पूर्व तट रेलवे

प्रश्न पुस्तिका

(सवारी डिब्बा मरम्मत कारखाना/मंचेश्वर के यांत्रिक विभाग में 25% एलडीसीई के तहत पे मैट्रिक्स लेवल -6 और 7 वें पीसी में कनिष्ठ अभियंता (डब्ल्यूएस) के पद के लिए परीक्षा।

परीक्षा का दिनांक: 21.03.2021

पूर्णांक: 100

समय: 2 घंटा

प्रश्नों का उत्तर देने से पहले, कृपया निम्नलिखित निर्देशों को ध्यान से पढ़ें

1. परीक्षार्थीको सलाह दी जाती है कि वे अपना नाम, पदनाम, परीक्षा का विवरण आदि अपने हाथ से लिख कर केवल आवंटित

   भाग - A के ओएमआर शीट में लिखें और आपको विवरण और अन्य कोई संकेत कहीं और न लिखें।

2. उत्तर केवल OMR उत्तर पुस्तिका पर अंकित किए जाने हैं।
3. हर एक प्रश्न में एक मार्क होता है।
4. चार उत्तर विकल्पों के साथ वस्तुनिष्ठ बहुविकल्पीय प्रकार के 110 प्रश्न हैं और परीक्षार्थी को अधिकतम 100 प्रश्नों का उत्तर देना है।
5. यदि परीक्षार्थी 100 से अधिक प्रश्नों के उत्तर देता है, तो प्रथम 100 प्रश्नों का मूल्यांकन किया जाएगा।
6. उत्तर में किसी भी प्रकार की कटाई, ओवरराइटिंग, मिटाना या परिवर्तन स्वीकार नहीं किया जाएगा और पुन: सुधार / ओवरराइटिंग कर जवाब देने के लिए शून्य अंक दिए जाएंगे।
7. गलत उत्तरों के लिए नकारात्मक अंकन होगा। प्रत्येक प्रश्न के लिए आवंटित अंकों का एक तिहाई गलत उत्तरों के लिए काट दिया जाएगा।
8. किसी भी संदेह का स्पष्टीकरण के लिए परीक्षा शुरू होने के 15 मिनट के भीतर पूर्ण की जाने की सलाह दी जाती है। उसके बाद किसी भी प्रकार का संदेह का निवारण नहीं किया जाएगा।
9. OMR शीट पर दिए गए निर्देशों का अक्षर और भाव में पालन किया जाना चाहिए
10. केवल नीले या काले बॉल पॉइंट पेन का ही उपयोग करें। जेल पेन / पेंसिल का उपयोग मान्य नहीं है।
11. परीक्षार्थियों को मोबाइल फोन / कैलकुलेटर / इलेक्ट्रॉनिक गैजेट अपने साथ परीक्षा हॉल में लाने की अनुमति नहीं है। किसी भीकागज का, गणना मशीनों और मोबाइल फोन आदि का उपयोग पूरी तरह से निषिद्ध है और वे इसका उपयोग करने पर अयोग्य हो जाएंगे।
12. एक बार प्रदान की गई OMR शीट को किसी भी परिस्थिति में प्रतिस्थापित(परिवर्तित) नहीं किया जाएगा।
13. अनुचित साधनों का उपयोग करने वाले उम्मीदवारों को डी एंड ए नियमों के तहत संसाधित किया जाएगा और चयन प्रक्रिया से हटा दिया जाएगा।
14. इस प्रश्न पत्र में प्रश्नों के अनुवादित संस्करण में किसी भी विसंगति के मामले में, अंग्रेजी भाषा संस्करण का अर्थ प्रबल होगा।

East coast railway

Question booklet

(Examination for the post of JE (WS) in pay matrix Level-6 of 7th PC against 25% LDCE in Mech. Deptt. Of CRW/MCS)

Dt of examination: 21.03.2021

Total Marks : 100

Time : 2 Hrs

Pleas read the following instructions carefully before you begin to answer the questions

