and qualitative tools

189. GPS is considered very effective when combined with GIS due to

(A) Capability to provide accurate location

(B) Capability to provide latitude and longitude

(C) Capability to provide latitude, longitude and altitude ✓

(D) Capability to provide spatial database

190. While editing spatial data topological errors arise due to

(A) Dangle      (B) Silver

(C) Digitizing and Geocoding      (D) All the above ✓

191. What is social carrying capacity in terms of tourism?

    (A)  Refers to the point at which the visitor feels that additional people in the environment would spoil the experience

    (B)  Refers to the point at which the investment needed to sustain environmental quality becomes prohibitive

    (C)  Refers to limits of use in the system

    (D)  A measure of the ability of the host community to tolerate tourism

192. The measure of Humanity's demands on the natural Environment devised in 1990 by Wackernagel and Rees is

    (A)  Socio-Economic foot print

    (B)  Human development index

    (C)  Environment index

    (D)  Ecological foot print

193. Concepts of carrying capacity of an eco system is introduced by

    (A)  Lewis Mamford

    (B)  Constantine Doxiadis

    (C)  Patric Abercrombie

    (D)  Thomas Malthus

194. Which mode of transportation has the lowest impact on urban environment?

    (A)  A Personal Vehicle          (B)  A City Bus

    (C)  A Metro Rail                (D)  A Bicycle

195. PMGSY and JNNURM are two Indian government schemes which deal with

    (A)  Rural road development and Urban basic service improvement respectively

    (B)  Rural sanitation services and Under developed road maintenance respectively

    (C)  Peri-urban basic services and Urban basic service improvement respectively

    (D)  Rural road development and Urban transport development respectively

196. Economies of scale refer to the reduction in cost that firms achieve by

(A) Producing in larger volumes of output

(B) Producing in smaller volumes of output

(C) Making production function as linear

(D) None of the above

197. Which of the following is not a characteristic of an urban community?

(A) Homogeneity in dress, language and customs

(B) Faster means of communication

(C) Higher impersonal relations

(D) Formal social life

198. Which of the following is not a benefit of the Economies of Agglomeration?

(A) High land prices

(B) Lower transportation costs

(C) Stronger local market

(D) Accumulation of knowledge and human capital

199. Besides the hydrological (water) cycle and the biogeochemical (nutrient) cycle what are the other two important Ecological processes?

(A) Energy flow and growth cycles

(B) Community dynamics and growth cycles

(C) Energy flow and community dynamics

(D) Carbon and nitrogen cycles

200. Which of the following statement about Social Development is true?

(A) Social development only implies monetary benefits

(B) Social development processes only benefit the rich

(C) Social development does not imply change in social institutions

(D) Social development is about putting people at the center of development

**SPACE FOR ROUGH WORK**