VITEEE 2017 Question Paper

Vellore Institute of Technology Engineering Entrance Examination

SOLVED PAPER
(memory based)

VITE EE

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GENERAL INSTRUCTIONS

- This question paper contains total 125 questions divided into four parts :
  Part I : Physics Q. No - 1 to 40
  Part II : Chemistry Q. No - 41 to 80
  Part III : Mathematics Q. No - 81 to 120
  Part IV : English Q. No - 121 to 125
- All questions are multiple choice questions with four options, only one of them is correct.
- For each correct response, the candidate will get 1 mark.
- There is no negative marking for the wrong answer.
- The test is of 2½ hours duration.

PART - I (PHYSICS)

1. 꾀 ⊢ ⊠ ⊠ ⊢ ⊠ 瞟 瞟⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ 瞟 瞟⊠⊠ 瞟 竈 ⌋瞟 ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ 盐 雙⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ 竈⌋瞟 ⊠⊠竈⊠盐 ⊠ ⊠⊠瞟 ⊠⊠ ⊠ ⊠ 瞟⊠ ⊠ ⊠ 瞟盐 泐 ⊠ ⊠⊠⊠ 盐瞟 ⊠ ⊠ ⊠ ⊢⊠ ⊠ 竈⌋瞟 序 ⊠序 ⊢⊠ ⊠序 ⌋瞟⊠雙⊠ ⊠ 瞟瞟 ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠ ⊠

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8. 꾀 泐 [illegible]

9. 꾀 [illegible]

10. 꾀 [illegible]

11. 꾀 [illegible]

12. [illegible]

13. [illegible] 2.8 × 10⁻³ [illegible]

14. [illegible]

15. [illegible]

16. [illegible]

17. [illegible]

18. 꾀 [illegible]

19. [illegible]

20. [illegible]

21. [illegible]

22. [illegible]

[illegible]

23. [illegible]

24. [illegible]

25. [illegible]

26. [illegible]

27. [illegible]

28. [illegible]

29. [illegible]

30. [illegible]

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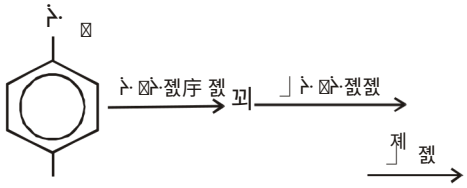
[illegible]

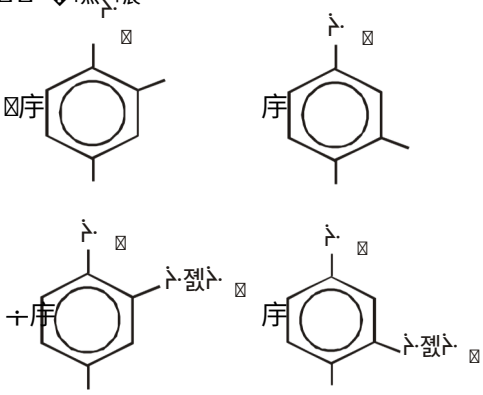
[illegible]

[illegible]

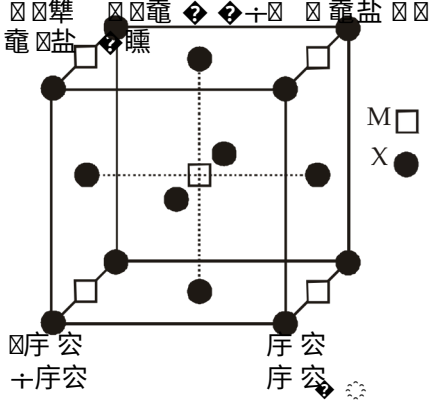
[illegible]

45. 

