VERY SIMILAR PRACTICE TEST 6

Time : 3 hrs. Max. Marks : 300

PHYSICS

1. The number of significant figures in the numbers 4.8000×10^4 and 48000.50 are respectively
(a) 5 and 6 (b) 5 and 7
(c) 2 and 7 (d) 2 and 6

2. The length of a potentiometer wire is l. A cell of emf ε is balanced at a length $l/5$ from the positive end of the wire. If length of the wire is increased by $l/2$. At what distance will the same cell give a balance point?
(a) $\frac{2}{15}l$ (b) $\frac{3}{15}l$ (c) $\frac{3}{10}l$ (d) $\frac{4}{10}l$

3. A body A starts from rest with an acceleration a_1. After 2 seconds, another body B starts from rest with an acceleration a_2. If they travel equal distances in the 5th second, after the start of A, then the ratio $a_1 : a_2$ is equal to
(a) 5 : 9 (b) 5 : 7 (c) 9 : 5 (d) 9 : 7

4. A particle of charge q and mass m moves in a circular orbit of radius r with angular speed ω. The ratio of the magnitude of its magnetic moment to that of its angular momentum depends on
(a) ω and q (b) ωq and m
(c) q and m (d) ω and m

5. A machine gun is mounted on a 2000 kg car on a horizontal frictionless surface. At some instant, the gun fires 10 bullets/second and each of mass 10 g with a velocity of 500 m s^{-1}. The acceleration of the car is
(a) 0.025 m s^{-2} (b) 0.25 m s^{-2}
(c) 0.50 m s^{-2} (d) 500 m s^{-2}

6. What will happen to the inductance L of a solenoid when the number of turns and the length are doubled keeping the area of cross-section same?
(a) $\frac{L}{2}$ (b) L (c) $2L$ (d) $4L$

7. A bomb moving with velocity $(40\hat{i}+50\hat{j}-25\hat{k})$ m s^{-1} explode into two pieces of mass ratio 1 : 4. After explosion the smaller piece moves away with velocity $(200\hat{i}+70\hat{j}+15\hat{k})$ m s^{-1}. The velocity of larger piece after explosion is
(a) $45\hat{j}-35\hat{k}$ (b) $45\hat{i}-35\hat{j}$
(c) $45\hat{k}-35\hat{j}$ (d) $-35\hat{i}+45\hat{k}$

8. A ray of light is incident normally on one of the faces of a prism of apex angle 30° and refractive index $\sqrt{2}$. The angle of deviation of the ray is
(a) 0° (b) 12.5° (c) 15° (d) 22.5°

9. Particles of masses m, $2m$, $3m$ … nm grams are placed on the same line at distance l, $2l$, $3l$ … nl cm from a fixed point. The distance of centre of mass of the particles from the fixed point in centimetre is
(a) $\frac{(2n+1)l}{3}$ (b) $\frac{l}{n+1}$
(c) $\frac{n(n^2+1)l}{2}$ (d) $\frac{2l}{n(n^2+1)}$

10. When one of the slits of Young's experiment is covered with a transparent sheet of thickness 4.8 mm, the central fringe shifts to a position originally occupied by the 30th bright fringe. What should be the thickness of the sheet if the central fringe has to shift to the position occupied by 20th bright fringe?
(a) 3.8 mm (b) 1.6 mm
(c) 7.6 mm (d) 3.2 mm

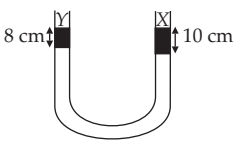
11. A gas expands with temperature according to the relation $V = KT^{2/3}$. Calculate work done when the temperature changes by 60 K?
(a) $10R$ (b) $30R$ (c) $40R$ (d) $20R$

12. The electric field (in N C^{-1}) in an electromagnetic wave is given by

$$E = 50\sin\omega\left(t - \frac{x}{c}\right).$$

The energy stored in a cylinder of cross-section 10 cm^2 and length 100 cm along the x-axis will be
(a) 5.5×60^{-12} J (b) 1.1×10^{-11} J
(c) 2.2×10^{-11} J (d) 1.65×10^{-11} J

13. A liquid X of density 3.36 g cm^{-3} is poured in a U-tube, which contains Hg. Another liquid Y is poured in left arm with height 8 cm, upper levels of X and Y are same. What is the density of Y?



