



BPSC

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Assistant Town
Planning Supervisor
(Planning) Nov 2022



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- 1. A force is completely defined when we specify
 - (A) magnitude
 - (B) direction
 - (C) point of application
 - (D) All of the above
- 2. Hooke's law states that stress and strain are
 - (A) directly proportional
 - (B) inversely proportional
 - (C) curvilinear proportional
 - (D) All of the above
- 3. One hectare is equal to
 - (A) 4840 sq. m
 - (B) 4048 sq. m
 - (C) 10000 sq. m
 - (D) 4000 sq. m
- 4. The crushing strength of good building stone should be more than (in MPa)
 - (A) 100
 - (B) 150
 - (C) 200
 - (D) 50
- 5. Which of the following is not a land-use zone?
 - (A) Industrial
 - (B) Commercial
 - (C) Heritage
 - (D) None of the above

- 6. The moisture content in wellseasoned timber is
 - (A) 4% to 5%
 - (B) 10% to 12%
 - (C) 15% to 20%
 - (D) None of the above
- 7. The crushing strength of the first-class brick should not be less than (in N/mm²)
 - (A) 7·0
 - JBY 10.5
 - (C) 14·0
 - (D) 3·5
- 8. As compared to field rivets, the shop rivets are
 - (A) stronger
 - (B) weaker
 - (C) equally strong
 - (D) Any of the above
- 9. Normal consistency of ordinary
 Portland cement is about
 - (A) 30%
 - (B) 40%
 - (C) 10%
 - (D) 20%
- 10. Le Chatelier device is used for determining the
 - (A) setting time of cement
 - (B) soundness of cement
 - (C) tensile strength of cement
 - (D) None of the above

- 11. Folk, Work, Place' concept was given by
 - (A) Patrick Geddes
 - (B) Ebenezer Howard
 - (C) Doxiadis
 - (D) Le Corbusier
- 12. The point at which the eyes of observer are located S and S' indicated respectively the TV and FV of S, is
 - (A) piercing point
 - (B) exit point
 - (C) vanishing point
 - (D) station point
- 13. Sectoral planning does not include
 - (A) transport
 - (B) hill area
 - (C) infrastructure
 - (D) irrigation
- 14. Who wrote, The Population Bomb?
 - (A) Ehrlich
 - (B) Meadows
 - (C) Amartya Sen
 - (D) None of them

- 15. The concept of spread and backwash effects was introduced by
 - (A) Gunder Frank
 - (B) Gunnar Myrdal
 - (C) Samir Amin
 - (D) A. O. Hirschman
- 16. Which of the following regions has been classified as the Western Dry Region' by the Planning Commission?
 - (A) NEFA Region
 - (B) West Bengal Duars
 - (C) North Bihar Dry Region
 - (D) Rajasthan Dry Region
- 17. After Independence, at which level the first attempt for planning of rural development was made on?
 - (A) District level

H.

- (B) Tehsil level
- (C) Panchayati level
- (P) Block level
- 18. The ratio of town area to agricultural land area as suggested by Sir Ebenezer Howard in 'Garden City' concept is
 - (A) 15
 - (B) 10
 - (C) 5
 - (D) 20

- 19. The major objective behind the identification of five counter magnet cities outside the National Capital Region was
 - to further strengthen policies for decentralization of economic activities within and outside the NCR
 - ii. to further strengthen
 policies for decentralization
 of population within and
 outside the NCR
 - iii. to further strengthen the availability of physical infrastructure facilities within and outside the NCR
 - iv. to further strengthen health and medical care services outside the NCR

Choose the correct answer from the code given below.

