

Question Paper Booklet # 1

Written Test: Jr. Technical Superintendent (CL) (JTSCL-2015)

Name: V.S.S Parasar Sarma G

Time: 2 hours

Registration No.: 1001

Venue: L2, Lecture Halls

Max. Marks: 200

Instructions

Please read all the instructions carefully.

A. General

1. Check your name and registration number printed above.
2. If your name and registration number printed above are not correct, **contact your invigilator** immediately. Do not start your test.
3. Do not break the seal open unless your invigilator announces that you do so (at 10:30 am). After breaking the seal at 10:30 am, please check that you have 80 questions on 13 pages.
4. Blank pages are provided at the end of the Question Paper Booklet for rough work. No additional sheets will be provided for rough work.
5. Blank papers, clipboards, log tables, slide rules, calculators, cameras, cellular phones, pagers, and electronic gadgets are NOT allowed inside the examination hall.
6. You have to be in this examination hall till 12:30 pm. You will be allowed to leave the hall ONLY AFTER your invigilators have collected ALL the Booklets and OMR sheets and tallied them.

B. Filling up the OMR Sheet

7. Use a BLACK ball-point pen to darken the bubbles on the OMR Sheet. The correct way to fill a bubble like ☐ is as in ☒. Please note that the options A, B, etc. are given either vertically or horizontally in the booklet whereas they are printed horizontally on the OMR.
8. The answers you have marked on the OMR sheet will be evaluated to calculate your total marks. The answers you mark on the Question Paper Booklet will be treated as rough work and WILL NOT be evaluated.
9. DO NOT FOLD/TAMPER/MUTILATE THE OMR SHEET IN ANY WAY. DO NOT TAMPER/ALTER

THE FOUR CORNER CIRCLES OR THE BAR CODE ON THE OMR IN ANY WAY. OTHERWISE, YOUR CANDIDATURE MAY BE CANCELLED.

10. At the end of the test, you MUST RETURN BOTH the OMR Sheet and the Question Paper Booklet to your invigilator. You will not be given any extra time to bubble your answers on the OMR.

C. Test Paper Format

11. The question paper consists of 5 sections:
(i) English Comprehension (abbreviated **EC**)
(ii) General Knowledge (**GK**) (iii) Mental Reasoning (**MR**) (iv) Quantitative Aptitude (**QA**) and (v) Computer Skills (**CS**).
12. Each of these five sections contains two parts – Part S and Part M.
13. There are 8 questions in Part S. Each question has exactly ONE CORRECT ANSWER.
14. There are 8 questions in Part M. Each question has ONE OR MORE THAN ONE CORRECT ANSWERS.

D. Marking Scheme

15. For each question in Part S you will be awarded 2 marks – ONLY if you darken ONE bubble corresponding to the correct answer, and, zero marks in all other cases.
16. For each question in Part M you will be awarded 3 marks – ONLY if you darken ALL the bubble(s) corresponding to the correct answer(s), and, zero marks in all other cases.
17. The total marks for this test is 200. There is no negative marking on any question.

1 Section EC

1.1 Part S

Only One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONLY ONE is correct.

1. Panacea =

- ☐ A Failure ☐ B Idea ☐ C Cure ☐ D Prediction

2. He is not good-looking,, he is popular among girls.

- ☐ A because ☐ B although ☐ C nonetheless ☐ D even though

3. Peremptory =

- ☐ A Bossy ☐ B Unreal ☐ C Strong ☐ D Central

4. Anarchy =

- ☐ A Democracy ☐ B Lawlessness ☐ C Idealism ☐ D Opportunities

5. Who wrote the line: “a thing of beauty is a joy forever”?

- | | |
|--|---|
| <input type="checkbox"/> A William Wordsworth | <input type="checkbox"/> C P. B. Shelly |
| <input type="checkbox"/> B William Shakespeare | <input type="checkbox"/> D John Keats |

6. Don't you know that the people in the courtroom must get when the judge arrives?

- ☐ A in ☐ B over ☐ C up ☐ D under

7. Alleviate =

- ☐ A Inspire ☐ B Earn ☐ C Contribute ☐ D Lessen

8. I am sorry, but you are not supposed to photos here.

- ☐ A take ☐ B be taking ☐ C will take ☐ D taking

1.2 Part M

One Or More Than One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONE OR MORE are correct.

