



**SOUTHERN RAILWAY**  
**TIRUCHCHIRAPPALLI DIVISION**

**Selection for the Post of Junior Engineer/Works in Level-6 VII PC Pay Matrix against 25% Quota in  
Engineering Department**

**Date: 09.06.2023**

**Time: 2 hours**

**Maximum Marks: 100**

**INSTRUCTIONS**

1. Question paper contains 110 objective questions for which candidates shall choose the best answer. Out of 110 questions 10 will be from Official language and policy matters. The written examination will be conducted in Pen and Paper test mode. Answers shall be written as one of the following like **A, B, C or D**. Only Capital letters A/B/C/D should be used and not the lower case.
2. All the questions carry equal marks. Full answers need not be written. Candidate can choose any of the 100 questions of their choice and answer carefully. Questions repeatedly answered or no. of questions answered more than first 100, will not be evaluated. Answer to all questions to be written in the answer sheet only.
3. There will be "**No Negative Marking**" for the wrongly answered questions.
4. Any over writing or erasing or correction for answers of objective type questions is not permitted and such answers shall not be evaluated at all.
5. No calculator or electronic gadget or logarithm tables or mobile phones are allowed in the examination hall. A candidate found with any kind of such objectionable material with him/her will be strictly dealt, as per rules.
6. Except on Fly leaf, Name or roll number should not be written anywhere in the answer sheet. If the name of the candidate or roll number found in any other place other than the flyleaf, the answer book will not be valued.
7. Answering questions related to Official Language and policy matters is not compulsory.

1. IS code for Specification for ordinary Portland cement is  
(A) 456                      (B) 269                      (C) 476                      (D) none of these
2. Height of high-Level Platform should be:  
(A) 405mm  
(B) 305mm  
(C) 455mm  
(D) 760mm mm above R.L (840mm mm above in case of Suburban Stations & in cutting)
3. Purpose of Disinfection of water is done to:  
(A) Kill Bacteria  
(B) Remove Odour  
(C) Remove turbidity  
(D) All of the above
4. In a cantilever beam, the bending moment will be zero at:  
(A) fixed end                      (B) free end                      (C) mid-span                      (D) not possible
5. Generally, Lintel level should be kept at:  
(A) 1.5m above Floor Level                      (B) 2.5m above floor Level  
(C) 2.1m above floor level                      (D) 3.00m above floor Level
6. Scaffolding is a type of:  
(A) Slab                      (B) Beam                      (C) Staging                      (D) none of these
7. Test for Workability of Concrete is:  
(A) Slump test                      (B) Compaction factor test.  
(C) Vee-bee test                      (D) All of the above
8. CE/RSW stands for:  
(A) Chief Engineer/Railway safety works  
(B) Chief Engineer/Road safety works  
(C) Chief Engineer/Railway security works  
(D) Chief Engineer/Railway specification works
9. The nominal size of modular Bricks is :  
(A) 23cmX11.4cmX7.6cm                      (B) 20cmX10cmX10cm  
(C) 19cmX9cmX9cm                      (D) none of these
10. In bridge works, LUS stands for :  
(A) Lower use subway                      (B) Limited use subway  
(C) Land use subway                      (D) None of these

11. "NIT" stands for :  
(A) Non-interlocked Terminal (B) Notice Indenting Tender  
(C) Notice Inviting Tender (D) National Informatics & Telecommunication
12. 'Liquid Limit' is used for :  
(A) Concrete quality (B) water quality (C) Soil properties (D) Paint quality
13. Plan head 53 and 64 is for the works of :  
(A) Track Renewals, Bridge works  
(B) Traffic facilities, Doubling  
(C) Machinery and Plant, Staff welfare  
(D) Passenger & Other Railway User's Amenities, Training/HRD
14. National Rail Museum located in :  
(A) Mumbai (B) New Delhi (C) Hyderabad (D) Mysore
15. Wooden Windows and doors are generally painted with  
(A) Aluminium paint (B) Synthetic enamel paint  
(C) Epoxy paint (D) Red Oxide Paint
16. Retaining wall is used for  
(A) Used as Dams (B) Retaining Water (C) Retaining Earth (D) none of these
17. Cement Grouting in Bridges is mainly done when  
(A) Hair Cracks are noticed (B) to fix loose bricks  
(C) Water is flowing over danger level (D) none of these
18. Maximum Distance of platform Coping from Centre Line of Track should be :  
(A) 1670mm (B) 1680mm (C) 1700mm (D) 1720mm
19. Bed Block is a component used in  
(A) Foundation (B) Abutment & Pier of bridge  
(C) high rise buildings (D) none of these
20. Structural Steel Members are generally painted  
(A) For beautification purpose (B) to prevent them from Corrosion  
(C) to prevent them from termite attack (D) none of these
21. Petty repair book is maintained at  
(a) Each Station (B) Each office (C) Each Workshop (D) Each Colony
22. Silt & Clay are termed as  
(A) fine grained Soil (B) Coarse grained Soil  
(C) In-Organic Soil (D) none of these
23. The end supports of a bridge is called  
(A) Pier (B) Abutment (C) Parapet Wall (D) none of these