- i, iii and iv
 - (B) i and ii
 - (C) i, ii and iv
 - (D) i and iii
- 20. 'Sight distance' is considered in the design of
 - (A) fenestration
 - (B) open kitchen
 - (C) auditorium
 - (D) road intersection

- 21. Which of the following is not correct?
 - i. V. Nath divided India into 15 macroregions
 - Ashok Mitra divided India into 5 macroregions
 - iii. Prakash Rao and L. S.
 Bhatt divided the country
 into macroregions
 - iv. Chandrashekhar divided India into 13 microregions
 - (A) iv only
 - (B) i only (C) iii only
 - (D) i and iv
- 22. Who among the following conceived the idea of shipping canal between India and Sri Lanka?
 - (A) C. J. Barrow
 - (B) Farrell
 - (C) A. D. Taylor
 - (D) Luna Leopold
- 23. Match the following List-I with
 List-II and select the correct
 answer from the codes given
 below:

List-I List-II
(Ackerman-population (Name of countries) resource region)

- a. Brazilian type
- i. India
- b. Egyptian type
- ii. Japan
- c. Europian type
- iii. Latin America
- d. US type
- iv. Australia
- (A) a-ii, b-iv, c-iii, d-i →
- (B) a-ii, b-iii, c-iv, d-i f
- (C) a-iii, b-i, c-ii, d-iv -
- (D) a-iii, b-i, c-iv, d-ii

- 24. The Gobi Desert lacks economic development. The reason is
 - (A) the sand dunes that have inhibited transport a development
 - (B) the continental climate and remoteness
 - (C) the mongoloid people are not motivated politically
 - (D) the inaccessibility of the region
- 25. Arrange the following stages for the growth of urban area:
 - i. Regional metropolis .
 - ii. Economic maturation
 - iii. Export specialization
 - iv. Export complex
 - v. Technical professional virtuosity

(A) iii, iv, ii, i, v

- (B) ii, iv, iii, v, i
- (C) v, i, ii, iii, iv
- (D) i, iii, iv, v, ii

26. Alonso model is

- (A) a model to explain the pattern to land use and land value in urban areas
- (B) a type of iconic model used to forecast weather
- (C) a type of statistical derivation
- (D) None of the above

- 27. Statutory setback of a building depends on
 - (A) property boundary
 - (B) width of access road?
 - (C) ground coverage
 - (D) building height #
- 28. The Pritzker Prize, 2021 has been awarded to
 - (A) Balkrishna Doshi
 - (B) Francis Kéré
 - (C) Frei Otto
 - (D) Anne Lacaton and Jean-Philippe Vassal
- 29. Superplasticizer is added in a concrete mix to
 - (A) increase the water-cement ratio for a given workability
 - (B) reduce the flow
 - (C) reduce the content of coarse aggregate
 - (D) reduce the water-cement ratio for a given workability
- 30. Which one of the following forms of settlement develops along either side of roads, rivers or canals?
 - (A) Cross-shaped
 - (B) Linear
 - (C) Square
 - (D) Circular

- 31. Industrialization and rapid urbanization have created
 - (A) rural regeneration
 - (B) urban generation !
 - (C) rural depopulation
 - (P) urban decay
- 32. The settlement of the Gangetic (plain may be called
 - (A) isolated settlement ×
 - (B) clustered settlement
 - (C) wet point settlement
 - (D) dry point settlement
- 33. Occupancy rate refers to the
 - (A) number of persons working in an office *
 - (B) number of person-habitable rooms per acre *
 - (C) number of person-habitable rooms per unit area
 - D number of persons per habitable rooms
- 34. Cadastral map shows
 - (A) crop pattern †
 - (B) waterbodies ⊀
 - (C) vegetation +
 - (D) land ownership
- 35. A good way to measure the quality of life in countries across the world is by comparing their
 - (A) human development index
 - (B) gross national income
 - (C) sustainable development !
 - (D) per capita income

- 36. Which one of the following industries is called as heavy engineering industry?
 - (A) Heavy electricals *
 - (B) Heavy machinery
 - (C) Iron and steel
 - (D) Glass *
- 37. Of late, the major focus in urban industrial development is of
 - (A) port city oriented development
 - (B) cluster development
 - (C) nodal development
 - (D) None of the above
- 38. Assertion (A) :

THE ME

THE PARTY

Losch believed that price increase is result of transport cost and by rating the demand curve around the production point P, the shape of market area is seen to be circular.

Reasons (R) :

Losch treated each section as having separate range, threshold, hexagonal hinterland.

