

DSSSB–Junior Engineers (Civil)

Exam, 2015*

SECTION-A

GENERAL AWARENESS

- Which of the following Journalists has been conferred with the Redink Award for lifetime achievement?
A. Arnab Goswami B. Prannoy Roy
C. Shekhar Gupta D. Krishna Prasad
- Who has been appointed as Chairperson of the Children Film Society of India (CFSI)?
A. Mukesh Khanna
B. Jaya Bachchan
C. Ram Gopal Verma
D. Govind
- What is India's current global ranking in terms of electricity generation from nuclear source?
A. 10th B. 7th
C. 13th D. 12th
- Moortidevi award is given for excellence in the field of
A. Classical dance B. Classical music
C. Cinematography D. Literature
- Which organization has been entrusted with the responsibility of issuing e-tickets for entry to Taj Mahal and the Humayun's Tomb?
A. SBI B. IRCTC
C. NIC D. HDFC
- Which city is famous for the Chithirai festival, one of world's longest festivals?
A. Madurai B. Patna
C. Ahmedabad D. Mysore
- Omar al-Bashir, has been re-elected as President of which country?
A. Syria B. Sudan
C. Iran D. Ukraine
- As per data, which are the two Indian cities at highest risk of being devastated by an earthquake?
A. Guwahati and Nagpur
B. Nagpur and Sri Nagar
C. Guwahati and Sri Nagar
D. Jamnagar and Guwahati
- Which of the following leaders has been recently (April 2015) honoured with Officer of the Legion of Honour, the highest French civilian distinction?
A. V.K. Singh B. Yashwant Sinha
C. Arvind Kejriwal D. Kapil Sibal
- Which of the following schemes has been renamed as AMRUT scheme?
A. Jawaharlal Nehru National Urban Renewal Mission
B. Rajiv Awas Yojana
C. Indira Gandhi Matritva Sahayog Yojana
D. Jawahar Rojgar Yojana
- Which of the following terms is used in the game of cricket?
A. Tee B. Penalty
C. No ball D. None of these
- World Day for Water is observed on which of the following days?

* Exam Date: 31/05/2015 (Tier-I)

- | | | | |
|---------------------------|---------------------------|----------|----------|
| A. 22 nd March | B. 22 nd April | A. Heart | B. Lungs |
| C. 22 nd May | D. 22 nd June | C. Brain | D. Liver |
13. What is the name of Indian Navy's proposed new base near Porbandar in Gujarat?
- A. INS Mahatma Gandhi
B. INS Subhash Chandra Bose
C. INS Sardar Vallabhai Patel
D. INS Bhaghat Singh
14. Which automobile maker launched the Safe Roads campaign to create awareness about road safety?
- A. Tata Motors B. Mercedes Benz
C. Toyota D. Hyundai
15. Which team has won the Men's National Hockey Championship 2015?
- A. Karnataka B. Telangana
C. Indian Railways D. Madhya Pradesh
16. The Bipolar disorder is related to which among the following?
17. Gold mines in India are located mainly in
- A. Kotar B. Raniganj
C. Veeranam D. Jadugoda
18. "Anti Tobacco Day" is observed in India on which one of the following days?
- A. 11th April B. 11th May
C. 31st July D. 31st May
19. Who amongst the following is the author of the book "Cricket My Style"?
- A. Sunil Gavaskar B. Ravi Shastri
C. Kapil Dev D. Sachin Tendulkar
20. Who is the Chairman of BCCI Technical Committee that has recommended several changes in Ranaji format?
- A. Sachin Tendulkar
B. Anil Kumble
C. Rahul Dravid
D. Ajaya Jadeja

GENERAL INTELLIGENCE AND REASONING ABILITY

21. DHL, PTX, BFI, ?
- A. CGK B. KOS
C. NRV D. RVZ
22. G, H, J, M, ?, V
- A. Q B. T
C. O D. R
23. ATTRIBUTION, TTRIBUTIO, RIBUTIO, IBUTI, ?
- A. IBU B. UT
C. UTI D. BUT
24. KUZ, MOX, OIV, QET ?
- A. SUR B. SDR
C. SMR D. SAR
25. 25 : 36 :: 49 :
- A. 61 B. 64
C. 65 D. 60
26. 27 : 51 :: 83 :
- A. 102 B. 117
C. 123 D. 138
27. 11 : 25 :: 17 :
- A. 33 B. 28
C. 41 D. 37
28. 11 : 121 :: 12 :
- A. 1728 B. 303
C. 1968 D. 144
29. Insect : Disease :: War : ?
- A. Army B. Defeat
C. Arsenal D. Destruction
30. Book : Cover :: Painting : ?
- A. Example B. Wall
C. Colour D. Frame
31. Float : Sink :: Boat : ?
- A. Ship B. War
C. Submarine D. Missile
32. Water : Dam :: Trade : ?
- A. Commerce B. Economy
C. Goods D. Trade Policy

