

DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO**SERIES : I****QUESTION BOOKLET****Subjects : General English and Civil Engineering****Full Marks : 300****Time Allowed : 2½ Hours***Read the following instructions carefully before you begin to answer the questions.***INSTRUCTIONS TO CANDIDATES**

1. This Booklet contains **150 questions** to be answered in a separate OMR Answer Sheet using Black Ballpoint Pen in the following two Parts :

Part—A : General English**: 50 questions****Part—B : Civil Engineering****: 100 questions**

2. All questions are compulsory.
3. You will be supplied the Answer Sheet separately by the Invigilator. You must complete the details of particulars asked for.
4. Answer must be shown by completely blackening the corresponding circle in the Answer Sheet against the relevant question number by Black Ballpoint Pen. OMR Answer Sheet without marking Series shall not be evaluated.

Example :

Suppose the following question is asked :

The Capital of Meghalaya is

- (A) Guwahati
(B) Kohima
(C) Shillong
(D) Delhi

You will have four alternatives in the Answer Sheet for your response corresponding to each question of the Question Booklet as below :

(A) (B) (C) (D)

In the above illustration, if your chosen response is alternative (C), i.e., Shillong, then the same should be marked on the Answer Sheet by blackening the relevant circle with a Black Ballpoint Pen only as below :

(A) (B) (C) (D)

The example shown above is the only correct method of answering.

5. Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any one question.
6. There will NOT be any negative marking for wrong answers.
7. The Answer Sheet must be handed over to the Invigilator before you leave the Examination Hall.
8. No Rough Work is to be done on the Answer Sheet. Space for Rough Work has been provided in the Question Booklet.

PART—A : GENERAL ENGLISH

(Marks : 100)

Each question carries 2 marks

Directions (Q. Nos. 1–10) :

Identify the sentence(s) in which the subject and verb agree correctly.

1. (i) The committee has delivered its report.
(ii) My friends enjoys classical music.
(iii) Each of the players is wearing a new jersey.
(A) (i) and (ii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (i), (ii) and (iii)
2. (i) The number of applicants has increased.
(ii) My favourite books is on this shelf.
(iii) Neither the manager nor the employees were available.
(A) (i), (ii) and (iii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (i) and (ii)
3. (i) A pair of scissors was lying on the table.
(ii) The audience was clapping wildly.
(iii) Several of the questions was difficult.
(A) (i) and (ii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (i), (ii) and (iii)
4. (i) Either the teachers or the principal are attending the ceremony.
(ii) The data show a clear trend.
(iii) Economics is an interesting subject.
(A) (i) and (ii)
(B) (i), (ii) and (iii)
(C) (ii) and (iii)
(D) (i) and (iii)
5. (i) Ten miles is a long way to run every morning.
(ii) The jury have reached their verdict.
(iii) Neither of the solutions works for us.
(A) (i) and (ii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (i), (ii) and (iii)

6. (i) The police have arrested the suspect.

(ii) Each of the girls sings beautifully.

(iii) The couples was arguing loudly.

(A) (i) and (ii)

(B) (i) and (iii)

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

(D) (ii) and (iii)

7. (i) My trousers are in the wash.

(ii) The news is encouraging.

(iii) There goes the players onto the field.

(A) (i) and (iii)

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

(C) (ii) and (iii)

(D) (i) and (ii)

8. (i) Many a student attend the lecture.

(ii) The team of scientists is preparing the report.

(iii) None of the water is wasted.

(A) (i) and (ii)

(B) (i) and (iii)

(C) (ii) and (iii)

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

9. (i) Bread and butter is my favourite breakfast.

(ii) The committee has disagreed on the proposal.

(iii) The flock of sheep are grazing in the meadow.

(A) (i) and (ii)

(B) (i) and (iii)

(C) (ii) and (iii)

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

10. (i) Either the actors or the director is responsible for the changes.

(ii) There is many reasons to celebrate.

(iii) The series of lectures was informative.

