Summative Practice

Section A

1 Probability of yellow marble

$= \dfrac{3}{5 + 3 + x} = \dfrac{3}{10}$

$8 + x = 10$

$x = 2$

Answer: **A**

2 Probability of right-handed $= 1 - 0.35$
$= 0.65$

Number of students $= 0.65 \times 40 = 26$

Answer: **C**

3 $A = 1, 2, 4, 8$

$P(A) = \dfrac{4}{10} = 0.4$

$P(A') = 1 - 0.4 = 0.6$

Answer: **C**

4 Number of non-green cards and labelled with the letter "A"
$= 1$

Probability $= \dfrac{1}{7 + 1 + 3 + 5} = \dfrac{1}{16}$

Answer: **B**

5

x	1	2	3	4
y	4	3	2	1
$x + y$	5	5	5	5

Possible choices $= \{(1, 4), (2, 3), (3, 2), (4, 1)\}$

Probability of $x = 1$ is $\dfrac{1}{4}$

Answer: **B**

6 $p = 1 - \dfrac{1}{4} - \dfrac{2}{3} = \dfrac{1}{12}$

Answer: **D**

7 $1 - 0.55 = 0.45$

Answer: **B**

8 Sum of even numbers $= \{(6, 2), (9, 3), (9, 5)\}$

$p = \dfrac{3}{6} = 0.5$

Answer: **D**

9 $P(\text{boys}) = \dfrac{(38 - 20) + 4}{38 + 4}$

$= \dfrac{22}{42}$

$= \dfrac{11}{21}$

Answer: **C**

10 Mode $= 46 - 50 \text{ kg}$

Probability $= \dfrac{28}{6 + 28 + 10 + 16}$

$= \dfrac{28}{60}$

$= \dfrac{7}{15}$

Answer: **B**

Section B

1 (a) {English, Art Education, Science}

(b) (i) $P(\text{Art Education}) = \dfrac{6}{4 + 6 + 5}$

$= \dfrac{6}{15}$

$= \dfrac{2}{5}$

(ii) $P(\text{not a Science book}) = \dfrac{4 + 6}{15}$

$= \dfrac{10}{15}$

$= \dfrac{2}{3}$

(iii) $P(\text{Malay}) = 0$

Section C

1 (a) Sample space $= \{(2, 2), (2, 3), (2, 5), (3, 2), (3, 3), (3, 5),$
$(5, 2), (5, 3), (5, 5)\}$

(b) (i) $n = 9$

$P(\text{Total scores is 5}) = \dfrac{2}{9}$

(ii) $\dfrac{1}{9}$

(iii) Same scores $= \{(2, 2), (3, 3), (5, 5)\}$

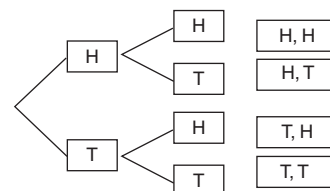$P(\text{same scores}) = \dfrac{3}{9} = \dfrac{1}{3}$

(iv) $P(\text{Different scores})$
$= 1 - P(\text{same scores})$

$= 1 - \dfrac{1}{3} = \dfrac{2}{3}$

(c) (i)

Coin 1	Coin 2	Outcomes
H	H	H, H
H	T	H, T
T	H	T, H
T	T	T, T

Sample space, $S = \{(H, H), (H, T), (T, H), (T, T)\}$

(ii) Probability of getting at least one head

$= \dfrac{3}{4} = 0.75$