33. Introducing a girl Vipin said, "Her mother is the only daughter of my mother-in-law." How is Vipin related to that girl?
A. Uncle B. Father
C. Brother D. Husband
34. Showing the lady in the park, Vineet said, "She is the daughter of my grandfather's only son." How is Vineet related to that lady?
A. Brother B. Cousin
C. Father D. Uncle
35. A man said to a lady, "Your mother's husband's sister is my aunt". How is that lady related to that man?
A. Daughter B. Sister
C. Grand Daughter D. Mother
36. Introducing a man, a woman said, "His wife is the only daughter of my father". How is that man related to the woman?
A. Husband B. Brother
C. Father-in-law D. Maternal-Uncle
37. 'Bank' is related to 'Money' in the same way 'Transport' is related to?
A. Goods B. Road
C. Movement D. Traffic
38. 'Fan' is related to 'Wings' in the same way 'Wheel' is related to
A. Round B. Cars
C. Spokes D. Moves
39. Captain is related to 'Soldier' in the same way 'Leader' is related to
A. Chair B. Follower
C. Patient D. Medicine
40. 'Skirmish' is related to 'War' in the same 'Disease' is related to
A. Infection B. Epidemic
C. Patient D. Death

ARITHMETICAL AND NUMERICAL ABILITY

41. In a class, except 18 all are above 50 years. 15 are below 50 years of age. How many people are there?
A. 30 B. 33
C. 36 D. None of these
42. If a boat is moving in upstream with velocity of 14 km/hr and goes downstream with a velocity of 40 km/hr, then what is the speed of the stream?
A. 13 km/hr B. 26 km/hr
C. 34 km/hr D. None of these
43. Find the value of $(0.75 \times 0.75 \times 0.75 - 0.001)/(0.75 \times 0.75 - 0.075 + 0.01)$
A. 0.845 B. 1.90
C. 2.312 D. 0.001
44. A can have a piece of work done in 8 days, B can work three times faster than the A, C can work five times faster than A. How many days will they take to do the work together?
A. 3 days B. 8/9 days
C. 4 days D. can't say
45. If a car starts from A towards B with some velocity due to some problem in the engine after travelling 30 km. If the car goes with $4/5^{\text{th}}$ of its actual velocity the car reaches B 45 min. later to the actual time. If the car engine fails after travelling 45 km the car reaches the destination B 36 min. late to the actual time, what is the initial velocity of car and what is the distance between A and B in km?
A. 20 & 130 B. 20 & 120
C. 30 & 130 D. 30 & 120
46. In a certain company 20% of the men and 40% of the women attended the annual company picnic. If 35% of all the employees are men. What % of all the employee went to the picnic?
A. 23% B. 33%
C. 43% D. 13%
47. During a given week a programmer spend $1/4$ of his time preparing charts, $3/8$ of his

- time for coding, rest of his time for debugging the programs. If he had 48 hrs, during the week how many hours did he spend debugging the program?
- A. 15 hrs. B. 16 hrs.
C. 17 hrs. D. 18 hrs.
48. A 16 storey building has 12000 sq. ft. on each floor. Company A rents 7 floors and company B rents 4 floors. What is the number of square feet of unrented floor space?
- A. 50000 sq. ft.
B. 60000 sq. ft.
C. 70000 sq. ft.
D. 80000 sq. ft.
49. The average salary of three employees is ₹ 95 per week. If one employee earns 115 and other earns 65 rupees. How much will third be earn?
- A. ₹ 105 B. ₹ 106
C. ₹ 107 D. ₹ 108
50. In a computer tape library there are two racks with 40 tapes per rack. In a given day 30 tapes are in use. What fraction remains in the rack?
- A. $\frac{3}{8}$ B. $\frac{4}{7}$
C. $\frac{5}{8}$ D. None of the above
51. From its total income a company spent \$ 20,000 for advertising half of the remainder on salaries and had \$ 6000 left. What was the total income?
- A. \$ 32,000 B. \$ 22,000
C. \$ 12,000 D. \$ 11,000
52. A man owns $\frac{2}{3}$ of a computer service baroque business and sells $\frac{3}{4}$ of his share for \$ 75,000. What is the value of the business.
- A. \$ 1,40,000
B. \$ 1,50,000
C. \$ 1,60,000
D. \$ 1,70,000
53. A computer printer produces 176400 lines in a given day. If the printer was in operation for 7 hrs during the day how many lines did it print per minute?
- A. 420 B. 440
C. 550 D. None of the above
54. A boy multiplied a number with 10 and got 100, instead of dividing it. If he divided it what would be the answer?
- A. 1 B. 2
C. 3 D. 4
55. A train moves past a phone post and a bridge 264 m long in 8 seconds and 20 seconds respectively. What is the speed of the train?
- A. 75 km/hr B. 82 km/hr
C. 79 km/hr D. 79.2 km/hr
56. How many seconds will a 500 meter long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr?
- A. 32 B. 30
C. 40 D. 48
57. A jogger running at 9 km/h alongside a railway track is 240 meters ahead of the engine of a 120 metre long train running at 45 km/h in the same direction. In how much time will the train pass the jogger?
- A. 38 sec B. 20 sec
C. 36 sec D. 72 sec
58. A 110 metres long train is running with a speed of 60 kmph. In what time will it pass a man who is running at 6 kmph in the direction opposite to that in which the train is going?
- A. 8 sec B. 6 sec
C. 7 sec D. 12 sec
59. The difference between the place value and the face value of 6 in the number 856973 is
- A. 973 B. 6973
C. 5994 D. None of these
60. The difference between the place value of the two sevens in the number 69758472 is
- A. 0 B. 6993
C. 699930 D. None of these

