Topical Past Paper Questions Workbook

IGCSE Mathematics (0580) Paper 1

[Core]

Exam Series: May/June 2012 – Oct/Nov 2022

Format Type A:
Answers to all questions are provided as an appendix

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Introduction

Each Topical Past Paper Questions Workbook contains a comprehensive collection of hundreds of questions and corresponding answer schemes, presented in worksheet format. The questions are carefully arranged according to their respective chapters and topics, which align with the latest IGCSE or AS/A Level subject content. Here are the key features of these workbooks:

1. The workbook covers a wide range of topics, which are organized according to the latest syllabus content for Cambridge IGCSE or AS/A Level exams.
2. Each topic includes numerous questions, allowing students to practice and reinforce their understanding of key concepts and skills.
3. The questions are accompanied by detailed answer schemes, which provide clear explanations and guidance for students to improve their performance.
4. The workbook's format is user-friendly, with worksheets that are easy to read and navigate.
5. This workbook is an ideal resource for students who want to familiarize themselves with the types of questions that may appear in their exams and to develop their problem-solving and analytical skills.

Overall, Topical Past Paper Questions Workbooks are a valuable tool for students preparing for IGCSE or AS/A level exams, providing them with the opportunity to practice and refine their knowledge and skills in a structured and comprehensive manner. To provide a clearer description of this book's specifications, here are some key details:

- Title: Cambridge IGCSE Mathematics (0580) Paper 1 Topical Past Paper Questions Workbook
- Subtitle: Exam Practice Worksheets With Answer Scheme
- Examination board: Cambridge Assessment International Education (CAIE)
- Subject code: 0580
- Years covered: May/June 2012 – Oct/Nov 2022
- Paper: 1 (Core)
- Number of pages: 1226
- Number of questions: 1710

Contents

Chapter 1

Numbers

1. 0580_m22_qp_12 Q: 1

Write the number sixteen thousand and thirty-seven in figures.

..... [1]

---

2. 0580_m22_qp_12 Q: 2

Write down the six factors of 28.

....., ..., ..., ..., ..., ... [2]

---

3. 0580_m22_qp_12 Q: 3

Write 9876 correct to the nearest thousand.

..... [1]

---

4. 0580_m22_qp_12 Q: 5

Write down the reciprocal of $\frac{5}{6}$.

..... [1]

---

5. 0580_m22_qp_12 Q: 6

This is Edha's method to work out 99×27 without using a calculator.

$$\begin{aligned} 99 \times 27 &= 100 \times 27 - 27 \\ &= 2700 - 27 \\ &= 2673 \end{aligned}$$

Show how to use Edha's method to work out 99×68 without using a calculator.

[2]

---

6. 0580_m22_qp_12 Q: 7

(a) Write 5.26 pm using the 24-hour clock.

..... [1]

(b) A journey starts at 21 15 one day and ends at 04 33 the next day.

Calculate the time taken, in hours and minutes.

..... h ..... min [1]

(c) Change 10 260 seconds into hours.

..... hours [2]

---

7. 0580_m22_qp_12 Q: 9

Put one pair of brackets into this calculation to make it correct.

$$150 - 17 - 5 \times 2^2 = 33$$

[1]

---

8. 0580_m22_qp_12 Q: 10

Work out $\sqrt{5} \times 6^2$.
Give your answer correct to 2 decimal places.

..... [2]

---

9. 0580_m22_qp_12 Q: 12

Indrani and Jagad share some money in the ratio Indrani : Jagad = 7 : 9.

Calculate the percentage of the money that Indrani receives.

..... % [2]

---

10. 0580_m22_qp_12 Q: 15

Write 0.0001 as a power of 10.

