NDA (MATHS) MOCK TEST - 62 (SOLUTION)

1. (D) P(HHHHT or TTTTH) = P(HHHHT) +

$$P(TTTTH) = \left(\frac{1}{2}\right)^5 \times \left(\frac{1}{2}\right)^2 = \frac{1}{16}$$

2. (C) P(X= r)= (r + 1)th term of (q + p)th

$$m = \frac{n+1}{1+\frac{p}{q}} = \frac{101}{1+2} = 33\frac{2}{3}$$

[m] = 33

t_{34} will be greatest

$\therefore$ r = 33.

3. (B) $^5C_2 \times 2! = 56$
4. (B) Binomial distribution has two parameters n and p, where n is number of trials and p is probability of success.

5. (B) $\begin{vmatrix} 1 & t-1 & 1 \\ t-1 & 1 & 1 \\ 1 & 1 & t-1 \end{vmatrix}$

$1(t-1-1) - (t-1)[(t-1)^2-1] + 1(t-1-1) = 0$

$\Rightarrow (t-2) - (t-1)(t^2+1-2t-1) + (t-2) = 0$

$\Rightarrow 2(t-2) - t(t-1)(t-2) = 0$

$\Rightarrow (t-2)[2 - t^2 + t] = 0$

$\Rightarrow (t-2)[t^2 - t - 2] = 0$

$\Rightarrow (t-2)(t-2)(t+1) = 0$

t = 2 , t = 1

6. (C) $(m+n+p)\begin{vmatrix} 1 & n & p \\ 1 & m & n \\ 1 & p & m \end{vmatrix}$

$$(m+n+p)\begin{vmatrix} 1 & n & p \\ 0 & m-n & n-p \\ 0 & p-n & m-p \end{vmatrix}$$

$= (m+n+p)(m^2 - mp - mn + np - np + p^2 + n^2 - n^2 - np)$

$= (m+n+p)(m^2 + n^2 + p^2 - mn - np - pm)$

$\therefore$ The given determinant has linear factor.

7. (A) $AA^T = I$

$|AA^T| = 1$

$|A|^2 = 1$

$|A| = \pm 1$

8. (A) D' = cofactor D

$|D'| = |cofactor\ D|$

$|D'| = |D|^{3-1}$

$|D'| = |D|^2$

So, D'= D^2

10. (B) $\tan(105°) = \tan(60 + 45°) = \frac{\sqrt{3}+1}{1-\sqrt{3}}$

11. (D) $x^2\left(\frac{\tan A - \tan B}{1+\tan A \tan B}\right) = x^2\left(\frac{(x+1)-(x-1)}{1+(x^2-1)}\right)$

$= x^2\left(\frac{2}{x^2}\right) = 2$

12. (D) $\left[\sin^4\theta - \cos^4\theta + 1\right]\text{cosec}^2\theta$

$\left[(\sin^2\theta - \cos^2\theta) + (\sin^2\theta + \cos^2\theta) + 1\right]\text{cosec}^2\theta$

$= \left[(\sin^2\theta)^2 - (\cos^2\theta)^2 + 1\right]\text{cosec}^2\theta$

$= \left[1 - \cos^2\theta - \cos^2\theta + 1\right]\text{cosec}^2\theta$

$= 2(1 - \cos^2\theta)\text{cosec}^2\theta$

$= 2\sin^2\theta\ \text{cosec}^2\theta$

= 2

13. (B) m = 60 d

s= 60 m

$$\frac{s-m}{m-d} = \frac{60m - 60d}{m-d} = 60$$

14. (C) $\frac{\cot x + \text{cosec}x - (\text{cosec}^2 x - \cot^2 x)}{\cot x - \text{cosec}x + 1}$

$\frac{(\cot x + \text{cosec}x) - (\text{cosec}x + \cot x)(\text{cosec}x - \cot x)}{\cot x - \text{cosec}x + 1}$

$\frac{(\cot x + \text{cosec}x)(\cot x - \text{cosec}x + 1)}{\cot x - \text{cosec}x + 1}$

= $\cot x + \text{cosec}x$

= $\frac{1+\cos x}{\sin x}$

16. (D) $\cos C = \dfrac{(18)^2 + (24)^2 - (30)^2}{2 \times 18 \times 24}$

$= \dfrac{9 + 16 + -25}{2 \times 3 \times 4}$

$\cos C = 0 \Rightarrow C = 90°$

$\therefore \sin C = 1$

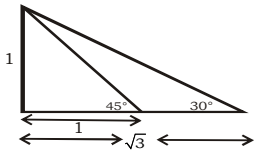
17. (D) a > 0 , b > 0

$2\tan^{-1} a + 2\tan^{-1} b = 2\tan^{-1} x$

$2\tan^{-1}\left(\dfrac{a+b}{1-ab}\right) = 2\tan^{-1} x$

$x = \dfrac{a+b}{1-ab}$

18. (B)



