Dulan Madurange –Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange

Examination Centre for Chemistry – Dulan Madurange

Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange –Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange – Chemistry Hub Adelaide Dulan Madurange

Time - ..... Marks- .....

Chemistry Spot Test - 02

📌 *You may use a periodic table to answer the questions.*

⏳ *Time: 25 minutes*

1. **Which of the following elements is a liquid at room temperature?**
   a) Oxygen
   b) Mercury
   c) Magnesium
   d) Sulfur

2. **Which element is located in Group 2, Period 4 of the periodic table?**
   a) Calcium
   b) Potassium
   c) Magnesium
   d) Strontium

3. **Which of the following elements is a noble gas?**
   a) Oxygen
   b) Bromine
   c) Argon
   d) Nitrogen

4. **Which of the following is a metalloid?**
   a) Boron
   b) Sodium
   c) Fluorine
   d) Neon

5. **Which group of elements are the most reactive nonmetals?**
   a) Alkali metals
   b) Alkaline earth metals
   c) Noble gases
   d) Halogens

6. **Which of the following elements has the largest atomic radius?**
   a) Fluorine
   b) Lithium
   c) Cesium
   d) Neon

7. **What is the electronic configuration of a neutral oxygen atom?**
   a) $1s^2\ 2s^2\ 2p^4$
   b) $1s^2\ 2s^2\ 2p^3$
   c) $1s^2\ 2s^2\ 2p^6$
   d) $1s^2\ 2s^2\ 3p^4$

8. **Which ion has the electronic configuration $1s^2\ 2s^2\ 2p^6$?**
   a) Na^+
   b) O^{2-}
   c) Cl^-
   d) Both a and b

9. **Which of the following elements has the highest electronegativity?**
   a) Cesium
   b) Fluorine
   c) Carbon
   d) Iodine

10. **Which of the following statements about metals is true?**
    a) They have low melting points.
    b) They tend to gain electrons.
    c) They are poor conductors of electricity.
    d) They are malleable and ductile.

11. **Which element has three unpaired electrons in its ground state?**
    a) Nitrogen
    b) Oxygen
    c) Neon
    d) Magnesium

12. **Which of the following has the same electronic configuration as neon?**
    a) Cl^-
    b) Mg^{2+}
    c) O^{2-}
    d) All of the above

13. **Which of the following is NOT a transition metal?**
    a) Iron
    b) Copper
    c) Calcium
    d) Zinc

14. **Which element is found in Group 16, Period 3?**
    a) Oxygen
    b) Sulfur
    c) Selenium
    d) Chlorine

15. **Which element would most likely form an anion?**
    a) Potassium
    b) Magnesium
    c) Chlorine
    d) Lithium

16. **Which of the following ions has an unpaired electron?**
    a) Na^+
    b) Fe^{3+}
    c) Cl^-
    d) Mg^{2+}

17. **What is the charge of an aluminum ion in its most stable form?**
    a) -1
    b) +2
    c) +3
    d) -3

18. **Which of the following elements is a solid at room temperature?**
    a) Bromine
    b) Krypton
    c) Lithium
    d) Chlorine

19. **What is the electron configuration of a sodium ion (Na^+)?**
    a) $1s^2\ 2s^2\ 2p^6\ 3s^1$
    b) $1s^2\ 2s^2\ 2p^6$
    c) $1s^2\ 2s^2\ 2p^5$
    d) $1s^2\ 2s^2\ 2p^6\ 3s^2$

20. **Which group in the periodic table contains only metals?**
    a) Group 1
    b) Group 14
    c) Group 17
    d) Group 18

End of Test

PERIODIC TABLE OF THE ELEMENTS

1 H Hydrogen 1.008																	2 He Helium 4.003
3 Li Lithium 6.941	4 Be Beryllium 9.012											5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 O Oxygen 16.00	9 F Fluorine 19.00	10 Ne Neon 20.18
11 Na Sodium 22.99	12 Mg Magnesium 24.31											13 Al Aluminium 26.98	14 Si Silicon 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.95
19 K Potassium 39.10	20 Ca Calcium 40.08	21 Sc Scandium 44.96	22 Ti Titanium 47.90	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mn Manganese 54.94	26 Fe Iron 55.85	27 Co Cobalt 58.93	28 Ni Nickel 58.70	29 Cu Copper 63.55	30 Zn Zinc 65.38	31 Ga Gallium 69.72	32 Ge Germanium 72.59	33 As Arsenic 74.92	34 Se Selenium 78.96	35 Br Bromine 79.90	36 Kr Krypton 83.80
37 Rb Rubidium 85.47	38 Sr Strontium 87.62	39 Y Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molybdenum 95.94	43 Tc Technetium (97)	44 Ru Ruthenium 101.1	45 Rh Rhodium 102.9	46 Pd Palladium 106.4	47 Ag Silver 107.9	48 Cd Cadmium 112.4	49 In Indium 114.8	50 Sn Tin 118.7	51 Sb Antimony 121.8	52 Te Tellurium 127.6	53 I Iodine 126.9	54 Xe Xenon 131.3
55 Cs Caesium 132.9	56 Ba Barium 137.3	57[1] La Lanthanum 138.9	72 Hf Hafnium 178.5	73 Ta Tantalum 180.9	74 W Tungsten 183.8	75 Re Rhenium 186.2	76 Os Osmium 190.2	77 Ir Iridium 192.2	78 Pt Platinum 195.1	79 Au Gold 197.0	80 Hg Mercury 200.6	81 Tl Thallium 204.4	82 Pb Lead 207.2	83 Bi Bismuth 209.0	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89[2] Ac Actinium (227)	104 Rf Rutherfordium (267)	105 Db Dubnium (268)	106 Sg Seaborgium (271)	107 Bh Bohrium (272)	108 Hs Hassium (270)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (280)	112 Cn Copernicium (285)	113 Nh Nihonium (284)	114 Fl Flerovium (289)	115 Mc Moscovium (288)	116 Lv Livermorium (293)	117 Ts Tennessine (294)	118 Og Oganesson (294)

Lanthanide Series[1]	58 Ce Cerium 140.1	59 Pr Praseodymium 140.9	60 Nd Neodymium 144.2	61 Pm Promethium (145)	62 Sm Samarium 150.4	63 Eu Europium 152.0	64 Gd Gadolinium 157.3	65 Tb Terbium 158.9	66 Dy Dysprosium 162.5	67 Ho Holmium 164.9	68 Er Erbium 167.3	69 Tm Thulium 168.9	70 Yb Ytterbium 173.0	71 Lu Lutetium 175.0
Actinide Series[2]	90 Th Thorium 232.0	91 Pa Protactinium 231.0	92 U Uranium 238.0	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (262)