01. 0620_m16_qp_22 Q: 9

Magnesium nitride is formed when magnesium burns in air. Magnesium nitride is an ionic compound.

What is the formula of magnesium nitride?

**A** $MgN_2$ **B** $Mg_2N_2$ **C** $Mg_2N_3$ **D** $Mg_3N_2$

---

02. 0620_p16_qp_20 Q: 8

What is the relative molecular mass, $M_r$, of butanol?

**A** 15 **B** 37 **C** 74 **D** 148

---

## 4.2 The mole concept

03. 0620_m20_qp_22 Q: 9

The equation for the decomposition of magnesium nitrate is shown.

$$2Mg(NO_3)_2(s) \rightarrow 2MgO(s) + 4NO_2(g) + O_2(g)$$

Which volume of gas is produced when 0.1 moles of magnesium nitrate is decomposed completely?

**A** $1.2\,dm^3$ **B** $4.8\,dm^3$ **C** $6.0\,dm^3$ **D** $8.4\,dm^3$

---

04. 0620_p20_qp_20 Q: 10

What is the concentration of a solution containing 1.0 g of sodium hydroxide in $250\,cm^3$ of solution?

**A** $0.025\,mol/dm^3$

**B** $0.10\,mol/dm^3$

**C** $0.25\,mol/dm^3$

**D** $1.0\,mol/dm^3$

---

05. 0620_p20_qp_20 Q: 11

Four students prepared hydrated copper(II) sulfate by adding an excess of dilute sulfuric acid to copper(II) oxide.

Each student used a different mass of copper(II) oxide.

$$\underset{M_r = 80}{CuO} \xrightarrow{\text{dilute sulfuric acid}} \underset{M_r = 250}{CuSO_4.5H_2O}$$

After the copper(II) sulfate had crystallised the students dried and weighed the crystals.

Which student produced the highest percentage yield of hydrated copper(II) sulfate?

| | mass of copper(II) oxide used / g | mass of crystals produced / g |
|---|---|---|
| **A** | 4.0 | 11.5 |
| **B** | 8.0 | 23.5 |
| **C** | 12.0 | 35.0 |
| **D** | 16.0 | 46.5 |

---

06. 0620_p20_qp_20 Q: 12

20 $cm^3$ of ethyne, $C_2H_2$, are reacted with 500 $cm^3$ of oxygen.

The equation for the reaction is

$$2C_2H_2(g) + 5O_2(g) \rightarrow 4CO_2(g) + 2H_2O(l)$$

What is the total volume of gas remaining at the end of the reaction?

(all volumes are measured at room temperature and pressure)

**A** 400 $cm^3$

**B** 450 $cm^3$

**C** 490 $cm^3$

**D** 520 $cm^3$

---

07. 0620_s20_qp_21 Q: 9

The Haber process is a reversible reaction.

$$N_2(g) + 3H_2(g) \rightleftharpoons 2NH_3(g)$$

The reaction has a 30% yield of ammonia.

Which volume of ammonia gas, $NH_3$, measured at room temperature and pressure, is obtained by reacting 0.75 moles of hydrogen with excess nitrogen?

**A** $3600\,cm^3$ **B** $5400\,cm^3$ **C** $12\,000\,cm^3$ **D** $18\,000\,cm^3$

---

08. 0620_m19_qp_22 Q: 9

Calcium carbonate reacts with dilute hydrochloric acid according to the equation shown.

$$CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$$

10 g of calcium carbonate is reacted with $100\,cm^3$ of $1\,mol/dm^3$ hydrochloric acid.

The following statements are made.

1 $1.2\,dm^3$ of carbon dioxide is formed.

2 5.6 g of calcium chloride is formed.

3 4.8 g of carbon dioxide is formed.

4 No calcium carbonate is left when the reaction is completed.

Which statements about the reaction are correct?

**A** 1 and 2 **B** 1 and 4 **C** 2 and 3 **D** 3 and 4

---

09. 0620_s19_qp_21 Q: 8

A tablet contains 0.080 g of ascorbic acid ($M_r$ = 176).