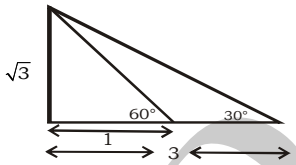
ATQ, $\left(\sqrt{3}-1\right)$units = 10m

1 units = $\dfrac{10}{\sqrt{3}-1} \times \dfrac{\sqrt{3}+1}{\sqrt{3}+1}$

1 units = $\left(5\sqrt{3}+5\right)m$

$\therefore$ Height of lamp post = $\left(5\sqrt{3}+5\right)m$

19. (B)



ATQ,
(3-1) units = 50 m
$\sqrt{3}$ units =$25\sqrt{3}$
$\therefore$ Height of the tower = $25\sqrt{3}$ m

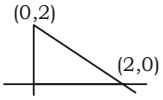
20. (A) $\left(\dfrac{d^4y}{dx^4}\right) = \left(\dfrac{5d^3y}{dx^3} + \dfrac{6d^2y}{dx^2} \ldots.\right)^5$

highest order = 4, degree 3

21. (A) $\dfrac{dy}{y} = -\dfrac{dx}{x}$

log y = - log x + log c
$\Rightarrow$ logxy = logc
$\Rightarrow$ c = xy

22. (B)



Area = $\dfrac{1}{2} \times 2 \times 2 = 2$

23. (B) $\dfrac{dy}{dx} = e^{-x}$

$y = -e^{-x} + c$

24. (B) $\vec{B} = \pm \begin{vmatrix} \hat{i} & \hat{j} & \hat{k} \\ 0 & 0 & 1 \\ 2 & 3 & 4 \end{vmatrix}$

$\vec{B} = \pm 1(3\hat{i} - 2\hat{j}) = \pm(3\hat{i} - 2\hat{j})$

25. (A) $\vec{\alpha} = a_1\hat{i} + a_2\hat{j} + a_2\hat{k}$

take dot with $\hat{i}, \hat{j}$ and $\hat{k}$ on both sides, you get

$\vec{\alpha}.\hat{i} = a_1, a_2 = \vec{\alpha}.\hat{j}, a_3 = \vec{\alpha}.\hat{k}$

$\vec{\alpha} = (\vec{\alpha}.\hat{i})\hat{i} + (\vec{\alpha}.\hat{j})\hat{j} + (\vec{\alpha}.\hat{k})\hat{k}$

26. (B) $\left|\vec{a} \times \vec{b}\right| = \left|\vec{a}.\vec{b}\right|$

$|\vec{a}||\vec{b}|\sin\theta = |\vec{a}||\vec{b}|\cos\theta$

$\tan\theta = 1 \Rightarrow \theta = \dfrac{\pi}{4}$

27. (B) $\left|\vec{a} + \vec{b}\right|^2 + \left|\vec{a} - \vec{b}\right|^2 = 2(|\vec{a}|^2 |\vec{b}|^2)$

$6 + \left|\vec{a} - \vec{b}\right|^2 = 2(2 + 3)$

$\left|\vec{a} - \vec{b}\right| = 2$

28. (D) $\vec{a}(\hat{i} + \hat{j} + \hat{k}) = 0$

Hence (d) none of these

29. (C) $\cos\theta = 4(\hat{i} - \hat{k}).(\hat{i} + \hat{j} + \hat{k})$

$\theta = \dfrac{\pi}{2}$

cos θ + sin θ =1

30. (A) Number of girls be x

$43 = \dfrac{25 \times 40 + x \times 48}{x + 25}$

43x + 43 × 25 = 25 × 40 + x × 48
5x = 3 × 25
x = 15

31. (D) $\bar{x} = \dfrac{30+55+75+90+50+60+39}{7}$

$= \dfrac{399}{7} = 57$

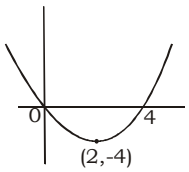
$\therefore$ Required number of student = 4

32. (A) variance is independent of change of origin.