TEST OF LANGUAGE : HINDI

61. जिन छात्रों ने परिश्रम किया। वे उत्तीर्ण हो गए। मिश्र वाक्य बनाओ।
 A. जिन छात्रों ने परिश्रम किया वे उत्तीर्ण हो गए।
 B. परिश्रम करने वाले छात्र उत्तीर्ण हो गए।
 C. उत्तीर्ण होने वाले छात्र परिश्रमी थे।
 D. परिश्रमी छात्र उत्तीर्ण हो गए।
62. कौन-सा मिश्र वाक्य है?
 A. कमाने वाला ही खाता है।
 B. जो कमाएगा वो खाएगा।
 C. कमाकर ही खाया जाता है।
 D. कमाते हैं और खाते हैं।
63. उसके पास सब कुछ था और सब खो गया मिश्र वाक्य बनाओ।
 A. उसके पास जो कुछ था, गया।
 B. उसके पास जो कुछ था, वह खो गया।
 C. उसके पास जो कुछ था और वह खो गया।
 D. चूंकि उसके पास जो कुछ था वह खो चुका है।
64. कौन-सा मिश्र वाक्य है?
 A. सब अकेले-अकेले अपने लिए जीना चाहते हैं।
 B. बातें करते हैं क्रांति की, पर संभलता नहीं अपना शरीर भी।
 C. आप सवेरें-सवेरे घर से निकल गए और अभी तक नहीं लौटे।
 D. मैं वही पुस्तक लूंगा, जो सबीना मेरे लिए लाई है।
65. गड्ढा खोदकर मजदूर चले गए। मिश्र वाक्य बनाओ।
 A. मजदूरों ने गड्ढा खोदा और वे चले गए।
 B. जब मजदूरों ने गड्ढा खोद लिया तब वे चले गए।
 C. मजदूरों द्वारा गड्ढा खोदने पर वे चले गए।
 D. मजदूर गड्ढा खोदकर चले गए।
66. भिखारी भूखा है। उसे भोजन दो। इन वाक्यों से संयुक्त वाक्य बनाओ।
 A. भूखे भिखारी को भोजन दो।
 B. वह भिखारी भूखा है इसलिए उसे भोजन दो।

- C. जो भिखारी भूखा है, उसे भोजन दो।
 D. भिखारी भूखा है और उसे भोजन दो।

67. मिश्रित वाक्य छांटो
 A. उस बच्चे ने कहानी सुनी।
 B. वह बीमार है इसलिए विद्यालय नहीं गया।
 C. साहब बाहर गए हैं।
 D. पिताजी ने बताया कि आज हमें बाजार जाना है।
68. संयुक्त वाक्य छांटकर लिखो।
 A. प्रातः सूर्योदय हुआ और पक्षी चहचहाने लगे।
 B. वे सभी चित्र बिक गए।
 C. जैसे ही शाम हुई, वह चली गई।
 D. जैसा करोगे, वैसा भरोगे।

निर्देश (69-73): उक्त पद्यांश के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए।

यह दर्शन का देश, बुद्धि, वैभव का घर है
 नई सृजन बेला में इसका रूप सँवारो।

कोटि-कोटि जनगण मन की आशा को समझो
 उठो, आज शोषण, पीड़ा को फिर ललकारो।
 बदलो इसका रूप, बदल दो छन्द पुराना
 आज नया हो गीत, आज निर्माण नया है।

69. उक्त गद्यांश का उचित शीर्षक है
 A. सृजन-वेला B. नया गीत : नया छंद
 C. शोषण की पीड़ा D. दर्शन का देश
70. हमारे देश की विशेषता है
 A. कोटि-कोटि जन-समूह है।
 B. शोषण की पीड़ा से त्रस्त है।
 C. दर्शन का देश, बुद्धि, वैभव का घर है।
 D. मन की अनन्त आशाएँ हैं।
71. पद्यांश में निहित सन्देश है
 A. दर्शन का सन्देश B. सृजन का सन्देश
 C. आशा का स्वर D. क्रान्ति का स्वर
72. कवि ने किसके विरुद्ध क्रान्ति करने की बात कही है?
 A. शोषण के B. छन्द के
 C. सृजन के D. नव-निर्माण के

