I. ISAAC ASIMOV – “1 TO 999”

A. VOCABULARY (1–7)

What does “old fraud” mean (Griswold)?

What does “divulge” mean?

What does “adamant” mean?

What does “precarious” mean?

What does “wretched” mean?

What does “placidly” mean?

What does “withering” mean in “a withering look”?

B. COMPREHENSION (8–20)

8. What time limit is given for solving the successor problem?

9. What help does Bassoon offer Griswold?

10. What claim does Griswold make about solving the puzzle quickly?

11. What is the key step in interpreting the numerals?

12. What transformation is applied to numbers 1–999?

13. What linguistic pattern is observed in number words 1–999?

14. Which letter is missing from all number words up to 999?

15. What does the missing-letter pattern represent?

16. What does the number 1,000 contribute to the pattern?

17. What candidate name is proposed?

18. Why is “Noah” considered relevant?

19. What final rule determines the successor?

20. What is the outcome of the inheritance decision?

II. NORMAN KAGAN – “FOUR BRANDS OF IMPOSSIBLE”

A. VOCABULARY (21–29)

21. What does “skull sweat” mean?

22. What does “paper barrier” refer to?

23. What does “monomaniacal studier” imply?

24. What does “microminiaturization” refer to?

25. What does “bug-on-the-walls gambit” mean?

26. What does “arbitrary system” mean?

27. What does “paper shadow” mean?

28. What does “swell dodge” mean?

29. What is a “critical juncture”?

B. COMPREHENSION (30–40)

30. Why does the narrator admire Mandel’s interview strategy?

31. What are the “three brands of impossible”?

32. How are types of impossibility distinguished?

33. Why is the narrator both attracted to and uneasy about research?

34. What does the aleph-sub-zero computer symbolize?

35. What is meant by “thinking in other categories”?

36. What role does sensory enhancement play in the project?

37. Why does exclusion logic lead to collapse?

38. How is Mandel’s breakdown explained?

39. What is the Hopi language example used for?

40. What critique of science is suggested?

III. GREG BEAR – “TANGENTS”

A. VOCABULARY (41–49)

41. What does “swimming in it” imply?

42. What does “still cold broth” mean?

43. What does “if it doesn’t gel, it isn’t aspic” suggest?

44. What does “spraddled” mean?

45. What is a “tesseract”?

46. What is a “disembodied piano keyboard”?

47. What does “mind’s eye” mean?

48. What does “toy with electronic things” imply?

49. What does “none of your concern” indicate?

B. COMPREHENSION (50–60)

50. Where does Pal meet Lauren Davies?

51. Why does Lauren approach Pal?

52. What does Lauren give Pal to eat?

53. What is Peter Tuthy working on?

54. What does Pal see through the device?

55. What object excites Pal?

56. How is a cube passing through a plane explained?

57. What does Pal say a tesseract looks like?

58. Who arrives later?

59. What is Hockrum’s reaction?

60. What is the outcome of Peter’s work?

IV. RUDY RUCKER – “A NEW GOLDEN AGE”

A. VOCABULARY (61–69)

61. What is “eccentric notation”?

62. What is “logical obfuscation”?

63. What is a “feast for the mind”?

64. What is the Appropriations Committee?

65. What does “radiant” imply?

66. What does “flushed and desperate” suggest?

67. What is the “golden age” idea?

68. What is “son et lumière” criticism?

69. What does “ingratiatingly” suggest?

B. COMPREHENSION (70–80)

70. Why does the narrator tape Vickers' work?

71. How does he actually treat the material?

72. What conflict exists with LaHaye?

73. Why is timing important for the demonstration?

74. What is Lady Vickers' role?

75. What does the narrator do during waiting time?

76. Why are the pigs significant?

77. What is reaction to first tape?

78. Why is second tape rejected?

79. What do committees value more than math?

80. What is the outcome?

V. ANATOLY DNIEPROV – "MAXWELL'S EQUATION"

A. VOCABULARY (81–87)

81. What is neurocybernetics?

82. What are frequency-based emotions?

83. What are coded pulses?

84. What is a pulse generator?

85. What are "crackpots"?

86. What does "smattering of mathematics" imply?

87. What does "tragic death" framing suggest?

B. COMPREHENSION (88–100)

88. Why do inmates insist on Kraftstudt as teacher?

89. How are emotions systematized?