What is the concentration of ascorbic acid when one tablet is dissolved in $200\,cm^3$ of water?

**A** $9.1 \times 10^{-5}\,mol/dm^3$

**B** $4.5 \times 10^{-4}\,mol/dm^3$

**C** $9.1 \times 10^{-2}\,mol/dm^3$

**D** $2.3 \times 10^{-3}\,mol/dm^3$

---

10. 0620_s19_qp_22 Q: 8

25.0 $cm^3$ of 0.100 $mol/dm^3$ aqueous sodium hydroxide is neutralised by 24.6 $cm^3$ of dilute sulfuric acid.

What is the concentration of the dilute sulfuric acid?

**A** 0.0508 $mol/dm^3$

**B** 0.0984 $mol/dm^3$

**C** 0.102 $mol/dm^3$

**D** 0.203 $mol/dm^3$

---

11. 0620_s19_qp_23 Q: 8

What is the concentration of a solution that contains 25.0 g NaOH in 500 $cm^3$ of water?

**A** 0.125 $mol/dm^3$

**B** 0.800 $mol/dm^3$

**C** 1.25 $mol/dm^3$

**D** 3.20 $mol/dm^3$

---

12. 0620_w19_qp_21 Q: 10

Calcium carbonate reacts with dilute hydrochloric acid.

The equation for the reaction is shown.

$$CaCO_3 + 2HCl \rightarrow CaCl_2 + H_2O + CO_2$$

1.00 g of calcium carbonate is added to 50.0 $cm^3$ of 0.0500 $mol/dm^3$ hydrochloric acid.

Which volume of carbon dioxide is made in this reaction?

**A** 30 $cm^3$ **B** 60 $cm^3$ **C** 120 $cm^3$ **D** 240 $cm^3$



---

13. 0620_w19_qp_22 Q: 9

Phosphorus reacts with oxygen to form phosphorus(III) oxide as shown.

$$4P(s) + 3O_2(g) \rightarrow 2P_2O_3(s)$$

Which mass of phosphorus(III) oxide is produced from 6.2 g of phosphorus?

**A** 1.1 g **B** 5.5 g **C** 11.0 g **D** 22.0 g

---

14. 0620_w19_qp_22 Q: 10

Calcium carbonate is heated. Calcium oxide and carbon dioxide gas are formed.

The equation for the reaction is shown.

$$CaCO_3 \rightarrow CaO + CO_2$$

225 kg of calcium carbonate is heated until there is no further change in mass.

The yield of calcium oxide is 85 kg.

What is the percentage yield?

**A** 37.8% **B** 47.2% **C** 67.5% **D** 85.0%

---

15. 0620_w19_qp_23 Q: 9

Magnesium carbonate decomposes on heating to form magnesium oxide and carbon dioxide as shown.

$$MgCO_3 \rightarrow MgO + CO_2$$

How much magnesium carbonate is needed to make 5.0 g of magnesium oxide?

**A** 3.5 g **B** 4.0 g **C** 6.5 g **D** 10.5 g

---

16. 0620_w19_qp_23 Q: 10

90 g of glucose is dissolved in water.

The glucose solution is fermented.

$$C_6H_{12}O_6 \rightarrow 2CO_2 + 2C_2H_5OH$$

glucose, $M_r = 180$ ethanol, $M_r = 46$

After the fermentation finishes, 6.8 g of ethanol is obtained from the solution.

What is the percentage yield of ethanol?

**A** 7.4 **B** 7.6 **C** 14.8 **D** 29.6

---

17. 0620_m18_qp_22 Q: 7

The concentration of a hydrochloric acid solution is 0.5 mol / $dm^3$.

How many moles of hydrochloric acid are present in 25 $cm^3$ of this solution?

**A** 0.0125 **B** 0.0200 **C** 12.5 **D** 20.0

---

18. 0620_m18_qp_22 Q: 8

A sample of an iron oxide contains 50.4 g of iron and 21.6 g of oxygen.

What is the empirical formula of the iron oxide?