73. 'बदल दो छन्द पुराना' से कवि का आशय है
 A. मुक्त छन्द का समर्थन।
 B. शोषण का विरोध।
 C. निर्माण का स्वर।
 D. प्राचीन रूढ़ियों के स्थान पर नव-संस्कृति का निर्माण।
74. पर्वत शब्द कौन-सी संज्ञा को दर्शाता है?
 A. व्यक्तिवाचक संज्ञा B. जातिवाचक संज्ञा
 C. भाववाचक संज्ञा D. द्रव्यवाचक संज्ञा
75. थकावट शब्द कौन-सी संज्ञा को दर्शाता है?
 A. व्यक्तिवाचक संज्ञा B. जातिवाचक संज्ञा
 C. भाववाचक संज्ञा D. द्रव्यवाचक संज्ञा
76. भीड़ शब्द कौन-सी संज्ञा को दर्शाता है?
 A. व्यक्तिवाचक संज्ञा B. जातिवाचक संज्ञा
 C. समुदायवाचक संज्ञा D. द्रव्यवाचक संज्ञा
77. कुतुब मीनार शब्द कौन-सी संज्ञा को दर्शाता है?
 A. व्यक्तिवाचक संज्ञा B. जातिवाचक संज्ञा
 C. भाववाचक संज्ञा D. द्रव्यवाचक संज्ञा
78. औधी खोपड़ी का होना
 A. बेवकूफ होना B. बेकार होना
 C. अकलमंद होना D. उपरोक्त में से कोई नहीं
79. कुएं में बांस डालना
 A. पानी गंदा करना
 B. बेवकूफियां करना
 C. बहुत खोजबीन करना
 D. किसी के मामले में दखल देना
80. चांदी का जूता मारना
 A. बेइज्जती करना B. इज्जत देना
 C. रिश्वत देना D. उपरोक्त में से कोई नहीं

TEST OF LANGUAGE : ENGLISH

Directions (Qs. 81-85): *At this stage of civilisation, when many nations are brought in to close and vital contact for good and evil, it is essential, as never before, that their gross ignorance of one another should be diminished, that they should begin to understand a little of one another's historical experience and resulting mentality. It is the fault of the English to expect the people of other countries to react as they do. to political and international situations. Our genuine goodwill and good intentions are often brought to nothing, because we expect other people to be like us. This would be corrected if we knew the history, not necessarily in details but in broad outlines, of the social and political conditions which have given to each nation its present character.*

81. According to the author of 'Mentality' of a nation is mainly product of its
 A. Present character
 B. International position
 C. Politics
 D. History

82. The character of a nation is the result of its
 A. Gross ignorance
 B. cultural heritage
 C. socio-political conditions
 D. mentality
83. The need for a greater understanding between nations
 A. is more today than ever before
 B. was always there
 C. is no longer there
 D. will always be there
84. Englishmen like others to react to political situations like
 A. Others B. Us
 C. Themselves D. Each other
85. According to the author his countrymen should
 A. read the story of other nations
 B. not react to other actions
 C. have a better understanding of other nations
 D. have vital contacts with other nations

86. Find the error in the following sentence.

(a) They appointed/(b) him as a manager/(c) as he is/(d) efficient

- A. (a) B. (b)
C. (c) D. (d)

87. Which of the following sentence has error?

- A. When the dentist came in
B. My tooth was stopped aching
C. Out of fear that might lose my tooth
D. No error

88. A woman came in with a baby who, she said, a safety pin.

- A. was just swallowing
B. swallowed
C. had just swallowed
D. just swallowed

89. She ₹ 80 out of the bank every Friday.

- A. Obtains B. Draws
C. Pulls D. Extracts

90. The American presented his credentials to the President of India.

- A. Adviser B. Ambassador
C. Delegate D. Representative

91. Order the sentence:

- S₁ : Smoke oozed up between the planks.
P : Passengers were told to be ready to quit the ship.
Q : The rising gale fanned the smouldering fire.
R : Everyone now knew there was fire on board.
S : Flames broke out here and there
S₆ : Most people bore the shock bravely.
The Proper sequence should be:
A. QPSR B. RSPQ
C. SRQP D. QSRP

Directions (Qs. 92-95): Some parts of the sentences in the passages below are left blank. Fill them with the best alternative.

(92) The demand for residential and commercial real estate in the city is (93),

though it has slowed down lately due to the weak economy. The huge demand and potential for development has (94) many real estate developers, and the city is today (95) different project-ranging from huge townships.

92. A. Immediately B. Constantly
C. Consequently D. Currently

93. A. very high B. massive
C. exorbitant D. immense

94. A. Attracted B. Invited
C. Inspired D. Called

95. A. Observing B. Watching
C. A home to D. Witnessing

Directions (Qs. 96 & 97): In the following questions four alternatives are given for the Idiom/phrase italicised and underlined in the sentence. Choose the alternative which best expresses the meaning of Idiom/phrase.

