2019
ARCHITECTURE ENGINEERING
(DEGREE Std.)

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 Code with Blue or Black ink Ball point pen 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 A, B, C and D 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, B is the correct answer, you have to mark as follows: A ● C D
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. 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.
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.
1. The pattern of openings and cavities interrupting the continuity of the exterior wall planes is experienced in
   (A) Habitat Israel, Jerusalem
   (B) Agricultural Lodge, Maupertius
   (C) Hattenbach Residence, California
   (D) First Unitarian Church, New York

2. Two fundamental types of symmetry are _______ and _______.
   (A) axial and radial
   (B) bilateral and axial
   (C) bilateral and radial
   (D) radial and co-axial

3. In a room's dimension _______ has a greater effect on its scale.
   (A) Length
   (B) Breadth
   (C) Height
   (D) Width

4. The golden section can be algebraically expressed by the equation of two ratios between two sections of a line or two dimensions of a plane figure as
   (A) \( \frac{a}{b} = \frac{b}{a+b} \)
   (B) \( \frac{b}{a} = \frac{b}{a+b} \)
   (C) \( \frac{a}{b} = \frac{a}{a+b} \)
   (D) \( \frac{a}{b} = \frac{a+b}{a} \)

5. Secretariat Building, UNESCO, Head Quarters, place de Fontenoy, Paris designed by Marcel Breuer is a case example of
   (A) Radial Form
   (B) Linear Form
   (C) Clustered Form
   (D) Centralised Form
6. The Pompidou center in Paris was designed by
   (A) SOM associates  (B) Renzo Piano
   (C) Rem Koolhaas  (D) Qve Qrup

7. New York's Triangular Flatiron Building was an example for
   (A) Organic Architecture
   (B) Minimalism
   (C) Objectivism
   (D) Functionalism

8. __________ was associated with the Movement "Baroque Revival"
   (A) Richard Plato  (B) Richard Rogers
   (C) Richard Morris Hunt  (D) Morris Williams

9. Einstein Tower in Potsdam, 1921 was designed by
   (A) Erich Mendelsohn  (B) Eero Saarinen
   (C) Edul Carros  (D) Moris Hunt

10. The Shard in London was designed by
    (A) Peter cock  (B) Richard Nuetra
    (C) Renzo Piano  (D) Catherine Fluid
11. Facade without columns or pilasters is called
   (A) Astragal  (B) Astylar
   (C) Ashlar    (D) Acroterion

12. Roman baths are called as
   (A) Thermae  (B) Turret
   (C) Aquatica (D) Tracery

13. Molding made up of rows of small square blocks is called
   (A) chevron   (B) dentil
   (C) dado      (D) triglyph

14. Public Meeting spaces in Greece is called as
    (A) Delphi   (B) Oculus
    (C) Agora    (D) Forum

15. The middle division of an entablature below the cornice is
    (A) entasis   (B) exedra
    (C) frieze   (D) fresco

16. The private residence of noble man of fifteenth century is called as
    (A) Shish Khumbha  (B) Bara Khumbha
    (C) Sola Khumbha   (D) Lodi Khumbha

17. Which of the following ratha has square plan, curved pyramid, contoured ribbed octagonal dome, poised over a squat cylindrical shaft?
    (A) Bhima Ratha   (B) Sahadeva Ratha
    (C) Ganesh Ratha  (D) Dharmaraj Ratha
18. The method of sawing used for hardwoods
   (A) Ordinary sawing
   (B) Quarter sawing
   (C) Tangential sawing
   (D) Radial or rift sawing

19. Which of the following is not a material of waterproofing by elastomeric paints.
   (A) Polyurethane Based
   (B) Hypalon based
   (C) Polyvinyl acetate copolymer based
   (D) Araldite and Hardener based

20. The particle size of Medium Sand is
   (A) 1.0 mm – 0.425 mm
   (B) 2.0 mm – 0.425 mm
   (C) 3.0 mm – 0.425 mm
   (D) 4.0 mm – 0.425 mm

21. Spathic Iron Ore is also known as
   (A) Pyrite
   (B) Siderite
   (C) Limonite
   (D) Haematite
22. Which of the following stones is got from metamorphic rocks?
   (A) Granite          (B) Slate
   (C) Shale            (D) Basalt

23. An example for crystalline textural classification of Sedimentary Rock
   (A) Dolomite          (B) Marble
   (C) Granite           (D) Basalt

24. An example of intrusive textural classification of Igneous rocks.
   (A) Dolerite          (B) Slate
   (C) Dolomite          (D) Lime stone