**A** FeO **B** $FeO_3$ **C** $Fe_2O_3$ **D** $Fe_3O_2$

---

19. 0620_s18_qp_21 Q: 8

The equation for the combustion of ethane is shown.

$$2C_2H_6 + 7O_2 \rightarrow 4CO_2 + 6H_2O$$

Which volume of carbon dioxide, at room temperature and pressure, is formed when 0.5 moles of ethane burn?

**A** 48 $dm^3$ **B** 24 $dm^3$ **C** 12 $dm^3$ **D** 6 $dm^3$

---

20. 0620_s18_qp_21 Q: 9

A solution of ethanoic acid, $CH_3COOH$, has a concentration of 2 $mol/dm^3$.

Which statement about this solution is correct?

**A** 20 g of ethanoic acid is dissolved in 10 $cm^3$ of water.

**B** 30 g of ethanoic acid is dissolved in 250 $cm^3$ of water.

**C** 60 g of ethanoic acid is dissolved in 1 $dm^3$ of water.

**D** 120 g of ethanoic acid is dissolved in 2 $dm^3$ of water.

---



21. 0620_s18_qp_22 Q: 8

The equation for the reaction between potassium carbonate and nitric acid is shown.

$$K_2CO_3 + 2HNO_3 \rightarrow 2KNO_3 + H_2O + CO_2$$

Which volume of carbon dioxide is produced from 69 g of potassium carbonate?

**A** 6 $dm^3$ **B** 12 $dm^3$ **C** 24 $dm^3$ **D** 48 $dm^3$

---

22. 0620_s18_qp_22 Q: 9

A solution of sodium carbonate, $Na_2CO_3$, has a concentration of 0.03 $mol/dm^3$.

Which mass of sodium carbonate is dissolved in 1 $dm^3$ of this solution?

**A** 1.06 g **B** 3.18 g **C** 10.60 g **D** 31.80 g

---

23. 0620_s18_qp_23 Q: 8

An experiment was done to determine the formula of a hydrocarbon, $C_xH_y$.

10 $cm^3$ of the gaseous hydrocarbon, $C_xH_y$, was burned in an excess of oxygen to form 20 $cm^3$ of carbon dioxide and 30 $cm^3$ of water vapour.

What is $C_xH_y$?

**A** $CH_4$ **B** $C_2H_4$ **C** $C_2H_6$ **D** $C_3H_8$

---

24. 0620_s18_qp_23 Q: 9

4.00 g of solid sodium hydroxide is added to water to make a solution with a concentration of 0.200 mol / $dm^3$.

What is the volume of water used?

**A** 0.5 $cm^3$ **B** 20 $cm^3$ **C** 500 $cm^3$ **D** 2000 $cm^3$

---

25. 0620_w18_qp_21 Q: 7

Which gas sample contains the most molecules?

**A** 24 $dm^3$ of carbon dioxide, $CO_2$

**B** 4 g of hydrogen, $H_2$

**C** 36 $dm^3$ of hydrogen chloride, $HCl$

**D** 14 g of nitrogen, $N_2$

---

26. 0620_w18_qp_21 Q: 8

A student mixed together 25.0 $cm^3$ of 1.00 mol / $dm^3$ hydrochloric acid and 25.0 g of calcium carbonate.

$$2HCl(aq) + CaCO_3(s) \rightarrow CaCl_2(aq) + H_2O(l) + CO_2(g)$$

What is the maximum volume of carbon dioxide gas that could be collected at room temperature and pressure?

**A** 300 $dm^3$ **B** 6.00 $dm^3$ **C** 0.600 $dm^3$ **D** 0.300 $dm^3$

---

27. 0620_w18_qp_22 Q: 7

Which gas sample contains the smallest number of molecules?

**A** 4 g of helium

**B** 16 g of oxygen

**C** 28 g of carbon monoxide

**D** 28 g of nitrogen

---

28. 0620_w18_qp_22 Q: 8

The equation for the reaction between calcium carbonate and dilute nitric acid is shown.

$$CaCO_3(s) + 2HNO_3(aq) \rightarrow Ca(NO_3)_2(aq) + CO_2(g) + H_2O(l)$$

25 g of calcium carbonate is reacted with an excess of dilute nitric acid.