(A) (i) and (ii)

(B) (i) and (iii)

(C) (ii) and (iii)

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

Directions (Q. Nos. 11-20) :

Read the following passage and answer the questions given below following the instructions.

The ubiquity of digital platforms has recalibrated civic engagement, enabling grassroots campaigns to coalesce within hours. Yet this very velocity breeds a cacophony of competing narratives, where partisan echo chambers drown out nuance. Algorithms, optimized for user engagement, often privilege spectacle over veracity,

nudging audiences toward emotionally charged content. Paradoxically, the same circuitry that incubates disinformation also fortifies insurgent scholarship, as researchers mine real-time data to expose inequities. In such an environment, disciplined scepticism remains the scholar's most reliable compass.

Choose the appropriate meaning of the words given below in the specific context of the passage :

11. Ubiquity

- (A) Scarcity
- (B) Rarity
- (C) Omnipresence
- (D) Obscurity

12. Recalibrated

- (A) Predicted
- (B) Adjusted
- (C) Criticized
- (D) Postponed

13. Coalesce

- (A) Disperse
- (B) Dissolve
- (C) Contest
- (D) Merge

14. Cacophony

- (A) Harmony
- (B) Din
- (C) Silence
- (D) Cadence

15. Veracity

- (A) Acclaim
- (B) Haste
- (C) Clarity
- (D) Truth

For each item, choose the option that best answers the question or completes the statement based on the passage :

16. According to the author, the quality most crucial for scholars working in digital spaces is

- (A) scepticism
- (B) impulsiveness
- (C) activism
- (D) neutrality

17. The relationship between 'disinformation' and 'insurgent scholarship', as presented in the passage, is best described as

- (A) mutually exclusive
- (B) sequential
- (C) symbiotic
- (D) adversarial

18. The overall tone of the passage can best be characterized as

- (A) measured
- (B) alarmist
- (C) celebratory
- (D) resigned

19. The description of algorithms that 'privilege spectacle over veracity' employs which rhetorical device?

- (A) Personification
- (B) Hyperbole
- (C) Irony
- (D) Metaphor

20. The phrase 'drown out nuance' implies that the digital environment tends to

- (A) amplify subtlety
- (B) encourage objectivity
- (C) reward precision
- (D) suppress complexity

Directions (Q. Nos. 21-30) :

Choose the correct option to fill in the gaps.

21. Recent advances in CRISPR technology have ____ the possibility of precisely editing multiple genes simultaneously.

- (A) mitigated
- (B) heralded
- (C) obviated
- (D) curtailed

22. Because the results were inconclusive, the committee recommended that the experiment ____ repeated under stricter control conditions.

- (A) is
- (B) was
- (C) be
- (D) will be

23. Neither the principal investigator nor the co-authors ____ willing to disclose the raw data.

- (A) was
- (B) were
- (C) has been
- (D) is

24. The proposal was rejected on the grounds that its theoretical framework was based ____ outdated assumptions.

- (A) in
- (B) on
- (C) with
- (D) from

25. The new algorithm significantly reduces processing time, but this efficiency comes ____ the expense of accuracy.

- (A) in
- (B) with
- (C) by
- (D) at

26. Had the sample size been larger, the correlation ____ more robust.
 (A) would have been
 (B) would be
 (C) was
 (D) had been
27. The ethics review board insisted that participants be informed of their right to withdraw ____ any stage of the study.
 (A) in
 (B) on
 (C) at
 (D) during
28. By the time the patent expires, the technology ____ obsolete.
 (A) will become
 (B) will have become
 (C) would have become
 (D) becomes
29. The researchers argue that climate models must account for feedback loops; ____, small errors can propagate and magnify.
 (A) conversely
 (B) moreover
 (C) nevertheless
 (D) otherwise
30. Despite being hailed as a breakthrough, the therapy remains largely ____ to affluent patients in urban centres.
 (A) inscrutable
 (B) inaccessible
 (C) indispensable
 (D) inevitable

Directions (Q. Nos. 31–35) :

Select the preposition that best completes each sentence.