25. Iron produced from its ore by a reduction with Carbon in a blast furnace at a temperature of about ________.
   (A) 1600°C          (B) 1800°C
   (C) 2000°C          (D) 2420°C

26. Iron Carbide, an Iron Carbon alloy is also known as,
   (A) Ferrite          (B) Cementite
   (C) Martensite       (D) Pearlite

27. In which of the following casting, the molten metal is poured into metal moulds under pressure
   (A) Hollow casting
   (B) Die casting
   (C) Sand casting
   (D) Vertical sand casting
28. Rapid Hardening cement is prepared by adding higher percentage of
   (A) Dicalcium silicate  (B) Tricalcium silicate
   (C) Tricalcium Aluminate  (D) Tetracalcium Aluminium Ferrite

29. The size of coarse aggregates used for R.C. works in building (beams, columns, slab etc)
   (A) 10 mm  (B) 20 mm
   (C) 30 mm  (D) 40 mm

30. The compressive strength of 1:6 mortar is
   (A) 1 to 4 N/mm²  (B) 2 to 4 N/mm²
   (C) 1 to 5 N/mm²  (D) 2 to 5 N/mm²

31. The cement mortar mixes specified by volume for pointing and brick work below ground level is
   (A) 1:5 to 1:8  (B) 1:6 to 1:8
   (C) 1:2 to 1:3  (D) 1:3 to 1:4

32. ____________ is a type of concrete that is manufactured in a factory or batching plant according to a set recipe and then delivered to a work site, by truck mounted transit-mixers.
   (A) Ready-mix concrete  (B) Precast concrete
   (C) No-fines concrete  (D) Cast-in-situ concrete

33. Lime with reactive silica which could be used even under water is
   (A) Magnesium Lime  (B) Hydraulic Lime
   (C) Dolomite Lime  (D) Siliceous Dolomite Lime
34. The average speed of sound travelling in air at normal temperature and pressure is
   \[\text{(A) } 340 \text{ m/second} \quad \text{(B) } 34 \text{ mi/second} \]
   \[\text{(C) } 304 \text{ m/min} \quad \text{(D) } 34 \text{ m/min} \]

35. The spots of low sound intensity causing unsatisfactory hearing for the audience is called
   \[\text{(A) } \text{Sound foci} \quad \text{(B) } \text{Dead spots} \]
   \[\text{(C) } \text{Dead pool} \quad \text{(D) } \text{Sound spots} \]

36. Optimum Reverberation Factor for music concert halls is
   \[\text{(A) } 1.4 \text{ to } 2 \quad \text{(B) } 1.6 \text{ to } 2 \]
   \[\text{(C) } 1.5 \text{ to } 2 \quad \text{(D) } 1.7 \text{ to } 2 \]

37. Minimum rates of fresh air in \(m^3\) per head per hour for a school building is
   \[\text{(A) } 32 \quad \text{(B) } 23 \]
   \[\text{(C) } 12 \quad \text{(D) } 14 \]

38. \[\text{is control of temperature, humidity, air motion and parity.} \]
   \[\text{(A) } \text{Air cooling} \quad \text{(B) } \text{Air conditioning} \]
   \[\text{(C) } \text{Air purifying} \quad \text{(D) } \text{Air cleaning} \]

39. In \[\text{cooking, the incoming air is passed over the coils in which volatile} \]
    \[\text{refrigerants are circulated.} \]
   \[\text{(A) } \text{Dry} \quad \text{(B) } \text{Spray} \]
   \[\text{(C) } \text{Surface} \quad \text{(D) } \text{Evaporative} \]

CEARE/19
[Turn over]
40. Water supply requirements as per BIS – 1172 for Residential Type of Building including flushing is

(A) 130 Litres per capita per day     (B) 145 Litres per capita per day
(C) 135 Litres per capita per day     (D) 136 Litres per capita per day

41. _______ materials are those which will combine exothermically with oxygen giving rise to flame.

(A) Non combustible     (B) In combustible
(C) Combustible        (D) Out combustible

42. The number of risers in fire escape straight flight stair should be limited to _______ per flight

(A) 18     (B) 20
(C) 16     (D) 12

43. The desirable fire grading for RCC beams is of

(A) 1 hr     (B) 2 hrs
(C) 3 hrs    (D) 8 hrs

44. The phenomenon to indicate the construction by which the transmission of heat from or in the room is retarded is known as

(A) Thermal Resistance     (B) Thermal Insulation
(C) Thermal Convection     (D) Thermal Conduction

45. Choose the Minimum size of the waste pipe for lip type urinals.

(A) 3 cm φ Heavy wt lead pipe     (B) 3 cm φ Light wt lead pipe
(C) 3 cm φ Heavy wt copper pipe   (D) 3 cm φ Light wt copper pipe