9. I enjoyas a hobby.

- ☐ A drawing ☐ B will draw ☐ C to draw ☐ D swimming

10. Sheplay basketball on Friday.

- ☐ A is going to ☐ B will ☐ C has been ☐ D has

11. Soldiers have been sent to restorein the area.

- ☐ A regulation ☐ B peace ☐ C law and order ☐ D organization

12. The child ranto his mother.

- ☐ A generously ☐ B quickly ☐ C happily ☐ D fastly

13. When I arrived at the party, Ravihis dinner.

- ☐ A had finished ☐ B ate ☐ C was having ☐ D will be eating

14. I did not get bored while waiting for the doctor. There weremagazines on the table to read.

- ☐ A more ☐ B a few ☐ C many ☐ D much

15. It rained hard;, lightning flashed and thunder boomed.

- ☐ A however ☐ B also ☐ C moreover ☐ D but

16. What a relief, police have finally recovered thecomputer !

- ☐ A lost ☐ B stole ☐ C steal ☐ D stolen

2 Section GK

2.1 Part S

Only One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONLY ONE is correct.

17. “Radcliff Line” is the boundary between which of the following countries?

- | | |
|---|---|
| <input type="checkbox"/> A India and China | <input type="checkbox"/> C India and Pakistan |
| <input type="checkbox"/> B Pakistan and Afghanistan | <input type="checkbox"/> D India and Nepal |

18. What is the capital of Myanmar?

- ☐ A Yangon ☐ B Hanoi ☐ C Bangkok ☐ D Naypyidaw

19. Which one of the following is the largest state in India in terms of area?

- ☐ A Madhya Pradesh ☐ B Uttar Pradesh ☐ C Karnataka ☐ D Rajasthan

20. Which one among the following is the oldest paramilitary force in India?

- | | |
|---|--|
| <input type="checkbox"/> A Central Reserve Police Force | <input type="checkbox"/> C Central Industrial Security Force |
| <input type="checkbox"/> B Indo Tibetan Border Police | <input type="checkbox"/> D Assam Rifles |

21. Who was the runners up in the women's singles final in French Open 2015?

- | | |
|---|--|
| <input type="checkbox"/> A Garbine Muguruza | <input type="checkbox"/> C Maria Sharapova |
| <input type="checkbox"/> B Lucie Safarova | <input type="checkbox"/> D Petra Kvitova |

22. "The Accidental Prime Minister" is the biography of which prime minister of India?

- | | |
|--|---|
| <input type="checkbox"/> A Manmohan Singh | <input type="checkbox"/> C Lal Bahadur Shastri |
| <input type="checkbox"/> B P. V. Narasimha Rao | <input type="checkbox"/> D Atal Bihari Vajpayee |

23. Where will the summer Olympics in 2020 be held?

- ☐ A Madrid ☐ B Rio de Janeiro ☐ C Istanbul ☐ D Tokyo

24. During which decade did population of India record a negative growth rate?

- ☐ A 1901-1911 ☐ B 1911-1921 ☐ C 1921-1931 ☐ D 1931-1941

2.2 Part M

One Or More Than One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONE OR MORE are correct.

25. Which of the following is/are correct about the North Eastern Council (NEC)?

- | | |
|---|--|
| <input type="checkbox"/> A The NEC has its Head Quarters at Shillong | <input type="checkbox"/> C It functions under the Ministry of Home Affairs |
| <input type="checkbox"/> B It is the nodal agency for economic and social development of the North Eastern Region | <input type="checkbox"/> D It was constituted by an Act of Parliament |

26. Which of the following is/are NOT CORRECT about the Indian Constitution?

- | | |
|--|--|
| <p><input type="checkbox"/> A The Directive Principle of State Policy was adopted from the Constitution of Ireland</p> <p><input type="checkbox"/> B Dr. Rajendra Prasad was the Chairman of the Constitution Drafting Committee</p> | <p><input type="checkbox"/> C The constitution came to an effect on 15 August, 1947</p> <p><input type="checkbox"/> D The term “secular” was not originally included in the preamble and was later added to it</p> |
|--|--|