1. Candidates are advised to write their name , designation , examination details etc. in their hand writing only in the allotted space of Part – A of the OMR sheet and do not write thee details and any other indications elsewhere.
2. The answers are to be marked on OMR answer sheet only.
3. Each question carry one mark.
4. There are 110 questions of objective multiple choice type with four answers options and the examinee has to answer a maximum of 100 questions.
5. In case the examinee answers more than 100 questions , first 100 attempted questions will be taken for evaluation.
6. Cutting, overwriting, erasing or alteration of any type in answer will not be accepted and zero marks will be given for answering having correction/ overwriting.
7. There shall be negative marking for incorrect answers. One third of the marks allotted for each question will be deducted for wrong answers.
8. Examinee are advised to go through the complete questions within 15 min of start of examination for any doubts clarification. After that no doubts are entertained.
9. The instructions laid down on the OMR sheet should be followed in letter and spirit
10. Only use blue or black ball point pen only. The use of gel pen / pencil is not valid.
11. The examinees are not allowed to bring mobile phones / calculator / electronic gadgets with them to the examination hall. Use of any paper, calculating machines and mobile phones etc. is completely prohibited and they will be disqualified for using it.
12. The OMR sheet once provided will not be replaced under any circumstances.
13. Candidates using unfair means will be processed under D&A rules and will be removed from the selection process.
14. In case of any discrepancy in translated version of questions in this paper, the meaning of the English language version shall prevails.

1. आर्क वेल्डिंग में, आंखों को संरक्षित करने की आवश्यकता होती है [ ]
ए। तीव्र चकाचौंध
बी। अवरक्त किरणों
सी। पराबैंगनी किरणों
डी। इन्फ्रारेड किरणें और यूवी किरणें

2. इलेक्ट्रोड को कोटिंग करने के लिए उपयोग की जाने वाली सामग्री को कहा जाता है [ ]
ए। सुरक्षा करने वाली परत
बी लावा
सी। डी-ऑक्सीडाइज़र
डी फ्लक्स

3. आर्क वेल्डिंग में इलेक्ट्रोड व्यास के चयन के लिए मुख्य मानदंड है [ ]
ए। सामग्री को वेल्डेड किया जाना है
बी। वेल्डिंग प्रक्रिया का प्रकार
सी। सामग्री की मोटाई
डी। वोल्टेज का इस्तेमाल किया

4. आर्क वेल्डिंग प्रक्रिया में वर्तमान मूल्य द्वारा तय किया जाता है [ ]
ए। इलेक्ट्रोड का आकार
बी। वेल्डिंग की लंबाई
सी। प्लेट की मोटाई
डी। वेल्डिंग की गति

5. वेल्डिंग में विकृति के कारण होता है [ ]
ए। अत्यधिक करंट का उपयोग
बी। अनुचित क्लैंपिंग के तरीके
सी। गलत इलेक्ट्रोड का उपयोग
डी। वेल्ड पूल का ऑक्सीकरण

6. निम्नलिखित में से किस प्रकार की लौ में, एसिटिलीन के साथ ऑक्सीजन समान अनुपात में है? [ ]
ए। तटस्थ लौ
बी। आंच को तेज करना
सी। कारबोरेजींग लौ
डी। दोनों ऑक्सीडाइज़िंग फ्लेम और काब्र्युराइज़िंग फ्लेम

7. आर्क वेल्डिंग में, निम्न क्रम का तापमान उत्पन्न हो सकता है [ ]
ए। 1000 ^{0} सी.
बी।1500 ^{0} सी.
सी। 5500 ^{0} सी.
डी। 8000 ^{0}सी.

1. In arc welding, eyes needs to be protected against [ ]
   a. Intense glare
   b. Infrared rays
   c. UV rays
   d. Infrared rays and UV rays

2. The material used for coating the electrode is called [ ]
   a. protective layer
   b. slag
   c. deoxidizer
   d. flux

3. The main criteria for selection of electrode diameter in arc welding is [ ]
   a. Material to be welded
   b. Type of welding process
   c. Thickness of material
   d. Voltage used

4. In Arc welding process the current value is decided by [ ]
   a. Size of electrode
   b. Length of welding
   c. Thickness of plate
   d. Speed of welding

5. Distortion in welding occurs due to [ ]
   a. use of excessive current
   b. improper clamping methods
   c. use of wrong electrode
   d. oxidation of weld pool

6. In which of the following type of flame, oxygen is of same proportion with acetylene? [ ]
   a. Neutral flame
   b. Oxidizing flame
   c. Carburizing flame
   d. Both oxidizing flame and carburizing flame

7. In arc welding, temperature of the following order may be generated [ ]
   a. 1000 ^{0}C
   b. 1500 ^{0}C
   c. 5500 ^{0}C
   d. 8000 ^{0}C

8. arcwelding uses following electric supply [ ]
   a. AC
   b. DC
   c. Both AC and DC
   d. None of the above