46. A closed drain used for carrying night soil and other water-borne waste is referred as

(A) Waste Pipe     (B) Sewer
(C) Drain          (D) Vent Pipe
47. The recommended design speeds for Local streets in India is
   (A) 80 mph               (B) 45 Kph
   (C) 30 Kph               (D) 50 Kph

48. The recommended space standards for Local street is
   (A) 20 – 30 m           (B) 10 – 20 m
   (C) 30 – 40 m           (D) 0 – 10 m

49. The concept of Brasilia is essentially the work of Lucio Costa and Oscar Niemeyer who were heavily influenced by,
   (A) F.L. Wright         (B) Le Corbusier
   (C) C.A. Perry          (D) Edwin Lutyins.

50. The concept “Garden City” was the contribution of
   (A) Le Corbusier        (B) C.A. Perry
   (C) Doxidis             (D) Ebenezer Howard

51. Which one of the following is steel town?
   (A) Vijayawada         (B) Rourkela
   (C) Chandigarh         (D) Gandhinagar

52. “The automobile would cause fundamental change in the city design” was said in the book “THE DISAPPEARING CITY” – by
   (A) F.L. Wright        (B) Le Corbusier
   (C) C.A. Perry         (D) Doxiadis
53. Housing and Urban Development Corporation Ltd (HUDCO) was set up by the Government on
   (A) April 25, 1980          (B) April 25, 1970
   (C) April 25, 1960          (D) April 25, 1950

54. The minimum width of the fire escape stairs shall be
   (A) 1.5 m                   (B) 2.1 m
   (C) 1.25 m                  (D) 1.00 m

55. A construction by means of which a flue is formed for the purpose of carrying products of combustion to the open air is called
   (A) Chajja                  (B) Chimney
   (C) Barsati                (D) Pakoda

56. The increase in the overall population that resides in urban areas is referred as
   (A) Agglomeration
   (B) Decentralisation
   (C) Urbanisation
   (D) Deconcentration

57. One or more of the large cities in a country that holds a relatively high percentage of the total urban population is referred as
   (A) Metro City
   (B) Cosmo City
   (C) Hyper City
   (D) Primate City
58. INTACH was founded in the year

(A) 1974
(B) 1978
(C) 1982
(D) 1984

59. The Delhi Urban Arts Commission Act was enacted in

(A) 1971
(B) 1972
(C) 1973
(D) 1969

60. The Florence charter was formulated in the year

(A) 1978
(B) 1979
(C) 1980
(D) 1982
61. The official establishing documents of the UNESCO were signed in ______ on 16th November 1945.
   (A) London  
   (B) Paris  
   (C) Washington D.C  
   (D) India

62. A Conservatory or green house like structure attached to a large house in 18th and 19th centuries are called
   (A) Oriel  
   (B) Bailey  
   (C) Orangery  
   (D) Mansard

63. _________ is an architectural frame set into a wall, drawing attention to a piece of art.
   (A) Altar  
   (B) Barbican  
   (C) Aedicule  
   (D) Arabesque

64. _________ is the name of the North-South street in Roman town laid out on grid pattern
   (A) Insula  
   (B) Cardo  
   (C) Domus  
   (D) Cameo

65. The Theatre of Marcellus was completed by _________ in 13 BC.
   (A) Augustus  
   (B) Vespasian  
   (C) Titus  
   (D) Julius Ceasar
66. ________ implies that elements in a composition belong together and have visual relatedness.
(A) Unity
(B) Balance
(C) Rhythm
(D) Variety

67. ________ flows allow for intersections in a loosely rhythmic fashion, with few conflicts and minimum turbulence.
(A) Dendritic
(B) Rhythmic
(C) Direct
(D) Projectile

68. A confined view is known as
(A) Vista
(B) Climax
(C) Focus
(D) Scene

69. A Geological stratum that stores and transports ground water is called
(A) Transifier
(B) Aquifer
(C) Water Strater
(D) Plenum
70. A landscape type characterized by sink holes and vanishing reappearing streams is called
   (A) Karstic  (B) Varstic
   (C) Gardstic  (D) Grading plane

71. The Bombay Town planning Act was enacted in the year.
   (A) 1905  (B) 1915
   (C) 1925  (D) 1895

72. What is meant by 'ASLA' in Landscape Architecture?
   (A) Asian Society of Landscape Art.
   (B) American Society of Landscape Architects.
   (C) American Solution of Landscape Artists.
   (D) All Indian Society of Landscape Architects.