27. Which of the following is/are correct about India’s Mars Mission?

- | | |
|--|--|
| <p><input type="checkbox"/> A With the Mars Orbiter Mission, India has become the second nation/ group of nations to reach Mars after the USA</p> <p><input type="checkbox"/> B The project is carried out by Indian Space Research Organisation</p> | <p><input type="checkbox"/> C The spacecraft lifted off from Vikram Sarabhai Space Centre, Thiruvananthapuram</p> <p><input type="checkbox"/> D India is the first country to successfully get a spacecraft into the Martian orbit on its maiden attempt</p> |
|--|--|

28. Which of the following is/are NOT CORRECT about the Rajya Sabha?

- | | |
|--|--|
| <p><input type="checkbox"/> A It is the upper house of the parliament</p> <p><input type="checkbox"/> B The vice president is the ex-officio chairman of Rajya Sabha</p> | <p><input type="checkbox"/> C It is reconstituted every five years</p> <p><input type="checkbox"/> D One-third of its members retire every second year</p> |
|--|--|

29. Which of the following is/are true about Nobel Prize?

- | | |
|--|---|
| <p><input type="checkbox"/> A The peace prize is awarded in Norway</p> <p><input type="checkbox"/> B The first Nobel prize was awarded in 1901</p> | <p><input type="checkbox"/> C Sir C. V. Raman was the first Indian to receive the Nobel Prize</p> <p><input type="checkbox"/> D The award is given for outstanding performance in six disciplines</p> |
|--|---|

30. Which of the following is/are true about ICC One Day International (ODI) Cricket World Cup?

- | | |
|---|---|
| <p><input type="checkbox"/> A Sunil Gavaskar scored his maiden ODI century in an ICC World Cup match</p> <p><input type="checkbox"/> B The first ICC ODI Cricket World Cup was held in 1975</p> | <p><input type="checkbox"/> C A total of 16 teams took part in the 2015 ICC World Cup</p> <p><input type="checkbox"/> D West Indies is the only country to win the World Cup thrice</p> |
|---|---|

31. Which among the following is/are true about the Bharat Ratna Award?

- | | |
|--|---|
| <p><input type="checkbox"/> A The medallion is in the shape of a betel leaf with the word “Bharat Ratna” inscribed in Devanagari script in it</p> <p><input type="checkbox"/> B Dr. B. R. Ambedkar was the first recipient of the Bharat Ratna</p> | <p><input type="checkbox"/> C Sachin Tendulkar is the first sports person to receive this award</p> <p><input type="checkbox"/> D The award was instituted on 2nd January, 1954</p> |
|--|---|

32. Where is Namdapha National Park located?

- ☐ A West Bengal
 ☐ B Sikkim
 ☐ C Arunachal Pradesh
 ☐ D Assam

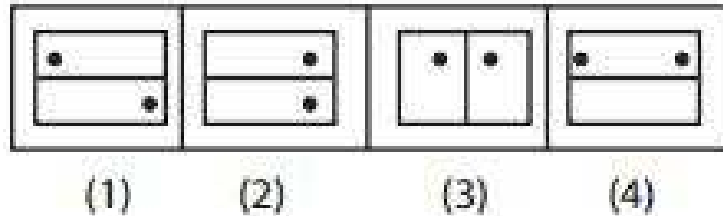
3 Section MR

3.1 Part S

Only One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONLY ONE is correct.

33. Consider the following collection of pictures



Choose the picture that is different from the rest.

- ☐ (1) ☐ (2) ☐ (3) ☐ (4)

34. Complete the following series: U T O N I H E

- ☐ D ☐ F ☐ J ☐ K

35. Temple is to pray is as is to play.

- ☐ victory ☐ ground ☐ players ☐ spectators

36. Assume that the statements I and II below are true:

I. No rich persons are charity-oriented persons.

II. Some sports persons are rich persons.

Consider statements III and IV:

III. Some charity-oriented persons are not sports persons.

IV. Some sports persons are not charity-oriented persons.

Which one of the following is true?