96. Sobhraj could be easily arrested because the police were tipped off in an advance.

- A. Topped over
B. Bribed
C. Given advance information
D. Threatened

97. I met him after a long time, but he gave me the cold shoulder.

- A. scolded me
B. insulted me
C. abused me
D. ignored me

98. Synonymous of GALL

- A. Sulten B. Blessed
C. Irritated D. Necessary

99. Antonymous of ACCEPT

- A. Followed B. Noted
C. Provided D. Rejected

100. Antonymous of ANGER

- A. Party B. Happiness
C. Love D. Approval

SECTION-B

POST SPECIFIC SUBJECT-RELATED QUESTIONS (CIVIL)

- 101.** The process of finding out the resultant force is called
 A. Resolution B. Superposition
 C. Composition D. Transition
- 102.** The angle of inclination of the plane at which the body begins to move down the plane is called
 A. Angle of friction
 B. Angle of repose
 C. Angle of projection
 D. None of the above
- 103.** As per the Indian standard soil classification system, a sample of silty clay with liquid limit of 40% and plasticity index of 28% is classified as
 A. CH B. CI
 C. CL D. CL-ML
- 104.** A rectangular open channel of width 5.0 m is carrying a discharge of 100 m³/s. The Froude number of the flow is 0.8. The depth of flow (in m) in the channel is
 A. 4 B. 5
 C. 16 D. 20
- 105.** The ratio of actual evapo-transpiration to potential evapo-transpiration is in the range
 A. 0.0 to 0.4 B. 0.6 to 0.9
 C. 0.0 to 1.0 D. 1.0 to 2.0
- 106.** Road roughness is measured using
 A. Benklman beam
 B. Bump integrator
 C. Dynamic cone penetrometer
 D. Falling weight deflectometer
- 107.** Which of the following errors can be eliminated by reciprocal measurements in differential levelling?
 I. Error due to earth's curvature
 II. Error due to atmospheric-refraction
 A. Both I and II B. I only
 C. II only D. Neither I nor II
- 108.** A force, when, applied to a body having mass 1kg and giving it an acceleration of 1m/sec², is known as
 A. 1 Dyne B. 1 Newton
 C. 1 Poundal D. All the above
- 109.** Which of the following are correct units of impulse?
 A. Gm-cm/sec B. Kg-m/sec
 C. Dyne-sec D. All the above
- 110.** If three forces acting at a point are in equilibrium, then ratio of the force to the sine of opposite angle is constant, only if, all the forces are
 A. In wards B. Out wards
 C. Can be both D. None of the above
- 111.** Moment of a couple about any point in space is always
 A. Different B. Same
 C. Both the above D. None of the above
- 112.** The frictional force which prevents one body from sliding on another is known as
 A. Static friction B. Kinetic friction
 C. Cone of friction D. None of the above
- 113.** Which of the following is correct expression for centripetal force?
 A. $m \times v^2/r$ B. $m \times r\omega^2$
 C. Both the above D. None of the above
- 114.** Which of the following are known as silicious rock?
 A. Slate B. Limestone
 C. Laterites D. Granite
- 115.** Which of the following have less unit weight?
 A. Granite B. Sand stone
 C. Marble D. Basalt
- 116.** Stone in building work can be used for which of the following components?
 A. Foundation

- B. Walls and Coloums
C. Arches and Lintel
D. All the above
- 117.** A test, to find out the rate of wear of stone used in road construction is known as
A. Crushing test B. Impact test
C. Attrition test D. Hardness test
- 118.** The brick which is light in weight, reduce the transmission of heat, sound and dampness, is known as
A. Hollow brick B. Cavity brick
C. Cellular brick D. All the above
- 119.** Properties of steel can be altered by
A. Structural treatment
B. Heat treatment
C. Both the above
D. None of the above
- 120.** The slope of tensile stress-strain diagram represents
A. Modulus of rupture
B. Modulus of elasticity
C. Tenacity
D. Ductility
- 121.** The structural member which can carry compressive force only is known as
A. Tie B. Channel
C. Strut D. None of the above
- 122.** Factor of safety is employed to keep the working stress
A. Below the elastic limit
B. Below the proportional limit
C. Below the yield point
D. Between elastic limit and proportional limit
- 123.** The value of Poisson ratio is generally not greater than
A. 0.05 B. 1
C. 0.5 D. 1.5
- 124.** The stress in any fibre in a beam subjected to bending depends upon
A. Distance of fibre from neutral axis
B. Radius of curvature of neutral axis
C. Elasticity
D. None of the above
- 125.** If a small concrete cube is submerged deep in still water in such a way that the pressure exerted on all faces of the cube is p , then the maximum shear stress developed inside the cube is
A. 0 B. $p/2$
C. $2p$ D. p
- 126.** In a steel plate with bolted connections, the rupture of the net section is a mode of failure under
A. Tension B. Compression
C. Flexure D. Shear
- 127.** The main constituent of Portland cement is
A. Lime B. Alumina
C. Iron oxide D. Magnesium oxide
- 128.** Coefficient of friction of road surface decreases on
A. decrease in load
B. temperature rise
C. depleted tyre pressure
D. None of the above
- 129.** To orient a plane table at a point with two inaccessible points, the method generally adopted is
A. intersection B. Resection
C. Radiation D. Two point problem
- 130.** The vertical angle between longitudinal axis of a freely suspended magnetic needle and a horizontal line at its pivot is known as
A. Declination B. Azimuth
C. Dip D. Bearing
- 131.** Which of the following pump is successfully used for lifting water to turbines?
A. centrifugal B. reciprocating pump
C. jet pump D. air lift pump
- 132.** In limit state of collapse in flexure, the ultimate strain in concrete is limited to
A. 0.002 B. 0.0035
C. 0.003 D. 0.0025
- 133.** The percentage of alumina in a good brick clay should may from
A. 20% – 30% B. 30% – 40%
C. 40% – 50% D. 50% – 60%