- (A) A is true but R is false
- R is NOT the correct explanation of A
 - (C) Both A and R are true and R is the correct explanation of A
 - (D) A is false but R is true

- 'Save Silent Valley' Movement, a 39. social movement to save tropical green forest from destruction for regional development project, was territorially faced in Indian State of
 - (A) Bihar
 - (B) West Bengal
 - JO Kerala
 - (P) Gujarat

40. Match List-I with List-II:

List-I

List-II

- a. Chipko
- i. Gujarat
- b. Save Silent Valley, ii. Uttarakhand
- c. Narmada Bachao 1 lii. Kerala
- d. Jungle Bachao w. Jharkhand
 - (A) a-ii, b-iii, c-i, d-iv
 - →BY a-iv, b-iii, c-ii, d-i
 - (C) a-iii, b-ii, c-i, d-iv
 - (D) a-ii, b-iv, c-iii, d-i +
- 41. Match the books in Group-I with their authors in Group-II:

Group-I

Group-II

- P. Space, Time and Architecture
- 1. Jane Jacobs
- Q. Form, Space and Order...
- 2. Kevin Lynch
- R. The Death and Life of Great American Cities
- 3. Ian McHarg
- 8. The Image of the City
- 4. Francis D. K. Ching
- 5. Giedion S.
- (A) P-5, Q-2, R-1, S-3
- (B) P-5, Q-3, R-1, S-2
- (C) P-2, Q-5, R-3, S-4
- (D) P-2, Q-5, R-1, S-3

- 42. A classroom of 12 m × 25 m × 4 m requires 3 air changes per hour. At an air velocity of 2 m/s, the necessary duct cross-section (in m²) is
 - (A) 0.75
 - (B) 1·00
 - (C) 1·5
 - (D) 0.50
- 43. The best location for laying the main sewer line on a flat land is
 - (A) under the sidewalk
 - (B) under the central verge
 - (C) under the open space along sidewalk ×
 - (D) under the road
- 44. A sanitary landfill is provided with High Density Poly Ethylene (HOPE) lining along the ground surface. This is provided primarily to prevent
 - (A) leaching
 - (B) rodents
 - (C) plant growth
 - (D) bleaching
- 45. Which of the following parameters is essential estimate . the Envelope Performance Factor (EPF) of a building as per the Energy Conservation Building Code (ECBC), 2011?
 - (A) Maximum humidity
 - (B) Maximum and minimum monthly temperature ×
 - (C) Building occupancy

duration

(D) Building type

The purchase price of BHK flat rises 10 percent. The demand for such flats is observed to decrease by 8 percent. The given elasticity of the housing demand for 2010-11 (flat is rounded off to one decimal place) is

(B) 8

(C) 80

(A) 0.8

(D) 0.08

47. A cone, with a base of 10 cm diameter and axis of 12 cm, is lying on horizontal plane (HP) along its generator. The internal angle which is the base of the cone makes with HP is

(A) 7.6°

(B) 67.6°

JE 37.6°

(D) 67°

48. A room having dimension 12 m × 10 m × 3.5 m is required to be mechanically ventilated by air-conditioner. The temperature difference of outdoor ambient air and the supply air is 12 °C. Consider three air exchanges per hour. The volumetric specific heat of the air is 1250 J/m3. Assume one ton of refrigeration (TR) is equal to 3.5 kW. The capacity of the air-conditioner for the room in TR will be

1.5

(C) 3·5

(D) 2·5

A residential area of 20 hectares is planned for three different types C4 plots of 500 m², 300 m² 200 m² and numbers of plot in each category are 100, 120, 150 respectively. The rest of the area is allowed for roads and facilities such as schools, shops and parks. Each plot has one dwelling unit and the average household size is 5 persons. The net residential density of the area in person per hectare is

(A) 160

(B) 80

(C) 60

(D) 16

50. As per the Handbook on Barrier Free and Accessibility. CPWD-2014, match the design guidelines in Column-I with their appropriate standards in Column-II and select appropriate option:

Cohumn-I

Column-II

P. Minimum clear width of

1. 600 mm 2. 1500 mm

Q. Maximum height of wash basin (rim) above finished floor level

3. 750 mm

R. Minimum length of grab rail S. Minimum clear width for manoeuvring space (wheel chair)

4. 900 mm

5. 1800 mm

MAT P-5, Q-3, R-2, S-4 -

(B) P-5, Q-3, R-1, S-2

(C) P-1, Q-4, R-3, S-2

(D) P-3, Q-4, R-1, S-5

1

51. The Golden Ratio refers to

- (A) (1+√5):2
- (B) 1:14
- (9) 16:9
 - (D) 1: \square
- Transforming Our World, the 2030 Agenda for Sustainable Development, 2015, which of the following Sustainable Development Goals (SDGs) directly address(es) water-related issues?
 - P. SDG-1
 - Q. SDG-4
 - R. SDG-6
 - S. SDG-14
 - (A) R, S
 - (B) R
 - (C) S
 - (D) P, Q
- 53. Which of the following is a part of studio apartment?
 - (A) Artistic room >
 - (B) Multipurpose space
 - (C) Children room
 - (D) Master bedroom
- 54. Development plan includes
 - (A) city development plan
 - development plan and city
 - (C) regional plan
 - (D) master plan

- 65. The solar protection system consisting of fixed slats or grids, outside a building facade in front of openings, is known as
 - (A) solarium
 - (B) malqaf
 - (C) trombe wall
 - (D) brise-soleil
- 56. The Town and Country Planning
 Organization was set up in India
 in 1962 with the merger of
 which of the following
 institutes?
 - (A) TPO and the Ministry of Urban Development
 - (B) TPO and the Ministry of Urban Affairs
 - C) TPO and the Central
 Regional and Urban
 Planning Organization
 - (D) TPO and RBI ×
- 57. Assuming other variables remaining constant, the tropical summer index
 - (A) decreases with increase in wet-bulb temperature
 - (B) decreases with increase in globe temperature
 - (C) increases with increase in vapor pressure
- increases with increase in air velocity



58. Match the units provided in Column-I with their corresponding items in Column-II and select the appropriate option:

Column-I

Column-II

- P. dB
- 1. Sound intensity
- Q. phon
- 2. Absorption of sound
- $R.W/m^2$
- 3. Frequency of sound
- S. sabin ·
- 4. Loudness
- 5. Sound pressure level
- (A) P-2, Q-3, R-4, S-5
- (B) P-1, Q-2, R-3, S-4
- (C) P-5, Q-4, R-1, S-2
- (D) P-5, Q-1, R-4, S-3
- 59. Who wrote the book, Growth
 Pole and Growth Centre for
 Regional Economic Development
 in India?
 - (A) Rameshwar Prasad Mishra
 - (B) Sdasyuk and Sengupta
 - (2) Sen and Wanmali
 - (D) Sundaram and T. B. Lahiri
- 60. Who suggested new method to measure regional imbalances in development and allocation of funds to States of India?
 - (A) A. Mitra
 - (B) A. Kundu
 - (C) Raghu Rajan
 - (D) Ashok Dutta

- 61. In Critical Path Method (CPM) for time scheduling, 'forward pass calculation' is carried out for determining
 - (A) early start and early finish time
 - late start and late finish time
 - (C) early start and late finish time
 - (D) late start and early finish time
- 62. When the ambient lapse rate is greater than the dry adiabatic lapse rate, the atmosphere is said to be
 - (A) superadiabatic lapse rate
 - (B) negative adiabatic lapse rate
 - (C) adiabatic lapse rate
 - (D) subadiabatic lapse rate
- 63. As per the Noise Pollution (Regulation and Control) Rules, 2000 of India, the day-time noise limit for a residential zone expressed in dB(A) Leq is
 - (A) 65
 - (B) 60
 - (C) 50
 - DY 55

- 64. Emergency preparedness risk reduction does not include
 - (A) rehabilitation
 - (B) relief
 - (C) revision of code
 - (D) rescue
- 65. Waste removal established in which of the system following cities for the first time?
 - (A) Lahore
 - (B) Paris
 - (C) London
 - (D) Athens
- 66. Which of the following solid wastes describes the term Municipal Solid Waste?
 - (A) Hazardous
 - (B) Non-toxic
 - (C) Non-hazardous
 - (D) Toxic
- 67. The scale applied in statistics, which imparts a difference of magnitude and proportions, is considered as
 - (A) goodness scale
 - (B) ratio scale
 - (C) satisfactory scale
 - () exponential scale