[illegible]



46. [illegible]



[illegible]

47. [illegible]

[illegible]

48. [illegible]

49. [illegible]

50. [illegible]

51. [illegible]

52. [illegible]

53. [illegible]

54. [illegible]

55. [illegible]

56. [illegible]

57. [illegible]

58. [illegible]

59. [illegible]

60. [illegible]

61. [illegible]

62. [illegible]

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63. ᵇᶜ₄ 序 ⊥ 序 ⊥ 序 ⊥

73. [illegible]

74. [illegible]

75. [illegible]

76. [illegible]

77. [illegible]

78. [illegible]

79. [illegible]

80. [illegible]

PART - III (MATHEMATICS)

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序 □ a+b+g

┼序□ □ a - b - g序

序 □ a +b +g

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97. □ 序□ 序□ 序 序□ 序桌 □瞟□乙盐□

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序

102. 囧 囧囧囧

112. ⊠ ⊠ ⊠

PART - IV (ENGLISH)

Directions (Qs. 121-123): 和 盐 泐 [illegible]

121. [illegible]

122. [illegible]

123. [illegible]

Directions (Q. 124) : [illegible]

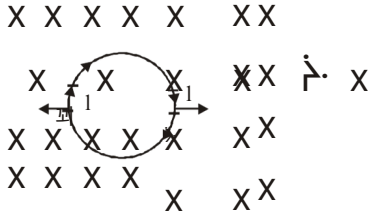
124. [illegible]

125. [illegible]

SOLUTIONS

PART - I (PHYSICS)

1. (d) Given : 公 瞟 瞟 ⊠ ⊠ ⊠ ⊠ ⊠ 竈 序 欄 ⊠ ⊠ ⊠ ⊠ 瞟 瞟 ⊠ ⊠ 序 欄 竈 瞟 ⊠ ⊠ ⊠ ⊠ ⊠



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10. (b
11.)
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⊠竈 ⊠序⊠ ⊠⊠序 宓盐 欄 宓 제 竈序

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12. (c) ⊠瞟⊠ ⊠ ⊠⊠ ⊠⊠ ⊠ ⊠ ⊠⊠ ⊠ ⊠⊠ ⊠ ⊠瞟瞟⊠⊠瞟 ⊠序⊠ ⊠ 瞟 ⊠

序

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= ⊠⊠ + ⊠

13. (b) ⊠⊠ ⊠ 雙⊠ ⊢ 盐 f ⊠ ⊠ ⊠ 竈⊠ ⊠ 欄 ⊠⊠⊠⊠ ⊠ ⊠⊠ | 欄 ⊠ 竈 欄 ⊠ 맜 ⊠ 黨竈

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14. (b) ⊠⊠瞟⊠⊠⊠ ⊠瞟⊠瞟 盐 ⊠ 雙⊠ ⊢ ⊠ ⊠ ⊠ ⊠ ⊠盐瞟⊠ ⊠ ⊠ ⊠ 泐 ⊠ ⊠ ⊠ 瞟盐 ⊠ ⊠瞟⊠ ⊠ ⊠⊠ ⊠瞟 ⊠⊠ ⊠ ⊠ 雙⊠ ⊠ ⊠瞟⊠ 瞟⊠ ⊠⊠ ⊠瞟⊠瞟 盐 ⊠ ⊠雙⊠ ⊢ ⊠ ⊠ ⊠ ⊠ 盐⊠ ⊠ 瞟盐 ⊠ ⊠ 瞟⊠ ⊠

15. (a ⊠ = ⊠ = ⊠ ⊠ = ⊠

16.) ⊠竈 ⊠⊠ ⊠⊠ ⊠ ⊠⊠ ⊠ ⊠ 欄瞟 ⊠ w⊠

(d

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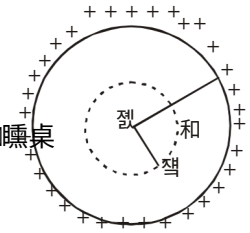
)

17. (a) ⊠ ⊠ ⊠ ⊠⊠⊠ ⊠ ⊠瞟瞟⊠⊠ ⊠瞟

X=(A B)欄 A+B 欄 A 제 B Þ 젩 ⊠

18. (a) ⊠ ⊠⊠ ⊠瞟⊠ ⊠瞟 ⊠ ⊠ ⊠盐⊠ 瞟盐 ⊠ ⊠ ⊠ ⊠ ⊠ 盐 ⊠ ⊠ ⊠ ⊠雙 瞟 ⊠⊠⊠ ⊠ ⊠盐瞟 ⊠ ⊠瞟⊠ ⊠ ⊠瞟 ⊠ ⊠ ⊠ 瞟盐 ⊠ ⊠⊠ ⊠ ⊠盐瞟 泐 ⊠⊠盐瞟瞟 ⊠⊠⊠竈