9. Which flame is suitable for cutting operations? [ ]
   a.Oxidising flame
   b.Carburisingflam
   c.Neutral flame
   d.None of the above

10. To resist rolling motion of coach, the following is provided in LHB coach [ ]
   a. Axle bearing
   b. Anti roll bar
   c. Vertical dampers
   d. Yaw dampers

11. LHB coach Roof structure, side wall and end wall are made of [ ]
   a. Corten steel
   b. Mild steel
   c. ferritic stainless steel.
   d. High carbon steel

12. LHB coach offers better passenger safety due to: [ ]
   a. Use of fire retardant materials for furnishing.
   b. Provision of emergency open able windows.
   c. Vertically interlocked Centre Buffer Couplers.
   d. All of the above

13. one micron is equal to [ ]
   a. 1mm
   b. 0.1mm
   c. 0.01mm
   d. 0.001mm

14. A feeler gauge is used to check [ ]
   a.Radius
   b.Screw pitch
   c.Surface roughness
   d.clearance between two parts

15. Which process is used for repairing of tracks and spokes of driving wheels? [ ]
a. Electroslag welding
b. Plasma arc welding
c. Thermit welding
d. Electron beam welding

16. LHB coaches have been provided with [ ]
a. AAR-C type CBC
b. AAR-D type CBC
c. AAR-H type CBC
d. AAR- E type CBC

17. What is the maximum limitation of Leave Not Due granted on medical certificate during the entire period of service? [ ]

a. 360 days
b. 365 days
c. 370 days
d. 390 days

18. What is the maximum period of leave on Average pay at time that a Railway servant may be granted? [ ]
a. 120 days
b .160 days
c. 180 days
d. 300 days

19. When no leave is admissible under any other rule, the leave granted is known as [ ]

a. LAP
b. LHAP
c. SPL Leave
d. Extra ordinary leave.

20. How many days of LHAP can be accumulated to an employee in his service life? [ ]

a. 300 days
b. 450 days
c. 600 days
d. Un limited

21. LAP shall be credited to a Railway servant at the rate of [ ]

a. 2 ½ days per month
b. 3 days per month
c. 2 days per month
d. 1 ½ days per month

22. Paternity leave is admissible with less than two surviving children for a period of [ ]

a. 10 days
b. 20 days
c. 15 days
d. 25 days

23. The Phonic Wheel screws should be tightened with [ ]

a. 25 N-m
b. 21 N-m
c. 22 N-m
d. 50 N-m

24. The torque required to tighten the locking plate of CBC of LHB coach is [ ]

a. 100 N-m
b. 200 N-m
c. 300 N-m
d. 400 N-m

25. Brake disc diameter of FIAT bogie [ ]

a. 605 mm
b. 650 mm
c. 640 mm
d. 604 mm

26. The air gap between the rotating gear and sensor of Speed Sensor of the LHB coach is [ ]

a. 0.4 to 14 mm.
b. 1 to 1.4 mm.
c. 0 to 5 mm.
d. 0.4 to 1.4 mm.

27. While attending welding repair of underframe of LHB coaches, If DC welding machine is used then, electrode is to be connected with [ ]

a. +ve terminal of the machine.
b. -ve terminal of the machine
c. Not to connect any terminal
d. None of the above

28. Height of CBC of a Workshop out LHB coach under its tare condition should be [ ]
   a. 1090 to 1105
   b. 1030 to 1105
   c. 1030 to 1090
   d. 1000 to 1105

29. Electrodes used for Welding For Cracks on Sole Bar of LHB Coach [ ]
   a. D-2
   b. A-2
   c. C -2
   d. E- 2

30. Under frame components of LHB coaches shall require to repair / replace when [ ]
   a. If it has lost more than 40% of it's thickness.
   b. If it has lost more than 50% of it's thickness.
   c. If it has lost more than 10% of it's thickness.
   d. If it has lost more than 20% of it's thickness.