..... [1]

---

11. 0580_m22_qp_12 Q: 17

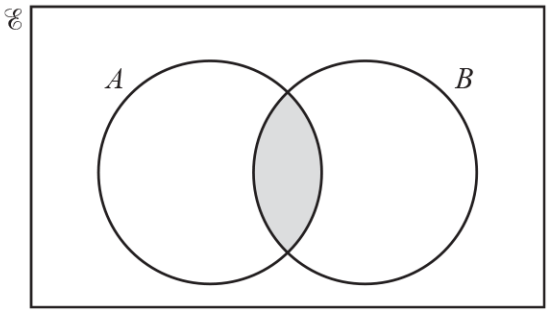
Sanjay invests $700 in an account paying simple interest at a rate of 2.5% per year.

Calculate the value of his investment at the end of 6 years.

$ ..... [3]

12. 0580_m22_qp_12 Q: 21

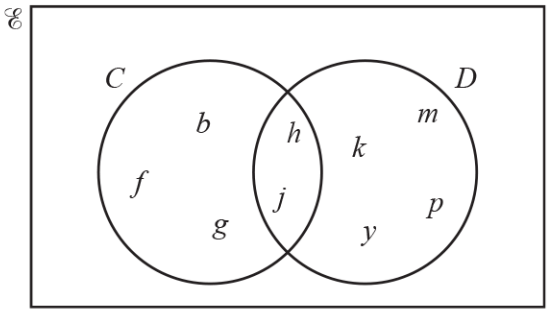
(a)



Use set notation to describe the shaded region.

..... [1]

(b)



Find n(C).

..... [1]

13. 0580_m22_qp_12 Q: 22

Without using a calculator, work out $2\frac{1}{3} \times \frac{11}{14}$.
You must show all your working and give your answer as a mixed number in its simplest form.

..... [3]

---

14. 0580_m22_qp_12 Q: 24

Udita thinks of two whole numbers.
Both numbers are greater than 6.
The lowest common multiple (LCM) of the two numbers is 90.
The highest common factor (HCF) of the two numbers is 6.

Find the two numbers.

..... and ..... [2]

---

15. 0580_s22_qp_11 Q: 6

Write these numbers in order, starting with the smallest.

$\frac{6}{17}$ 34% $\frac{9}{25}$ 0.345

..... < ..... < ..... < ..... [2]
smallest

---

16. 0580_s22_qp_11 Q: 9

Calculate $4^5 - 5^4$.

..... [1]

---

17. 0580_s22_qp_11 Q: 10

Jason starts a run at 10.05 am and finishes at 1.02 pm.

Work out the time Jason takes to complete the run.

..... h ..... min [1]

---

18. 0580_s22_qp_11 Q: 11

Calculate $\frac{1-0.7}{0.45-0.38}$, giving your answer correct to 4 significant figures.

..... [2]

---

19. 0580_s22_qp_11 Q: 12

Kirsty changes \$380.80 into pounds (£) when £1 = \$1.19.

Calculate the amount Kirsty receives.

£ ..... [2]

---

20. 0580_s22_qp_11 Q: 14

Without using a calculator, work out $\frac{3}{7}-\frac{2}{21}$.

You must show all your working and give your answer as a fraction in its simplest form.

..... [2]

Appendix A

Answers

1. 0580_m22_ms_12 Q: 1

Question	Answer	Marks	Partial Marks
	16037	**1**	

2. 0580_m22_ms_12 Q: 2

Question	Answer	Marks	Partial Marks
	1, 2, 4, 7, 14, 28	**2**	**B1** for 5 correct and one error or omission

3. 0580_m22_ms_12 Q: 3

Question	Answer	Marks	Partial Marks
	10000	**1**	

4. 0580_m22_ms_12 Q: 5

Question	Answer	Marks	Partial Marks
	1.2 oe	**1**	

5. 0580_m22_ms_12 Q: 6

Question	Answer	Marks	Partial Marks
	$100\times68-68$ $=6800-68$ $=6732$	**2**	**M1** for $100\times68-68$

6. 0580_m22_ms_12 Q: 7

Question	Answer	Marks	Partial Marks
(a)	1726	**1**	
(b)	7 [h] 18 [min]	**1**	
(c)	2.85	**2**	**M1** for $\frac{10260}{60\times60}$ or **B1** for 3600 seconds = 1 hour oe soi or 171

