

दक्षिण पश्चिम रेलवे / SOUTH WESTERN RAILWAY
Pre-qualifying Examination for 30% LDCE Gr.'B' selection of Civil
Engineering Department on Dated 03.10.2021
Time allowed: TWO HOUR(120 Minutes) Max Marks : 100

उम्मीदवारों के लिए महत्वपूर्ण अनुदेश
**Important instructions for candidates attempting Paper and Pen
examination**

1. Handover relieving letter with photograph/photo identity card to the Invigilator and sign on the attendance sheet.
2. Candidates to note the following timings:

Reporting Time	Gate closing time	Exam Start Time
13.15 hrs	13.55 hrs	14.00 hrs

3. No candidate will be allowed inside the exam centre after gate closing time. Candidates are advised to report at the exam centre venue at the Reporting time without fail.
4. The candidate should use **either blue or black ink pen/ball pen**. All the answers should be answered with the same colour of ink used for writing fly-leaf/first page of the answer book.
5. The candidates should fill the particulars in own handwriting in the space provided and should not write these particulars anywhere else.
6. Don't write your name or roll number or any other indication/any distinguishing marks anywhere in the Answer Book except fly leaf; otherwise the Answer Book will not be evaluated.
7. The written examination comprises of **Objective type Multiple Choice Questions only**. Attempt only **100 out of 110 questions**. Each question carries 1 mark. Duration of examination will be 02 (two) hours.
8. There are 40 questions in Part 'A' from Q.1 to Q.40, 30 questions in Part 'B' from Q.41 to Q.70 and 40 questions in Part 'C' from Q.71 to Q.110 including 10 optional questions on "Official Language policy" from Q.101 to Q.110.
9. There are no optional questions in Part 'A' and Part 'B'. Candidate should answer only 30 questions in Part 'C' out of total 40 questions. In case more than 30 questions are attempted in Part 'C', then only first 30 answered questions, counting from Q.71 onwards, shall be considered for evaluation.
10. Questions will be available in English as well as in Hindi.

11. There shall be negative marking for incorrect answers. One-third of the marks allotted for each question will be deducted for every wrong answer.
12. The answers to the multiple choice questions should invariably be answered in Capital letters only (for example (A), (B), (C) or (D)) for both English as well as Hindi versions of Questions.
13. Candidates should answer the objective type questions only in the answer book supplied separately. Indication of the name or any other identity of the candidate , or any other random marking in the answer book , except in the column provided on the fly-leaf of the answer book is prohibited.
14. To ensure the authenticity of the answers to Multiple Choice Questions, corrections of any type (viz. cutting, overwriting, scoring off a ticked answer & ticking another answer, erasing, modifying the answer in any way) will not be permitted. Zero marks will be awarded in such cases of corrections.
15. Candidates are prohibited from bringing Mobile Phones, Pagers or any other computing/communication/electronic device/gadgets/wrist watches (Mechanical / Electronics)/calculator/blue tooth/Ear-Phone or any other communication devices, any book or portion thereof, manuscripts, bags, wallets and ladies hand purse etc.
16. The log tables, slide rulers and calculators are not permitted as decided by the competent authority.
17. If any candidate is found to be in possession of any such prohibited device / gadgets in working or in switched off condition, their candidature will be cancelled forthwith and will be debarred from the examination. In addition such employees are liable to be taken up under appropriate disciplinary proceedings.
18. Candidates are advised to locate their exam centre and its accessibility so that they can reach the centre on time on the day of the examination.
19. Special instructions, if any, given by the Invigilator should be followed strictly.
20. After completion of the exam, candidate has to cross the unused answer boxes in the Answer book.
21. A separate sheet for rough work will be issued. The rough work shall be carried out in the sheet provided only.
22. Candidates have options to follow either Hindi or English version. In case of any mistake or ambiguity between Hindi version and English version, the English version shall prevail.
23. After completion of the exam, candidate has to cross the un-answered boxes in the Answer Book.
24. Special Instructions regarding communication between candidates and Administration through WhatsApp and e-mail for uploading of question paper, answer key and suggestions on Answer key etc., is issued along with these instructions. Candidates should read and follow them carefully & scrupulously.