31. Attendant as defined in pass rules means [ ]
   a. Any relative of the employee
   b. A person employed in house hold works of an employee
   c. A person exclusively employed on salary in the personal service of a Railway Servant
   d. None of the Above

32. Which No. of standard form is used for issuance of Major penalty charge sheet on disciplinary proceedings? [ ]
   a. SF-11
   b. SF-5
   c. SF-5
   d. None of these

33. Where appointing authority are not available who should be treated as appointing authority? [ ]
   a. Controlling Officer
   b. DRM
   c. GM
   d. CPO

34. When casual labours can be governed under the Railway disciplinary rules? [ ]
   a. After 4 months from engagement date
   b. After 6 months from engagement date
   c. After attaining temporary status
   d. After regular absorption

35. When a Rly. Employee placed under suspension but only a minor penalty is imposed, the treatment of the suspension period is as [ ]
   a. Dies non
   b. Non duty
   c. Duty
   d. None

36. A Railway servant shall be deemed to have been placed under suspension if he has been put in police custody for a period? [ ]
   a. exceeding 24 hours
   b. exceeding 48 hours
   c. immediate effect
   d. none

37. The following are not in penalty under D&A Rules? [ ]
   a. Censure
   b. Warning
   c. Stoppage of pass
   d. The recovery from pay of any pecuniary loss

38. Which of the following person is not allowed to be engaged as defense counsel? [ ]
   a. A serving Rly. Employee
   b. A retired Rly. Employee
   c. A legal petitioner
   d. A trade union official

39. Which authority to cut in pensionary benefit [ ]
   a. GM
   b. Rly.Board
   c. President of India
   d. None

40. When inquiry is not necessary? [ ]
   a. Charges admitted by CO
   b. Charges not admitted by CO
   c. Charges prepared by DA.
   d. None of these.

41. ……..Metal used in boiler safety plug. [ ]
   a. Brass
   b. Zink
   c. Lead
   d. Copper

42. .....test is being used to detect internal faults of the Axles [ ]
   a. Hardness
   b. UST
   c. DPT
   d. None of them

43. ---------- is the highest authority of Mechanical Department in Zonal Railway. [ ]
   a. PCME
   b. CME/Plg
   c. CRSE
   d. CMPE

44. ---------- hardness increased in case hardening. [ ]
   a. External
   b. Internal
   c. Full
   d. None of them

45. AAC is for ..... item . [ ]
   a. Stock
   b. Non stock
   c. Imported items
   d. Emergency items

46. ..... type of defects can be detected in DPT test? [ ]
   a. Surface
   b. Internal
   c. Hardness
   d. None of them

47. Machine is used to manufacturing gear teeth..... [ ]
   a. Lathe
   b. Milling
   c. Grinding
   d. Slotting

48. POH of ICF Coach is done at the interval of ----------month. [ ]
   a. 24
   b. 12
   c. 18
   d. 30

49. Minimum buffer height of coach from Rail level is ----------mm. [ ]
   a. 1030
   b. 1105
   c. 900
   d. 1075

50. Minimum Flange thickness in worn wheel profile is ----------mm. [ ]
   a. 22
   b. 16
   c. 25
   d. 20

51. No. of brake cylinders in one LHB coach are ..... [ ]
   a. 08
   b. 04
   c. 18
   d. 16

52. SS-II schedule of LHB coach is done in the interval of.....months. [ ]
   a. 12
   b. 18
   c. 36
   d. 48

53. Axle Load of AC coach is ---------- Ton. [ ]
   a. 16.25
   b. 13.35
   c. 20.35
   d. 18.35

54. Primary suspension used in fiat bogie is.....
    a. Double-nest coil spring
    b. single-nest coil spring
    c. shock absorber
    d. None of these. [ ]

55. Coaching stock accident involving human life enquiry by-
    a. PCME
    b. CRS
    c. Sr.DME
    d. ADRM [ ]

56. What do you mean by FRP?
    a. Fibre recalling panel
    b. Fibre reinforced plastic
    c. First reduction plastic
    d. Fine reinforced panel [ ]

57. How the weight of the body is transferred on trolley in ICF coach?
    a. Journal
    b. Wheel
    c. Side bearer
    d. Dashpot [ ]

58. The draw & buffing force transmission in coach is through –
    a. Centre pivot
    b. Bogie
    c. Side bearer
    d. Wheel [ ]

59. Sole bar of ICF coach consists of –
    a. Z section
    b. I section
    c. Y section
    d. U section [ ]

60. What is co lour code of „B" group coil spring is –
    a. Oxford blue
    b. White
    c. Green
    d. Yellow [ ]

61. Which of the following is not a statutory welfare facility under the Factories Act, 1948? [ ]
   a. Crèche
   b. Canteen
   c. Transport
   d. First-Aid Boxes

62. Under the Factories Act, 1948 the working hours of 8 per day and 48 per week [ ]
   a. Include spread over.
   b. Are minimum working hours
   c. Include rest interval period.
   d. Do not include rest interval period.

