

## Q1-Q4 SA

## Q5-Q6-TL

1) a)

Score(x)	Freq(f)	fx	cf
1	8	8	8
2	6	12	14
3	5	15	19
4	10	40	29
5	12	60	41
6	9	54	50
7	3	21	53
	$\Sigma f = 53$	$\Sigma fx = 210$	

b) 53

c) between 4 - 6 m.h

d) i)  $\bar{x} = \frac{210}{53} = 3.96$

ii) 5

iii) 4

iv)  $7 - 1 = 6$

2) a) survey

b) census.

3) Bias sample. Students in McDonalds would like name this store as their favourite.

4) a) NO

b) NC

c) C

5) a) What is your height in cm?

b) Do you believe we should invest in a space program?

6)

Girls					Boys				
9	4	7	1	9	0	7	7	8	
3	1	2	3	5	1	2	3	5	7
7	1	2	0	1	2	0	1	1	
9	6	4	0	3	3	5	7		
1	5	5	2	2	4	6			
3	1	1	5	1					

i)  $\bar{x} = \frac{648}{18} = 36$  (Girls)

$\bar{x} = \frac{367}{17} = 21.6$

ii) Girls.  $\frac{39 + 42}{2} = 40.5$

Boys 19

iii) Girls  $53 - 9 = 44$

Boys  $51 - 7 = 44$

g) c) positively skewed.

d) girls. - Higher average.

Q7-Q12-PW - negatively skewed

7) Indices

a)  $2^7$

b)  $20n^7$

c)  $24x^3y^6$

d)  $2d^2$

e)  $27x^3$

f)  $-64n^6$

g)  $\frac{y^7}{3}$

h) 2

i)  $\frac{7}{y^3}$  or  $7y^{-3}$

8) e)  $ab$

b)  $\frac{a^3}{a^6} = \frac{1}{a^3}$

c)  $\left(\frac{x^3}{x^2}\right)^5 \times \left(\frac{x^4}{x}\right)^{-2}$

$$x^5 \times (x^3)^{-2}$$

$$x^5 \times x^{-6}$$

$$= x^{-1} = \frac{1}{x}$$

9) a)  $3 \times 10^3$

b)  $8 \times 10^{-2}$

c)  $2.406 \times 10^6$

10) a) 3850

b) 0.000106

11) a)  $1.73 \times 10^4$

b)  $3.56 \times 10^3$

c)  $5.56 \times 10^{-2}$

12)

a)  $5.022 \times 10^{15}$

b)  $1.009 \times 10^{-24}$

Rates- Q13-Q16-VL

13)

a) 2:5

b) 5:3

c) 1:4

d) 3:5:4

e) 5:6

f) 2:5

14) a) 18000 m/hr

b) 18000 m/hr  
18 km/hr

c) 4200c/hr

**\$42/hr**

15) 2:3:5

10 parts - \$2000

1 part -  $\frac{2000}{10} = \$200$

$\therefore \$400, \$600, \$1000$

16) Adi 3:4  
Gouri

4 parts - 800gm

1 part - 200gm

$\therefore$  adi  $3 \times 200$

= 600gm