PART "A"

1. Hook bolt is a fitting used at
A) turnout B)SEJ
C)slab bridge D) Girder bridge
2. Spherical washers are used at
A) bridges B)SEJ
C)LCs D) inclined planes in P&C
3. Sleeper density of 1660/KM gives a spacing of
A) 50 cm B) 60 cm
C) 65 cm D) 70 cm
4. Length of normal PSC Sleeper is
A) 1676 mm B) 2500mm
C) 2750 mm D) 3000mm
5. The width of ballast shoulder to be provided on the outside of the curve in case of LWR is provided.
A) 500mm (B) 550 mm
(C) 600 mm (D) 650 mm
A)
6. In Track circuited areas minimum ballast resistance per km of track should not be less than _____ in station yards.
A) 1 Ohm B) 2 Ohms
C) 3 Ohms D) 4 Ohms
7. Distance pieces to platform lines are provided at interval of
A) 20m B) 30m
C)50m D) 60m
8. GRSP is
A) Grip rubber sleeper plate
B) Grooved rubber sleeper pad
C) Grooved Rubber Sole Plate
D) Grooved Rubber Standard Pad
9. Duomatic machine has no of tamping tools
A)8 B) 16
C)32 D)48

10. At the close of tamping work P-WAY manual prescribes a ramp flatter than
- A) 1 in 200 B) 1 in 720
C) 1 in 1000 D) 1 in 1200
11. Dynamic Track Stabiliser is the machine used for
- A) tamping B) ballast cleaning
C) Consolidation of ballast D) none of the above
12. For PQRS work for running of portal cranes the gauge of auxiliary track is --
- mm.
- (A) 1673 (B) 1676
(C) 3400 (D) 3500
13. The centre to centre distance between two sleepers on bridge should not be
more than
- A) 300mm B) 400mm
C) 450mm D) 600mm
14. The minimum distance between two track machines while going into the
block section is
- (A) 100 m (B) 150 m
(C) 200 m (D) 250 m
15. Rail dollies shall not be worked on sections having gradients steeper than
- (A) 1 in 100 (B) 1 in 200
(C) 1 in 300 (D) 1 in 400
16. The minimum clear visibility distance required to work a lorry without
block protection is
- A) 1200 m (B) 800 m
(C) 600 m (D) 400 m
17. The maximum allowable super-elevation on B.G in India is
- (A) 76 mm (B) 124 mm
(C) 102 mm (D) 165 mm
18. The grade compensation on a 4° curve on a Broad Gauge railway track is
- (A) 0.20% (B) 0.16%
(C) 0.12% (D) 0.08%
19. Max. rate of change of cant/cant deficiency on transition curve is in
exceptional case
- A) 25 mm/sec B) 35 mm/sec
C) 45 mm/sec D) 55 mm/sec
20. Chord length for measuring lead curvature of a turnout is
- (A) 5 m (B) 6 m
(C) 7.5m D) 7 m

21. In case of 52 Kg CMS xing , following to be deducted from observed vertical wear to find out actual wear due to 1 in 20 cant slope given in wing rail.
 (A) 3.5 mm (B) 3mm
 (C) 2.5mm (D) 2mm
22. Catch siding is provided when there is a gradient steeper than falling towards the station.
 (A) 1 in 100 (B) 1 in 90
 (C) 1 in 80 (D) 1 in 70
23. Turnout shall not be laid from inside of a curved track.
 (A) 1 in 12 (B) 1 in 16
 (C) 1 in 20 (D) 1 in 8 ½
24. The maximum permissible speed for 1 in 12 TWS is kmph
 (A) 15 kmph (B) 50 kmph
 (C) 30 kmph (D) 40 kmph
25. Check-rails should be provided on curves having degree.....
 (A) $\geq 8^\circ$ (B) $> 10^\circ$
 (C) $> 6^\circ$ (D) $\geq 4^\circ$
26. The maximum distance covered by a patrolman should not normally exceed
 (A) 10 kms (B) 15 kms
 (C) 20 kms (D) none of these
27. Minimum number of Gate Keepers for Special Class Gate
 (A) 5 (B) 4
 (C) 3 (D) 2
28. Frequency of OMS-2000 recording by OMS – 2000 on routes up to 110 kmph
 (A) Once in a month (B) Once in 2 months
 (C) Once in 6 months (D) None of the above
29. Frequency of TRC run on routes with speeds above 100 kmph & upto 110 kmph is once in months
 (A) 2 (B) 3
 (C) 4 (D) 5
30. Sub structure of a bridge does not include
 (A) Abutment
 (B) Girder/Slab
 (C) Piers
 (D) Wing and Return walls
31. The guard rail is provided in bridges to