63. A person who has ultimate control over the affairs of the factory under Factories Act, 1948 is called as [ ]
   a. Occupier
   b. Manager
   c. Chairman
   d. Managing Director.

64. Purchase of imported WTA items is handled by [ ]
   a. RWF
   b. ICF
   c. Zonal Railways
   d. Railway Board

65. Time elapsed from the date of realization of need of recoupment to the physical receipt of material is termed as [ ]
   a. Buffer time
   b. Interim period
   c. Contract period
   d. Lead time

66. For household wiring and small units, the following should be used for safety measure [ ]
   a. MCB
   b. ACB
   c. OCB
   d. MCCB

67. Decibel (db) is a unit used to measure [ ]
a. Light
b. Sound
c. Frequency
d. None of the above

68. The following is (are) used as safety device(s) in machines [ ]
a. Fail safe
b. Safety interlocks
c. Limit switches
d. All of the above

69. Class-A fire consists of fire due to [ ]
a. Wood
b. Oil
c. Transformer
d. Chemical

70. The following class of fire occur in electrical equipment [ ]
a. Class-A fires
b. Class-B fires
c. Class-C fires
d. All of the above

71. The type of bearing that can carry thrust and radial loads is? [ ]
a. tapered roller
b. loose needle roller
c. staggered roller
d. cylindrical roller

72. Lathe mandrels can be termed as a? [ ]
a. Gauge
b. Jig
c. Template
d. Fixture

73. The chief alloying element of stainless Steel are? [ ]
a. Chromium and nickel
b. Chromium and tungsten
c. Nickel and vanadium
d. Nickel and tungsten

74. While drilling in lathe, the drill is held in the? [ ]
a. bed
b. compound rest
c. tailstock
d. headstock

75. The best position to hold the job in the vice when filing is [ ]
a. Eye level
b. Shoulder level
c. Elbow level
d. Arm level

76. Which one of the following threads, is used on mechanical jack [ ]
a. Acme
b. Square
c. Buttress
d. B.S.F.

77. A flag pole 12 m high casts a shadow 9 m long. Find the distance of the top of the pole from the far end of the shadow. [ ]
a. 12
b. 13
c. 13.5
d. 15

78. During conversion of a solid from one shape to another, the volume of the new shape will [ ]
a. increase
b. decrease
c. remain unaltered
d. be doubled

79. The average of the first five multiples of 9 [ ]
a. 20
b. 27
c. 28
d. 30

80. The average age of three boys is 15 years, if their ages are in the ratio of 3:5:7, then the age of the youngest boy is [ ]
a. 21
b. 18
c. 15
d. 9

81. If A and B together can complete a piece of work in 15 days and B alone in 20 days, in how many days can A alone complete this work ? [ ]
   a. 60
   b. 45
   c. 40
   d. 30

82. A sells an article to B at a profit of 10%, B sells back the article to A at a loss of 10%, in this transaction [ ]
   a. A neither loses nor gains
   b. A makes a profit of 11%
   c. A makes a profit of 20%
   d. loses 20%

83. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of youngest child? [ ]
   a. 4 years
   b. 8 years
   c. 10 years
   d. 16 years

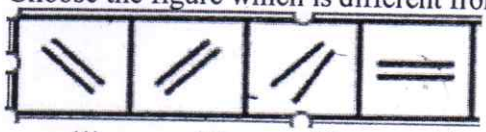
84. What is the average of the numbers: 0, 0, 4, 10, 5, and 5 ? [ ]
   a. 2
   b. 3
   c. 4
   d. 5

85. What kind of data can you send by e-mail? [ ]
   a. Audio
   b. Pictures
   c. Video
   d. All of the above

86. The main computer that stores the files that can be sent to computers that are networked together is: [ ]
   a. Clipart
   b. Motherboard
   c. File server
   d. Peripheral

87. The speed of your net access is defined in terms of: [ ]
a. Ram
b. MHz
c. Kbps
d. Megabytes

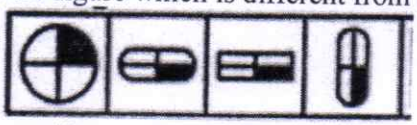
88. [ ]
Choose the figure which is different from the rest.