34. (A) X =5

$\sigma^2 = \sum_{i=1}^{5} \dfrac{(x-\bar{x})^2}{N} = 0$

35. (C) $\because$ f(2) = 4 - 8= -4



$\therefore$ x = 2

36. (A) $y = xe^x$

$\dfrac{dy}{dx} = e^x + xe^x = e^x(1+x) = 0$

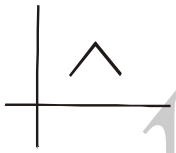
x = -1

$\dfrac{d^2y}{dx^2} = e^x + e^x(1+x)$

$\left(\dfrac{d^2y}{dx^2}\right)_{(x=-1)} = \dfrac{1}{e} + 0 > 0$

$y_{min} = (-1)e^{-1} = -\dfrac{1}{e}$

37. (B)



1. Not necessarily true
2. True

38. (A) $y = \log_x x$

y = 1 (for x > 0 and $x \neq 1$)

$\dfrac{dy}{dx} = 0$

39. (C) $\int_0^2 \dfrac{dx}{x^2+4} = \dfrac{1}{2}\left[\tan^{-1}\dfrac{x}{2}\right]_0^2 = \dfrac{1}{2}\left[\dfrac{\pi}{4} - 0\right] = \dfrac{\pi}{8}$

40. (C) $\int_{-a}^{a} (x^3 + \sin x)dx = 0$ ($\because$ odd function)

41. (A) $\int_0^1 \underset{\text{I}}{x} \quad \underset{\text{I}}{e^x dx} = x\,e^x - \int_0^1 1.e^x dx$

$\left|xe^x - e^x\right|_0^1 = (e - e) - [0 - 1] = 1$

42. (D) $\int e^{\log} dx = \dfrac{x^2}{2} + c$

43. (D) $\int_{-\frac{\pi}{6}}^{\frac{\pi}{6}} \dfrac{\sin^5 x.\cos^3 x}{x^4} dx = 0$ ($\because$ odd function)

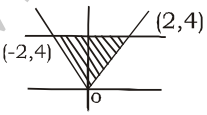
44. (A) $\int \dfrac{dx}{x \log x}$

Put log x = t

$\int \dfrac{1}{t} dt = \log t + c$

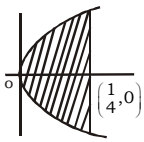
log (logx) + c

45. (C)



Area = 2 × 4 = 8 sq. unit

46. (B) Area $= 2\int_0^{1/4} \sqrt{x}dx$



$= 2.\dfrac{2}{3}\left[x^{3/2}\right]_0^{1/4}$

$= \dfrac{4}{3}\left[\dfrac{1}{8} - 0\right] = \dfrac{1}{6}$ sq.unit

47. (A) $v = \sec^2 x$, $z = \tan^2 x$

$\dfrac{dv}{dz} = \dfrac{dv/dx}{dz/dx} = \dfrac{2\sec x.\sec x\tan x}{2\tan x.\sec^2 x} = 1$

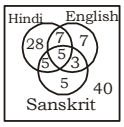
48. (B) y = sinx

$\dfrac{dy}{dx} = \cos x = \dfrac{d^2y}{dx^2} = -\sin x$

$\therefore \quad y + \dfrac{d^2y}{dx^2} = 0$

49. (A) Degree and order of the given differential equation is 1,1 respectively.

50. (C)



40 % of total population = $0.4 \times 75 \times 10^6$
$= 3 \times 10^7$

51. (A) $0.28 \times 75 \times 10^6 = 21 \times 10^6$

52. (D) $0.05 \times 75 \times 10^6 = 3.75 \times 10^6$

53. (D) $0.07 \times 75 \times 10^6 = 5.25 \times 10^6$

54. (C) $0.4 \times 75 \times 10^6 = 30 \times 10^6 = 30 \times 10^7$

55. (B) $0.15 \times 75 \times 10^6 = 11.25 \times 10^6$

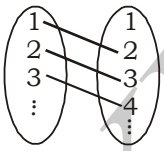
56. (C) $\frac{1}{x-3} = \frac{1}{x+2} - \frac{1}{2}$
$2(x+2) = -x(x-3)$
$2x + 4 + x^2 - 3x = 0$
$x^2 - x + 4 = 0$

57. (D) For any $x \in R$
$|x|x^2 + 1$ can't be zero.

