

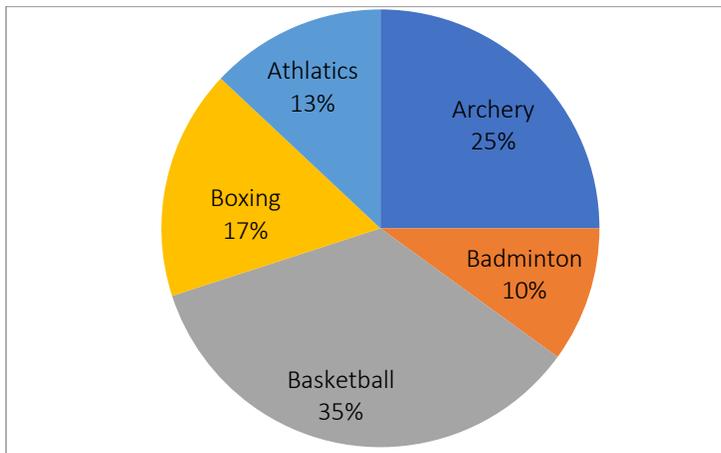
Quiz Date: 15th September 2020

Directions (1-5): **Study the following pie-chart carefully to answer these questions:**

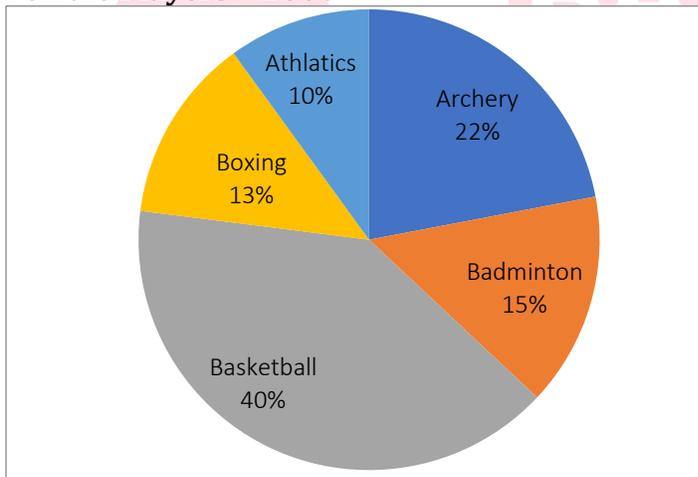
Percentage-wise distribution of players who Play Five Different Sports in National games of India.

Total players are equal to 4200, out of which Female Players are equal to 2000

Total Players = 4200



Female Players = 2000



Q1. What is the average number of players (both male and female) who play Boxing and Athletics together?

- (a) 620
- (b) 357
- (c) 230
- (d) 630
- (e) 530

Q2. What is the difference between the number of female players who play Archery and the number of male players who play Athletics?

- (a) 94
- (b) 84

- (c) 220
- (d) 240
- (e) 120

Q3. What is the ratio of the number of female players who play Basketball to the number of male players who play Badminton?

- (a) 20 : 7
- (b) 4 : 21
- (c) 20 : 3
- (d) 3 : 20
- (e) 7 : 20

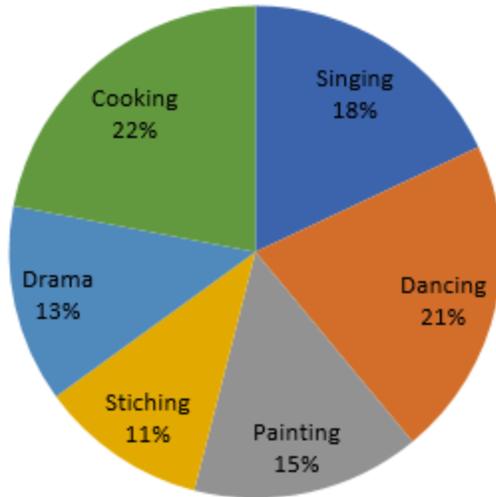
Q4. What is the total number of the male players who play Boxing, Basketball and Archery together?

- (a) 1,724
- (b) 1,734
- (c) 1,824
- (d) 1,964
- (e) 2,724

Q5. The number of male players who play Athletics is approximately what percentage of the total number of players who play Archery?

- (a) 33
- (b) 39
- (c) 26
- (d) 21
- (e) 43

Directions (6-10): Given below is the pie chart which shows the percentage of students enrolled in different Hobby classes in a school in year 2016



Total Enrolled students = 7200

Q6. What is the difference between average of number of students enrolled in Dancing and stitching hobby together and average of students enrolled in Painting and cooking hobby together ?

- (a) 160
- (b) 180
- (c) 175
- (d) 165
- (e) 190

Q7. If in year 2017 total students who were enrolled in singing and painting increases by 100/3% and 20% respectively, then find the total number of enrolled students in singing and painting in 2017.

