Practice Tests Set 17 – Paper 1F mark scheme, performance data and suggested grade boundaries

Qn	Working	Answer	Mark	Notes
1		6 squares shaded	1	B1
				Total 1 mark
2 c		$7d - 3e$	2	B2 (B1 for $7d$ or $-3e$ or $7d + -3e$)
				Total 2 marks
3 b		$\frac{3}{10}$	1	B1
				Total 1 mark
4 a		a^4	1	B1
				Total 1 mark
5 b		$20bc$	1	B1
				Total 1 mark

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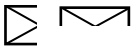
Qn	Working	Answer	Mark	Notes
6 (a)		Wednesday	1	B1
(b)	4 : 2.5 or 16 : 10 oe		2	M1
		8 : 5		A1 M1 A0 for 5 : 8
(c)		3.5 "envelopes"	1	B1 Accept  for half an envelope
(d)	$\frac{6}{14}$		2	M1
		$\frac{3}{7}$		A1
(e)	eg Heights of bars (cms): 7, 5.5, 3 or heights of 3.5, 2.75, 1.5 cms	bars at correct heights and correct scale	2	B2 B2 for all bars at correct heights with a correct scale (at least one value, not contradicted. 0 implied) If not B2 then B1 for 1 error on heights **or** no scale, but with heights in correct proportion eg 7, 5.5, 3 cms
				Total 8 marks

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Qn	Working	Answer	Mark	Notes
7	$\frac{4}{15}\times 1200\ (=320)$ **or** for $\frac{3}{15}$ or $\frac{8}{15}$ seen		4	M1
	1200 – "320" (= 880) **and** "880" ÷ 11 (=80) **or** $\frac{3}{11}\times 880\quad (=240)$ oe **or** $\frac{3}{15}\times 1200\quad (=240)$ oe			M1
	1200 – ("320" + "240") **or** 880 – 240 (= 640) **or** $\frac{8}{11}\times 880\quad (=640)$ **or** $\frac{8}{15}\times 1200$ oe			M1
		320, 240, 640		A1 Must be on correct answer lines or clearly attributed to cake *A*, *B* and *C*, otherwise withhold final A mark.
				Total 4 marks

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Qn		Working	Answer	Mark	Notes
8	ai		likely	1	B1
	aii		impossible	1	B1
	b		cross at $\frac{1}{2}$	1	B1
	c		cross at $\frac{1}{6}$	1	B1
					Total 4 marks

9	a		$(-2, 3)$	1	B1
	b		$(\times)$ at $(4, -2)$	1	B1 condone missing label as long as unambiguous
	c		$y = -3$	1	B1 oe
					Total 3 marks

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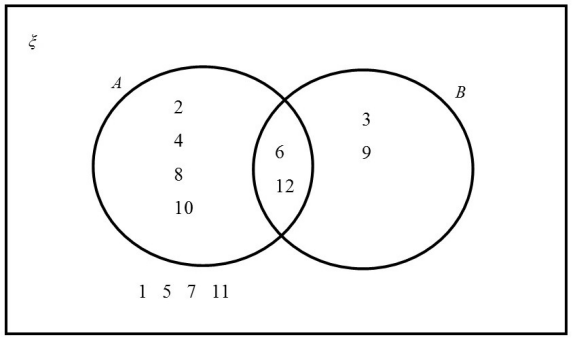
Qn	Working	Answer	Mark	Notes
10 a		Fully correct Venn diagram	3	B3 fully correct Venn diagram (B2 for 2 or 3 sections correct B1 for 1 section correct)
b				M1 ft from (a) $\frac{'4'}{a}$ where $a \geq 4$ **or** $\frac{b}{12}$ where $b \leq 12$
		$\frac{4}{12}$	2	A1 oe
				Total 5 marks

11	$2x - 3 = 20 \div 5$ or $10x - 15 = 20$		3	M1
	$2x =$ "4" + 3 oe or $10x = 20 +$ "15" $10x = 35$ oe			M1 For collecting terms, ft their expansion
		3.5 oe		A1 dep M1 accept $\frac{7}{2}$ or $\frac{35}{10}$
				Total 3 marks