58. (C) $A \times (B \cup C)$
$\{x, y\} \times \{2, 3, 4\} = 6$

59. (C) $\log_y x^5 \log_x y^2 \log_z z^3$
$\frac{5\log x}{\log y} \times \frac{2\log y}{\log x} \times \frac{3\log z}{\log z} = 30$

61. (B)



f is one-one but not onto

62. (B) x^2 - (sum of root)x + product of root = 0
$x^2 - 3x + 2 = 0$

63. (A) $\frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta} = \frac{-b}{c}$

64. (C) Let width = x
so, length = $2x + 5$
$\therefore$ $x(2x + 5) = 75$
$2x^2 + 5x - 75 = 0$
$(x-5)(2x+15) = 0$
$x = 5, -\frac{15}{2}$
$\therefore$ length = $2x + 5 = 15$ units

65. (C) Direction cosines of z-axis are 0,0,1.
sum of the direction cosines = 1

66. (A) Area $= \frac{1}{2}\left|\overrightarrow{AB} \times \overrightarrow{BC}\right|$

$= \frac{1}{2}\begin{vmatrix} i & j & k \\ 1 & 2 & 3 \\ -3 & -2 & 1 \end{vmatrix}$

$= \frac{1}{2}\left(8\hat{i} - 10\hat{j} + 4\hat{k}\right) = \frac{1}{2}\sqrt{64 + 16 + 100}$

$= \frac{1}{2}\left(6\sqrt{5}\right) = 3\sqrt{5}$

67. (D) $x - 2y + z = 1$ .....(i)
$x - 2y + z = \frac{2}{3}$ .....(ii)

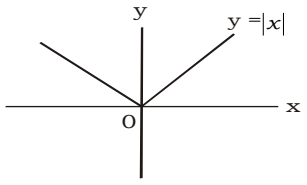
Distance $= \left|\frac{1 - \frac{2}{3}}{\sqrt{1+4+1}}\right| = \frac{1}{3\sqrt{6}}$

68. (A) $\cos^2 30° + \cos^2\beta + \cos^2\gamma = 1$
$\Rightarrow \cos^2\beta + \cos^2\gamma = \frac{1}{4}$

69. (B) $k + 1 = 3 \Rightarrow k = 2$

71. (C) $6x^2 - 6y\frac{dy}{dx} = 0$
$\Rightarrow \frac{dy}{dx} = \frac{x^2}{y}$

72. (D)



RHD = 1 at x = 0
LHD = -1 at x = 0

73. (B) Let f(2 + h) = 4 as $h \to 0$
Let (2 - h) = 4 as $h \to 0$
Let f(2) = 4
continuous at x = 2
$f'(2^+) = 4$, $f'(2^-) = 3$

75. (A) $\lim_{x\to 0}\frac{\cos x - \sec^2 x}{1} = 1 - 1 = 0$

76. (B) $\lim_{h\to 0}\frac{\frac{-1}{2\sqrt{1+x}}}{1} = -\frac{1}{2}$

77. (A) $\frac{dy}{dx} = a\cos(ax+b)$

$\Rightarrow \frac{d^2y}{dx^2} = -a^2\sin(ax+b)$

$\Rightarrow \left(\frac{d^2y}{dx^2}\right)_{x=0} = -a^2\sin(0)$

$\Rightarrow \left(\frac{d^2y}{dx^2}\right)_{x=0} = 0$

78. (C) x >0 ; $f(x) = \frac{x}{x} = 1$

$x < 0$; $f(x) = \frac{-x}{x} = -1$

Range = {-1,1}

79. (B) $y = x^x \Rightarrow \log y = x \log x$

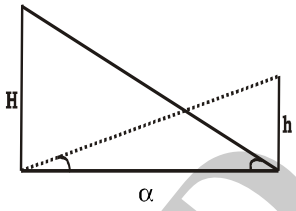
$\frac{1}{y}\frac{dy}{dx} = x \times \frac{1}{x} + \log x$

$\frac{dy}{dx} = y + y\log x$

$\left(\frac{dy}{dx}\right)_{x=1} = 1 + 1\log 1$

$\left(\frac{dy}{dx}\right)_{x=1} = 1$

80. (C)



$\frac{H}{\alpha} = \sqrt{3}$

and $\frac{h}{\alpha} = \frac{1}{\sqrt{3}}$

$\Rightarrow \frac{H}{h} = 3 \Rightarrow H = 3h$

81. (C) $\frac{1+\cos\theta}{\sin\theta} = c$

$\Rightarrow \cot\frac{\theta}{2} = c$

$\Rightarrow \cos\theta = \frac{1-\frac{1}{c^2}}{1+\frac{1}{c^2}} = \frac{c^2-1}{c^2+1}.$