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⊠ ⊠⊠⊠ ⊠ ⊠ ⊠ ⊠ 雙 瞟 ⊠⊠ ⊠瞟 ⊠⊠

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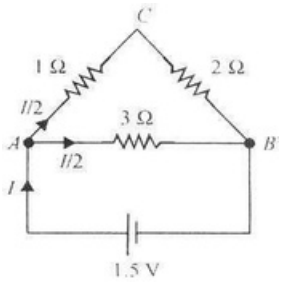
20. (b) 쟼 乙盐 [illegible]



[illegible] W

21. (d

22.) [illegible]

(a [illegible]

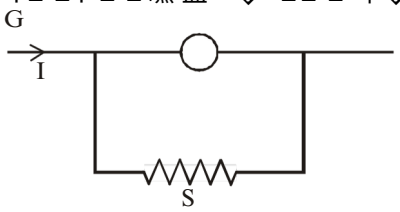
23. (c) [illegible]

)

[illegible]

24. (c) [illegible]

25. (a) [illegible]



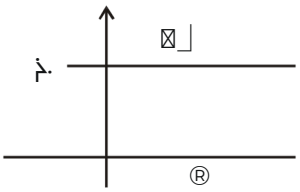
[illegible]

26. (b) [illegible]

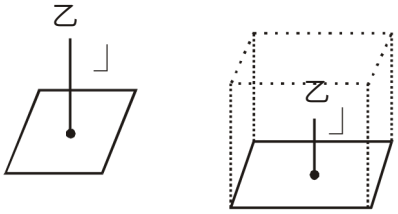
27. (a) 和 [illegible]

28. (a) [illegible]

29. (c) [illegible]



30. (c)



[illegible]

f 懶 乙」

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43. (a) [illegible]

44. (d) [illegible]

45. (b)

46. (b) [illegible]

47. (c)

48. (b)

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젩 ⊢ − 젩 ‖
序 젩 ‖

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序 젩 ⊢ 젩 − ‖ − 젩
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49. (d) 瞟 盐÷ 盐 瞟 盐 序泐
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50. (a) 雗 泐 瞟 序
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a = r r =

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51. (d) k = A - Ea RT 嘴 序

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52. (c)

53. (b) [illegible]

54. (b) [illegible]

$$k = \frac{[illegible]}{t[illegible]} = \frac{[illegible]}{[illegible]}$$

$$k = \frac{[illegible]}{t}$$

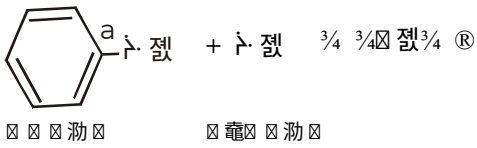
$$\frac{[illegible]}{[illegible]} = \frac{[illegible]}{t}$$

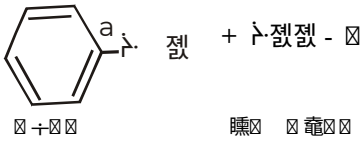
$$\frac{[illegible]}{[illegible]} = \frac{[illegible]}{t}$$

t [illegible]

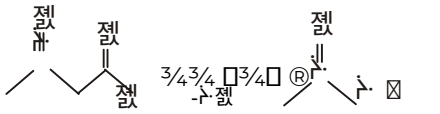
55. (a) [illegible]

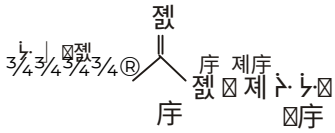
(crossed Cannizzaro reaction)





56. (c)





57. (a) [illegible]

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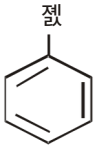
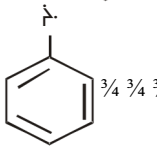
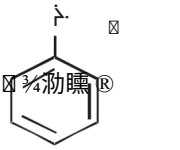
58. (d)







59. (a) [illegible]