31. The study was conducted ____ compliance with international ethical guidelines.
 (A) in
 (B) with
 (C) under
 (D) by
32. According to new legislation, all clinical data must be shared ____ seven days of request.
 (A) within
 (B) during
 (C) throughout
 (D) between
33. Recent reports attribute the decline in pollinator populations ____ excessive pesticide use.
 (A) by
 (B) with
 (C) on
 (D) to
34. Interspecies variability often results ____ divergent metabolic pathways.
 (A) from
 (B) of
 (C) in
 (D) off

35. Behind the laboratory's success lies a commitment _____ open access publishing.

- (A) for
- (B) to
- (C) toward
- (D) into

Directions (Q. Nos. 36-45) :

For each item, a root word appears in parentheses. Select the single derived from (A-D) that best completes the sentence grammatically and semantically.

36. Scientists voiced acute _____ (apprehend) about potential data breaches.

- (A) apprehendable
- (B) apprehensive
- (C) apprehension
- (D) apprehending

37. Widespread vaccination remains the most _____ (effect) strategy against the outbreak.

- (A) effective
- (B) effected
- (C) effectual
- (D) effectuate

38. Funding was withdrawn after auditors uncovered serious _____ (discreet) in expenditure reports.

- (A) discreetness
- (B) discrepancies
- (C) discreteness
- (D) discredits

39. Graduate seminars aim to foster intellectual _____ (curious) and methodological rigour.

- (A) curious
- (B) curiosities
- (C) curiosity
- (D) curiously

40. Project success hinged on flawless _____ (coordinate) among interdisciplinary teams.

- (A) coordination
- (B) coordinates
- (C) coordinative
- (D) coordinator

41. Reviewers praised the article for its _____ (lucid) and analytical depth.

- (A) lucidly
- (B) lucent
- (C) lucidness
- (D) lucidity

42. Artificial Intelligence is reshaping economic models with _____ (precede) speed.

- (A) precedence
- (B) precedent
- (C) precedential
- (D) unprecedented

43. Ethical dilemmas in biotechnology often require nuanced _____ (deliberate) before policy formulation.

- (A) deliberative
- (B) deliberation
- (C) deliberations
- (D) deliberate

44. Climate data exhibited a troubling degree of year-to-year _____ (volatile).

- (A) volatility
- (B) volatileness
- (C) volatiles
- (D) volatile

45. Researchers must remain _____ (sceptic) when evaluating exceptionally positive results.

- (A) sceptic
- (B) scepticism
- (C) sceptical
- (D) sceptically

Directions (Q. Nos. 46-50) :

Choose the correct option that best answers each item.

46. When revising a thesis, supervisors often urge candidates to _____ before the final submission.

- (A) split hairs
- (B) separate the wheat from the chaff
- (C) knock on wood
- (D) fly off the handle

47. In the sentence, "The junior researcher finally threw down the gauntlet by questioning the senior's data", the underlined phrase most nearly means

- (A) conceded defeat
- (B) sought forgiveness
- (C) hid evidence
- (D) issued a challenge

48. Select the idiom that best replaces the underlined words :

Once the grant arrived, the team started working much harder in earnest on the prototype.

- (A) bent over backwards
- (B) buckled down
- (C) hit the sack
- (D) let the cat out of the bag

49. Two departments remain _____ over authorship credit despite mediation attempts.

- (A) at loggerheads
- (B) on cloud nine
- (C) in a pickle
- (D) over the moon

50. Which sentence uses the phrase correctly?

- (A) Scientists waited with bated breath.
- (B) The paper was drafted with bated breath.
- (C) The microscope failed with bated breath.
- (D) Data printed with bated breath.