24. Plaster of Parris is applied on  
(A) Walls (B) Wooden doors and Window (C) both A&B (D) none of these
25. Manhole is  
(A) A opening in a underground sewer or drain (B) A opening in Water Tanks  
(C) both A&B (D) none of these
26. Which Roofing sheet is more durable  
(A) Asbestos Sheet (B) CGI Sheet  
(C) Aluminium Sheet (D) none of these
27. Full form of RDSO is  
(A) Research Design and Standard Organization  
(B) (B)Railway Design and Standard Organization  
(C) Research Drawing and Standard Organization  
(D) (D) Research Design and Safety Organization
28. Full form of B.O.D  
(A) Bio- Chemical Oxygen Demand (B) Bio Oxygen Demand  
(C) Bio technique Demand (D) none of these
29. Bentonite is used in pile driving to .....the bore hole walls.  
(a) loose (B) stabilize (C) reduce the friction (D) none of these
30. In Mix Design of Concrete M-10, M-15, M-20, M-25 "M" Refers to Mix and the number specify  
(A) Compressive Strength (B) Tensile Strength  
(C) Both A&B (D) none of these
31. Slenderness Ratio is ratio of  
(A) Radius of gyration to its effective length of column  
(B) Effective length of column to it width  
(C) Effective length of column to its radius of gyration  
(D) None of these.
32. Workability of a concrete means  
(A) The ease by which concrete mortar can be mixed, placed  
(B) the man power required in concreting work  
(C) the maximum weight of concrete a person can lift  
(D) none of these
33. OPC-43, OPC-53, PPC are types of  
(A) Steel (B) Paint (C) Cement (D) none of these
34. Water absorption of well burnt brick should not absorb water more than ..... percent of its dry weight after 24 hours immersion in cold water  
(A) 5% (B) 10% (C) 20% (D) 30%

35. Venturi meter is used for  
(A) Measuring rate of flow in pipes  
(B) Measuring pressure in pipes  
(C) both A&B  
(D) none of these
36. Full form of H.D Bolts  
(A) High Density Bolts (B) Holding Down Bolts  
(C) Heavy Density Bolts (D) none of these
37. Main cause of roof leakage during rainy season in buildings are  
(A) Rain water pipe not clean  
(B) Dumped material on roofs causing water stagnation  
(C) improper slope of roofs  
(D) all of these
38. Durability of concrete is defined as ability to resist  
(A) Weathering action (B) Chemical attack (C) Abrasion (D) all of these
39. Responsibility of Cleaning of Waterway of Bridges is laid upon  
(A) SSE/Works (B) SSE/P-Way (C) SSE/Bridge (D) none of these
40. In surveying B.M is termed as  
(A) Back Marking (B) Bench mark (C) Big margin (D) none of these
41. Water and Sewage pipe line should have min. Separation of  
(A) 2m (B) 2.5m (C) 3m (D) 5.0m
42. By increasing the W/C (Water/Cement) ratio of concrete strength of concrete  
(A) Increases (B) Decreases (C) no affect (D) none of these
43. Water having pH value less than 7 indicates:  
(a) Acidic (B) Base (C) Neutral (D) none of these
44. Guniting is a process in which  
(A) Concrete is sprayed in pressure over existing concrete structure.  
(B) Concrete is poured slowly over the surface.  
(C) both A&B  
(D) none of these
45. The water is flowing from 40mm dia pipe line into 50mm dia pipe, the pressure of water will  
(A) Decrease (B) Increase (C) remain same (D) none of these