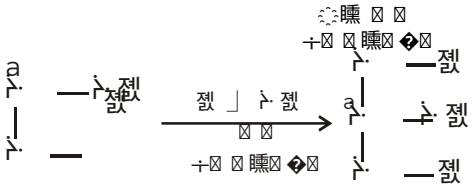
60. (b) [illegible]

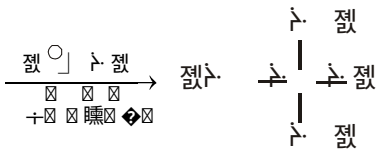
61. (a) [illegible]

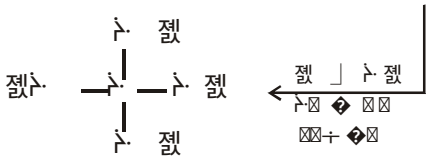
[illegible]

[illegible]

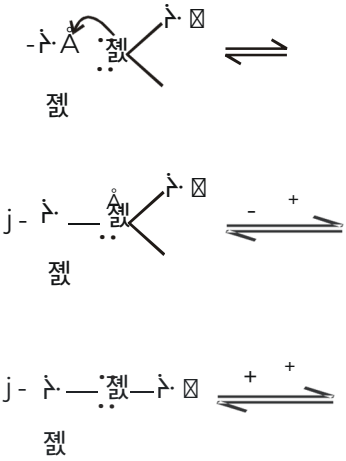
62. (c) [illegible]







63. (b) [illegible]



64. (a) [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

65.(c) 젺 ⅓⅓® 젺 序 젺 序 젺 序

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70. (b) D = D□+D ⊥

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71. (a) 젺

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72. (b) 空瞟 ⊥ ⊥ ⊥제 ÷竈 盐 瞟 ⊥ ÷ ⊥ ⊥제

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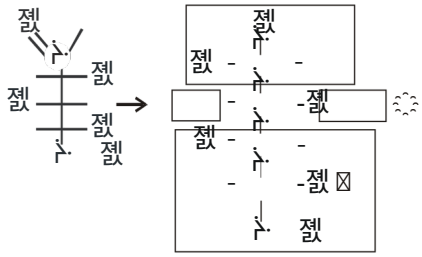
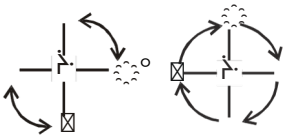
73. (c) 



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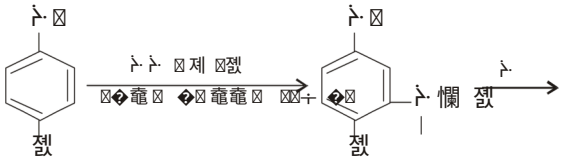
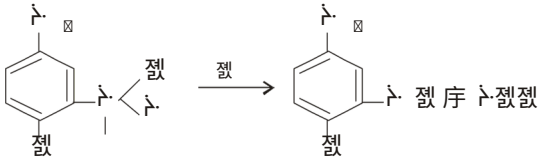
76. (c)





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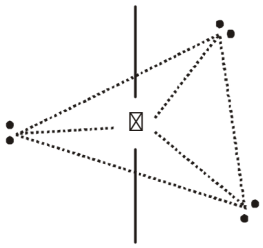
77. (c) ◻



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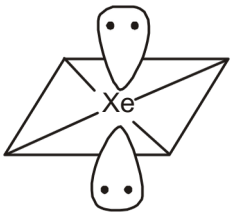

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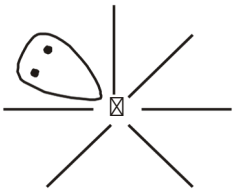

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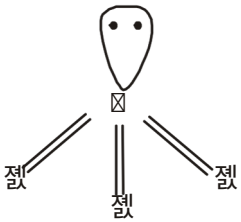