PART—B : CIVIL ENGINEERING

(Marks : 200)

Each question carries 2 marks

51. One of the principles of surveying is to work
(A) from the part to the whole
(B) from the whole to the part
(C) Both (A) and (B)
(D) None of the above
52. If the actual length of a chain is shorter than its nominal length, then the measured distance is
(A) shorter than the correct distance
(B) equal to the correct distance
(C) greater than the correct distance
(D) None of the above
53. If the pull applied to a tape is greater than the standard pull, then the measured distance has
(A) a negative error
(B) a positive error
(C) no error
(D) None of the above
54. The representative fraction of the scale 1 cm = 1 km is
(A) 1/100
(B) 1/1000
(C) 1/10000
(D) 1/100000
55. The type of surveying in which the curvature of the earth is taken into consideration is called
(A) plane surveying
(B) geodetic surveying
(C) engineer's surveying
(D) geological surveying
56. Surveying basically consists of which of the following measurements?
(A) Horizontal and vertical distances
(B) Horizontal and vertical angles
(C) Both (A) and (B)
(D) None of the above
57. If the scale of a map is indicated by a statement, then it is called
(A) an engineer's scale
(B) a representative fraction
(C) a graphical scale
(D) None of the above
58. Depending upon the source, errors in surveying are classified as
(A) instrumental errors
(B) personal errors
(C) natural errors
(D) All of the above
59. In a 30 m surveying chain, the length of each link is
(A) 10 cm
(B) 20 cm
(C) 30 cm
(D) 40 cm
60. The length of an engineer's chain is
(A) 33 ft
(B) 66 ft
(C) 100 ft
(D) None of the above

61. The process of establishing the intermediate points in a straight line is called
- ranging
 - aligning
 - offsetting
 - All of the above
62. Chaining on a sloping ground can be done by
- stepping method
 - hypotenusal allowance method
 - Both (A) and (B)
 - None of the above
63. The lateral distances measured from the survey lines to determine the locations of the details are called
- check lines
 - tie lines
 - proof lines
 - offsets
64. For setting out perpendiculars on a chain line, we can use
- an open cross staff
 - a French cross staff
 - an optical square
 - All of the above
65. The great circle passing through a point on the surface of the earth and the geographical north and south poles of the earth is known as
- true meridian
 - magnetic meridian
 - grid meridian
 - arbitrary meridian
66. If the bearing of a line is measured clockwise from the north end of the reference meridian, then it is considered as a
- reduced bearing
 - quadrantal bearing
 - whole circle bearing
 - All of the above
67. If the WCB of a line AB is 210° , then its QB is
- N 30° E
 - S 30° E
 - N 30° W
 - S 30° W
68. If the FB of a line AB is 60° , then its BB is
- 60°
 - 120°
 - 180°
 - 240°

69. If the FB of a line AB is $S\ 30^\circ\ W$, then its BB is
- $S\ 30^\circ\ W$
 - $N\ 30^\circ\ W$
 - $S\ 30^\circ\ E$
 - $N\ 30^\circ\ E$
70. In a $\triangle ABC$, the bearing of a line AB is 210° and that of line BC is 150° . The interior included angle ABC is equal to
- 30°
 - 60°
 - 120°
 - 150°
71. A surface which is perpendicular to the direction of gravity at every point is called a
- horizontal surface
 - level surface
 - Both (A) and (B)
 - None of the above
72. The vertical distance of a point above or below the datum surface is called
- reduced level
 - elevation
 - Both (A) and (B)
 - None of the above
73. The BS reading on a BM is $2.105\ m$ and the RL of the BM is $945.620\ m$. The HI is therefore equal to
- $2.105\ m$
 - $945.620\ m$
 - $943.515\ m$
 - $947.725\ m$
74. Irregular contours indicate a
- uniform slope
 - plane surface
 - rugged terrain
 - hill
75. The length and the WCB of a line are $267.42\ m$ and $165^\circ 30'$ respectively. The departure of the line is equal to
- $66.96\ m$
 - $-66.96\ m$
 - $267.42\ m$
 - $-267.42\ m$
76. Two forces $3\ N$ and $4\ N$ are acting at right angles to each other. The magnitude of their resultant force is equal to
- $3\ N$
 - $4\ N$
 - $5\ N$
 - $6\ N$