- | | |
|--|--|
| <input type="checkbox"/> III cannot be deduced from I and II | <input type="checkbox"/> Both III and IV can be deduced from I and II |
| <input type="checkbox"/> IV cannot be deduced from I and II | <input type="checkbox"/> Neither III nor IV can be deduced from I and II |

37. Exercise is to gymnasium is as eating is to

- ☐ dieting ☐ food ☐ fitness ☐ restaurant

38. Consider the statement:

X. All doctorate degree holders are academicians.

Which of the following two is/are logically equivalent to the statement X?

Y. All academicians are doctorate degree holders.

Z. No doctorate degree holders are non-academicians.

☐ A Y

☐ B Z

☐ C Both Y and Z

☐ D Neither Y nor Z

39. Complete the series WFB, TED, QDF,

☐ A MBH

☐ B MCG

☐ C NBJ

☐ D NCH

40. Lizard is to reptile is as is to flower.

☐ A petal

☐ B jasmine

☐ C stem

☐ D seed

3.2 Part M

One Or More Than One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONE OR MORE are correct.

41. If the statement “All patented technologies are marketable technologies” is true, then which of the following can be false?

☐ A No patented technologies are marketable technologies

☐ B Some patented technologies are not marketable technologies

☐ C All marketable technologies are patented technologies

☐ D None of the above

42. If Google is coded as 715157125, how will be Bing coded

☐ A 28417

☐ B 29147

☐ C 71429

☐ D 74192

43. Fill in the grid so that every row, every column, and each of the four 2×2 boxes (indicated via shading) contains the digits 1 through 4.

4			b
	a	1	
	2		
			3

Which of the following are possible values of a and b respectively?

☐ A 3,1

☐ B 3,2

☐ C 4,1

☐ D 4,2

44. If (a) 'bnr lag yog smp' stands for 'Taylor stitches red shirts', (b) 'pyto bnr dmf' stands for 'Shirts for sale', and (c) 'msm tdr pyto yog' stands for 'Red is for stop', What code will be for 'Taylor'?

☐ A bnr ☐ B smp ☐ C yog ☐ D insufficient data

45. Complete the series AZ, GT, MN,, YB.

☐ A KF ☐ B RX ☐ C SH ☐ D TS

46. A bag contains 243 balls of same colour and size. Of these balls, one ball has more weight as compared to the rest. You have a weighing balance. What is the least number of times you need to weigh to find out which ball has more weight?

☐ A 5 ☐ B 6 ☐ C 7 ☐ D 8

47. Ram and Shyam went to a stationery shop to buy pencils and erasers. The shop keeper had six pencils of three colours and 12 erasers of white and 12 erasers of brown colour in a box. If Ram and Shyam want to buy one pencil each of same colour and one eraser each of the same colour, what is the minimum number of pencils and erasers the shopkeeper has to take from the box to give both of them the same colour pencil and eraser?

☐ A 13 erasers and 5 pencils

☐ B 3 erasers and 4 pencils

☐ C 2 erasers and 3 pencils

☐ D 4 erasers and 5 pencils

48. If KASHMIR is coded as HCPJJKO, how will GUWAHATI be coded?

☐ A DWCTCEQK

☐ B DWTCCEOK

☐ C CWTDECOK

☐ D DWTCECQK

4 Section QA

4.1 Part S

Only One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONLY ONE is correct.

49. A watch which gains 5 seconds in 3 minutes was set right at 7 a.m. On the same day, when the watch shows the time as 4 : 15 p.m., the true time is

☐ A 3 p.m. ☐ B 3 : 30 p.m. ☐ C 3 : 45 p.m. ☐ D 4 p.m.

50. The average weight of 9 children is 40 kg. When the weight of an adult is included the average is increased to 43 kg. What is the weight (in kg) of the adult?

☐ A 43 ☐ B 53 ☐ C 60 ☐ D 70

51. In a class of 100 students, 50 students passed in Mathematics and 70 passed in English, 5 students failed in both Mathematics and English. How many students passed in both the subjects?