- If the mean and mode of some data are 6 and 12 respectively, its median will be

 - (B) 9
 - (C) 10
 - (D) None of the above
- If the standard deviation of 10, 11, 12, 13, ..., 19 is X, then the standard deviation of 100, 101, 102, 103, ..., 109 will be
 - (A) 10000X
 - 100X
 - 100 + X
 - (D)
- If the arithmetic mean harmonic mean of some data are 343 and 7 respectively, then its geometric mean will be
 - (A) \rightarrow 21
 - (B) 28

- 71. As per the National Building Code (NBC), at what depth all foundations shall extend from ground level?
 - Ø 0.3 m
 - (B) 0.4 m
 - (C) 0.5 m
 - (D) 0.2 m
- 72. For the design of retaining walls, the minimum factor of safety against overturning is taken as
 - (A) 1·4
 - (B) 1.5
 - (C) 3
 - (D) 2
- 73. The purpose of the hooked ends
 on reinforcement bars in
 concrete lintels is to
 - (A) prevent the rods from slipping
 - (B) combat tension
 - (C) increase rod strength
 - (D) resist compression .
- 74. When a curved wall is to be built to a radius of 1.5 m, the most suitable bond would be
 - (A) header
 - (B) English
 - (C) Flemish
 - (D) Stretcher

- 76. The piece of brick cut along the centre of width in such a way that its length is equal to that of full brick, is called
 - (A) queen closer
 - BY king closer
 - (C) bevoled closer
 - (D) half brick
- 76. Spatial connectedness in GIS refers to
 - (A) topography
 - (B) topiary
 - (C) topology
 - (D) tomography
- 77. As per the Census of India, 2011, Nagar Panchayat refers to
 - (A) urban area within a panchayat ★
 - (B) rural area adjacent to a nagar ⊀
 - (C) urban area with a statutory local government
 - (D) rural area surrounded by a growing city ×
- 78. Indore Slum Networking
 Programme has been planned by
 - (A) Dulal Mukherjee
 - (B) Anil Laul
 - (C) Himanshu Parikh
 - (D) B. V. Doshi
- 79. Map is an
 - (A) orthographic projection
 - (B) axonometric projection
 - (C) oblique projection
 - (D) isometric projection



- so. In mass transportation, LRTS stands for
 - (A) Linear Rail Transit System
 - (B) Light Rail Transportation System
 - (C) Linear Rail Transportation System
 - (D) Light Rail Transit System
- 81. AMRUT. the new scheme launched by the Government of India, stands for
 - (A) Atal Mission for Renewal of Urban Transportation
 - (B) Atal Mission for Redevelopment of Urban Transportation
 - (C) Atal Mission for Renewal and Urban Transformation
 - (D) Atal Mission for Rejuvenation and Urban Transformation
- 82. Development Authorities India are established under the provision of the
 - (A) 74th Constitutional Amendment Act
 - (B) Town and Country Planning Act
 - (C) Land Acquisition Act .-
 - (D) Municipal Act
- term Town the 83. In India. Planning Scheme' refers to
 - (A) land rejuvenation
 - (B) land reclamation ≠
 - Or land readjustment
 - (D) land renewal ¥

- 84. During the construction of tall buildings, the equipment used for hoisting building materials to the upper floors is a
- (A) capsule lift
 - gantry crane
 - (C) tower crane x

 - (D) goods lift
- What is the earliest start time 85. rule?
 - (A) It compares the activity's end time for an activity predecessor
 - It directs when a project can start
 - It regulates when a project must begin 🕆
 - (D) It compares the activity's starting time for an activity successor
- A 'cul-de-sac' is a street where
 - traffic (A) through discouraged
 - (B) pedestrians not arc permitted ×
 - (C) vehicles are permitted to move in one direction only
 - (D) only two-wheelers permitted +
- Increase in the volume of fine aggregate due to the pressure of moisture is called
 - (A) buckling
 - (B) bending
 - twisting (C)
 - (D) bulking



