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NSTRUCTIONS TO CAN			wing eleme	the follo	
	173				A. Phosphi
o This paper consists of	50 object	ive questions.			
O Answer all questions					
You are required to w	rite the co	rrect answer	sA, B, Ca	nd D in th	e box on the r
hand side of each ques					A Place
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o Do not use a pencil.		7.7	0.1		1
e reward	For I	Examiners Us	se Only	us solution	7 Tomanie
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1.	to substance C. Which one of the foll A. A is a liquid, B is a solid and C is B. A is a solid, B is a gas and C is a liquid, B is a gas and C is a liquid.	liquid
	C. A is a gas, B is a liquid and C is aD. A is a solid, B is a liquid and C is	
2.	Which one of the following pair of m crystallization? A. Salt and Sugar B. Sodium carbonate and ammonium C. Lead(II) nitrate and Lead(II) sulph D. Barium chloride and zinc chloride	nate
3.	The number of electrons in one atom	of the element represented by ${}^{7}X$ is
	A. 3	C. 7
	B. 4	D. 10
4.	A solid T, dissolved in dilute nitric ac	id to form a colourless solution which when reacted
	with dilute hydrochloric acid, formed	a white precipitate. T is
	A. Zinc oxide	
	B. Aluminum oxide	C. Lead (II) chloride
		D. Lead (II) oxide
5.	Which one of the following elements:	s heated with soft rubber to make it hard and strong
	A. Phosphorus	Control make it hard and strong
	B. Sulphur	C. Calcium
		D. Iron
6.	Which one of the following elements i	s heated with soft rubber to make it hard and strong?
	A. Phosphorus	and strong?
	B Sulphur	C. Calcium
		D. Iron
7.	A. CO_3^{2-}	
	B. <i>Cl</i> ⁻	C. SO ₄ ² -
	The state of the s	D. NO ₃

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8. Hydrogen peroxide decomposes to give oxygen	
$2H_2O_{2(aq)} \longrightarrow 2H_2O_{(l)} + O_{2(g)}$	Kills In the Committee of the Committee
The volume of oxygen produced at s.t.p when 50cm	³ of 3M hydrogen peroxide solution
decomposes completely is. (1 mole of a gas occupie	es 22 4dm ⁻³ at s.t.n)
$A. \left(\frac{50 \times 2 \times 22.4}{1000 \times 3}\right) dm^3$	C. $\left(\frac{50 \times 3 \times 22.4}{1000 \times 2}\right) dm^3$
$B. \left(\frac{1000\times3\times22.4}{50\times2}\right) dm^3$	$D.\left(\frac{50\times3\times2\times22.4}{1000}\right)dm^3$
9. The full symbols of atoms of elements W and X	are $^{31}_{-W}$ and $^{37}_{-X}$ respectively. The
formula of a compound formed between W and I	X is the state of
A. WX	C. W ₃ X
B. WX ₅	D. W ₅ X
is burns, one nest produce i passes the temperature of i	8 When the an are sharent M wa
10. In which of the following test tubes would a drop	of lead (II) nitrate solution form a yellow
precipitate? The test tube containing water and	fore the spot of the section of the
A. sodium iodide B. sodium chloride	B. sodium sulphate D. sodium hydroxide
11 111 2 70 0 1	
11. When 2.78g of a hydrated salt was heated, 1.52g	of anhydrous salt was formed. Which one
of the following is the percentage of water of crys	stallization in the hydrated salt?
A. $\frac{1.52 \times 100}{2.78}$	C. $\frac{1.26 \times 100}{3.70}$
B. $\frac{1.26}{1.52} \times 100$	2.78
	$D = \frac{1}{4.3} \times 100$
12 Which one of the following substances if present removed by boiling the water?	in water can cause hardness that can be
A. Na_2CO_3	
B. MgCl ₂	C. $Ca(HCO_3)_2$
13. Which one of the following pairs of substances with A. Sodium chloride and concentrated sulphuric ac	Il react to form oxygen?
B. Calcium carbonate and dilute hydrochloric acid	eid
C. Potassium manganate (VII) and concentrated h	d.
D. Sodium peroxide and water.	lydrochloric acid.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
14. Which one of the following nitrates when heated, A. NH ₄ NO ₃	will NOT have effect on a litmus
A. NH ₄ NU ₃ B. 7 _p (NO ₂).	C. KNO ₃
B. $Zn(NO_3)_2$	D. AgNO ₃