82. (C) $\sin\theta + 2\cos\theta = 1$ ....(i)

$2\sin\theta - \cos\theta = \alpha$ (let)

squaring and adding

$1 + 4 = 1 + \alpha^2 \Rightarrow \alpha^2 = 4 \Rightarrow \alpha = 2$

83. (B) $\sqrt{\sin A\cos ecA - \sin A\sin A}$

$= \sqrt{1-\sin^2 A} = \cos A$

84. (A) $(\tan^2A - \sec^2A)(\tan^2A + \sec^2A) + \tan^2A + \sec^2A$

$= -(\tan^2A + \sec^2A) + \tan^2A + \sec^2A = 0$

85. (B) $S = (x-3)^2 + (y-5)^2 - 36$

for inside circle s <0 for (0,1).

86. (A) $\frac{x}{a} + \frac{y}{b} = 1 \Rightarrow \frac{3}{a} + \frac{4}{b} = 1$ .....(i)

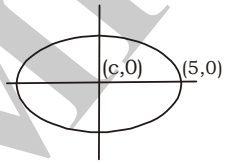
a + b =14 ....(ii)

from (i) and (ii)

a= 6 and b = 8

$\therefore$ 4x + 3y = 24 or x + y = 7.

87. (A) a = 5 and ae = 4



$e = \frac{4}{5}$

$e^2 = 1 - \frac{b^2}{a^2}$

$\Rightarrow \frac{16}{25} = 1 - \frac{b^2}{25}$

$\Rightarrow \frac{b^2}{25} = \frac{9}{25} \Rightarrow b^2 = 9$

$\therefore$ Equation of ellipse is

$\frac{x^2}{25} + \frac{y^2}{9} = 1$

88. (B) P(0,0)

$(a+1)^2 + a^2 = a^2 + (a-5)^2$

$\Rightarrow 2a^2 + 2a + 1 = 2a^2 - 10a + 25$

$\Rightarrow 12a = 24$

$\Rightarrow a = 2$

$\therefore P = (2,2)$

90. (A) $\frac{1}{2}\begin{vmatrix} 3 & 0 & 1 \\ 0 & 4 & 1 \\ 3 & 4 & 1 \end{vmatrix}$

$\frac{1}{2}\left|3(4-4) + 1(0-12)\right| = 6$

91. (B) $\frac{x}{5}+\frac{y}{3}=1$

$3x + 5y - 15 = 0$

$P=\left|\frac{3.4+5.4-15}{\sqrt{34}}\right|=\left|\frac{17}{\sqrt{34}}\right|$

$P=\sqrt{\frac{17}{2}}$

92. (B) $\tan\theta=\sqrt{3}\Rightarrow\theta=60°$

93. (D) $\cos\theta=\frac{2(3)+(-1)(-4)+5(-2)}{\sqrt{2^2+1^2+2^2}\sqrt{3^2+4^2+5^2}}=0$

$\theta=\frac{\pi}{2}$

94. (D) If the line of parallel to the plane then $al + bm + cn = 0$

95. (C) $\sqrt{-i}=\sqrt{e^{-i\pi/2}}=\pm e^{-i\pi/4}=\pm\left(\frac{1-i}{\sqrt{2}}\right)$

96. (A) $z = -1 - i$ (argument lies in III quadrant)

$\therefore \arg(z)=\pi+\tan^{-1}\left|\frac{-1}{-1}\right|=\frac{5\pi}{4}$

97. (A) Put $2x = t$

$t^2 - 6t + 8 = 0$

$t = 2 , 4$

$x = 1 , 2$

98. (C) Minimum 4 balls have to be drawn

99. (A) Sum of coefficient = 2^n

100. (D) $x = (31!y)$

$\therefore x > y$

101. (D) $101101 = 2^0+1\times2^2+1\times2^3+1\times25=45$

102. (D) Required equation is

$x^2 - x\{(\alpha+\beta)^2 - 2\alpha\beta\} + (\alpha\beta)^2=0$

$x^2-x\left(\frac{b^2}{a^2}-\frac{2c}{a}\right)+\frac{c^2}{a^2}=0$

$\Rightarrow a^2x^2-x(b^2-2ac)+c^2=0$

103. (D) Let roots of equation $3ax^2 + 2bx + c = 0$ is 2α and 3α.