73. The Air (Prevention and Control of Pollution) Act was introduced in the year.
   (A) 1981  (B) 1982
   (C) 1983  (D) 1984

74. The Montreal Protocol was made in the year
   (A) 1967  (B) 1977
   (C) 1987  (D) 1997

75. Among the Biotic components in an Eco system, Autotrophs are otherwise known as
   (A) Primary Consumers  (B) Secondary Consumers
   (C) Heterotrophs  (D) Producers
76. The legislative assembly designed by Le Corbusier bestows the free facade through the sun protecting element known as
(A) Brise-Soleil (B) Chajjas
(C) Solariums (D) Sun spaces

77. It is characterized by a high diurnal temperature range and low humidity
(A) Hot dry climate (B) Warm humid climate
(C) Composite climate (D) Cold climate

78. Identify the types of climate of Sangath – an architects studio, Ahmedabad
(A) Hot and dry (B) Warm and humid
(C) Cold and cloudy (D) Cold and Sunny

79. ___________ depends on the temperature of the body surface and the temperature of opposing surfaces.
(A) Convective heat loss (B) Radiant heat loss
(C) Evaporative heat loss (D) Conductive heat loss

80. The first thermal comfort index developed by Houghton and Yaglov is
(A) Operative temperature (B) Corrected Effective temperature
(C) Effective temperature (D) Resultant temperature

81. CET is an thermal comfort index and is written as
(A) Comfort Effective Temperature (B) Corrected Effective Temperature
(C) Central External Temperature (D) Common External Temperature

82. In the following, identify which is not a passive heating technique
(A) Evaporative cooling (B) Troumbe wall
(C) Sun space (D) Thermosiphon
83. The survey where curvature of earth can not be neglected is called _______ surveying.
(A) Geographic  
(B) Geodesic  
(C) Geologic  
(D) Geodetic

84. The fill factor (in percent) for front shovel buckets when loading clay or earth into excavator bucket is in the range
(A) 85 - 100  
(B) 90 - 100  
(C) 95 - 100  
(D) 100 - 110

85. The sum of the times the scraper requires to traverse each segment of the haul and return routes is called the
(A) load time  
(B) dump time  
(C) travel time  
(D) haul time

86. The resulting strength and durability of concrete could be reduced when the temperature of fresh concrete exceeds
(A) 60 to 70°F  
(B) 70 to 80°F  
(C) 80 to 85°F  
(D) 85 to 90°F

87. Cost including over heads on office, supervision, and amenities, interest on capital, etc. and this cost varies more or less directly with the progress of work is referred as
(A) valuable indirect cost  
(B) volumetric indirect cost  
(C) variety indirect cost  
(D) variable indirect cost
88. A modeling technique where two or more shapes (splines) are stretched and blended along a path is called as
   (A) Booleans               (B) Lofting
   (C) Lathing                (D) Polymodeling

89. The command which creates a 3D solid by revolving a 2D object is called
   (A) Revolve               (B) Rotate
   (C) Mirror                (D) View 3D

90. What is “GIF”?
   (A) Graphics Integrate File   (B) Graphics Integrate Format
   (C) Graphics Interchange Format (D) Graphics Interchange File

91. To ensure quality work, architects will be engaged only on
   (A) Special services          (B) Partial services
   (C) Comprehensive services   (D) Selective services

92. Upon preparation of working drawing, specification, quantities, cost estimate and preparation of tender documents ———% of the total fees is payable by the client as architects fee as per COA norms.
   (A) 40 %                    (B) 50%
   (C) 60%                    (D) 72%

93. The following is considered as the retainer fee on appointment/signing of agreement/acceptance of offer by architects ——— (whichever is higher).
   (A) Rs 15,000/- or 2% of total fee   (B) Rs 20,000/- or 5% of total fee
   (C) Rs 25,000/- or 4% of the total fee (D) Rs 10,000/- or 1.5% of total fee

94. The action for copyrights should be taken within ——— years from the completion of building beyond which it is barred
   (A) 1 year and 6 months          (B) 2 year and 6 months
   (C) 3 years                       (D) 4 years
95. TOD's Omotesando Building, Tokyo, Japan designed by Toyotto and Associated is a case example of
   (A) Overhead plane  (B) Base plane
   (C) Closure  (D) Enclosure

96. Studio, Amedee Ozenfant House, paris designed by Le Corbusier is a case example for
   (A) Openings at corners  (B) Openings within plane
   (C) Openings over plane  (D) Openings under plane

97. Florey Building, Queen's College, oxford designed by James Stirling is a case example of
   (A) U - Shaped planes  (B) V - Shaped planes
   (C) L - Shaped planes  (D) I - Shaped planes