77. Two forces 3 N and 4 N are acting along the same line but in opposite direction. The magnitude of their resultant force is equal to
- 1 N
 - 3 N
 - 5 N
 - 7 N
78. A force P is inclined at an angle of 30° with the y -axis. Its component along the y -axis is equal to
- $0.5P$
 - $0.87P$
 - P
 - $2P$
79. Lami's theorem is applicable to
- 2 forces in equilibrium
 - 3 forces in equilibrium
 - 4 forces in equilibrium
 - All of the above
80. The perpendicular distance of the line of action of a 50 N force from the point O is 2 m. The moment of this force about the point is equal to
- 2 N-m
 - 25 N-m
 - 50 N-m
 - 100 N-m
81. A couple is formed by
- 2 equal and like parallel forces
 - 2 equal and unlike parallel forces
 - Both (A) and (B)
 - None of the above
82. The necessary condition of equilibrium of a body is
- $\Sigma H = 0$
 - $\Sigma V = 0$
 - $\Sigma M = 0$
 - All of the above
83. The direction of the support reaction at the roller support of a beam or a truss is always _____ the roller base.
- along
 - normal to
 - Both (A) and (B)
 - None of the above
84. The ratio of the limiting force of friction to the normal reaction between two bodies is called
- coefficient of friction
 - angle of friction
 - angle of repose
 - None of the above
85. If the limiting force of friction is greater than the applied force, the body experiences
- static friction
 - dynamic friction
 - Both (A) and (B)
 - None of the above

86. The maximum inclination of an inclined plane at which a body remains in equilibrium on the plane by the assistance of friction only, is called
- angle of friction
 - angle of repose
 - Both (A) and (B)
 - None of the above
87. The point through which the whole weight of the body acts is called the
- centre of area
 - centre of mass
 - centre of gravity
 - None of the above
88. The CG of a right circular cone of height h , lies on its axis of symmetry at a height of _____ above the base.
- $h/2$
 - $h/3$
 - $h/4$
 - h
89. The moment of inertia of a rectangular section of breadth B and depth D about the centroidal axis parallel to its breadth is
- $BD^3/6$
 - $BD^3/12$
 - $BD^3/18$
 - $BD^3/24$
90. The moment of inertia of a triangle of base b and height h about the centroidal axis parallel to its base is equal to
- $bh^3/6$
 - $bh^3/12$
 - $bh^3/18$
 - $bh^3/36$
91. In a machine, if the output is equal to the input, then the machine is called
- a simple machine
 - a compound machine
 - an ideal machine
 - All of the above
92. In a simple lifting machine, the ratio of the distance moved by the effort to the distance moved by the load is known as
- input
 - output
 - mechanical advantage
 - velocity ratio
93. For a machine to be reversible, its efficiency should be
- zero
 - less than 50%
 - more than 50%
 - None of the above

94. In a lifting machine, an effort of 15 N raised a load of 750 N. The mechanical advantage of the machine is

- (A) 15
- (B) 50
- (C) 750
- (D) 11250

95. In the third system of pulleys, if the total number of pulleys is n , then the velocity ratio is equal to

- (A) 2^n
- (B) $2n$
- (C) 2^{n-1}
- (D) $2n-1$

96. The maximum horizontal range of a projectile is obtained when the angle of projection is

- (A) 30°
- (B) 45°
- (C) 60°
- (D) 90°

97. The property of a material to deform permanently under compression without breaking is called

- (A) malleability
- (B) ductility
- (C) hardness
- (D) softness

98. The force of resistance per unit area, offered by the body against deformation, is called

- (A) load
- (B) stress
- (C) strain
- (D) All of the above

99. The strain at right angles to the applied load is called

- (A) secondary strain
- (B) lateral strain
- (C) Both (A) and (B)
- (D) None of the above

100. The stress induced in a body when it is subjected to two equal and opposite forces acting tangentially across the resisting section is called

- (A) compressive stress
- (B) tensile stress
- (C) shear stress
- (D) All of the above

101. The stress required to produce unit strain is known as

- (A) modulus of elasticity
- (B) modulus of rigidity
- (C) Poisson's ratio
- (D) None of the above