- A) Prevent derailment in bridges
 - B) Prevent falling of vehicles during derailment
 - C) Have good riding
 - D) Guide the wheels
32. For a major bridge, the URN would comprise of
- A) Single digit
 - B) Eight digits
 - C) Six digits
 - D) Four digits
33. The scale of daily Requirements of Water Residential area Household consumption for required for Officers and staff per head including flushing requirement is
- A) 120 litres
 - B) 150 litres
 - C) 200 litres
 - D) 220 litres
34. Sizes Of Drawing Sheets for General arrangement drawing is
- A) A0
 - B) A1
 - C) A 2
 - D) None Of the Above
35. Section Engineer (Works) should inspect all the buildings, water supply installations, sewerage installations and drainage arrangements every ,
- A) once a 12 months.
 - B) once a 6 months.
 - C) once a 18 months.
 - D) none of the above.
-
36. Admixtures are added to the concrete for the purpose of
- A) To impart non-shrinkable property
 - B) To improve workability
 - C) To increase setting time
 - D) Any of the above
37. Requirement of Water per head/per day in quarters _____
- (A) 100 litres
 - (B) 200 litres
 - (C) 300 litres
 - (D) 45 litres

38. Minimum residual chlorine available at the farthest end of distribution system of water supply shall be
- A) 0.1mg per litre
 - B) 0.2mg per litre
 - C) 0.5mg per litre
 - D) None
39. Earth work should be compacted so as to obtain value not less than _____ percentage of the maximum dry density.
- (A) 98%
 - (B) 95%
 - (C) 90%
 - (D) 80%
40. Minimum thickness of metal coating of metallization specified in IRBM
- (A) 100 μ
 - (B) 115 μ
 - (C) 120 μ
 - (D) 150 μ

PART "B"

41. Sanction to the estimate is considered as 'Technical sanction' in case of
- A) Abstract Estimate
 - B) Detailed Estimate
 - C) Revised Estimate
 - D) Completion Estimate
42. Minimum notice period for inviting open tenders costing upto Rs.2.00 Crore
- A) 21 days
 - (B) 45 days
 - (C) 10 days
 - (D) None of the above
43. Minimum notice period for quotations
- A) 7 days
 - (B) 10 days
 - (C) 12 days
 - (D) None of the above
44. Two packet tendering system is adopted in case of
- A) Single tender
 - B) Open tender
 - C) Limited tender
 - D) All of the above
45. Pre-vetting of Tender schedule is necessary for
- A) Works where Detailed Estimate is not prepared

- B) Works of urgent nature
 - C) PB items
 - D) All of the above
46. Monetary limit of direct acceptance without Tender committee in open e-tendering
- A) Upto Rs.20 lakhs
 - B) Upto Rs.50 lakhs
 - C) Upto Rs.1.00 Crore
 - D) None of the above
47. PVC is applicable for tenders costing
- A) > 5 crores
 - B) > 10 crores
 - C) > 15 crores
 - D) > 20 crores
48. Tenders received after the specified time of opening are called as
- A) Late tenders
 - B) Delayed tenders
 - C) Single tenders
 - D) None of the above
49. What is LAW?
- A) List of Approved Works
 - B) List of Added Works
 - C) List of Arranged Works
 - D) All of the above
50. A work carried out with Non-Railway Funds
- A) Deposit work
 - B) Quotation work
 - C) Zonal contract
 - D) None of the above
51. Plan Head 3100 denotes
- A) Signalling works
 - B) Track Renewal works
 - C) Other Electrical works
 - D) Traffic facility
52. Plan Head 5100 denotes
- A) Staff quarters
 - B) Other specified works
 - C) Workshops
 - D) Passenger Amenities
53. Plan Head 3200 denotes