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Qn		Working	Answer	Mark	Notes
12	(a)	4 – – 6 or – 6 – 4 or – 10		2	M1 Identifying 4 and – 6 only. or for stating 10 or – 10
			10		A1
	(b)	– 6, – 5, – 1, 3, 4 **or** 4, 3, – 1, – 5, – 6		2	M1 Putting temperatures in ascending or descending order.
			– 1		A1
	(c)	$\frac{3}{5}\times 100$ oe		2	M1 accept $\frac{3}{5}$ or 0.6 oe
			60		A1
	(d)	– 6 + 8		2	M1
			2		A1 Accept +2
					Total 8 marks

13	a		Trapezium	1	B1
	b		42	1	B1 Accept 40 – 44
	c		Correct lines marked	1	B1
	d		2	1	B1
					Total 4 marks

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Qn	Working	Answer	Mark	Notes
14 (a)		12 348	1	B1
(b)		84 312	1	B1
(c)		1,3	2	B2 for both correct values -1 eeoo
(d)		2,3	2	B2 for both correct values -1 eeoo
				Total 6 marks

15	(a) (i)		Sphere	1	B1
	(a) (ii)		Cone	1	B1
	(a) (iii)		Prism	1	B1 Accept hexagon prism or hexagonal prism
	(b) (i)		8	1	B1
	(ii)		12	1	B1
					Total 5 marks

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Qn	Working	Answer	Mark	Notes
16 a		$15a + 20$	1	B1
b		$2(2c - 7)$	1	B1
c	E.g. $5x - x = 6 + 11$ **or** $4x - 11 = 6$ **or** $5x = x + 17$		M1	for correct rearrangement with x terms on one side and numbers on the other **or** the correct simplification of either x terms or numbers on one side in a correct equation
	$4x = 17$ **or** $-4x = -17$		M1	
		4.25	3 A1	oe, dep on at least M1
				Total 5 marks

17 (a) (i)		kilometres	1	B1	Accept km or kms
(ii)		litres	1	B1	
(iii)		square cm	1	B1	Accept sq cm, square centimetres, cm^2 etc.
(b)		1.8 → 2.2 metres	2	B2	B2 for 1800 → 2200 mm or 180 → 220 cm or 1.8 → 2.2 m If not B2, then B1 for metres, centimetres or millimetres
					Total 5 marks

Qn	Working	Answer	Mark	Notes
18	(−2, 7) (−1, 5) (0, 3) (1, 1) (2, −1) (3, −3)	Correct line between $x = -2$ and $x = 3$	3	B3 for a correct line between $x = -2$ and $x = 3$ (B2 for a correct straight line segment through at least 3 of (−2, 7) (−1, 5) (0, 3) (1, 1) (2, −1) (3, −3) **or** for all of (−2, 7) (−1, 5) (0, 3) (1, 1) (2, −1) (3, −3) plotted but not joined) (B1 for at least 2 correct points stated (may be in a table) **or** plotted **or** for a line drawn with a negative gradient through (0, 3) **or** for a line with a gradient of −2)
				Total 3 marks

19	(a)		$81k^8$	2	B2	B1 for 81 or k^8 seen in their final answer.
	(b)		$7m^4n^6$	2	B2	B1 for $7m^4$ or n^6 in a product with no other terms in m or n
						Total 4 marks