15. Sulphur dioxide was bubbled through water. T	The resultant solution
A. is an oxidizing agent	TO THE SECOND OF THE SECOND SE
B. is a bleaching agent	A SEC OF FRANCE OF SEC.
C. liberates oxygen when exposed to sunlight	Company of the Company
D. turns red litmus blue	in the contract of the contrac
16. When concentrated sulphuric acid is added to	sugar in a beaker, a black substance is
produced. This is because sulphuric acid is	
A. a strong acid corrosive acid	C. a strong dehydrating agent
B. a strong reducing agent	D. a strong oxidizing agent
17. Which one of the following substances is prod	luced in large amounts at the anode when
copper (ii) chloride is electrolyzed using graph	nite electrodes?
A. Copper	C. Copper (II) ions
B. Hydrogen	D. Oxygen
ar active	D. Oxygon
18. When 0.6g of an element M was burnt, the hea	at produced raised the
of water from 23°C to 32°C. Which one of the of M? (The molar heat of combustion of M is	following asset the temperature of 500cm ³
of M? (The molar heat of combustion of M is water = 4.21/g/°C; density of water = 1.2	280V I = 1-1 C = 3
water = $4.2J/g$ /°C; density of water = $1.0gcm^{-3}$	Specific heat capacity of
A. $\left(\frac{380 \times 0.6}{500 \times 4.2 \times 9}\right)$ B. $\left(\frac{500 \times 4.2 \times 9}{380 \times 0.6}\right)$	1200310 6 31 671 19 602
500 ×4.2 × 9	C. $\frac{1380 \times 0.6 \times 1000}{500 \times 1000}$
B. $\left(\frac{300 \times 4.2 \times 9 \times 1000}{380 \times 9.6}\right)$	D (500 × 4.2 × 9)
	C. $\frac{1380 \times 0.6 \times 1000}{500 \times 4.2 \times 9}$ D. $\left(\frac{500 \times 4.2 \times 9}{380 \times 0.6 \times 1000}\right)$
19. Which one of the following substances will di is greater than 7?	to be a second self-was
is greater than 7?	ssolve in water to form a solution whose pH
A. Na_2O_2	' 전 25 등 15 등 대략 무리가 보고 있다고 보이다. ' 하면 15 등 기를 보고 있다.
$B. NO_2$	C. CO ₂
	D. NH ₄ Cl
20. The full symbols of atoms of elements R T Y	V and 7 29 24
20. The full symbols of atoms of elements R, T, X 177 respectively. Which one of the following is A, R	s an isotope of V^2
and $\mathbf{A}_{\mathrm{B}}\mathbf{K}$ that is study that it stores and defined of the 290 kg.	C. T
B. X	D. Z
Constitution D	D. 2)***
21. Which one of the following sulphates contains	A trace
21. Which one of the following sulphates contains $(H = 1, N = 14, O = 16, Na = 23, Ca = 40)$	the highest percentage of Sulphur?
	0 11 = 6/1
B. $CaSO_4$	$C. Na_2SO_4$
	De CuSO4
22. Anhydrous conner (II) autobate at	Owen stalks a
22. Anhydrous copper (II) sulphate can be sued to	test tor water because it;
13 soluble in water.	C. forms, a coloured hydrate.
B. is hygroscopic.	D. is a coloured compound.
9 56 57 77 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	simple of the manager of