- 88. The surface run-off is the quantity of water
 - (A) required to fill surface depressions
 - (B) intercepted by buildings and vegetative cover
 - (C) that reaches the stream
 - (D) All of the above
- 89. Panchayati Raj is a
 - (A) two-tier system
 - (B) three-tier system
 - (C) four-tier system
 - (D) None of the above
- 90. The Planning Commission was established in the year
 - JAY 1948
 - (B) 1950
 - (C) 1965
 - (D) 1947
- 91. Which of the following is not a function of a good mulch?
 - (A) Prevent soil temperature fluctuations
 - Encourage weed growth

 Improve landscape
 appearance
 - (D) Aid in water retention
- 92. 'Mihrab' is found
 - (A) on the crown of minaret
 - on the west wall of mosque
 - (C) in the stepped well of Gujarat
 - (D) inside wall of a mausoleum

- 93. Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs is termed by UNDP is
 - (A) equitable development
 - (B) human development
 - sustainable development
 - (D) comprehensive development
- 94. The Government of India's Urban Development Program 'HRIDAY' stands for
 - (A) Heritage Review Implementation Development
 Augmentation Yojana
 - (B) Heritage City Development and Augmentation Yojana
 - Heritage City Improvement and Development Aawas Yojana
 - (D) Heritage Rejuvenation Implementation Development Aayog Yojana
- 95. Which of the following commands in AUTOCAD is used to create 3D solid between various cross-sections?
 - (A) MESH
 - (B) XLINE
 - (C) PFACE
 - (D) LOFT



- 96. The method in which edge or surface is divided into small number of parts and projection is transferred for each point is called
 - (A) drawing auxiliary view of an equal surface
 - (B) drawing auxiliary view of a curved surface
 - (C) drawing auxiliary view of an opposite surface
 - (D) drawing auxiliary view of an inclined surface
- 97. For DPC at the plinth level, which grade of concrete is used?
 - (A) M25
 - (B) M20
 - (C) M15
 - (D) M10
- 98. Grand Innovation Challenge was initiated by
 - (A) ITPI
 - (B) Planning Commission
 - (C) Ministry of Housing and Urban Affairs
 - (D) NITI Aayog
- 99. Which one is not included in sectoral planning?
 - (A) Infrastructure
 - (B) Hill area
 - (C) Plane area
 - (D) Transportation

- 100. As per CPCB, how much solid waste is generated per capita per day in large cities?
 - (A) 500 g
 - (B) 2100 g
 - (C) 2800 g
 - (D) 250 g 6
- 101. The effect of a force on a body depends upon
 - (A) magnitude
 - (B) direction
 - (C) position or line of action
 - (D) All of the above
- 102. Which is the right sequence of planners on the Anglo-American tradition?
 - (A) Geddes, Unwin, Howard, Perry
 - (B) Unwin, Howard, Perry, Geddes
 - (C) Howard, Perry, Geddes, Unwin
 - (D) Perry, Geddes, Unwin, Howard
- 103. The form of the roof of a house depends mainly on
 - (A) climatic conditions
 - (B) geographical conditions
 - (C) sociological conditions >
 - (D) geological conditions



The average weight of A, B, C is 45 kg. If the average weight of A and B is 40 kg and that of B and C be 43 kg, then the weight of B is

(A) 31 kg

(B) 32 kg

(C) 33 kg

(D) 30 kg

Each morning he delivers 37 newspapers to customers in his neighborhood. It takes Shyam 50 minutes to deliver all the newspapers. If Shyam is sick or has other plans, his friend Ram, who lives on the same street, will sometimes deliver the newspapers for him.

Which of the following is correct for the above situation?

- (A) It takes Ram more than 50 minutes to deliver the newspapers
- (B) It is dark outside when Shyam begins his deliveries
- (C) Ram would like to have his own newspaper route
- (D) Shyam and Ram live in the same neighborhood

106. The coagulant which is generally not used for treating the scwage, is

- (A) ferric chloride
- (B) sulphate
- (C) chlorinated copper
- (D) alum .