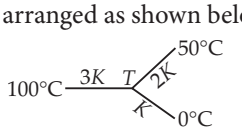
(a) 0.8 g cm^{-3} (b) 1.2 g cm^{-3}
(c) 1.4 g cm^{-3} (d) 1.6 g cm^{-3}

14. A common emitter amplifier has a voltage gain of 50, an input impedance of 100 Ω and an output impedance of 200 Ω. The power gain of the amplifier is
(a) 500 (b) 1000 (c) 1250 (d) 100

15. The Poisson's ratio of a material is 0.4. If a force is applied to a wire of this material, there is a decrease of cross-sectional area by 2%. The percentage increase in its length is
(a) 3% (b) 2.5% (c) 1% (d) 0.5%

16. A signal wave of frequency 12 kHz is modulated with a carrier wave of frequency 2.51 MHz. The upper and lower side band frequencies are respectively
(a) 2512 kHz and 2508 kHz
(b) 2522 kHz and 2488 kHz
(c) 2502 kHz and 2498 kHz
(d) 2522 kHz and 2498 kHz

17. Three rods of same dimensions have thermal conductivities $3K$, $2K$ and K respectively. They are arranged as shown below



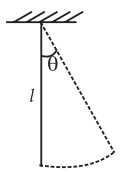
What will be the temperature T of the junction?

(a) $\frac{200}{3}$°C (b) $\frac{100}{3}$°C
(c) 75°C (d) $\frac{50}{3}$°C

18. The mass of deuteron ($_1H^2$) nucleus is 2.014102 u. If the masses of proton and neutron are 1.007825 u and 1.008665 u respectively, nucleus the binding energy per nucleon of $_1H^2$ nucleus is
(a) 2.2 MeV (b) 1.1 MeV
(c) 0.5 MeV (d) 0.25 MeV

19. An electric dipole of length 1 cm is placed with the axis making an angle of 30° with an electric field of strength 10^4 N C^{-1}. If it experiences a torque of $10\sqrt{2}$ N m, the potential energy of the dipole is
(a) 0.245 J (b) 2.45 J
(c) 0.0245 J (d) 24.5 J

20. A rod is oscillating from a support, freely. The period is



(a) $T = 2\pi\sqrt{\frac{l}{g}}$

(b) $T = 2\pi\sqrt{\frac{2l}{g}}$

(c) $T = 2\pi\sqrt{\frac{l}{3g}}$

(d) $T = 2\pi\sqrt{\frac{2}{3}\frac{l}{g}}$

NUMERICAL VALUE TYPE

21. A parallel plate capacitor is maintained at a certain potential difference. When a 3 mm thick slab is introduced between the plates, in order to maintain the same potential difference, the distance between the plates is increased by 2.4 mm. The dielectric constant of the slab is ____.

22. A silver sphere of radius 1 cm and work function 4.7 eV is suspended from an insulating thread in free-space. It is under continuous illumination of light of wavelength 200 nm. As photoelectrons are emitted, the sphere gets charged and acquires a potential. The maximum number of photoelectrons emitted from the sphere is $A \times 10^Z$ (where $1 < A < 10$). The value of Z is _____.

23. The activity of a freshly prepared radioactive sample is 10^{10} disintegrations per second, whose mean life is 10^9 s. The mass of an atom of this radioisotope is 10^{-25} kg. The mass of the radioactive sample is _____ mg.

24. The period of revolution of planet *A* around the sun is 8 times that of *B*. The distance of *A* from the sun is _____ times that of *B* from the sun.

25. In a car race sound signals emitted by the two cars are detected by the detector on the straight track at the end point of the race. Frequency observed are 330 Hz and 360 Hz and the original frequency is 300 Hz of both cars. Race ends with the separation of 100 m between the cars. Assume both cars move with constant velocity and velocity of sound is 330 m s^{-1}. The time taken by winning car is _____ s.