46. Plinth Protection is provided  
(A) above Plinth (B) Inside Building  
(C) Outside Building (D) none of these
47. What is full form of MSL  
(A) Mean Shore Level (B) Mean Sea level (C) Mean Sill Level (D) none of these
48. Camber in Steel Bridges is provided to  
(A) Compensate for deflection under load  
(B) To drain out water  
(C) both A&B  
(D) none of these
49. Final Setting time of concrete should not be less than  
(A) 1 hour (B) 5 hour (C) 8 hour (D) 10 hour
50. Columns are designed to transfer  
(A) Compressive Load (B) Tensile load (C) both A&B (D) none of these
51. In Measurement Book  
(A) Measurement of Work done by Agency done is recorded  
(B) Measurement of work done by staff is recorded.  
(C) Measurement of work done by other department is recorded  
(D) none of these
52. Foundation recommended having black cotton soil near any river is :  
(A) Raft (B) Strap (C) Pile (D) none of these
53. Distance of Platform Wall from Centre line of Track should be :  
(A) 1900mm (B) 1905 (C) 1910mm (D) 1920mm
54. Unit for measuring reinforcement Steel is :  
(A) Kilogram/Metric Tonne (B) meter (C) square meter (D) none of these
55. Pot Holes are noticed in  
(A) Kitchen (B) Bathrooms (C) Road surface (D) none of these
56. Test is conducted on Bricks are  
(A) Absorption Test (B) Hardness Test  
(C) Crushing Strength Test (D) All of these
57. What is full form of SOD?  
(A) Senior most of Department (B) Schedule of Dimension  
(C) Science of deviation (D) none of these

58. Full form of HYSD bars is :  
(A) High Yield strength developed bars (B) High yield strength deformed bars  
(C) High Yield Saturated deformed bars (D) none of these
59. Where is Acid proof tiles generally used in Railways ?  
(A) In Kitchens (B) In Toilets (C) In Battery Room (D) none of these
60. Section Modulus importance is that it is direct measure of  
(A) Strength of beam (B) Strength of Column (C) both A&B (D) none of these
61. What is the Vertical wall of a well foundation called ?  
(A) Retaining Wall (B) Wing Wall (C) Steining (D) none of these
62. Full form of TMS  
(A) Track management system (B) Train management System  
(C) Theodolite Maintenance System (D) none of these
63. Disinfection of water is done just  
(A) Before supply (B) before filtration  
(C) before sedimentation (D) none of these
64. Floor which is considered to be non slippery :  
(A) Granite floor (B) Kota floor (C) Mastic Floor (D) none of these
65. Riser and Tread are component of  
(A) Taps (B) Wash Basin (C) Stairs (D) none of these
66. Portico is provided at  
(A) Waiting Hall  
(B) Entry/Exit of Main building  
(C) Gardens  
(D) none of these
67. Constituents of Soil are :  
(A) Air (B) Water (C) Solids (D) all of these
68. Effective Span in termed as  
(A) Clear Distance between tow supports  
(B) Centre to Centre distance of bearing  
(C) Overall length of the Girder  
(D) none of these
69. SSE/Works inspects Bridge:  
(A) Before Monsoon (B) After Monsoon (C) During Monsoon (D) None of these

70. Curing of Concrete can be done by  
(A) Ponding method  
(B) Sprinkling of Water  
(C) Steam Curing  
(D) All of these
71. In Island Platform how many trains can stop at a time?  
(A) One (B) Two (C) Three (D) four
72. Where is Float Gauges provided?  
(A) In Bridges (B) In Rivers (C) In Pond (D) High level Storage Tanks
73. Minimum Residual Chlorine available at farthest point as per IRWM-2000 should be  
(A) 0.1PPM (B) 0.2PPM (C) 0.5PPM (D) 1.0PPM
74. Electro chlorinator machine is used for  
(A) Welding Purpose (B) Disinfection of Water  
(C) Concreting Purpose (D) none of these
75. Full form of RAW is  
(A) Rain Area Water (B) Railway Affecting Works  
(C) Reservoir area wall (D) none of these
76. Weight of one bag of Cement is :  
(A) 75Kg (B) 100Kg (C) 50Kg (D) 25Kg
77. Unit for measurement of Earth Work is :  
(A) Sqm (B) Cum (C) m (D) none of these
78. Pointing is done on  
(A) Roofs (B) Brick Work (C) Doors (D) Windows
79. Where is skirting or dado provided  
(A) On walls just over floor level or ground level (B) on top of roofs  
(C) on doors (D) on windows
80. Traps are used in household drainage to  
(A) Prevent entry of foul gases in the house (B) restrict the flow of water  
(C) provide partial vacuum (D) trap the solid waste
81. CC Cribs are used for  
(A) Making Scaffolding and for supporting girders etc. (B) for decorative work  
(C) for piling Work (D) none of these