- 134.** The angle which the resultant of frictional force and normal force makes with the normal to the sliding surface when it is on the verge of sliding is called
 A. Angle of repose
 B. Angle of limiting friction
 C. Angle of kinetic friction
 D. None of the above
- 135.** The ratio of different ingredients (cement, sand, aggregate) in concrete mix of grade M20, is
 A. 1 : 1 : 2 B. 1 : 15 : 3
 C. 1 : 2 : 4 D. 1 : 3 : 6
- 136.** The centre of gravity of a right circular solid cone of height ' h ' measured along the vertical axis, is at distance of
 A. $h/2$ B. $h/3$
 C. $h/4$ D. $h/6$
- 137.** "If three forces acting at a point are in equilibrium, then each force is proportional to the sine of the angle between the other two". This theorem statement is
 A. Principle of transmissibility
 B. Lami's theorem
 C. Parallel axis theorem
 D. None of the above
- 138.** The deformation produced in a body when subjected to a direct load equal to weight of the body, and the deformation produced due to own weight of the bar are
 A. Equal B. Half
 C. Double D. Thrice
- 139.** When a body is subjected to a direct tensile stress (σ) in one plane, then maximum normal stress occurs at a section inclined at an angle θ to the normal of the section, where θ is
 A. 30° B. 0°
 C. 45° D. 90°
- 140.** When a body is strained within elastic limit, the energy stored is known as
 A. Resilience B. Proof resilience
 C. Potential energy D. Strain energy
- 141.** Drift method of tunnelling is used to construct tunnels in
 A. Soft grounds
 B. Rocks
 C. Self-supporting grounds
 D. Broken grounds
- 142.** The bending moment at fixed end of a cantilever beam of length ' L ' and carrying a gradually varying load from zero at free end and ' w ' per unit length at fixed end is
 A. $wL^2/2$ B. $wL^2/4$
 C. $wL^2/6$ D. zero
- 143.** Lug angles are
 A. Provided to take heavy moments
 B. Angles to reduce the length of connection
 C. Angles with bulb on one leg
 D. Angles subjected to reversal of stresses
- 144.** Column splices are assumed to be
 A. Short columns
 B. Long columns
 C. Intermediate columns
 D. None of above
- 145.** A vertical plate of a plate girder is called
 A. Web plate B. Flange plate
 C. Cover plate D. None of the above
- 146.** Glacial soils are those which are
 A. Deposited in sea water
 B. Deposited at the bottom of lakes
 C. Transported by running water
 D. None of the above
- 147.** The maximum size of the particles of clay is about
 A. 0.0002 mm B. 0.002 mm
 C. 0.02 mm D. 0.2 mm
- 148.** The approximate void ratio in sandy soils is
 A. 0.2 B. 0.3
 C. 0.6 D. 1.2
- 149.** Darcy's law is valid only if the flow is
 A. Turbulent B. Due to water
 C. Laminar D. Intermittent
- 150.** Compaction of soil is measured in terms of
 A. Dry density B. Specific gravity
 C. Compressibility D. Permeability