☐ A 25 ☐ B 35 ☐ C 40 ☐ D 50

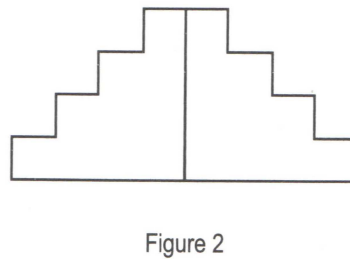
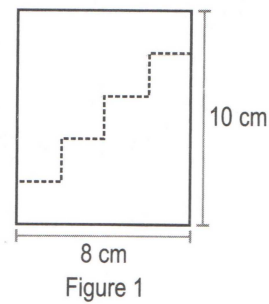
52. A container contains 100 litres of milk. From this container 10 litres of milk was removed and replaced by water. This process was repeated further two times. How much milk (in litres) is now in the container?

☐ A 70 ☐ B 72.9 ☐ C 83.4 ☐ D 85

53. Find the ratio in which rice at Rs.7.20 per kg be mixed with rice at Rs.5.70 per kg to produce a mixture worth Rs.6.30 per kg.

☐ A 2 : 3 ☐ B 3 : 4 ☐ C 4 : 3 ☐ D 3 : 2

54. A rectangular sheet of paper of length 10 cm and breadth 8 cm is cut into two identical pieces along the dotted lines as shown below (Figure 1). The two pieces are then joined to form a new shape (Figure 2).



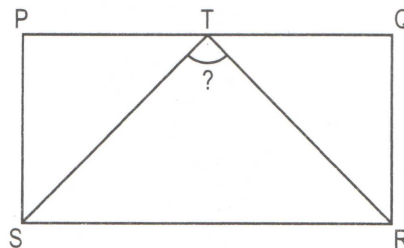
If the height and width of each step in new shape are **equal**, what is the perimeter (in cm) of the new shape in Figure 2?

☐ A 36 ☐ B 48 ☐ C 52 ☐ D 56

55. How many three-digit numbers are there that are divisible by 11?

☐ A 71 ☐ B 81 ☐ C 90 ☐ D 91

56. $PQRS$ is a rectangle with $PQ = 2 PS$. T is a mid point of PQ . What is the measure of $\angle STR$?



☐ A 45° ☐ B 60° ☐ C 90° ☐ D 120°

4.2 Part M

One Or More Than One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONE OR MORE are correct.

57. If $x = \frac{\sqrt{3}+1}{\sqrt{3}-1}$ and $x = \frac{\sqrt{3}-1}{\sqrt{3}+1}$ then the number representing the algebraic expression $x^2 + y^2$ is a

☐ A natural number

☐ B rational number

☐ C irrational number

☐ D purely imaginary complex number

58. You are given with the arithmetic progression (A.P.) whose first term is 23 and tenth term is 86. Then, the numbers belonging to the A.P. are

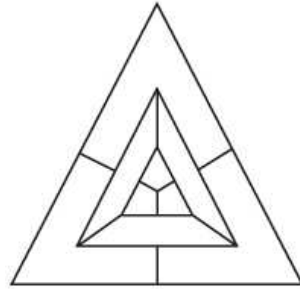
☐ A 44

☐ B 93

☐ C 162

☐ D 198

59. What is the minimum number of colours required to fill the spaces in the following diagram without the adjacent sides having the same colour?



☐ A 3

☐ B 4

☐ C 6

☐ D 9

60. The points (x, y) satisfying all the constraints $2x + y \leq 100$, $x + y \leq 80$, $0 \leq x \leq 60$, $y \geq 0$ are

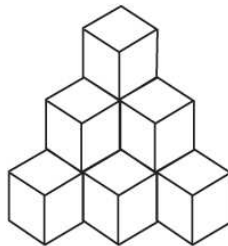
☐ A (10, 85)

☐ B (20, 60)

☐ C (30, 55)

☐ D (40, 20)

61. The figure below is built using identical boxes which happen to be cubes. How many additional boxes can be used to complete the following object into a cube?



☐ A 10

☐ B 17

☐ C 21

☐ D 54

62. The intervals containing any of the roots of the equation $x^3 + 5x^2 - 14x = 0$ are

- ☐ A $[-100, -5]$ ☐ B $[-3, 3)$ ☐ C $(3, 5)$ ☐ D $(5, 10]$

63. Rajesh put all his story books in a bookshelf. Each book has either 48 pages or 50 pages. Which of the following **cannot** be the total number of pages of **all** the books in bookshelf?