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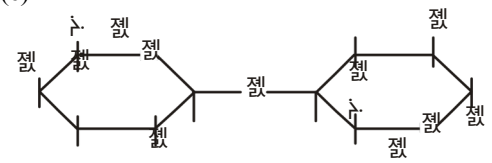
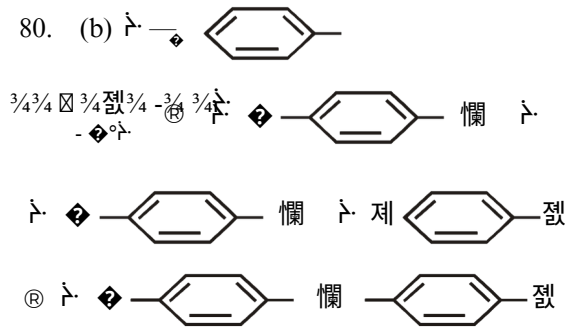
78. (c)



79. (a)

80. (b)



PART - III (MATHEMATICS)

81. (d)

82. (c)

83. (c)

84. (b)

85. (b)

86. (b) □□□ □乙盐□□□ □瞟

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91. (c) [illegible]

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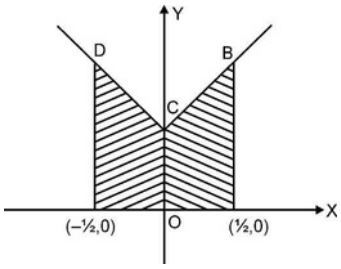

[illegible]

[illegible]

92. (a) [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

93. (c) [illegible]

[illegible]

[illegible]

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[illegible]

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94. (d) [illegible]

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95. (c) 序 序 序 序 =

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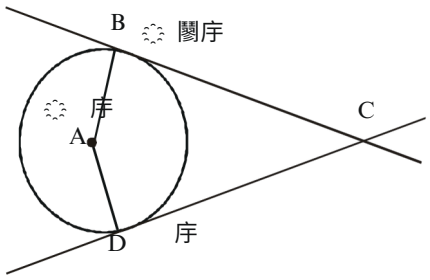
96. (b)



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98. (d) $z = \frac{\text{瞟}\ i}{\text{瞟}-\ i} \cdot \frac{\text{瞟}+\ i}{\text{瞟}+\ i}$

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101. (a) 꾀 È 序 懶 꾀序 제 序 꾀序錐

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102. (a) 嘴 序

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103. (a) 盐 懶

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104. (a) 盐竜 雙 瞧 瞧 竜

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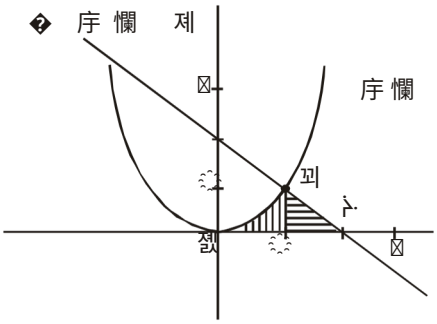
105. (d) 乙盐 懶 꾀 젊 꾀 제 꾀 꾀



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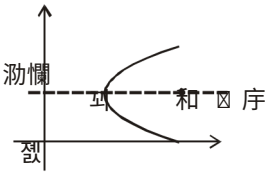
106. (a)

107. (b)

108. (c)

109. (b)



110. (b) □

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111. (b) 序= ┼□瞟 - ┼□瞟 ┼□瞟= ┼□瞟□

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113. (b) □□□□ □乙盐□□□ □ □ □┼盐 □□瞟泐 欄 □

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\ from□序 □y□= a a = □ = □ □°錐

Þ y□ = □°

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□ □序□ □ □序□□ □ □ □┼盐□ □□□┼

□ □

114. (a) 잴 ÷ ÷ ⊠ ÷ ⊠ 泐 ⊠ $\frac{泐}{⊠ 瞟 ⊠}$ = ⊠ ⊠ 瞟

$\sqrt{⊠ + 瞟 ⊠ a}$

잴 ÷ ÷ ⊠ ⊠ ÷ ⊠ 泐 ⊠ $\frac{泐}{⊠ 瞟 ⊠}$ + $\frac{泐}{⊠}$ = ⊠ ⊠ 瞟

$\sqrt{⊠ - 瞟 ⊠ a}$

⊠ ⊠ ⊠ $\sqrt{⊠ + 瞟 ⊠ a}$ = $\sqrt{⊠}\sqrt{⊠ - 瞟 ⊠ a}$

Þ 瞟 ⊠ a = $\frac{}{⊠}$

Þ a = 瞟 ⊠ $\sqrt{\frac{}{⊠}}$ = ⊠ - ⊠ $\sqrt{}$

115. (a)