Which mass of calcium nitrate and which volume of carbon dioxide is produced at room temperature and pressure?

| | mass of calcium nitrate / g | volume of carbon dioxide / $dm^3$ |
|---|---|---|
| **A** | 29 | 6 |
| **B** | 29 | 12 |
| **C** | 41 | 6 |
| **D** | 41 | 12 |

---

29. 0620_w18_qp_23 Q: 7

Which gas sample has the greatest mass?

**A** 5.0 moles of $Cl_2$

**B** 10.0 moles of $O_2$

**C** 15.0 moles of $N_2$

**D** 20.0 moles of $H_2$

---

30. 0620_w18_qp_23 Q: 8

Which sample of magnesium chloride, $MgCl_2$, contains the same number of moles as 69.6 g of potassium sulfate, $K_2SO_4$?

**A** 19.0 g **B** 28.5 g **C** 38.0 g **D** 47.5 g

---

31. 0620_m17_qp_22 Q: 8

The gas hydrazine has the molecular formula $N_2H_4$.

Hydrazine burns in air to form nitrogen gas and steam.

$$N_2H_4(g) + O_2(g) \rightarrow N_2(g) + 2H_2O(g)$$

Which statements are correct?

1 1 mole of hydrazine gives 72 $dm^3$ of gaseous products when it reacts with oxygen at room temperature and pressure.

2 The empirical formula of hydrazine is $NH_2$.

3 The total number of atoms in 1 mole of hydrazine is 6 × the Avogadro constant.

4 The volume of 1 mole of hydrazine at room temperature and pressure is 6 × 24 $dm^3$.

**A** 1, 2 and 3 **B** 1 and 2 only **C** 2, 3 and 4 **D** 3 and 4 only

---

32. 0620_m17_qp_22 Q: 9

Copper(II) carbonate is broken down by heating to form copper(II) oxide and carbon dioxide gas.

The equation for the reaction is shown.

$$CuCO_3 \rightarrow CuO + CO_2$$

31.0 g of copper(II) carbonate are heated until all of the contents of the test-tube have turned from green to black.

The yield of copper(II) oxide formed is 17.5 g.

What is the percentage yield?

**A** 19.02% **B** 21.88% **C** 56.50% **D** 87.50%



---

33. 0620_s17_qp_21 Q: 8

Carbon monoxide burns in oxygen to produce carbon dioxide.

$$2CO(g) + O_2(g) \rightarrow 2CO_2(g)$$

Which mass of carbon dioxide is produced from 14 g of carbon monoxide?

**A** 22 g **B** 28 g **C** 44 g **D** 88 g

---

34. 0620_s17_qp_22 Q: 8

Calcium carbide, $CaC_2$, reacts with water to form ethyne, $C_2H_2$, and calcium hydroxide.

The equation for the reaction is shown.

$$CaC_2(s) + 2H_2O(l) \rightarrow C_2H_2(g) + Ca(OH)_2(s)$$

Which volume of ethyne is produced when 6 g of water react completely with calcium carbide?

**A** 4 $dm^3$ **B** 8 $dm^3$ **C** 36 $dm^3$ **D** 72 $dm^3$

---

35. 0620_s17_qp_23 Q: 8

The equation for the reaction between sodium carbonate and dilute hydrochloric acid is shown.

$$Na_2CO_3 + 2HCl \rightarrow 2NaCl + H_2O + CO_2$$

What is the maximum volume of carbon dioxide produced when 26.5 g of sodium carbonate react with dilute hydrochloric acid?

**A** 6 $dm^3$ **B** 12 $dm^3$ **C** 18 $dm^3$ **D** 24 $dm^3$

---

36. 0620_w17_qp_21 Q: 8

A compound is analysed and found to contain 85.7% carbon and 14.3% hydrogen.

What is its empirical formula?

**A** CH **B** $CH_2$ **C** $C_2H_4$ **D** $C_6H$

---

37. 0620_w17_qp_22 Q: 8

The relative molecular mass of an alcohol is 88.

Its percentage composition by mass is: C, 54.5%; H, 9.1%; O, 36.4%.