(1) (2) (3) (4)

a. 1
b. 2
c. 3
d. 4

89. Choose the figure which is different from the rest. [ ]



(1) (2) (3) (4)

a. 1
b. 2
c. 3
d. 4

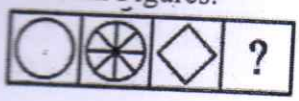
90. Choose the figure which is different from the rest. [ ]

(1) (2) (3) (4)

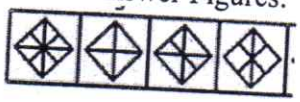
a. 1
b. 2
c. 3
d. 4

91. Select a suitable figure from the Answer Figures that would replace the question mark (?). [ ]

Problem Figures:



Answer Figures:



(A) (B) (C) (D) (1) (2) (3) (4)

a. 1
b. 2
c. 3
d. 4

92. Select a suitable figure from the Answer Figures that would replace the question mark (?). [ ]

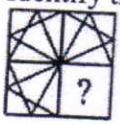
Problem Figures:

Answer Figures:

(A) (B) (C) (D) (1) (2) (3) (4)

a. 1
b. 2
c. 3
d. 4

93. Identify the figure that completes the pattern. [ ]



(X)

(1)

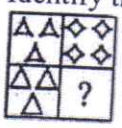
(2)

(3)

(4)

a. 1
b. 2
c. 3
d. 4

94. Identify the figure that completes the pattern. [ ]



(X)

(1)

(2)

(3)

(4)

a. 1
b. 2
c. 3
d. 4

95. Choose the alternative which is closely resembles the mirror image of the given combination. [ ]

ANS43Q12

(1) AN54EQ1S (2) S1QE4SNA

(3) SNAE4QS1 (4) 1SQ43AN5

a. 1
b. 2
c. 3
d. 4

96. Choose the alternative which is closely resembles the mirror image of the given combination. [ ]

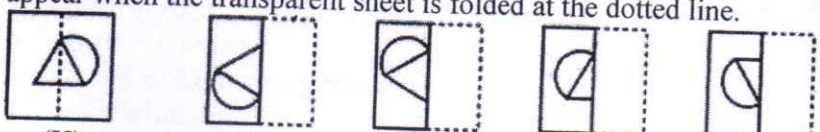
MALAYALAM

(1) MALAYALAM (2) MALAYALAM

(3) WALAYALAW (4) MALAYALAM

a. 1
b. 2
c. 3
d. 4

97. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line. [ ]



(X) (1) (2) (3) (4)

a. 1
b. 2
c. 3
d. 4

98. Look at this series 2,1,1/2,1/4,----. What number comes next ? [ ]

a. 1/3
b. 1/8
c. 2/8
d. 1/16

99. Look at this series 7,10,8,11,9,12,---- what number comes next ? [ ]

a. 7
b. 10
c. 12
d. 13

100. Look at this series: 5.2, 4.8, 4.4, 4, ... What number should come next? [ ]
a. 3
b. 3.3
c. 3.5
d. 3.6

101. What is the official language of Arunachal Pradesh? [ ]
a. Urdu
b. English
c. Mandarin
d. Bangali

102. Who is the Chairman of Central Hindi Committee? - [ ]
a. Finance Minister
b. Prime Minister
c. Home minister
d. Foreign minister

103. Where is the first National Hindi Museum of the country being set up? [ ]
a. Kolkata
b. Chennai
c. Bhubaneswar
d. Agra

104. Who prepares the annual program of Official Language? [ ]
a. home Ministry
b. Ministry of Finance
c. Ministry of Communications
d. foreign Ministry

105. When was the Official Language Rule passed? [ ]
a. 1876
b. 1976
c. 1947
d. 1956

106. Who is the first national poet of India? [ ]
a. Harivansh Rai Bachan
b. Ram Kumar Verma
c. Maithali Sharan Gupt
d. Kedarnath Singh

107. When did section 3 (3) of the Official Language Act come into force? - [ ]
a. 26 January 1966
b. 26 January 1963
c. 26 January 1967
d. 26 January 1965

108. What is the periodicity of the meetings of the Official Language Implementation Committee? [ ]
a. Once a month
b. Once in 2 months
c. Once in 3 months
d. Once in 4 months

109. When is 'Hindi Day' celebrated every year? [ ]
a. On 15 September
b. On 14 September
c. On 25 September
d. On 10 September

110. In which script is the Official Language Hindi written? [ ]
a. English
b. Sanskrit
c. Devnagari
d. Urdu