98. Berlin Building Exposition House designed by Mies Van der Rohe is a case example of
   (A) L - Shaped planes  (B) H - Shaped planes
   (C) I - Shaped planes  (D) Base planes

99. Step well at Abhaneri, Agra, India is a case example of
   (A) Depressed Base plane
   (B) Elevated Base plane
   (C) Semi-Elevated Base plane
   (D) Semi-Depressed Base plane

100. Seinajoki Theater in finland is designed with a principle of the unity of opposite by
   (A) Alvar Aalto  (B) F.L. Wright
   (C) Eero Saarinen  (D) Le Corbusier
101. The traditional Japanese unit of measure is
(A) Shinto          (B) Shaker
(C) Ken            (D) Kyo-ma

102. A number of secondary forms clustered about a dominant central form is known as ______ form.
(A) radial         (B) clustered
(C) centralised    (D) dispersed

103. Hanselmann House, Fort Wayne, Indiana is a structure with cubical form designed by
(A) Etienne-Louis Boulee     (B) Eero Saarinen
(C) FL Wright              (D) Michael Graves

104. Identify the one that is associated with quality of space
(A) Scale          (B) Edge
(C) Dimension      (D) Surface

105. One of the principles of composition which is also known as "Formal Architecture"
(A) Scale          (B) Balance
(C) Proportion     (D) Asymmetry

106. London City Hall, London, England designed by Foster and Partners is a case example of
(A) Enclosure      (B) Closure
(C) Base Plane     (D) Overhead plane

107. Light is a ——— of a space.
(A) Property       (B) Quality
(C) Element        (D) Attribute
108. The TWA Flight center at John F. Kennedy Airport in New York was designed by
    (A) Luthor Martin   (B) Louis Khan
    (C) Eerral Saral    (D) Eero Saarinen

109. The founder of the Movement "FUTURISM" is
    (A) Martin Edward  (B) Fillippo Tommaso Marinetti
    (C) Steve Petersberg  (D) Melnikov

110. The structure used to measure the Clarity and water level of Nile river was called
    (A) Ptah       (B) Water Pliner
    (C) Plimsol pliner    (D) Nilometer

111. The Pyramid of Seneferu at Dahshur, Egypt is an example for
    (A) Bent Pyramid   (B) Step Pyramid
    (C) Mastabas      (D) Inverted Pyramid

112. Projection from the top of roof is called as
    (A) Cartouche    (B) Boss
    (C) Belvedere    (D) Astragal

113. Holy mountain with a shrine at apex in Mesopotamia is called
    (A) Pyramid      (B) Sassaid
    (C) Utul         (D) Ziggurat
114. The elementary Huts of Aryans were ________ in plan.
   (A) Rectangular          (B) Square
   (C) Circular             (D) Trapezoidal

115. Inlaid mosaic of hard and expansive stones
   (A) Astanah               (B) Arabseque
   (C) Caligraphy            (D) Pietra dura

116. Sahn is the ________ in the Mosque.
   (A) Central water tank of the Mosque
   (B) Open courtyard of the Mosque
   (C) Entrance gateway of the Mosque
   (D) Arched cloisters in the Mosque

117. The swinging palace is
   (A) Jahaz Mahal           (B) Hindola Mahal
   (C) Ashrafi Mahal         (D) Hawa Mahal

118. Which of the following is a Square tomb?
   (A) Tomb of Sikandar Lodi (B) Tomb of Muhammed Sayyid
   (C) Tomb of Mubarak Sayyid (D) Tomb of Shihab-ud-din Taj Khan

119. The temple which is carried from the top and Isolated an "Island" of rock and gradually fashioned into the shape of a Vimana to crown the main cell was
   (A) Ajantha caves
   (B) Kailasa at Ellora
   (C) Dharmaraja ratha at Mahaballipuram
   (D) Caves of Elephanta
120. Iron, produced from its ores, by a ———— with carbon in a blast furnace at high temperature.