82. Full form of TMT bars  
(A) Thermal Monitored Treated Bars (B) Thermo Mechanically Treated Bars  
(C) Thermo Mixed Titanium Bars (D) none of these
83. Where is Sink used ?  
(A) On Roof top (B) In Kitchen (C) On floor (D) none of these
84. Contour line are  
(A) Line of map joining points of equal height above or below sea level  
(B) Line of map joining points of unequal height above or below sea level  
(C) both A&B  
(D) none of these
85. Bearing is placed over  
(A) Abutment (B) Pier (C) Bed block (D) all of these
86. What is the Full form of RMC in concreting work :  
(A) Rapid Mix Concrete (B) Ready Moist Concrete  
(C) Ready Mix Concrete (D) none of these
87. Why Cube Test is done?  
(A) To determine the compressive strength of Concrete  
(B) To determine the Void present in the concrete.  
(C) to determine the tensile strength of concrete  
(D) none of these
88. Manholes cover is generally made up of :  
(A) Cast iron (B) Mild Steel (C) PVC (D) none of these
89. Bonds in Brick Work are  
(A) English bond (B) Flemish bond (C) both A&B (D) none of these
90. Stock verification in SSE/Works Store is done once in  
(A) One year (B) Two year (C) Three year (D) none of these
91. Full form of AGM  
(A) Additional General Manager (B) Assistant General Manager  
(C) both A & B (D) none of these
92. Modern Instruments used in Surveying for taking difference in level between two points (Stations) is  
(A) Compass (B) Auto level (C) Binoculars (D) Dumpy Level
93. Blistering is a defect noticed on  
(A) Plastered Surface (B) on Granite flooring (C) on Bridges (D) none of these

94. Water of Open Well is  
(A) Soft Water (B) hard Water (C) Saline Water (D) None of these
95. In Arch Bridge, crown is at  
(A) Centre of Arch (B) Springing Level  
(C) Bed Level of Bridge (D) none of these
96. Top most official of Engineering Department in Zonal Railway (Open Line)  
(A) Sr. DEN/Co-ordination (B) Chief Administrative Officer  
(C) Principal Chief Engineer (D) none of these
97. Oiling and Greasing of Bearing is done under supervision of  
(A) SSE/Works (B) SSE/Bridge (C) SSE/P-Way (D) All of these
98. Which part of the constitution contains provisions regarding Official Language  
(A) Part XVII (B) Part XVI (C) Part XIX (D) None of above
99. QAP full form is :  
(A) Quick Action Plan (B) Quality Assurance Plan  
(C) Quality Approve Procedure (D) Quality Action Plan
100. Full form of IR-USSOR is  
(A) Indian Railway Union Standard Schedule of Rates  
(B) Indian Railway Universal Standard specification of Rates  
(C) Indian Railway Unified Schedule standard of Rates  
(D) Indian Railway Unified Standard Schedule of Rates
101. Maternity Leave is of  
(A) 120 days (B) 135 days (C) 180 days (D) 200 days
102. When was Official Languages Rules passed?  
(A) 1978  
(B) 1980  
(C) 1960  
(D) 1976
103. When is "Hindi Day" celebrated every year  
(A) 14<sup>th</sup> Sep  
(B) 30<sup>th</sup> Sep  
(C) 16<sup>th</sup> Sep  
(D) 20<sup>th</sup> Sep
104. How many chapters are there in Part XVII of the Constitution?  
(A) 4 (B) 6 (C) 10 (D) 5
105. The Capital of Assam is

- (A) Dispur (B) Itanagar (C) Aizwal (D) Shilong
106. Which article of the constitution contain provision regarding the official language of Union of India?  
(A) 345 (B) 340 (C) 350 (D) 343
107. Head Quarter of East Central Railway  
(A) Patna (B) Maliagoan, Guwahati (C) Kolkata (D) Danapur
108. The Capital of Chattisgarh is  
(A) Bilaspur (B) Raipur (C) Durg (D) Bhilai
109. CRS (Commissioner of railway Safety) comes under which ministry  
(A) Ministry of railways (B) Ministry of defence  
(C) Ministry of Civil Aviation (D) Ministry of Home Affairs
110. How many articles are there in the Part XVII of the Constitution?  
(A) 5 (B) 7 (C) 9 (D) 10

End of Paper