Which row shows the empirical formula and molecular formula for this alcohol?

| | empirical formula | molecular formula |
|---|---|---|
| **A** | $C_2H_4O$ | $C_2H_4O$ |
| **B** | $C_2H_4O$ | $C_4H_8O_2$ |
| **C** | $C_4H_8O_2$ | $C_4H_8O_2$ |
| **D** | $C_4H_8O_2$ | $C_2H_4O$ |

---

38. 0620_w17_qp_23 Q: 8

A compound contains 34.5% calcium, 24.1% silicon and 41.4% oxygen by mass.

What is its empirical formula?

**A** $Ca_2SiO_3$ **B** $CaSiO_3$ **C** $CaSi_2O_3$ **D** $CaSiO_6$

---

39. 0620_m16_qp_22 Q: 8

Which quantities of chemicals will react exactly with no reactants left over?

**A** 12 g of carbon and 12 g of oxygen

**B** 12 g of carbon and 48 g of oxygen

**C** 12 g of magnesium and 16 g of oxygen

**D** 24 g of magnesium and 16 g of oxygen

---

40. 0620_p16_qp_20 Q: 9

The chemical formulae of two substances, W and X, are given.

W $NaAlSi_3O_8$

X $CaAl_2Si_2O_8$

Which statements are correct?

1 W and X contain the same amount of oxygen.

2 W contains three times as much silicon as X.

3 X contains twice as much aluminium as W.

**A** 1 and 2 **B** 1 and 3 **C** 2 and 3 **D** 1, 2 and 3



---

41. 0620_p16_qp_20 Q: 10

What is the concentration of a solution containing 1.0 g of sodium hydroxide in 250 $cm^3$ of solution?

**A** 0.025 $mol/dm^3$

**B** 0.10 $mol/dm^3$

**C** 0.25 $mol/dm^3$

**D** 1.0 $mol/dm^3$

---

42. 0620_p16_qp_20 Q: 11

Four students prepared hydrated copper(II) sulfate by adding an excess of dilute sulfuric acid to copper(II) oxide.

Each student used a different mass of copper(II) oxide.

$$\underset{M_r = 80}{CuO} \xrightarrow{\text{dilute sulfuric acid}} \underset{M_r = 250}{CuSO_4.5H_2O}$$

After the copper(II) sulfate had crystallised the students dried and weighed the crystals.

Which student produced the highest percentage yield of hydrated copper(II) sulfate?

| | mass of copper(II) oxide used / g | mass of crystals produced / g |
|---|---|---|
| **A** | 4.0 | 11.5 |
| **B** | 8.0 | 23.5 |
| **C** | 12.0 | 35.0 |
| **D** | 16.0 | 46.5 |

---

43. 0620_p16_qp_20 Q: 12

20 $cm^3$ of ethyne, $C_2H_2$, are reacted with 500 $cm^3$ of oxygen.

The equation for the reaction is

$$2C_2H_2(g) + 5O_2(g) \rightarrow 4CO_2(g) + 2H_2O(l)$$

What is the total volume of gas remaining at the end of the reaction?

(all volumes are measured at room temperature and pressure)

**A** 400 $cm^3$

**B** 450 $cm^3$

**C** 490 $cm^3$

**D** 520 $cm^3$



---

44. 0620_s16_qp_21 Q: 8

A compound, X, contains 40.0% carbon, 6.7% hydrogen and 53.3% oxygen by mass.

The relative molecular mass, $M_r$, of X is 60.

What is the molecular formula of X?

**A** $CH_2O$ **B** $CH_4O$ **C** $C_2H_4O$ **D** $C_2H_4O_2$

---

45. 0620_s16_qp_21 Q: 9

25 $cm^3$ of 0.1 mol / $dm^3$ hydrochloric acid exactly neutralise 20 $cm^3$ of aqueous sodium hydroxide.

The equation for this reaction is:

$$NaOH + HCl \rightarrow NaCl + H_2O$$

What is the concentration of the sodium hydroxide solution?