CHEMISTRY

26. Aniline is treated with bromine water to give an organic compound '*X*' which when treated with $NaNO_2$ and HCl at 0°C gives a water soluble compound '*Y*'. Compound '*Y*' on treatment with Cu_2Cl_2 and HCl gives compound '*Z*'. Compound '*Z*' is
(a) *o*-bromochlorobenzene
(b) *p*-bromochlorobenzene
(c) 2, 4, 6-tribromophenol
(d) 2, 4, 6-tribromochlorobenzene.

27. Temporary hardness and permanent hardness in water can be removed respectively by addition of
(a) CaO, $CaCO_3$ (b) CaO, Na_2CO_3
(c) Na_2CO_3, CaO (d) $NaHCO_3$, $CaCl_2$

28. According to adsorption theory of catalysis, the speed of the reaction increases because
(a) concentration of the reactant molecules at active centres of the catalyst becomes high due to adsorption
(b) in the process of adsorption, the activation energy of molecules becomes large
(c) adsorption produces heat which increases the speed of the reaction
(d) adsorption lowers the activation energy of the reaction.

29. Formation of a solution from two components can be considered as
(i) Pure solvent → separated solvent molecules, ΔH_1
(ii) Pure solute → separated solute molecules, ΔH_2
(iii) Separated solvent and solute molecules → solution, ΔH_3
Solution so formed will be ideal if
(a) $\Delta H_{solution} = \Delta H_1 + \Delta H_2 - \Delta H_3$
(b) $\Delta H_{solution} = \Delta H_1 - \Delta H_2 - \Delta H_3$
(c) $\Delta H_{solution} = \Delta H_3 - \Delta H_1 - \Delta H_2$
(d) $\Delta H_{solution} = \Delta H_1 + \Delta H_2 + \Delta H_3$

30. During the extraction of Cu in the blast furnace at the roasting step,
(a) Cu_2S gets converted to Cu_2O if temperature is below 800°C
(b) Cu_2S gets converted to Cu_2O if temperature is above 800°C
(c) FeS remains unaffected and gets converted to FeO only at temperature above 1000°C
(d) $FeSiO_3$ is formed and removed.

31. If we consider that 1/6, in place of 1/12, mass of carbon atom is taken to be the relative atomic mass unit, the mass of one mole of a substance will
(a) decrease to half (b) increase two fold
(c) remain unchanged
(d) be a function of the molecular mass of the substance.

32. Match the polymers given in column I with their chemical names given in column II.

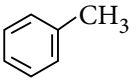
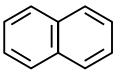
	Column I		**Column II**
P.	Nylon 6	1.	Polyvinyl chloride
Q.	PVC	2.	Polyacrylonitrile
R.	Acrilan	3.	Polycaprolactum
S.	Natural rubber	4.	*cis*-Polyisoprene

(a) P–1, Q–2, R–3, S–4
(b) P–4, Q–3, R–1, S–2
(c) P–3, Q–1, R–4, S–2
(d) P–3, Q–1, R–2, S–4

33. Consider the following equilibrium in a closed container, $N_2O_{4(g)} \rightleftharpoons 2NO_{2(g)}$.
At a fixed temperature, the volume of the reaction mixture is halved. For this change, which of the following statements holds true regarding the equilibrium constant (K_p) and degree of dissociation (α)?
(a) Neither K_p nor α changes.
(b) Both K_p and α change.
(c) K_p changes but α does not.
(d) K_p does not change but α changes

34. The detergent which is used as a germicide is
(a) sodium lauryl sulphate
(b) cetyltrimethylammonium chloride
(c) lauryl alcohol ethoxylate
(d) sodium-2-dodecylbenzenesulphonate.