p	q	p Ù q	(p Ù q) Þ p
T	T	T	T
T	F	F	T
F	T	F	T
F	F	F	T

\ p Ù q 序 Þ p ⊠ 瞟 ⊠ ⊠ 盐 ⊠ ⊠ ⊠ 泐

116. (c) ⊠⊠ ⊠⊠ 序 = ⊠ 竈 $\frac{瞟 ⊠ 序}{®¥ ⊠ - ÷ ⊠ 瞟 序}$

= ⊠ 竈 $\frac{瞟 ⊠ 序}{®¥ \sqrt{⊠序 - ÷ ⊠ 瞟 序}}$

序 ⊠ 瞟 ⊠ 瞟 ÷ ⊠ ⊠ 盐 ⊠ 盐 瞟 雙 ⊠

$\sqrt{⊠序 - ÷ ⊠ 瞟 序}$ =

⊠ ⊠ ÷ ⊠ 瞟 = ± $\frac{\sqrt{⊠}}{}$ Þ = p ± $\frac{p}{}$

117. (d) = ⊠ Þ = ⊠ $\frac{}{⊠}$ ×

Þ = $\frac{}{}$

Þ æçè ö÷ø = $\frac{⊠}{⊠}$ = $\frac{⊠}{⊠}$ ÷ 竈 ⌋ 瞟 ⊠ ÷

118. (b) 和 ⊠ ÷ ⊠ ⊠ ÷ ⊠ 瞟 ⊠ ⊠ ÷ ⊠ ⊠ ⊠

\ $\begin{vmatrix} a & ⊠ & ⊠ \\ ⊠ & b & ⊠ \\ ⊠ & ⊠ & c \end{vmatrix}$ 懶

Þ $\begin{vmatrix} a & ⊠ & ⊠ \\ ⊠ - a & b - ⊠ & \\ & ⊠ - b & c - ⊠ \end{vmatrix}$ 懶 ⊠⊠瞟 ⊠ ⊠

⊠ 桌

Þ a b ⊠序 c ⊠序 ⊠ a序 筏 c ⊠序 ⊠ b序晤 懶

Þ a ⊠ b序 ⊠ c序 졔 ⊠ a序 ⊠ c序 졔 ⊠ a序 ⊠ b序 懶

Þ a ⊠ 졔 ⊠序 ⊠ b序 ⊠ c序 졔 ⊠ a序 ⊠ c序 졔 ⊠ a序 ⊠ b序懶

Þ ⊠ b序 ⊠ c序 졔 ⊠ a序 ⊠ c序 졔 ⊠ a序 ⊠ b序 懶 ⊠ a序 ⊠ b序 ⊠ c序

Þ $\frac{⊠}{⊠ a}$ + $\frac{⊠}{⊠ b}$ + $\frac{⊠}{⊠ c}$ 懶 ⊠

119. (c) ⊠ 꾀 = é⊠ ê⊠ ë - ⊠ ⊠ ù - ⊠ ú ⊠ûú

⊠ 꾀 ⊠ = ⊠ ⊠ 꾀序 ⊠序

꾀 瞟 ⊠ 雙 ⊠ ⊢ ⊠ 雙 꾀 ⊠ $\frac{⊠ 꾀序}{꾀}$ ⊠⊠序

\ 泐 ÷ ⊠竈 ⊠ ⊠ ⊠ ⊠序 ⊠ ⊠⊠序

꾀 懶 k

Þ 꾀 = [illegible]

懶 제 序 제 제 序 제 序 제 序

懶 黨 제 제 懶 [illegible]

120. (d) [illegible]

= [illegible]

[illegible] 序 [illegible]

[illegible] a = [illegible]

Þ h + k + h - k + 黨 [illegible] a

+ [illegible]

Þ + ├ + - ├+ 黨 [illegible]

\ [illegible] + - 泐+ 黨 =

PART - IV (ENGLISH)

121. (c)
122. (d)
123. (a)
124. (c)
125. (b) [illegible]