- A) Passenger Amenities
 - B) Other Specified works
 - C) Bridge works
 - D) Signal works
54. A Railway Employee can be permitted to avail Encashment of leave on Average pay upto ____ days.
- | | |
|--------|---------|
| (A) 20 | (B) 25 |
| (C) 15 | (D) 10. |
55. In case both the spouses are Government servants, Children education allowance reimbursement can be claimed by _____
- | | |
|-----------------|----------------------|
| (A) Both | (B) Only mother |
| (C) Only father | (D) Only one of them |
56. Transport allowance shall not be admissible to those employees _____
- A) Who have not been provided with the facility of Government transport
 - B) Who are travelling in their personal vehicles
 - C) Who have been provided with the facility of Government vehicle
 - D) None of the above
57. Maternity leave admissible to a female railway employee is ____ days.
- | | |
|---------|---------|
| (A) 140 | (B) 180 |
| (C) 160 | (D) 120 |
58. Power for appointment for Group C on compassionate ground lies with _____
- | | |
|---------|----------|
| (A) GM | (B) SDEN |
| (C) DRM | (D) ADEN |
59. In DAR case, time within which the appeal can be made to appellate authority is ____ days
- | | |
|--------|--------|
| (A) 10 | (B) 30 |
| (C) 15 | (D) 45 |
60. Payment of wages act fixes ____ within which payment must be made.
- A) Duty hours
 - B) The wage period
 - C) Rate of TA
 - D) Rate of OT
61. Study leave cannot be granted to those employees with less than ____ years of service.
- | | |
|-------|-------|
| (A) 3 | (B) 5 |
| (C) 4 | (D) 6 |

62. Group A & Group B officers are entitled for _____ sets privilege passes per year.

- (A) 3
(C) 4
(B) 5
(D) 6

63. Group C employees are entitled for _____ sets privilege passes per year

- (A) 3
(C) 4
(B) 5
(D) 6

64. Under hours of employment regulation, a railway staff working as SSE(PW) is categorized as

- A) Excluded
B) Continuous
C) EI
D) Intensive

65. _____ is issued to revoke an employee from suspension.

- (A) SF-1
(C) SF-2
(B) SF-4
(D) SF-5

66. Standard form _____ is issued for suspension

- (A) SF-1
(C) SF-2
(B) SF-4
(D) SF-5

67. _____ No. of School Check Pass are issued per year.

- (A) 3
(C) 4
(B) 5
(D) 1

68. Paternity leave is granted upto _____ living children.

- (A) 2
(C) 4
(B) 5
(D) 3

69. The percentage of Test check to be done by AEN/XEN in measurement of ballast. Earth work, etc. is

- (A) 100%
(C) 60%
(B) 75%
(D) 50%

70. Re-appropriation of funds from one plan head to another plan head is within the powers of

- (A) DRM
(C) GM
(B) PHOD
(D) Railway Board

PART "C"

71. Unit of Measurement of the Heat is _____
- A) Ampere
 - B) Horsepower
 - C) Joules
 - D) Ohm
72. Unit of Measurement of the Resistance of a Conductor is _____
- A) Ampere
 - B) Horsepower
 - C) Joules
 - D) Ohm
73. Group of programs collectively called.....
- A) Hardware
 - B) Houseware
 - C) Software
 - D) None
74. Full name of CPU is _____
- A) Central power unit
 - B) Central pickup unit

- C) Central processing unit
D) None
75. Temporary memory RAM means _____
A) Read only memory
B) Random and memory
C) Random access memory
D) Read and memory
76. MS Excel is a suitable programme to prepare _____
A) Power point
B) Pay sheet
C) Official letter
D) Photo viewer
77. MS power point is suitable programme to prepare _____
A) Presentation
B) Pay sheet
C) Official letter
D) Photo viewer
78. What is the full form of CAT?
A) Central Administration Tribunal
B) Central Administrative Trade
C) Central Administrative Tribe
D) Central Administrative Tribunal
79. The worst affected City of China, by Corona virus was.....
(A) Beijing (B) Shanghai
(C) Wuhan (D) Hangkong
80. Name of the Lander in Chandrayan-2 lunar mission launched by ISRO is.....
(A) Pragyan (B) Vikram
(C) Sivan (D) Voyager
81. Which of the following is the largest desert?
(A) Kalahari (B) Thar
(C) Sahara (D) Gobi
82. Noble prize for Economics during 2019 was shared by whom?
A) Abhijit Banerjee
B) Raghuram Rajan
C) Amartya Sen