2.00	the first time and the first time to the first time time to the first time time time time time time time tim
23. Copper can be separated from a mix	sture of zinc powder and copper powder by adding to
- Mo mixturo.	This powder by adding to
A. Concentrated sulphuric acid	C. Dilute sulphuric acid
B. Zinc sulphate solution	D. Concentrated nitric acid
24. Which one of the following hydroc concentrated sulphuric acid is heate	arbons is formed when a mixture of ethanol and
A. C_2H_6	Veral Late
B. C ₃ H ₈	C. C ₄ H ₁₀ D. C ₂ H ₄
25 Metal P displaces metal R from it	s oxide and metal R displaces metal W from its oxide.
Which one of the following is the	order of affinity of the metals for oxygen?
A. $W > R > P$	C. $P > W > R$
$\mathbf{B}. \mathbf{R} > \mathbf{P} > \mathbf{W}$	D.P > R > W
	D.P > R > W
26. 20.0cm ³ of a 0.1M acid H _n X requi complete neutralization. The acid equation H _n X _(aq) + nNaOH _(aq) Na _n X _{(a}	red 21.5cm ³ of a 0.2M sodium hydroxide solution for reacts with sodium hydroxide according to the following
Which one of the following express	$h_{\rm q}$ + h_2 O _(l) ssions gives the value of n?
A. $\left(\frac{0.2 \times 21.5}{0.1 \times 20}\right)$	associated with the C $\left(\frac{0.1 \times 21.5}{1.5}\right)$
B. $\left(\frac{0.1 \times 20}{0.2 \times 215}\right)$	0.2 × 20
0.2×21.5	$C.\left(\frac{0.1\times21.5}{0.2\times20}\right)$ $D.\left(\frac{20\times21.5}{0.1\times0.2}\right)$
27 Which one of the following ablant	r aliab sweetler is
27. Which one of the following chlori A. FeCl ₂	des is soluble in hot water only?
B. ZnCl ₂	C. CuCl ₂
B. ZiiCi2	D. PbCl ₂
28 Which are of the full	
A. Coloiman of the following metals	s will produce hydrogen when heated with steam?
	C. Potassium
B. Zinc	D. Sodium
Total 3	
29. Icm of dilute sulphuric acid was cations as shown below	added to four test tubes containing solutions of different
Ba^{2+} Zn^{2+}	Pb ²⁺
I	II III IV
The white precipitate was obtaine	d in test tube numbers,
A. I, II, IV	C. I, III, IV
B. I, III	D. III, IV

5

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30. Pure sulphuric acid does not conduct	electricity because
A. it has a great affinity for water	C. it is an electrovalent compound
B. it is an oxidizing agent	D. it is a covalent compound
31. When carbon dioxide is bubbled through	ugh lime water, the latter turned milky and finally
colourless because	
A. The reaction between carbon diox	ide and water is reversible
B. Lime water is a good solvent for the	he milky substance formed
C. The milk substance reacts to form	a soluble colourless compound
D. Carbon dioxide eventually dissolv	res in lime water to form carbonic acid
32. Which one of the following reactions	does not take place in the blast furnace during the
extraction of iron?	to a han add it so a letter a to the letter and the
A. Limestone reduces iron (III) oxide	e to iron
B. Coke burns in air forming carbon	dioxida
C. Limestone decomposes to form ca	leium ovide
D. Coke reduces carbon dioxide to ca	15 he most 2 Hall a William as The
in sodium hydroxide accordances the color	W 2006 MONOXIDE
33. In which one of the following test tub	es would a burning splint produce a pop sound? The
test tube containing	es would a burning spirit produce a pop sound? The
A. manganese (IV) oxide and hydrog	an narovida
B. dilute sulphuric acid and zinc	en peroxide
C. dilute hydrochloric acid and calciu	Im carbonate
D. calcium oxide and water	in carbonate
	en en ece a de fello ang chlórides is sol
34. Which one of the following allotropes	s of sulphur is crystalline and stable below 96°C?
A. Rhombic	C. Amorphous
B. Plastic	D. Monoclinic
Susan elik kapea in a la convetti in ch	in all relations are all of the later and and the
35. Copper can be separated from a mixtu	are of zinc powder and copper powder by adding to
the mixture.	and copper powder by adding to
A. Concentrated sulphuric acid	C. Dilute sulphuric acid
B. Zinc sulphate solution	D. Concentrated within
# 1 # 1 # 2	D. Concentrated nitric acid
36. Which one of the following hydrocarb concentrated sulphuric acid is heated?	oons is formed when a mixture of ethanol and
$A. C_2H_6$	The second secon
B. C ₃ H ₈	C. C₄H ₁₀
the atomic number of the stories number of t	D. C ₂ H ₄ levels, if Y forms an ion with formula Y ²⁻ , what is
A. 2	what is
B, 6	C.4
\$ 7.1 \\\ \frac{1}{2} \cdot \c	D. 8