- ☐ A 452 ☐ B 534 ☐ C 624 ☐ D 1096

64. P is an even number and Q is an odd number. Which of the following statements is always true?

- | | |
|--|---|
| <input type="checkbox"/> A $P \times P - 1$ is an odd number | <input type="checkbox"/> C $P + Q + 1$ is an even number |
| <input type="checkbox"/> B $P - Q - 1$ is an odd number | <input type="checkbox"/> D $P \times Q + P$ is an even number |

5 Section CS

5.1 Part S

Only One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONLY ONE is correct.

65. Which one of the following networks is built on the top of another network?

- ☐ A overlay network ☐ B prior network ☐ C prime network ☐ D chief network

66. Telnet is a/anlayer protocol

- ☐ A application ☐ B transport ☐ C network ☐ D hardware

67. From which menu of the MS Word program can you include a picture, text box or a chart into a file?

- ☐ A File ☐ B Edit ☐ C Insert ☐ D View

68. The MS PowerPoint view that displays only text (title and bullets) is

- ☐ A slide show view ☐ B outline view ☐ C notes page view ☐ D slide sorter view

69. In MS Excel, the NOW() function returns the

- | | |
|--|--|
| <input type="checkbox"/> A current date and time | <input type="checkbox"/> C the current date |
| <input type="checkbox"/> B the current time | <input type="checkbox"/> D current day of the week |

70. In MS Word, the shortcut sequence Ctrl + N is used to

- | | |
|---|--|
| <input type="checkbox"/> A close a document | <input type="checkbox"/> C open an existing document |
| <input type="checkbox"/> B save a document | <input type="checkbox"/> D open a new document |

71.is the process of combining a list of names and addresses with a standard document.

- | | |
|--|--|
| <input type="checkbox"/> Database management | <input type="checkbox"/> Form letters |
| <input type="checkbox"/> Mail merge | <input type="checkbox"/> Document formatting |

72. What is the size of IPv6 addresses?

- ☐ 32 bits ☐ 64 bits ☐ 128 bits ☐ 256 bits

5.2 Part M

One Or More Than One Option Correct Type

This part contains 8 multiple choice questions. Each question has 4 choices A, B, C & D of which ONE OR MORE are correct.

73. Which of the following is/are valid versions of MS Office?

- ☐ Office Vista ☐ Office 2007 ☐ Office Windows ☐ Office XP

74. In MS Excel, which of the following formulae give/gives the sum of the numbers in the cells A1 and A2?

- ☐ =add(A1 : A2) ☐ =SUM(A1 : A2) ☐ A1 + A2 ☐ =A1 + A2

75. Which of the following functions return a value of 8 in an MS Excel spreadsheet ?

- | | |
|---|---|
| <input type="checkbox"/> ROUND(8.4999, 0) | <input type="checkbox"/> ROUNDUP(8.4999, 0) |
| <input type="checkbox"/> ROUND(8.4999, 1) | <input type="checkbox"/> ROUNDDOWN(8.4999, 0) |

76. The MS Word application can be closed by

- | | |
|--|---|
| <input type="checkbox"/> pressing Alt+F4 | <input type="checkbox"/> pressing Ctrl + W |
| <input type="checkbox"/> choosing File→Close | <input type="checkbox"/> choosing File→Exit |

77. Which of the following is/are NOT internet browsers?

- ☐ Netscape Navigator ☐ Opera ☐ Android ☐ Drupal

78. Which of the following protocols is/are NOT application-layer protocols?

- ☐ ICMP ☐ UDP ☐ HTTP ☐ FTP

79. Which of the following protocols is/are NOT transport-layer protocols?

- ☐ TCP ☐ DCCP ☐ ICMP ☐ DNS

80. Which of the following protocols is/are used for EMAIL service?

☐ A IMAP

☐ B ICMP

☐ C SMTP

☐ D SMIP

❖❖❖ Paper Ends ❖❖❖

SPACE FOR ROUGH WORK

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