- 151.** In a lift moving with certain acceleration, tension in the cable supporting the lift is more when the lift is moving
 A. upwards
 B. downwards
 C. both upwards and downwards
 D. None of the above
- 152.** When a body is subjected to three mutually perpendicular stresses of equal intensity, the ratio of direct stress to the corresponding volumetric strain is known as
 A. Poisson's Ratio
 B. Bulk Modulus
 C. Young's Modulus
 D. Modulus of Rigidity
- 153.** The latitude of a given place is zero on
 A. Nadir side B. Zenith side
 C. Equator D. Anywhere
- 154.** A lift moves downwards with an acceleration of 9.81 m/s^2 . The pressure exerted by a man of weight 600 N on the floor of the lift is
 A. 9.81 N B. Zero
 C. 19.62 N D. 4.95 N
- 155.** A simply supported beam AB of span 'L' carries a uniformly varying load over the entire span, varying from zero intensity at end B to 'W' per unit length at end A. The shear force at B is
 A. $wL/6$ B. $wL/3$
 C. $2 wL/3$ D. $2 wL$
- 156.** About an axis perpendicular to the circular section, moment of inertia is given by
 A. $\pi d^3/16$ B. $\pi d^4/32$
 C. $\pi d^3/32$ D. $\pi d^4/64$
- 157.** Two fixed beams A and B are having same span 'L'. Beam B carries a central point load 'W' and beam A carries an uniformly distributed load such that the total load on beam B is 'W'. The ratio of maximum deflections between beams A and B is
 A. 1 B. 2
 C. 3 D. 4
- 158.** The ratio of Young's modulus to Bulk modulus for a Poisson's ratio of 0.25 is
 A. $\frac{1}{3}$ B. $\frac{2}{3}$
 C. 1 D. $\frac{3}{2}$
- 159.** In the limit state design for flexure, the area of the stress block for concrete is
 A. $0.36 f_{ck} X_u$ B. $0.42 f_{ck} X_u$
 C. $0.48 f_{ck} X_u$ D. $0.53 f_{ck} X_u$
- 160.** If a two way slab is found to be unsafe in shear, which of the followings would you recommend?
 A. Provide shear stirrups
 B. Increase diameter of longitudinal reinforcement
 C. Increase the thickness of slab
 D. None of the above
- 161.** Equilibrant is a force
 A. Which brings a body in equilibrium
 B. Which moves the body along the resultant force
 C. In zig-zag movement of the body
 D. Which moves the body in opposite direction to equilibrant force
- 162.** The most common method of pre-stressing for mass production in the factory is
 A. Freyssinet method
 B. Long line method
 C. MagnelBlaton method
 D. None of the above
- 163.** The soil transported by running water is called
 A. Alluvial B. Marine
 C. Aeolian D. Lacustrine
- 164.** The uniformity coefficient is defined as the ratio of
 A. D_{10} to D_{20} B. D_{30} to D_{40}
 C. D_{60} to D_{10} D. D_{50} to D_{30}
- 165.** The permeability of a given soil is
 A. Directly proportional to the average grain size

- B. Inversely proportional to the average grain size
 C. Directly proportional to the square of the average grain size
 D. Inversely proportional to the square of the average grain size
- 166.** The possibility of quick sand condition will be there when flow of water to soil is
 A. Horizontal B. Upwards
 C. Downwards D. Radial
- 167.** Optimum moisture content is the moisture content at which
 A. Settlement is maximum
 B. Permeability is more
 C. Dry density is maximum
 D. Shear strength is less
- 168.** With regards to radius of curvature of an ideal transition curve, which of the following statements is correct?
 A. It is inversely proportional to the main circular curve
 B. It is constant throughout the length of the curve
 C. It is inversely proportional to its distance from point of tangency
 D. It is directly proportional to the longitudinal section of the curved portion
- 169.** The tilt displacement in an aerial photograph is radii from
 A. Isocentre point B. Nadir point
 C. Principal point D. Plumb point
- 170.** A reinforced concrete beam will crack, if tensile stress set up in the concrete below the neutral axis is
 A. Less than permissible stress
 B. More than permissible stress
 C. Equal to permissible stress
 D. Anyone of the above
- 171.** Reinforcement for torsion is provided in the form of
 A. Longitudinal reinforcement only
 B. Both longitudinal and shear reinforcement
 C. Shear reinforcement only
 D. None of the above
- 172.** The wire mesh provided at the corners of a two way slab
 A. Controls cracking of corners
 B. Prevents corners from lifting
 C. Distributes bending moment uniformly
 D. None of the above
- 173.** Theory of thin cylinder is used to design surface tank walls of
 A. Circular tanks with walls restrained at base
 B. Short walls of rectangular tanks
 C. Circular tanks with flexible joint at base
 D. None of the above
- 174.** In a two way rectangular reinforced footing, the central band in long direction contains
 A. More reinforcement
 B. Twice the reinforcement in the short direction
 C. Less reinforcement
 D. None of the above
- 175.** In pre-stressed member, the Wobble effect is related with
 A. Creep of concrete
 B. Frictional loss
 C. Creep of steel
 D. Shrinkage of concrete
- 176.** Flats are used as tension members in
 A. Roof trusses
 B. Transmission towers
 C. Suspension bridges
 D. All the above
- 177.** An out of plane web distortion is known as
 A. Web Buckling
 B. Vertical web buckling
 C. Column buckling
 D. All of the above
- 178.** When a beam is connected to a stanchion by means of two angles riveted to them, the connection is known as
 A. Unstiffened seated connection
 B. Stiffened seated connection
 C. Framed connection
 D. None of the above