$\therefore 2\alpha+3\alpha=-\frac{2b}{3a}\Rightarrow\alpha=-\frac{2b}{15a}$

and, $2\alpha.3\alpha=\frac{c}{3a}\Rightarrow\alpha^2=\frac{c}{18a}$

$\therefore\left(\frac{-2b}{15a}\right)^2=\frac{c}{18a}\Rightarrow\frac{4b^2}{225a^2}=\frac{c}{18a}$

$8b^2 = 25ac.$

104. (B) Both lines are parallel so they will never meet

105. (C) For infinite solution

$\frac{3}{9}=\frac{-1}{-k}=\frac{8}{24}$

$k = 3$

106. (A) $\because$ (n-3), 4n-2, 5n + 1 are in AP,

$2(4n-2) = (n- 3) + 5n +1$

$8n - 4 = 6n -2 \Rightarrow n = 1$

107. (B) $(x+1)^2-1=0\Rightarrow x+1=\pm1$

$x = 0,-2$ two real roots

108. (A) A and B are 2 non singular matrix . so, A^{-1} and B^{-1} are defined

$A^{-1}AB = A^{-1}A \Rightarrow B = I$

109. (B) Minor of element 9 = $\begin{vmatrix}9 & 2\\13 & 1\end{vmatrix}=-7$

110. (B) 3, 6, 6, 7, 7 , 8, 8, 9, 9 ,10 , 10, 10 , 12

Median of this data is 8

111. (D) $\sigma=(S.D.)^2$

112. (A) $2A + AH = 2T$

$\Rightarrow A(2 + 4)=27$

$\Rightarrow A=\frac{9}{2}$

$a + b = 9$

$a \times b = AH =18$

$a = 3$ and $b =6$ or $a = 6$ and $b = 3$

113. (C) $14 + x + 27 + y + 15 = 100$

$x + y = 44$

$\therefore x = y$ is only possibility

114. (A) .....GLMY 00

$4! \times {}^5C_2 = 240$

115. (C) $6 \times 2 \times 2 = 24$ sample points

117. (B) Total case $6 \times 6 = 36$

Favourable = (1,6), (2,5) , (3,4),(4,3),(5,2),(6,1)

Probability= $\frac{6}{36}=\frac{1}{6}$

118. (D) ${}^4C_2\times\left(\frac{1}{2}\right)^2\times\left(\frac{1}{2}\right)^2=\frac{6}{16}=\frac{3}{8}$

119. (C) $\frac{{}^3C_2}{{}^8C_2}=\frac{3}{28}$

NDA (MATHS) MOCK TEST - 62 (Answer Key)

1.	(D)	21.	(A)	41.	(A)	61.	(B)	81.	(C)	101.	(D)
2.	(C)	22.	(B)	42.	(D)	62.	(B)	82.	(C)	102.	(D)
3.	(B)	23.	(B)	43.	(D)	63.	(A)	83.	(B)	103.	(D)
4.	(B)	24.	(B)	44.	(A)	64.	(C)	84.	(A)	104.	(B)
5.	(B)	25.	(A)	45.	(C)	65.	(C)	85.	(B)	105.	(C)
6.	(C)	26.	(B)	46.	(B)	66.	(A)	86.	(A)	106.	(A)
7.	(A)	27.	(B)	47.	(A)	67.	(D)	87.	(A)	107.	(B)
8.	(A)	28.	(D)	48.	(B)	68.	(A)	88.	(B)	108.	(A)
9.	(C)	29.	(C)	49.	(A)	69.	(B)	89.	(C)	109.	(B)
10.	(B)	30.	(A)	50.	(C)	70.	(D)	90.	(A)	110.	(B)
11.	(D)	31.	(D)	51.	(A)	71.	(C)	91.	(B)	111.	(D)
12.	(D)	32.	(A)	52.	(D)	72.	(D)	92.	(B)	112.	(A)
13.	(B)	33.	(C)	53.	(D)	73.	(B)	93.	(D)	113.	(C)
14.	(C)	34.	(A)	54.	(C)	74.	(C)	94.	(D)	114.	(A)
15.	(D)	35.	(C)	55.	(B)	75.	(A)	95.	(A)	115.	(C)
16.	(D)	36.	(A)	56.	(C)	76.	(B)	96.	(A)	116.	(B)
17.	(D)	37.	(B)	57.	(D)	77.	(A)	97.	(A)	117.	(A)
18.	(B)	38.	(A)	58.	(C)	78.	(C)	98.	(C)	118.	(D)
19.	(B)	39.	(C)	59.	(C)	79.	(B)	99.	(A)	119.	(C)
20.	(C)	40.	(C)	60.	(C)	80.	(C)	100.	(D)	120.	(C)