(A) Exothermic reduction
(B) Endothermic reduction
(C) Carbothermic reduction
(D) Chemical reduction

121. Which of the following is not a mineral filler in mastic asphalt?

(A) Limestone
(B) Dust
(C) Sand
(D) Magnesium

122. As per IS 456 – 2000 standards the limit of chlorides that can be present in water for construction is

(A) \[ \times 2000\text{mg/L} \]
(B) \[ \times 3000\text{mg/L} \]
(C) \[ \times 200\text{mg/L} \]
(D) \[ \times 300\text{mg/L} \]

123. Which of the following textural classification is not a metamorphic rock?

(A) Granular
(B) Crystalline
(C) Banded
(D) Foliated

124. The stone used for construction purpose should have specific gravity greater than.

(A) 2.5
(B) 2.6
(C) 2.7
(D) 2.8
125. In which one of the following treatment of steel, it is softest and most ductile form
(A) Soft Annealing        (B) Quench hardening
(C) Spheroidising        (D) Normalisation

126. Free carbon is present in
(A) Pig Iron             (B) Cast Iron
(C) Wrought Iron         (D) Steel

127. Which of the following metal, is not used as an alloy with steel.
(A) Molybdenum         (B) Nickel
(C) Magnesium         (D) Tungsten

128. The process of converting pig-iron into wrought-iron by stirring in a molten state is known as
(A) Rolling               (B) Puddling
(C) Refining              (D) Shingling

129. A material which can be easily cut by a sharp weapon is known as
(A) Hard material (B) Soft material
(C) Tough material (D) Ductile material

130. Acid Resisting cement is produced by adding 20% of cement to
(A) Flyash              (B) Rice Huskash
(C) Surki              (D) Ground blast furnace slag

131. The compressive strength of 3 day MPa of Grade 33 cement is
(A) 16                 (B) 17
(C) 18                 (D) 19
132. ________ distemper is marketed as a thick paste having the consistency of soft butter.
   (A) Dry distemper  (B) Oil bound distempers
   (C) Water paint distemper (D) Soft distemper

133. The pigment volume concentration number for paints on timber is
   (A) 25 to 40  (B) 35 to 40
   (C) 28 to 40  (D) 38 to 40

134. Silicate Bricks are made from
   (A) Waste materials from crusheries
   (B) Waste materials from steel manufacturing
   (C) Autoclaving sand lime bricks
   (D) Waste product of burning of coal or lignite

135. The IS code which gives recommendation for maximum moisture content of timber is
   (A) IS 287 – 1993  (B) IS 401 – 2001
   (C) IS 1141 – 1993  (D) IS 7315 – 1974

136. The defects caused in timber due to an injury during the growth of the tree due to strong winds or bad felling of trees
   (A) fissures  (B) upset
   (C) cracks  (D) wane

137. Absorption coefficient per \( m^2 \) for 400 mm thick. Brick wall is
   (A) 0.03  (B) 0.04
   (C) 0.02  (D) 0.05
138. __________ is placed in ducts to control the direction, velocity and volume of circulating air in ducts.
   (A) Thord  (B) Dampers
   (C) Pampers  (D) Lucifers

139. __________ is a device for showing the location of a car in the hoist way.
   (A) Position Indicator  (B) Indicator
   (C) Runby  (D) Slacker

140. The distance a Lift car can travel little beyond the terminal landing is called as
   (A) Runby  (B) Runfor
   (C) Runway  (D) Runto

141. The vertical member between two treads is called
   (A) Rise  (B) Riser
   (C) Heighter  (D) Flier

142. A mechanical device used to hold the car or the counter weight in case of freefall of either or both is known as
   (A) Parking device
   (B) Signal registering device
   (C) Safety device
   (D) Signal transfer device

143. Impulse Pumps are also known as
   (A) Buoyancy Pumps  (B) Velocity Pumps
   (C) Hydraulic Pumps  (D) Displacement Pumps
144. Classified types of villages in Manasara
   (A) 7 types       (B) 6 types
   (C) 9 types       (D) 8 types

145. The National Housing Policy was formulated in
   (A) 1980       (B) 1981
   (C) 1992       (D) 1987

146. The term 'CBD' in planning scenario means
   (A) Central Business District  (B) Central Business Datum
   (C) Central Building Development  (D) Centre for Building Developers

147. Generally, in densities of Town, for every one hectare of residential land ________ hectares of non-residential land is required.
   (A) Two       (B) One/Two \( \frac{1}{2} \)
   (C) Three       (D) Three/Four \( \frac{3}{4} \)

148. For which type of park, the size should not be less than 10 to 12 hectares.
   (A) Town Parks  (B) Neighbourhood Parks
   (C) Zoological Parks  (D) Childrens Parks

149. Greater London Plan, 1944 was prepared by
   (A) Patrick Abercrombie  (B) Patrick Geddes
   (C) Patrick James  (D) William Morris

150. Roads for intra-urban through traffic with frontage access and having high cross traffic is
   (A) Arterial Road  (B) Express Road
   (C) Sub Arterial Road  (D) Inter junction Road
151. In India, TIER III cities contains population of
   (A) 99,999 - 50,000  (B) 49,999 - 20,000
   (C) 19,999 - 10,000  (D) 9,999 - 5,000