35. Which of the following is an anti-aromatic compound?

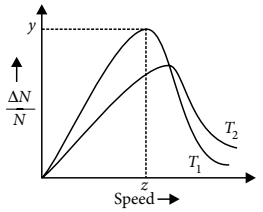
(a) 
(b) 
(c) 
(d) 

36. A 1.0 M solution with respect to each of metal halides AX_3, BX_2, CX_3 and DX_2 is electrolysed using platinum electrodes. If $E^{\circ}_{A^{3+}/A} = 1.50$ V, $E^{\circ}_{B^{2+}/B} = 0.34$ V, $E^{\circ}_{C^{3+}/C} = -0.74$ V, $E^{\circ}_{D^{2+}/D} = -2.37$ V, the correct sequence in which the various metals are deposited at the cathode, is
(a) *A*, *B*, *C*, *D* (b) *D*, *C*, *B*, *A*
(c) *A*, *B*, *C* (d) *C*, *B*, *A*

37. Schottky defect occurs mainly in electrovalent compounds where
(a) positive ions and negative ions are of different size
(b) positive ions and negative ions are of same size
(c) positive ions are small and negative ions are big
(d) positive ions are big and negative ions are small.

38. The correct IUPAC name of the compound $[Cr(NH_3)_5(NCS)]\ [ZnCl_4]$, is
(a) pentaammineisothiocyanatochromium (III) tetrachloridozincate(II)
(b) pentaammineisothiocyanatozinc chloridochromate(III)
(c) pentaammineisothiocyanatochromate(II)
(d) isothiocyanatopentaamminechromium (II) zincchlorido(IV).

39. Consider the given curve, the correct relationship among T_1 and T_2 is



(a) $T_1 > T_2$
(b) $T_2 > T_1$
(c) $T_1 = T_2$
(d) can't be predicted.

40. In kinetic study of a chemical reaction, slopes are drawn at different times in the plot of concentration of reactants versus time. The magnitude of slopes with increase of time
(a) remains unchanged
(b) increases
(c) decreases
(d) increases and decreases periodically

41. Phenol is converted into bakelite by heating it with formaldehyde in the presence of an alkali or an acid. Which statement is true regarding this reaction?
(a) The electrophile in both cases is $CH_2{=}O$.
(b) The electrophile in both cases is $CH_2{=}\overset{+}{O}H$.
(c) The electrophile is $CH_2{=}O$ in the presence of an alkali and $CH_2{=}\overset{+}{O}H$ in the presence of an acid.
(d) It is a nucleophilic substitution reaction.

42. The correct order of bond order values among the following species is
(i) NO^- (ii) NO^+
(iii) NO (iv) NO^{2+}
(v) NO^{2-}
(a) (i) < (iv) < (iii) < (ii) < (v)
(b) (iv) = (ii) < (i) < (v) < (iii)
(c) (v) < (i) < (iv) = (iii) < (ii)
(d) (ii) < (iii) < (iv) < (i) < (v)

43. An organic compound '*X*' on treatment with pyridiniumchlorochromate in dichloromethane gives compound '*Y*'. Compound '*Y*' reacts with I_2 and alkali to form triiodomethane. The compound '*X*' is
(a) C_2H_5OH (b) CH_3CHO
(c) CH_3COCH_3 (d) CH_3COOH

44. An element *X* belongs to fourth period and fifteenth group of the periodic table. Which of the following statements is true?
(a) It has a completely filled *s*-orbital and a partially filled *d*-orbital.
(b) It has completely filled *s*-and *p*-orbitals and a partially filled *d*-orbital.
(c) It has completely filled *s*-and *p*-orbitals and a half-filled *d*-orbital.
(d) It has a half-filled *p*-orbital and completely filled *s*-and *d*-orbitals.

45. The standard reduction potential values of three metallic cations, X, Y and Z are 0.52, – 3.03 and –1.18 V respectively. The order of reducing power of the corresponding metals is

(a) $Y > Z > X$ (b) $X > Y > Z$

(c) $Z > Y > X$ (d) $Z > X > Y$

NUMERICAL VALUE TYPE

46. Among the following, the total number of alkyl halides that would react by S_N1 mechanism is _____ .

CH_3Br, CH_3CH_2Br, $CH_3CH_2CH_2I$, $(CH_3)_3CBr$, $BrCH_2CH{=}CH_2$, $C_6H_5CH_2Br$, $(CH_3)_3CCH_2Br$, $C_6H_5{-}CHBr{-}CH_3$, $CH_3CH{=}CHCH_2Cl$

47. 2 moles of a perfect gas at 27°C is compressed reversibly and isothermally from a pressure of 1.01×10^5 Nm^{-2} to 5.05×10^6 Nm^{-2}. The free energy change is $x \times 10^4$ joule. The value of x is _____ .