- D) None of the above
83. Which is the highest Gallantry Award in India?
(A) Vir chakra (B) Paramvir Chakra
(C) Kirti Chakra (D) None of the above
84. 2021 Summer Olympic Games were held in which country?
(A) Japan (B) South Korea
(C) China (D) Malaysia
85. The National Monument of India is.....
(A) India Gate (B) Gateway of India
(C) Taj mahal (D) Red fort
86. The first train ran between stations Bori Bunder and.....in the year 1853.
(A) Byculla (B) Calcutta
(C) Colaba (D) Thane
87. Which of the following is a UNESCO World heritage site?
A) Chatrapati Shivaji Maharaj Terminal
B) Elephanta caves
C) Tajmahal
D) All of the above
88. Garba is popular dance form of which state?
(A) Gujarat (B) Kerala
(C) Tamilnadu (D) All of the above
89. The currency of Japan is
(A) Yuan (B) Yen
(C) Taka (D) Ringgit
90. Commissioner of Railway Safety (CRS) works under Ministry of.....
(A) Railways (B) Home
(C) Highway & Road Transport (D) Civil Aviation
91. The sea on the west coast of India is called.....
(A) Mediterranean Sea (B) Bay of Bengal
(C) Arabian Sea (D) North Sea
92. Who had given the theory of evolution of species by natural selections?
A) Charles Darwin
B) Gregory Mendal
C) John Daltan
D) Alfred Russel Wallace
93. Who can be credited with abolishing Sati Pratha?
A) Mahatma Gandhi

- B) Raj Ram Mohan Roy
C) Ram Manohar Lohia
D) Sardar Patel
94. Head quarter of World Health Organization is located in which city?
(A) New York (B) Davos
(C) Berlin (D) Geneva
95. FAS Tag is a facility to?
A) Zoom through toll plaza without paying toll in cash
B) Enter into fast lane on a highway
C) Pay vehicle registration charge online
D) None of these
96. India's first private train service has been introduced between Delhi and.....
A) Mumbai Central
B) Jammu Tawi
C) Lucknow
D) Agra
97. India's first Bullet train project is being constructed between these two cities?
A) Delhi to Mumbai
B) Ahmedabad to Mumbai
C) Delhi to Kolkatta
D) Pune to Mumbai
98. Which to these is the longest river?
(A) Ganga (B) Brahmaputra
(C) Narmada (D) Godavari
99. Who is called father of Indian Space Program?
A) Dr. Abdul Kalam
B) Dr. Sivan
C) Vikram Sarabhai
D) Kalpana Chawla
100. Indane trade name is connected with ____ commodity
A) Tyre
B) Scooter
C) Watch
D) Kitchen gas

101. According to the Constitution of India, the Official Language of the Union will be Hindi and the script will be _____?
(A) Roman (B) Kharosthi
(C) Devnagri (D) Brahmi
102. Which sub-committee of Parliamentary Committee on Official Language inspects Railway offices?
(A) Second Sub Committee (B) Third Sub Committee
(C) First Sub Committee (D) None of the above
103. How many members of Lok Sabha are there in the Parliamentary Committee on Official Language constituted under section 4 of the Official Language Act?
(A) 5 (B) 10
(C) 15 (D) 20
104. How many members of Rajya Sabha are there in the Parliamentary Committee on Official Language?
(A) 5 (B) 10
(C) 15 (D) 22
105. Which Schedule of the Constitution mentions about the Official Languages of the state? (A) Seventh (B) Eighth
(C) Ninth (D) Tenth
106. In which year was the Official Language Act passed?
(A) 1961 (B) 1962
(C) 1963 (D) 1968
107. Under which section of the Official Language Act, some documents are compulsorily prepared, issued in both Hindi and English languages?
(A) Section 3(1) (B) Section 3(2)
(C) Section 3(3) (D) Section 4
108. Who is empowered to make rules to implement the Official Language Act?
(A) Central Government (B) State Government
(C) Governor (D) None of the above
109. During which year the first amendment to the Official Language Act was made?
(A) 1964 (B) 1965
(C) 1966 (D) 1967
110. In which year the President's orders regarding the Official Language were issued on 27 April?
(A) 1955 (B) 1960
(C) 1962 (D) 1965

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical tools employed.

3. The third part of the document presents the results of the study, including a comparison of the different methods and a discussion of the factors that influence the outcomes. It also includes a table of the key findings.

4. The fourth part of the document discusses the implications of the study and the potential applications of the findings. It also includes a conclusion and a list of references.

5. The fifth part of the document provides a summary of the key points and a final conclusion. It also includes a list of references and a table of the key findings.

6. The sixth part of the document discusses the limitations of the study and the need for further research. It also includes a list of references and a table of the key findings.

7. The seventh part of the document provides a final summary and a list of references. It also includes a table of the key findings.

8. The eighth part of the document discusses the future directions of the research and the potential impact of the findings. It also includes a list of references and a table of the key findings.

9. The ninth part of the document provides a final summary and a list of references. It also includes a table of the key findings.