152. Which of the following committee discusses on the distribution of industrial population and socio-economic of working people?
   (A) Barlew Committee  (B) Scottlew Committee
   (C) Uttwell Committee  (D) RK Singh committee

153. The resources such as Railways, Irrigation, Heavy industries, Hydro electric works comes under which forms of planning
   (A) National Planning  (B) International Planning
   (C) Regional Planning  (D) Country Planning

154. According to Doxiadis, mono centeric city developing in one direction is called
   (A) Monopoly  (B) Dynapoloiscentric
   (C) Dynametropolis  (D) Dynapolis

155. The concept of Garden city was advocated by
   (A) Radburn  (B) Clariance Stien
   (C) Raymond Unwin  (D) Raymond Stien

156. Slum Clearance / Improvement Scheme was established in the year
   (A) 1956  (B) 1957
   (C) 1958  (D) 1959
157. Identify the Housing Scheme developed by Ministry of works and Housing in India in 1959.
   (A) Low Income Group Housing Scheme
   (B) Slum Clearance / Improvement Scheme
   (C) Village Housing Projects Scheme
   (D)✓ Land Acquisition and Development Scheme

158. The letter 'S' in UNESCO stands for
   (A) social
   (B) society
   (C)✓ scientific
   (D) sculpture

159. ICOMOS principles for preservation and restoration of wall paintings was formulated in the year
   (A) 1993
   (B) 1983
   (C) 1986
   (D)✓ 2003

160. The object of ———— is to strengthen and consolidate decayed masonry which is weakened by fractures and voids
   (A)✓ Grouting
   (B) Radiography
   (C) Punelling
   (D) Pulverising

161. The term ———— describes an array of techniques and procedures used in investigating ground condition, either in response to a defect or new development.
   (A) cototechniques
   (B)✓ geotechnics
   (C) phototechnics
   (D) plenum
162. Long Colonnaded structure with a wall on one side where people talk and conduct business is called.

(A) HIPPOCAMP  
(B) PALAISTRA

(C) KYLIX  
(D) STOA

163. The limits of regulated area around the monuments in the principal Act is

(A) 100 m  
(B) 150 m

(C) 75 m  
(D) 200 m

164. _______ is a purpose-designed building with a sand covered courtyard where Greek boys were taught athletics and wrestling.

(A) PALAISTRA  
(B) HIPPOCAMP

(C) HOPLITE  
(D) KUROS

165. _______ means and includes returning the existing fabric of a place to a known earlier state.

(A) Reconstruction  
(B) RESTORATION

(C) Adaptation  
(D) Rejuvenation

166. _______ is a small, domestic dining room where men would entertain their male friends in Greece.

(A) ANDRON  
(B) VEHICULE

(C) PASTAE  
(D) PATIOLUE
167. As per the census 2011, what is the population of Uttar Pradesh as a percent of total population of India?

(A) 41.2  (B) 47.2
(C) 31.2  (D) 37.2

168. Extremely sensitive barometers are known as

(A) Sensometers
(B) Altimeters
(C) Dumpymeters
(D) Dulcometers

169. ___________ constructed historic Shalimar Bagh at Lahore and Delhi.

(A) Babur
(B) Akbar
(C) ShahJehan
(D) Humayun

170. The survey concerns with the mapping of information on water is ___________ survey.

(A) Hydro
(B) Hydrographical
(C) Hydrosphere
(D) Hydro geographical
171. In landform modification, areas where proposed contour are lower than existing ones are called
   (A) Dump                      (B) Dune
   (C) Cut                      (D) Crop

172. Ecological foot printing as a language and tool for assessing the spatial scale of environmental impact was conceptualized by
   (A) Rees and Wackernagel     (B) Philip Testemale
   (C) John L. Motloch          (D) John Ormsbee Simonds

173. The permitted noise levels in Residential areas during the night time between 10 p.m. and 6 a.m. is
   (A) 120 dB                   (B) 45 dB
   (C) 70 dB                    (D) 100 dB

174. The common type of greenhouse gas of which plastic foams, industrial solvents and Aerosols are the source is
   (A) Carbon dioxide          (B) Methane
   (C) Chlorofluoro carbon     (D) Nitrous oxide

175. _______ deals with study of plant communities including their composition, organization and development.
   (A) Autecology              (B) Habitatecology
   (C) Rhizology               (D) Synecology