102. A rod 150 cm long and 2 cm in diameter is subjected to an axial pull of 20 kN. If the modulus of elasticity of the material of the rod is $2 \times 10^5 \text{ N/mm}^2$, the elongation of the rod is equal to
- 4.8 cm
 - 0.48 cm
 - 0.048 cm
 - 0.0048 cm
103. In a bar of composite section, which of the following statements is true?
- The strain in each bar is equal.
 - The strain in each bar is unequal.
 - The strain is zero.
 - The strain is maximum.
104. The ratio of the lateral strain to the linear strain is called
- Hooke's law
 - Poisson's ratio
 - modular ratio
 - None of the above
105. If a body is subjected to a direct stress p in one plane only, the maximum shear stress is equal to
- $p/2$
 - p
 - $2p$
 - $4p$
106. The angle made by the resultant stress with the normal of the oblique plane is known as
- inclination
 - obliquity
 - Both (A) and (B)
 - None of the above
107. At a point in a beam where SF is zero, BM is
- zero
 - minimum
 - maximum
 - None of the above
108. The BM in a cantilever is maximum at the
- fixed end
 - mid-span
 - free end
 - None of the above
109. A simply supported beam 5 m long carries a udl of 20 N/m over the entire span. The maximum bending moment is equal to
- 0.0625 kN-m
 - 62.5 N-m
 - 62500 N-mm
 - All of the above
110. Bending stress at the layer of the section of a beam is _____ to the distance of that layer from the NA.
- equal
 - inversely proportional
 - directly proportional
 - None of the above

111. The moment of resistance offered by the section of a beam is _____ to the external BM.
 (A) equal
 (B) inversely proportional
 (C) directly proportional
 (D) None of the above
112. The section modulus of a beam represents the _____ of the section of the beam.
 (A) size
 (B) shape
 (C) material
 (D) None of the above
113. In a circular section, the relation between the average shear stress q_{avg} and the maximum shear stress q_{max} is
 (A) $q_{max} = 1/3 q_{avg}$
 (B) $q_{max} = 2/3 q_{avg}$
 (C) $q_{max} = q_{avg}$
 (D) $q_{max} = 4/3 q_{avg}$
114. An eccentric load on a column will produce
 (A) direct stress
 (B) bending stress
 (C) Both (A) and (B)
 (D) None of the above
115. In a dam with h as the depth of water, the force due to water pressure acts at a height of _____ above the base of the dam.
 (A) $h/3$
 (B) $2h/3$
 (C) h
 (D) $4h/3$
116. For a dam to be safe against over-turning, the resultant of water pressure and weight of dam should strike the base of the dam
 (A) outside its width
 (B) within its width
 (C) Both (A) and (B)
 (D) None of the above
117. The simplest shape of a perfect frame is a
 (A) circle
 (B) rectangle
 (C) triangle
 (D) All of the above
118. In a frame, the force in a member is compressive if the member _____ the joint to which the member is connected.
 (A) pulls
 (B) pushes
 (C) Both (A) and (B)
 (D) None of the above
119. The shape of the deflected beam is circular if the BM in the beam is
 (A) zero
 (B) variable
 (C) maximum
 (D) constant
120. The maximum shear stress in a hollow circular shaft occurs at the
 (A) axis of the shaft
 (B) inner surface of the shaft
 (C) outer surface of the shaft
 (D) All of the above