Qn	Working	Answer	Mark	Notes
20	e.g. $\frac{16}{5}$ **and** $\frac{11}{6}$ or $\frac{96}{30}$ **and** $\frac{55}{30}$		3	M1 for two correct improper fractions
	e.g. $\frac{\cancel{16}^{8}}{5}\times\frac{11}{\cancel{6}^{3}}$ **or** $\frac{176}{30}$ **or** $\frac{5280}{900}$ oe			M1 correct cancelling or multiplication of numerators and denominators without cancelling
	e.g. $\frac{16}{5}\times\frac{11}{6}=\frac{176}{30}=\frac{88}{15}=5\frac{13}{15}$ **or** $\frac{16}{5}\times\frac{11}{6}=\frac{176}{30}=5\frac{26}{30}=5\frac{13}{15}$ **or** $\frac{\cancel{16}^{8}}{5}\times\frac{11}{\cancel{6}^{3}}=\frac{88}{15}=5\frac{13}{15}$ **or** $\frac{96}{30}\times\frac{55}{30}=\frac{5280}{900}=\frac{88}{15}=5\frac{13}{15}$ NB: a student can show initially that $5\frac{13}{15}=\frac{88}{15}$ and they need to show that LHS $=\frac{88}{15}$	shown		A1 Dep on M2 for conclusion to $5\frac{13}{15}$ from correct working – either sight of the result of the multiplication e.g. $\frac{176}{30}$ must be seen and equated to $\frac{88}{15}$ or $5\frac{26}{30}$ **or** correct cancelling prior to the multiplication to $\frac{88}{15}$ NB: use of decimals scores no marks
				Total 3 marks

21 (c)	54 ÷ (9 × 2)		2	M1
		3		A1
				Total 2 marks

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Qn	Working	Answer	Mark	Notes
22 a	e.g. $A + 5z = \frac{c}{y}$ oe **or** $Ay = c - 5yz$ oe		2	M1 for a correct first step e.g. add $5z$ to both sides **or** multiply all terms by y
		$c = y(A + 5z)$		A1 oe
				Total 2 marks

Practice Tests Set 17 – Paper 1F mark scheme, performance data and suggested grade boundaries

Qn	Working	Answer	Mark	Notes

				Edexcel averages: scores of candidates who achieved grade:						
Qn	**Mean score**	**Max score**	**Mean %**	**ALL**	**5**	**4**	**3**	**2**	**1**	**U**
1	0.90	**1**	90	0.90	0.99	0.92	0.94	0.64	0.17	0.50
3	0.86	**1**	86	0.86	0.98	0.87	0.75	0.59	0.42	0.50
2	1.65	**2**	83	1.65	1.92	1.74	1.28	0.95	0.58	1.50
4	0.79	**1**	79	0.79	0.81	0.85	0.81	0.55	0.83	0.50
5	0.88	**1**	88	0.88	0.97	0.79	0.84	0.82	0.50	0.50
6	6.64	**8**	83	6.64	7.17	6.72	6.06	5.79	3.93	3.00
7	2.95	**4**	74	2.95	3.84	3.13	2.03	0.26	0.08	0.00
8	3.18	**4**	80	3.18	3.60	3.09	2.70	2.45	1.83	2.00
9	2.39	**3**	80	2.39	2.70	2.12	2.01	1.91	1.75	1.00
10	3.67	**5**	73	3.67	4.40	3.52	3.25	1.54	1.34	1.50
11	2.30	**3**	77	2.30	2.77	2.11	2.23	1.22	0.08	0.00
12	5.81	**8**	73	5.81	6.97	5.53	4.48	3.70	1.50	0.00
13	2.83	**4**	71	2.83	3.23	2.66	2.59	1.96	1.33	1.00
14	4.24	**6**	71	4.24	4.76	3.85	3.65	3.30	3.00	1.00
15	3.16	**5**	63	3.16	3.59	3.00	2.72	2.34	1.91	0.00
16	3.53	**5**	71	3.53	4.58	2.97	2.50	1.59	0.25	0.50
17	3.25	**5**	65	3.25	3.71	2.94	2.71	2.57	1.84	1.00
18	1.88	**3**	63	1.88	2.60	1.51	0.94	0.59	0.00	0.00
19	2.03	**4**	51	2.03	2.74	1.63	1.13	0.74	0.25	1.00
20	1.46	**3**	49	1.46	2.02	1.18	0.50	0.59	0.25	0.50
21	1.09	2	55	1.09	1.56	0.76	0.58	0.17	0.00	0.00
22	0.52	2	26	0.52	0.85	0.18	0.16	0.00	0.00	0.00
	56.01	**80**	**70**	**56.01**	**66.76**	**52.07**	**44.86**	**34.27**	**21.84**	**16.00**

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Qn	Working	Answer	Mark	Notes

Suggested grade boundaries

Grade	5	4	3	2	1
Mark	59	48	39	28	19