- 107. What is the average design hydraulic retention time for domestic wastewater in a septic tank?
 - (A) 24 hours
 - (B) 48 hours
 - (C) 12 hours
 - (D) 2 hours
- 108. Biochemical Oxygen Demand (BOD) of safe drinking water must be
 - (A) 10
 - (B) 7
 - (C) 0.
 - (D) 5
- 109. Water requirement per head per day for average domestic purposes, as per IS: 1172-1963, is
 - (A) 250 litres
 - (B) 135 litres
 - (C) 20 litres
 - (D) 60 litres
- 110. Which term is referred for the total amount of material carried by the water of a stream or river?
 - (A) Capacity competence
 - (B) Carrying discharge
 - (C) Load
 - (D) Carrying capacity



111. Surge tanks are used

- (A) to increase the velocity in a pipeline
- in overflow valves
 - guard against hammer
 - (D) for storage water

112. Which of the following is rock?

(A) Ouartz



- (C) Gypsum
- (D) None of the above

113. The strength of the timber is maximum when it is

(A) parallel to the grain



- (C) perpendicular to the grain
- (D) None of the above

114. Who had initiated the 'megalopolis'?

- (A) Sir Ebenezer Howard
- (B) Sir Patrick Geddes

(2) J. Gottman

(D) Le Corbusier

- 115. The head average proportioned human figure is
 - (A) 1/9 of overall body height
 - (B) 1/8 of overall body height
 - (C) 1/7 of overall body height
 - (D) 1/10 of overall body height
- statement related with 116. dwelling units per acre of land area actually in use or proposed for residential be used purpose is
 - Neighbourhood (A) Overall Density (OND) X
 - (B) Gross Residential Density (GRD)
 - (C) Average Residential Density (ARD) 🔀
 - Density Residential (D) Net (NRD) ×

Match the Five-Year Plans with their main features :

- Plan.
- P. First Five-Year 1. Introduction of **JNNURM**
- Q. Fourth Five-Year Plan
- 2. Passing of the Urban Land Ceiling and Regulation Act
- Five-Year Plan
- 3. Announcement of the National Housing Poli
- S. Tenth Five-Year 4. Formation of HUDCO Plan
 - 5. Establishment of TCI

- (B) P-4, Q-1, R-2, S-5
- (C) P-3, Q-4, R-1, S-5
- (D) P-5, Q-4, R-3, S-1

118. Match the terms in Group-I with the appropriate items in Group-II:

Group-1

Group-II

- P. Toposheet-
- 1. Path/Row
- Q. Satellite -
- 2. Contour
- R. Wavelength
- 3. Focal length
- 4. Spectral signature
- S. Scan line
- 5. Bits/Inch
- (A) P-3, Q-4, R-1, S-5 +
- (B) P-2, Q-4, R-1, S-5
- (C) P-2, Q-1, R-4, S-5
- (D) P-5, Q-4, R-2, S-1
- 119. In 2010, the Government of mandatory India has made provision for all government buildings
 - (A) GRIHA 3-Star
 - (B) GRIHA 4-Star
 - (C) GRIHA 5-Star
 - (DY GRIHA 2-Star
- 120. Individual parking space for scooter is

(A) 1.25 sq. m

- (B) 2 sq. m
- (C) 2.5 sq. m

1 sq. m

- 121. Hooke's law is valid up to
 - (A) proportional limit
 - (B) plastic limit

(C) yield point

(D) elastic limit

all of them acting on body lie in (A) one plane

122. Forces are called coplanar when

- (B) different planes
- (C) perpendicular plane
- (D) one point \
- 123. Forces are called concurrent when their lines of action meet
 - (A) two points
 - (B) plane x
 - different planes
 - (D) one point
 - 124. A force acting on a body may
 - (A) introduce internal stresses
 - (B) balance the other forces acting on it
 - (C) retard the motion
 - (D) All of the above
 - As on 2018, right to property 125. is a
 - (A) secondary right
 - (B) constitutional right
 - (C) tertiary right
 - (D) fundamental right