**A** 0.080 mol / $dm^3$

**B** 0.800 mol / $dm^3$

**C** 0.125 mol / $dm^3$

**D** 1.25 mol / $dm^3$

---

46. 0620_s16_qp_22 Q: 8

A sample of 16.0 g of a metal oxide, MO, is reduced to 12.8 g of the metal, M.

What is the relative atomic mass, $A_r$, of M?

**A** 32 **B** 64 **C** 80 **D** 128

---

47. 0620_s16_qp_22 Q: 9

The equation for the reaction between calcium carbonate and hydrochloric acid is shown.

$$CaCO_3(s) + 2HCl(aq) \rightarrow CaCl_2(aq) + H_2O(l) + CO_2(g)$$

How many moles of calcium carbonate will give 24 $cm^3$ of carbon dioxide when reacted with an excess of the acid?

**A** 1 mol **B** 0.1 mol **C** 0.01 mol **D** 0.001 mol



---

48. 0620_s16_qp_23 Q: 8

Analysis of a compound formed between magnesium and nitrogen showed it contained 14.4 g of magnesium and 5.6 g of nitrogen.

What is the empirical formula of the compound?

**A** $Mg_2N_3$ **B** $Mg_3N_2$ **C** $Mg_4N_6$ **D** $Mg_6N_4$

---

49. 0620_s16_qp_23 Q: 9

An excess of zinc is added to 100 $cm^3$ of 1.0 mol / $dm^3$ hydrochloric acid.

The equation for the reaction is:

$$Zn + 2HCl \rightarrow ZnCl_2 + H_2$$

What is the maximum volume of hydrogen evolved at room temperature and pressure?

**A** 1.2 $dm^3$ **B** 2.0 $dm^3$ **C** 2.4 $dm^3$ **D** 24 $dm^3$

---

50. 0620_w16_qp_21 Q: 8

Benzene is a liquid with molecular formula $C_6H_6$.

Ethene is a gas with molecular formula $C_2H_4$.

Which statement is correct?

**A** 1 mole of benzene and 1 mole of ethene contain the same number of atoms.

**B** 1 mole of benzene and 1 mole of ethene both have a volume of 24 $dm^3$ at room temperature and pressure.

**C** Both benzene and ethene have the same empirical formula.

**D** The number of carbon atoms in 0.5 moles of ethene is equal to the Avogadro constant.

---

51. 0620_w16_qp_21 Q: 9

Sodium hydrogencarbonate undergoes thermal decomposition as shown.

$$2NaHCO_3 \rightarrow Na_2CO_3 + CO_2 + H_2O$$

What is the maximum mass of sodium carbonate that can be made from 0.100 moles of sodium hydrogencarbonate?

**A** 4.15 g **B** 5.30 g **C** 10.6 g **D** 21.2 g



---

52. 0620_w16_qp_22 Q: 8

Which sample contains the greatest number of molecules?

**A** 4 g of hydrogen

**B** 18 g of water

**C** 24 $dm^3$ of oxygen

**D** 66 g of carbon dioxide

---

53. 0620_w16_qp_22 Q: 9

Sodium carbonate solution reacts with dilute hydrochloric acid. The equation for the reaction is shown.

$$Na_2CO_3(aq) + 2HCl(aq) \rightarrow 2NaCl(aq) + CO_2(g) + H_2O(l)$$

Excess sodium carbonate is added to $10.0\,cm^3$ of $0.10\,mol/dm^3$ hydrochloric acid.

Which volume of carbon dioxide gas is made?

**A** $12\,cm^3$ **B** $24\,cm^3$ **C** $12\,000\,cm^3$ **D** $24\,000\,cm^3$

---

54. 0620_w16_qp_23 Q: 8

The equation shows the complete combustion of propane.

$$C_3H_8(g) + 5O_2(g) \rightarrow 3CO_2(g) + 4H_2O(l)$$

Which statement is correct?

**A** $10\,cm^3$ of propane cannot burn if less than $50\,cm^3$ of oxygen is present.

**B** $10\,cm^3$ of propane would produce $40\,cm^3$ of liquid water.

**C** $100\,cm^3$ of oxygen would be sufficient to react completely with $20\,cm^3$ of propane.

**D** This reaction would result in an increase in the volume of gas.

---

55. 0620_w16_qp_23 Q: 9

Sodium hydroxide reacts with sulfuric acid.