176. The ability of a setting to evoke vivid mental images, effect changes in emotional state is called
   (A) Placeness               (B) Playfulness
   (C) Publicness              (D) Proxemics
177. _________ is a language and tool for assessing the spatial scale of environmental impact.
   (A) Ecological baselining  (B) Entropy
   (C) Eco balance           (D) Ecological Footprinting

178. Herbivorous are _________ consumers.
   (A) Primary               (B) Secondary
   (C) Tertiary              (D) Poly

179. The universal tendency towards disorder is _________.
   (A) Entropy               (B) Entrapy
   (C) Eutropy               (D) Eulene

180. It refers to the movement of air as a result of differences in air pressure of two bodies of air at different temperatures.
   (A) Stack effect          (B) Wind pressure
   (C) Mechanical ventilation (D) Mechanical pressure

181. It combines the heating effect of radiation incident on a building with the effect of warm air
   (A) Sol-air temperature    (B) Cavity resistance
   (C) Absorptivity           (D) Surface resistance

182. It is the angle between the ground line and altitude of the sun
   (A) Vertical Shadow Angle  (B) Horizontal Shadow Angle
   (C) Horizontal and Vertical Shadow Angle (D) Altitude Angle
183. Instruments such as Heliometer and Pyranometer are used to measure.
   (A) Solar radiation  (B) Sky condition
   (C) Wind velocity  (D) Humidity

184. The eye responds to a range of illumination levels extending over a million orders of magnitude
   (A) less than 0.1 lux  (B) from 0.1 lux to 100000 lux
   (C) more than 100000 lux  (D) 0.0001 lux to 0.1 lux

185. Human activity of casual seeing requires _________ illumination.
   (A) 100 lux  (B) 400 lux
   (C) 900 lux  (D) 2000-3000 lux

186. The critical path is identified by the values of $T_E$ and $T_L$ of each event. The critical path is obtained by all events in a continuous chain, where
   (A) $T_L > T_E$  (B) $T_L = T_E$
   (C) $T_L \geq T_E$  (D) $T_E \leq T_L$

187. The difference between the maximum time allowed for an activity and its estimated duration is called the
   (A) free float  (B) interfering float
   (C) total float  (D) float

188. The difference between the earliest expected time of the activity's successor event and the earliest finish time of the activity in question is called
   (A) slack  (B) total slack
   (C) free slack  (D) float
189. The earnest money deposit by the Contractor for the project varies from ________ percent of the estimated cost of the project.
   (A) 2.5 to 5.0 percent  (B) 7.0 to 10.5 percent
   (C) 1 to 2 percent        (D) 2 to 2.5 percent

190. An image plotted by lines on an xy axis that is composed of dots is called
   (A) Vector                       (B) Roster
   (C) Vertex                      (D) Boolean

191. ________ refers to two or more entities that lie on the same plane
   (A) Coplanar                    (B) Biplanar
   (C) Coordinates                 (D) Datum

192. A method of representing a solid model as a set of interrelated equations defining its shape and dimensions is called
   (A) Variational Geometry        (B) Solid geometry
   (C) Constructive Geometry        (D) TORUS

193. In architectural limited competitions Rs. ________ is the minimum honoraria to be paid to each competitor for project with built-up area above 25,000 sq.m as per COA norms.
   (A) 1 Lakh rupees  (B) 1.5 Lakh rupees
   (C) 2 Lakh rupees  (D) 3 Lakh rupees

194. Open competition for projects estimated at less than Rs. ________ may be restricted to architects who have their main or branch office in the state of the project site
   (A) Rs. 7,50,000/- (B) Rs. 10,00,000/-
   (C) Rs. 12,50,000/- (D) Rs. 15,00,000/-
195. The defect which has been only identified after the issue of the final certificate by the architect is known as
(A) patent defect  (B) latent defect
(C) post defect     (D) intermitent defect

196. The key ‘F10’ in keyboard is used for feature command for?
(A) Grid snap       (B) Polar tracking
(C) Ortho           (D) Object snap

197. In sketch up the plugins used for rendering is
(A) V Ray           (B) Scanline
(C) Render          (D) Mental Ray

198. ‘HTML’ stands for
(A) Hyper Text Markup Language (B) Higher text Markup Level
(C) Hyper Tent Markup Level (D) Higher Tent Markup Language

199. ‘ISO DRAFT’ using this tool, can activate the _______ in AUTOCAD.
(A) Isometric drawing plane (B) View drawing plane
(C) 3D drawing plane       (D) Axnometic drawing plane

200. ‘MINsert’ is a command used in AUTOCAD for the purpose of
(A) Insert the block editor
(B) Insert a block by name
(C) Insert block in rectangular array
(D) Edit a block reference in place
SPACE FOR ROUGH WORK