7. 0580_m22_ms_12 Q: 9

Question	Answer	Marks	Partial Marks
	$150-17-(5\times2)^2=33$	**1**	

8. 0580_m22_ms_12 Q: 10

Question	Answer	Marks	Partial Marks
	80.50 cao	**2**	**B1** for 80.498…or 80.5 or correctly rounding *their* more accurate decimal to 2dp

9. 0580_m22_ms_12 Q: 12

Question	Answer	Marks	Partial Marks
	43.75	**2**	**M1** for $\frac{7}{7+9}$[×100] If zero scored, **SC1** for answer 56.25

10. 0580_m22_ms_12 Q: 15

Question	Answer	Marks	Partial Marks
	10^{-4}	**1**	

11. 0580_m22_ms_12 Q: 17

Question	Answer	Marks	Partial Marks
	805	**3**	**B2** for 105 or **M2** for $\frac{700\times2.5\times6}{100}+700$ oe or **M1** for $\frac{700\times2.5[\times6]}{100}$ oe

12. 0580_m22_ms_12 Q: 21

Question	Answer	Marks	Partial Marks
(a)	$A \cap B$	**1**	
(b)	5	**1**	

13. 0580_m22_ms_12 Q: 22

Question	Answer	Marks	Partial Marks
	$\frac{7}{3}$ oe improper fraction	**M1**	or $\frac{k}{3} \times \frac{11}{14}$ where $k > 3$
	$1\frac{5}{6}$ cao	**A2**	**A1** for $\frac{77}{42}$ or $\frac{11}{6}$ or $1\frac{35}{42}$

14. 0580_m22_ms_12 Q: 24

Question	Answer	Marks	Partial Marks
	18 30	**2**	**M1** for 2,3,3,5 or **B1** for recognising both numbers are multiples of 6 and greater than 6 or for giving two numbers greater than 6 and $\leqslant$ 90, satisfying either LCM is 90 or HCF is 6

15. 0580_s22_ms_11 Q: 6

Question	Answer	Marks	Partial Marks
	34% 0.345 $\frac{6}{17}$ $\frac{9}{25}$	**2**	**M1** for [0].35… [0].34 [0].36 or **B1** for three in the correct order

16. 0580_s22_ms_11 Q: 9

Question	Answer	Marks	Partial Marks
	399	**1**	

17. 0580_s22_ms_11 Q: 10

Question	Answer	Marks	Partial Marks
	2 [h] 57 [m]	**1**	

18. 0580_s22_ms_11 Q: 11

Question	Answer	Marks	Partial Marks
	4.286 cao	**2**	**B1** for 4.285[7...] or 4.29 or $\frac{30}{7}$ or $4\frac{2}{7}$ or for correctly rounding their more accurate decimal to 4sf

19. 0580_s22_ms_11 Q: 12

Question	Answer	Marks	Partial Marks
	320	**2**	**M1** for 380.8[0] ÷ 1.19 oe

20. 0580_s22_ms_11 Q: 14

Question	Answer	Marks	Partial Marks
	$\frac{9}{21}$ and $\frac{2}{21}$ oe	**M1**	Allow any correct denominator $21k$
	$\frac{1}{3}$ cao and correct working	**A1**	

21. 0580_s22_ms_11 Q: 19

Question	Answer	Marks	Partial Marks
	2.4	**3**	**B2** for 0.024 seen or **M2** for oe or better $17\,920 - 16\,000 = \frac{r}{[100]} \times 5 \times 16000$ or $17\,920 = 16\,000 \times (1 + 5r)[\times 100]$ or **M1** for any of these, oe or better $17\,920 - 16\,000$ or $\frac{r}{[100]} \times 5 \times 16000$ or $\frac{their\,1920}{16000}[\times 100]$ or $\frac{17920[\times 100]}{16000} - 1[00]$ or $\frac{their\,1920}{5}[\times 100]$ or figs 384