- 179.** The ratio of volume of voids to total volume of soil mass is called
 A. Water content
 B. Porosity
 C. Void ratio
 D. Degree of saturation
- 180.** Toughness index is the ratio of
 A. Flow index and plasticity index
 B. Plasticity index and flow index
 C. Liquidity index and flow index
 D. Flow index and liquidity index
- 181.** As angle of internal friction ' ϕ ' increases, coefficient of active earth pressure
 A. Increases B. Decreases
 C. Remains same D. None of the above
- 182.** The minimum depth of foundation for buildings of clay is
 A. 0.2 to 0.4 m B. 0.4 to 0.6 m
 C. 0.6 to 0.9 m D. 0.9 to 1.6 m
- 183.** Heading bond is usually used for
 A. half brick wall
 B. one brick wall
 C. one and half brick wall
 D. two brick wall
- 184.** In a stairs, the flier is
 A. a vertical portion of step providing a support to the tread
 B. a straight step having a parallel width of tread
 C. the under surface of a stair
 D. the angle which the line of nosing of stairs makes with horizontal
- 185.** The type of masonry in which the stones of irregular size and shapes are used and there are no regular courses is known as
 A. uncoursed rubble masonry
 B. coursed rubble masonry
 C. random rubble masonry
 D. dry rubble masonry
- 186.** A type of brick masonry in which each course consists of alternate header and stretchers is called
 A. English bond B. Flemish bond
 C. Stretching bond D. Heading bond
- 187.** The function of aggregates in concrete is to serve as
 A. binding material
 B. filler
 C. catalyst
 D. all of these
- 188.** Which of the following ingredient of cement when added in excess quantity, causes the cement to set slowly?
 A. Lime B. Silica
 C. Alumina D. Iron oxide
- 189.** The inert material used for the manufacture of mortars and concrete is
 A. cement B. water
 C. aggregate D. admixture
- 190.** Initial setting time for ordinary Portland cement is
 A. 15 min B. 30 min
 C. 60 min D. 10 h
- 191.** The value of bulk density of aggregate depend upon
 A. size distribution of aggregate
 B. shape of aggregate
 C. specific gravity of aggregate
 D. All of these
- 192.** Workability of concrete by slump test is expressed as
 A. minutes B. mm/h
 C. mm²/h D. mm
- 193.** A compaction factor 0.88 indicates that workability of concrete mix is
 A. very low B. low
 C. medium D. high
- 194.** The conception of idea for any construction work is the responsibility of
 A. owner B. engineer
 C. contractor D. all of these
- 195.** Milestone chart is an improvement over
 A. bar chart B. PERT
 C. CPM D. all of these

- 196.** A Gantt chart indicates
 A. balance of work done
 B. efficiency of project
 C. comparison of actual process with scheduled process
 D. progress of project
- 197.** PERT stands for
 A. Program Estimation and Reporting Technique
 B. Process Estimation and Review Technique
 C. Program Evaluation and Review Technique
 D. Planning Estimation and Review Technique
- 198.** Alignment of road is finally decoded on the basis of
 A. selection of route
 B. field survey
 C. trace cut
 D. None of these
- 199.** The value of maximum gradient for the hill roads
 A. 1 in 5 B. 1 in 10
 C. 1 in 15 D. 1 in 20
- 200.** An average value of coefficient of velocity is
 A. 0.62 B. 0.76
 C. 0.84 D. 0.97

ANSWERS

1	2	3	4	5	6	7	8	9	10
B	A	C	D	B	A	B	C	B	A
11	12	13	14	15	16	17	18	19	20
C	A	C	B	C	C	A	D	C	B
21	22	23	24	25	26	27	28	29	30
C	A	C	D	B	C	D	A	D	D
31	32	33	34	35	36	37	38	39	40
C	D	B	A	B	A	A	C	B	B
41	42	43	44	45	46	47	48	49	50
D	A	A	B	A	B	D	B	A	C
51	52	53	54	55	56	57	58	59	60
A	B	A	A	D	B	C	B	C	C
61	62	63	64	65	66	67	68	69	70
A	B	B	D	B	D	D	A	A	C
71	72	73	74	75	76	77	78	79	80
B	A	D	B	C	C	A	A	C	C
81	82	83	84	85	86	87	88	89	90
D	C	A	C	C	B	B	C	B	B
91	92	93	94	95	96	97	98	99	100
C	C	B	A	D	C	D	C	D	C
101	102	103	104	105	106	107	108	109	110
C	B	B	A	C	B	A	B	D	C

111	112	113	114	115	116	117	118	119	120
B	A	C	D	B	D	C	D	B	B
121	122	123	124	125	126	127	128	129	130
C	B	C	A	A	A	A	B	D	C
131	132	133	134	135	136	137	138	139	140
B	B	A	B	B	C	B	C	B	D
141	142	143	144	145	146	147	148	149	150
B	C	B	A	A	D	B	C	C	A
151	152	153	154	155	156	157	158	159	160
A	B	C	B	A	B	B	D	A	C
161	162	163	164	165	166	167	168	169	170
A	B	A	C	C	B	C	C	B	B
171	172	173	174	175	176	177	178	179	180
B	A	C	A	B	A	D	C	C	C
181	182	183	184	185	186	187	188	189	190
B	A	B	B	A	A	B	D	C	B
191	192	193	194	195	196	197	198	199	200
D	D	C	A	A	C	C	B	C	D