90. Why assign numbers to emotions?

91. Why does narrator feel disoriented?

92. What is “learning inside generator”?

93. Why are newcomers exposed to experiments?

94. What is Boltz’s role?

95. Why are inmates said to be mathematicians?

96. Why does recognition fail initially?

97. Why does Deinis’ solution matter?

98. What is Kraftstudt’s function?

99. Why is the newspaper announcement important?

100. What does identity replacement imply?

VI. RUTH BERMAN – “PROFESSOR AND COLONEL”

A. VOCABULARY (101–107)

101. What does “ligulate” mean in sunflower petals?

102. What does “widdershins” mean in spirals?

103. What does “transfixed” mean in Robert’s attention?

104. What does “trajectory” mean in scientific explanation?

105. What does “vainglorious” mean in James’s criticism?

106. What does “commodities” mean in trade context?

107. What does “alacrity” imply in James’s service in India?

B. COMPREHENSION (108–120)

108. Retell the plot of Ruth Berman’s “Professor and Colonel”.

109. How does James interpret Robert’s moral choices?

110. What is Robert’s justification for trade and business?

111. How does Robert connect science and financial support?

112. What does Robert suggest about money and discovery?

113. How does Robert describe global science (Michelson, Mach, Hertz)?

114. Why must Britain invest in science?

115. What is the significance of Robert’s institute idea?

116. How does James react to the institute?

117. What ethical tension appears in the question of honesty?

118. How does Robert redefine honesty in trade?

119. What is contrast between idealism and pragmatism?

120. How is Robert both visionary and morally ambiguous?

VII. IAN WATSON – “IMMUNE DREAMS”

A. VOCABULARY (121–127)

121. What does “obsessional” mean?

122. What does “receding from reality” imply?

123. What does “anesthetizing” mean psychologically?

124. What is a “woolpack” cloud?

125. What does “cumulus” refer to?

126. What is a “failsafe” mechanism?

127. What does “catastrophe curve” mean?

B. COMPREHENSION (128–140)

128. What belief does Rosen have about disease risk?

129. Why does Mary Strope consider Rosen dangerous?

130. What role do dreams play in Rosen’s theory?

131. How is smoking interpreted metaphorically?

132. What is significance of glider flight?

133. What happens in cloud conditions?

134. What does “discontinuity” mean biologically?

135. What is function of pons in experiments?

136. How do cats behave in dream-state observation?

137. What is “error catastrophe”?

138. How does Thibaud interpret dreams biologically?

139. What analogy connects cells and immortality?

140. How are dreams linked to disease prediction?

VIII. GEORGE ZEBROWSKI – “GÖDEL’S DOOM”

141. Why does Witter believe that the AI-5 makes his proposed experiment possible, whereas earlier artificial intelligences did not? What specific capabilities of AI-5 does he emphasize?

142. Witter argues that the experiment could help determine “whether we live in a hard determinism or a soft one in which free will is possible.” Explain the connection he draws between Gödel's theorem, determinism, and free will.

143. According to Witter, what different outcomes should we expect if Gödel is correct and if Gödel is wrong? Why does he think the behavior of the AI could provide evidence for one of these possibilities?

144. What does Witter mean when he says: “We're opening up the very vitals of reality”?

145. The AI system reports: “SYSTEM CAPABLE OF GENERATING ARITHMETIC COMPLETE.” Why is this result so surprising?

146. According to Witter, how can they test whether the system is genuinely complete rather than mistaken?

147. What is a “true statement that is not provable in the system”? Explain the significance of such statements in Gödel's incompleteness theorem.

148. Discuss the relationship between completeness and consistency in formal systems. Why are these concepts important in mathematical logic?

149. Do you think the story presents a convincing philosophical challenge to the idea that human minds are machines? Explain your answer.

150. In approximately 300–500 words, discuss the broader implications of the experiment described in the story. Consider mathematics, artificial intelligence, free will, and human knowledge.