48. Titanium shows magnetic moment of 1.73 B.M. in its compound. The oxidation number of Ti in the compound is _____ .

49. In the compound beryl, number of oxygen atoms shared by one silicate tetrahedron is _____ .

50. In a compound C, H and N are present in 9 : 1 : 3.5 by weight. If molecular weight of the compound is 108, the number of N atoms present in the molecular formula will be _____ .

MATHEMATICS

51. Let $g(x) = 1 + x - [x]$, $[x]$ is the greatest integer not greater than x.

If $f(x) = \begin{cases} -1, & x < 0 \\ 0, & x = 0 \\ 1, & x > 0 \end{cases}$, then for all x, $f(g(x))$ equals

(a) x (b) 1 (c) $f(x)$ (d) $g(x)$

52. $\int \frac{2^x}{\sqrt{1-4^x}}dx =$

(a) $(\log 2)\sin^{-1} 2^x + C$ (b) $\frac{1}{2}\sin^{-1} 2^x + C$

(c) $\frac{1}{\log 2}\sin^{-1} 2^x + C$ (d) $2\log 2 \sin^{-1} 2^x + C$

53. Let $f(x) = \lim\limits_{n\to\infty} \frac{\log_e(2+x) - x^{2n}\sin x}{1+x^{2n}}$, then

(a) $f(x)$ is continuous at $x = 1$

(b) $\lim\limits_{x\to 1^+} f(x) = \log_e 3$

(c) $\lim\limits_{x\to 1^+} f(x) = -\sin 1$

(d) $\lim\limits_{x\to 1^-} f(x)$ does not exist

54. $\cos\frac{\pi}{8}\cos\frac{3\pi}{8}\cos\frac{5\pi}{8}\cos\frac{7\pi}{8}$ is equal to

(a) $\frac{1}{2}$ (b) $\frac{1-\sqrt{2}}{2\sqrt{2}}$

(c) $\frac{1}{8}$ (d) $\frac{1+\sqrt{2}}{2\sqrt{2}}$

55. If S.D. of a variate x is σ then the S.D. of $\frac{ax+b}{p}$ $(\forall\, a,b,p \in R)$ is

(a) $\frac{a}{p}\sigma_x$ (b) $\left|\frac{a}{p}\right|\sigma_x$ (c) $\left|\frac{p}{a}\right|\sigma_x$ (d) $\frac{p}{a}\sigma_x$

56. In how many ways n books can be arranged in a row so that two specified books are not together?

(a) $n! - (n-2)!$ (b) $(n-1)!\,(n-2)$

(c) $n! - 2(n-1)$ (d) $(n-2)n!$

57. If a, b, c are respectively the p^{th}, q^{th}, r^{th} terms of an A.P., then $\begin{vmatrix} a & p & 1 \\ b & q & 1 \\ c & r & 1 \end{vmatrix} =$

(a) 1 (b) –1 (c) 0 (d) pqr

58. The angle between the lines $3x = 6y = 2z$ and $3x + 2y + z - 5 = 0 = x + y - 2z - 3$ is

(a) $\frac{\pi}{6}$ (b) $\frac{\pi}{3}$ (c) $\frac{\pi}{4}$ (d) $\frac{\pi}{2}$

59. $\lim\limits_{x\to 0} \frac{(\cos x)^{1/3} - (\cos x)^{1/2}}{\sin^2 x} =$

(a) $\frac{1}{3}$ (b) $\frac{1}{6}$ (c) $\frac{1}{2}$ (d) $\frac{1}{12}$

60. Let $y = 4x^2$ and $\frac{x^2}{a^2} - \frac{y^2}{16} = 1$ intersect iff

(a) $|a| \le \frac{1}{\sqrt{2}}$ (b) $a < -\frac{1}{\sqrt{2}}$

(c) $a > -\frac{1}{\sqrt{2}}$ (d) none of these

61. If $1, \log_9(3^{1-x}+2), \log_3(4.3^x - 1)$ are in A.P. then x equals

(a) $\log_3 4$ (b) $1 - \log_3 4$

(c) $1 - \log_4 3$ (d) $\log_4 3$

62. If $P(n)$: "$49^n + 16^n + k$ is divisible by 64 for all $n \in N$" is true, then the least negative integral value of k is