- 121.** The compressive strength of stone is found out by
- (A) attrition test
 - (B) crushing test
 - (C) hardness test
 - (D) impact test
- 122.** The red colour of bricks is due to
- (A) iron oxide
 - (B) lime
 - (C) silica
 - (D) magnesia
- 123.** The number of bricks required per cubic metre of brick masonry is
- (A) 400
 - (B) 450
 - (C) 500
 - (D) 550
- 124.** The crushing strength of first class bricks is
- (A) 10 N/mm^2
 - (B) $10 \times 10^3 \text{ kN/m}^2$
 - (C) 105 kg/cm^2
 - (D) All of the above
- 125.** In brick masonry, the frog of the brick is generally kept on the
- (A) top face
 - (B) bottom face
 - (C) exposed face
 - (D) interior face
- 126.** The amount of gypsum usually added in the manufacture of cement is
- (A) 0.1% to 0.5%
 - (B) 0.5% to 1%
 - (C) 1% to 3%
 - (D) 3% to 5%
- 127.** Vicat's apparatus is used to determine the
- (A) initial setting time of cement
 - (B) final setting time of cement
 - (C) normal consistency of cement
 - (D) All of the above
- 128.** Separation of water in fresh concrete is called
- (A) segregation
 - (B) bleeding
 - (C) hydration
 - (D) seepage
- 129.** The volume of 1 bag of cement weighing 50 kg is
- (A) 3.4 m^3
 - (B) 0.034 m^3
 - (C) 1.05 m^3
 - (D) 0.02 m^3
- 130.** The property of steel is influenced maximum by
- (A) iron
 - (B) manganese
 - (C) carbon
 - (D) sulphur

131. The minimum depth of foundation in clayey soil is
 (A) 60 cm
 (B) 90 cm
 (C) 120 cm
 (D) 150 cm
132. An ornamental moulded course placed on top of the wall is called
 (A) coping
 (B) quoin
 (C) frieze
 (D) cornice
133. In ordinary residential buildings, the DPC is provided at the
 (A) ground level
 (B) plinth level
 (C) water table level
 (D) None of the above
134. In a residential building, the width of a door should **not** be less than
 (A) 60 cm
 (B) 75 cm
 (C) 90 cm
 (D) 120 cm
135. The projection of a tread beyond the riser is called as
 (A) stringer
 (B) baluster
 (C) pitch
 (D) nosing
136. 1 m^3 of cement concrete 1 : 2 : 4 is to be mixed by volume. The number of cement bags required is
 (A) 2
 (B) 4
 (C) 6
 (D) 8
137. The thickness of plastering is usually
 (A) 6 mm
 (B) 12 mm
 (C) 25 mm
 (D) 40 mm
138. The specific gravity of water at standard temperature is
 (A) 1
 (B) 1.2
 (C) 1.5
 (D) 2
139. The point about which a floating body oscillates when tilted is called
 (A) centre of pressure
 (B) centre of gravity
 (C) centre of buoyancy
 (D) metacentre
140. The ratio of the weight of water to the weight of solids in a given mass of soil is known as
 (A) void ratio
 (B) porosity
 (C) specific gravity
 (D) water content

141. In the oven-drying method for determining the water content of soil sample, the temperature of the oven is kept at
(A) 40 °C
(B) 60 °C
(C) 80 °C
(D) 110 °C
142. A cohesive soil on drying
(A) expands
(B) shrinks
(C) swells
(D) All of the above
143. The minimum grade of concrete for reinforced concrete construction as per IS 456 : 2000 is
(A) M10
(B) M15
(C) M20
(D) M25
144. Side face reinforcement shall be provided in a beam when the depth of the web of the beam exceeds
(A) 50 cm
(B) 75 cm
(C) 100 cm
(D) 120 cm
145. Slump test is conducted for cement concrete to determine
(A) shrinkage
(B) strength
(C) workability
(D) All of the above
146. The minimum size of reinforcement bars in an RCC column is
(A) 6 mm
(B) 8 mm
(C) 10 mm
(D) 12 mm
147. The portion of the road surface, which is used by the vehicular traffic, is known as
(A) carriageway
(B) shoulder
(C) kerb
(D) None of the above
148. In hilly roads, the limiting gradient, as per IRC, should **not** be more than
(A) 1 in 30
(B) 1 in 20
(C) 1 in 15
(D) 1 in 10
149. The wastewater from kitchens, bathrooms, etc., is called
(A) refuse
(B) sullage
(C) sewage
(D) garbage
150. Under normal conditions, the average domestic water consumption in India per capita per day in litres is
(A) 100
(B) 120
(C) 135
(D) 150