oxide?	ved when hydrogen is passed overheated copper (II)
A. a colour liquid B. black solid turns brown	C. black solid turns yellow D. yellow solid turns grey
 39. A clean piece of magnesium ribbon of the following was observed? A. The blue colour of the solution for B. The solution turned colourless are C. There was no observable change D. The solution remained blue and an experimental colour server. 	nd a grey solid formed.
40. Aluminium reacts with Copper (II) i $3Cu^{2+}(aq) + 2Al(s) \longrightarrow 3cu^{2+}(aq) + 2Al(s)$	ons according to the following equation. $Cu(s) + 2Al^{3+}(aq)$
Which one of the following will be to reacted with 2.5 g of aluminium? (A. $\left(\frac{2.5 \times 2 \times 63.5}{27 \times 3}\right)g$	the mass of Copper formed when Copper (II) ions is $Al = 27; Cu = 63.5$ $C. \left(\frac{2.5 \times 3 \times 27}{63.5 \times 2}\right) g$
$B. \left(\frac{2.5 \times 2 \times 27}{63.5 \times 3}\right) g$	D. $\left(\frac{2.5 \times 3 \times 63.5}{27 \times 2}\right) g$
explanation of the assertion	
INSTRUC	CTIONS SUMMARISED
A: True	True and is a correct explanation
B. True	True but is not a correct explanation
C: True	Incorrect
D: Incorrect	Correct
41. Polyethene is a thermo softening pla	stic Because Polyethene can be remolded on heating
42. Dry ammonia gas turns dry red litme paper blue	us Because Ammonia is an alkaline gas
Aug file of the stript of	

1. C. S. S. S.

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yang tarah	ol. J		2,000	La harring
 43. When sodium hydroxidal added to a solution of reacid, a brown precipitate. 44. Aqueous sulphur dioxidal electricity. 45. Hydrogen sulphide can concentrated sulphurical concentrated sulphurical for each of questions 46 – A. if statements 1,2,3 only as if statements 1,3, only as 	e solution was ust in dilute nitric e formed de conducts be dried using acid 50 one or more of the	Because Because he statement	It contains mobile in it turns of paper re	ons dump blue litmu ed
if statements 2.4 only a	re correct			/15 x 1 15%
C. if statements 2,4 only as D. if statement 4 only is co			Ú	1 7 7 60
II buttoniont 7 only is CC	Summarize	d instructi	ons	
THE WILL E WINDS THE STATE OF T	В	C lover	d phis un	D
A	_	1		1 -
6. Which one of the follow	mae statements but	51 67 W F 1 1.	sible for t	
16. Which one of the following 1. Calcium carbonate 2. Magnesium sulphate 17. Which of the following	wing substance(s) is/ e s substances is/are fo	/are respon 3. Ca 4. Ca ormed when	sible for t lcium pho lcium sulp	he formation of sphate
46. Which one of the followal. Calcium carbonate 2. Magnesium sulphate 47. Which of the following sulphur? 1. Sulphuric acid 2. Nitrogen monoxide	wing substance(s) is, e substances is/are fo	/are respon 3. Ca 4. Ca braned wher 3. Nit 4. Su	sible for the leium photological substitution is concentrated to the leid substitution is similar to the leid substitution is substitution in the leid substitution in the leid substitution is substitution in the leid substitution in the leid substitution is substitution in the leid	he formation of esphate ohate rated nitric acid exide
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46. Which one of the followard of the followard of the following sulphur? 1. Sulphuric acid 2. Nitrogen monoxide	wing substance(s) is, e substances is/are for	/are respon 3. Ca 4. Ca braned when 3. Nit 4. Su eact with course copper	sible for the leium photoleium sulphon concentrations are discovered to be sible to be sib	he formation of esphate phate rated nitric acid exide coxide to produce ate blue?
16. Which one of the follow 1. Calcium carbonate 2. Magnesium sulphate 17. Which of the following sulphur? 1. Sulphuric acid 2. Nitrogen monoxide 18. Which of the following colourless liquid which 1. Carbon 2. Hydrogen	wing substance(s) is/ e substances is/are for substances would re would turn anhydro	/are respon 3. Ca 4. Ca braned where 3. Nit 4. Sult eact with course copper 3. Ca 4. An	sible for the leium photological substitution substitution for the leium substitution substituti	he formation of sphate chate rated nitric acid exide coxide to produce ate blue?
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