(a) – 1 (b) – 2 (c) – 3 (d) – 4

63. If $\sin x \frac{dy}{dx} + y\cos x = x \sin x$, then $(y - 1) \sin x =$

(a) $c - x \sin x$ (b) $c + x \cos x$

(c) $c - x \cos x$ (d) $c + x \sin x$

64. The image of the line $2x - y = 1$ in the line $x + y = 0$ is

(a) $x + 2y = -\frac{1}{3}$ (b) $x - 2y = 1$

(c) $x + 3y = -\frac{2}{3}$ (d) $2x + y = \frac{1}{3}$

65. The determinant $\begin{vmatrix} {}^xC_1 & {}^xC_2 & {}^xC_3 \\ {}^yC_1 & {}^yC_2 & {}^yC_3 \\ {}^zC_1 & {}^zC_2 & {}^zC_3 \end{vmatrix} =$

(a) $\frac{1}{3}xyz(x+y)(y+z)(z+x)$

(b) $\frac{1}{4}xyz(x+y-z)(y+z-x)$

(c) $\frac{1}{12}xyz(x-y)(y-z)(z-x)$

(d) none of these

66. If $y = a \ln x + bx^2 + x$ has its extreme values at $x = -1, 2$ then $a + b =$

(a) 2 (b) $\frac{3}{2}$ (c) 1 (d) $\frac{1}{2}$

67. A is one of 6 horses entered for a race, and is to be ridden by one of two jockeys B and C. It is 2 to 1 that B rides A, in which case all the horses are equally likely to win. If C rides A, his chances of winning is tripled. What are the odds against winning of A?

(a) 5 : 13 (b) 5 : 18

(c) 13 : 5 (d) none of these

68. In the expansion of $(1 + x + x^3 + x^4)^{10}$, the coefficient of x^4 is

(a) ${}^{40}C_4$ (b) ${}^{10}C_4$ (c) 210 (d) 310

69. The solution for x of the equation $\int_{\sqrt{2}}^{x} \frac{dt}{t\sqrt{t^2-1}} = \frac{\pi}{2}$ is

(a) $\frac{\sqrt{3}}{2}$ (b) $2\sqrt{2}$ (c) $-\sqrt{2}$ (d) π

70. If z_1, z_2 and z_3 are complex numbers such that $|z_1| = |z_2| = |z_3| = \left|\frac{1}{z_1} + \frac{1}{z_2} + \frac{1}{z_3}\right| = 1$, then $|z_1 + z_2 + z_3|$ is

(a) equal to 1

(b) less than 1

(c) greater than 3

(d) equal to 3

NUMERICAL VALUE TYPE

71. If $\sqrt{3x^2 - 7x - 30} + \sqrt{2x^2 - 7x - 5} = x + 5$, then x is equal to _____.

72. The projection of $\vec{a} = 3\hat{i} - \hat{j} + 5\hat{k}$ on $\vec{b} = 2\hat{i} + 3\hat{j} + \hat{k}$ is _____.

73. The value of $\frac{56}{\pi}\sum_{k=1}^{\infty} \tan^{-1}\left(\frac{2k}{2 + k^2 + k^4}\right)$ is _____.

74. If the foot of perpendicular from the point (1, –5, –10) to the plane $x - y + z = 5$ is the point (a, b, c), then $|a + b + c|$ is _____.

75. If $\frac{\tan x}{2} = \frac{\tan y}{3} = \frac{\tan z}{5}$ and $x + y + z = \pi$, $\tan^2 x + \tan^2 y + \tan^2 z = \frac{38}{K}$, then $K =$ _____.

Practice Test-6

- Use Blue/Black ball point pen only for marking responses.
- Mark only one choice for each question as indicated.