The equation for the reaction is shown.

$$2NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2H_2O$$

Which volume of $0.4\,mol/dm^3$ sodium hydroxide reacts with $50.0\,cm^3$ of $0.1\,mol/dm^3$ sulfuric acid?

**A** $12.5\,cm^3$ **B** $25.0\,cm^3$ **C** $50.0\,cm^3$ **D** $100.0\,cm^3$

---

| SN | Paper | Q. No. | Answer |
|---|---|---|---|
| 01 | 0620_m16_qp_22 | 9 | D |
| 02 | 0620_p16_qp_20 | 8 | C |
| 03 | 0620_m20_qp_22 | 9 | C |
| 04 | 0620_p20_qp_20 | 10 | B |
| 05 | 0620_p20_qp_20 | 11 | B |
| 06 | 0620_p20_qp_20 | 12 | C |
| 07 | 0620_s20_qp_21 | 9 | A |
| 08 | 0620_m19_qp_22 | 9 | A |
| 09 | 0620_s19_qp_21 | 8 | D |
| 10 | 0620_s19_qp_22 | 8 | A |
| 11 | 0620_s19_qp_23 | 8 | C |
| 12 | 0620_w19_qp_21 | 10 | A |
| 13 | 0620_w19_qp_22 | 9 | C |
| 14 | 0620_w19_qp_22 | 10 | C |
| 15 | 0620_w19_qp_23 | 9 | D |
| 16 | 0620_w19_qp_23 | 10 | C |
| 17 | 0620_m18_qp_22 | 7 | A |
| 18 | 0620_m18_qp_22 | 8 | C |
| 19 | 0620_s18_qp_21 | 8 | B |
| 20 | 0620_s18_qp_21 | 9 | B |
| 21 | 0620_s18_qp_22 | 8 | B |
| 22 | 0620_s18_qp_22 | 9 | B |
| 23 | 0620_s18_qp_23 | 8 | C |
| 24 | 0620_s18_qp_23 | 9 | C |
| 25 | 0620_w18_qp_21 | 7 | B |
| 26 | 0620_w18_qp_21 | 8 | D |
| 27 | 0620_w18_qp_22 | 7 | B |
| 28 | 0620_w18_qp_22 | 8 | C |
| 29 | 0620_w18_qp_23 | 7 | C |
| 30 | 0620_w18_qp_23 | 8 | C |
| 31 | 0620_m17_qp_22 | 8 | A |
| 32 | 0620_m17_qp_22 | 9 | D |
| 33 | 0620_s17_qp_21 | 8 | A |
| 34 | 0620_s17_qp_22 | 8 | A |
| 35 | 0620_s17_qp_23 | 8 | A |
| 36 | 0620_w17_qp_21 | 8 | B |
| 37 | 0620_w17_qp_22 | 8 | B |
| 38 | 0620_w17_qp_23 | 8 | B |
| 39 | 0620_m16_qp_22 | 8 | D |
| 40 | 0620_p16_qp_20 | 9 | B |
| 41 | 0620_p16_qp_20 | 10 | B |
| 42 | 0620_p16_qp_20 | 11 | B |
| 43 | 0620_p16_qp_20 | 12 | C |
| 44 | 0620_s16_qp_21 | 8 | D |
| 45 | 0620_s16_qp_21 | 9 | C |
| 46 | 0620_s16_qp_22 | 8 | B |
| 47 | 0620_s16_qp_22 | 9 | D |
| 48 | 0620_s16_qp_23 | 8 | B |
| 49 | 0620_s16_qp_23 | 9 | A |

| SN | Paper | Q. No. | Answer |
|---|---|---|---|
| 50 | 0620_w16_qp_21 | 8 | D |
| 51 | 0620_w16_qp_21 | 9 | B |
| 52 | 0620_w16_qp_22 | 8 | A |
| 53 | 0620_w16_qp_22 | 9 | A |
| 54 | 0620_w16_qp_23 | 8 | C |
| 55 | 0620_w16_qp_23 | 9 | B |