Correct marking ● ⓑ ⓒ ⓓ

Wrong marking ⊗ ✓ ◐ ●

1.	ⓐ	ⓑ	ⓒ	ⓓ	26.	ⓐ	ⓑ	ⓒ	ⓓ	51.	ⓐ	ⓑ	ⓒ	ⓓ
2.	ⓐ	ⓑ	ⓒ	ⓓ	27.	ⓐ	ⓑ	ⓒ	ⓓ	52.	ⓐ	ⓑ	ⓒ	ⓓ
3.	ⓐ	ⓑ	ⓒ	ⓓ	28.	ⓐ	ⓑ	ⓒ	ⓓ	53.	ⓐ	ⓑ	ⓒ	ⓓ
4.	ⓐ	ⓑ	ⓒ	ⓓ	29.	ⓐ	ⓑ	ⓒ	ⓓ	54.	ⓐ	ⓑ	ⓒ	ⓓ
5.	ⓐ	ⓑ	ⓒ	ⓓ	30.	ⓐ	ⓑ	ⓒ	ⓓ	55.	ⓐ	ⓑ	ⓒ	ⓓ
6.	ⓐ	ⓑ	ⓒ	ⓓ	31.	ⓐ	ⓑ	ⓒ	ⓓ	56.	ⓐ	ⓑ	ⓒ	ⓓ
7.	ⓐ	ⓑ	ⓒ	ⓓ	32.	ⓐ	ⓑ	ⓒ	ⓓ	57.	ⓐ	ⓑ	ⓒ	ⓓ
8.	ⓐ	ⓑ	ⓒ	ⓓ	33.	ⓐ	ⓑ	ⓒ	ⓓ	58.	ⓐ	ⓑ	ⓒ	ⓓ
9.	ⓐ	ⓑ	ⓒ	ⓓ	34.	ⓐ	ⓑ	ⓒ	ⓓ	59.	ⓐ	ⓑ	ⓒ	ⓓ
10.	ⓐ	ⓑ	ⓒ	ⓓ	35.	ⓐ	ⓑ	ⓒ	ⓓ	60.	ⓐ	ⓑ	ⓒ	ⓓ
11.	ⓐ	ⓑ	ⓒ	ⓓ	36.	ⓐ	ⓑ	ⓒ	ⓓ	61.	ⓐ	ⓑ	ⓒ	ⓓ
12.	ⓐ	ⓑ	ⓒ	ⓓ	37.	ⓐ	ⓑ	ⓒ	ⓓ	62.	ⓐ	ⓑ	ⓒ	ⓓ
13.	ⓐ	ⓑ	ⓒ	ⓓ	38.	ⓐ	ⓑ	ⓒ	ⓓ	63.	ⓐ	ⓑ	ⓒ	ⓓ
14.	ⓐ	ⓑ	ⓒ	ⓓ	39.	ⓐ	ⓑ	ⓒ	ⓓ	64.	ⓐ	ⓑ	ⓒ	ⓓ
15.	ⓐ	ⓑ	ⓒ	ⓓ	40.	ⓐ	ⓑ	ⓒ	ⓓ	65.	ⓐ	ⓑ	ⓒ	ⓓ
16.	ⓐ	ⓑ	ⓒ	ⓓ	41.	ⓐ	ⓑ	ⓒ	ⓓ	66.	ⓐ	ⓑ	ⓒ	ⓓ
17.	ⓐ	ⓑ	ⓒ	ⓓ	42.	ⓐ	ⓑ	ⓒ	ⓓ	67.	ⓐ	ⓑ	ⓒ	ⓓ
18.	ⓐ	ⓑ	ⓒ	ⓓ	43.	ⓐ	ⓑ	ⓒ	ⓓ	68.	ⓐ	ⓑ	ⓒ	ⓓ
19.	ⓐ	ⓑ	ⓒ	ⓓ	44.	ⓐ	ⓑ	ⓒ	ⓓ	69.	ⓐ	ⓑ	ⓒ	ⓓ
20.	ⓐ	ⓑ	ⓒ	ⓓ	45.	ⓐ	ⓑ	ⓒ	ⓓ	70.	ⓐ	ⓑ	ⓒ	ⓓ
21.					46.					71.				
22.					47.					72.				
23.					48.					73.				
24.					49.					74.				
25.					50.					75.				