- (a) 3334
- (b) 3245
- (c) 3525
- (d) 3600
- (e) 3024

Q8. What is the ratio of total students enrolled in Dancing and drama together to the 160% of total students enrolled in cooking and painting together?

- (a) 85 : 148
- (b) 80 : 83
- (c) 33 : 43
- (d) 11 : 22
- (e) 11 : 27

Q9. What is the average of number of students enrolled in Singing, Dancing and Painting together?

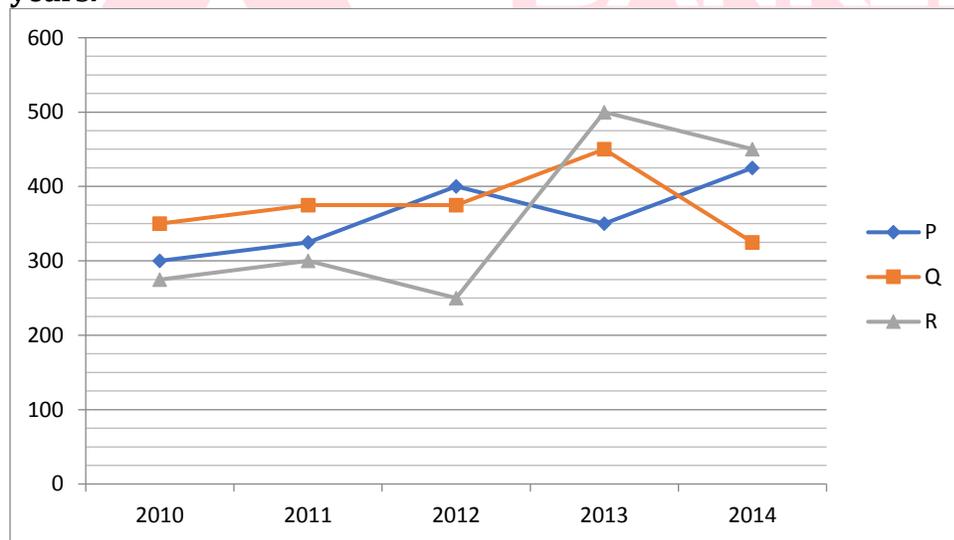
- (a) 1331
- (b) 941
- (c) 1296
- (d) 1225
- (e) 1025

Q10. If total students who are enrolled in painting and Singing together in 2017 are $100\frac{3}{4}\%$ more than those enrolled in these two hobby in 2016 and in 2017 total enrolled boys in these hobby are 20% more than enrolled girls in these hobby in 2017. Find number of enrolled girls in 2017

- (a) 1320
- (b) 1225
- (c) 1520
- (d) 1580
- (e) 1440

Directions (11-15): Study the following graph carefully and answer the questions given below

Number of students enrolled in three different colleges P, Q and R in five different years.



Q11. Ratio of number of male to female students in college Q in 2011 is 16: 9 and total professors in same year and in same college is $\frac{100}{9}\%$ of total female students from the same college and in same year then, find total number of professor in college Q in 2011.

- (a) 18
- (b) 15
- (c) 20
- (d) 22

(e) 25

Q12. If number of male students in college R in 2013 and male students in college P in 2010 are equal, then what is the percentage of female students in college P in 2010? Given that ratio of male to female students in college R in 2013 is 13: 12

- (a) $\frac{100}{3}\%$
(b) $\frac{50}{3}\%$
(c) $\frac{40}{3}\%$
(d) $\frac{22}{7}\%$
(e) None of these

Q13. If 20% of students of college R in 2014 are transferred in the same college in 2012, then find the ratio of students in college R in 2012 to the total students in 2014 now.

- (a) 34/111
(b) $\frac{23}{222}$
(c) $\frac{111}{23}$
(d) $\frac{34}{113}$
(e) None of these

Q14. Average of students in college Q from all the years are what percent less/more than the average students in college R from all the years together? (Approximately)

- (a) 12%
(b) 10%
(c) 4%
(d) 9%
(e) 6%

Q15. If 20% of total students in 2013, are failed in yearly exam, 75% of total students are passed in year 2014 in yearly exams then what will be total students in 2015 if 400 more students are enrolled in 2015 from both years 2013 and 2014 together (consider enrollment is cancelled when a student fails in exam)

- (a) 2340
(b) 2900
(c) 2440
(d) 2800
(e) 2250

Solutions

S1. Ans.(d)

Sol.

$$\begin{aligned}\text{Required average} &= \frac{1}{2} \times \frac{(17+13)}{100} \times 4200 \\ &= 630\end{aligned}$$

S2. Ans.(a)

Sol.

$$\begin{aligned}\text{Required difference} &= 22\% \text{ of } 2000 - (13\% \text{ of } 4200 - 10\% \text{ of } 2000) \\ &= 440 - [546 - 200] \\ &= 94\end{aligned}$$

S3. Ans.(c)

Sol.

$$\begin{aligned}\text{Required ratio} &= \frac{40\% \text{ of } 2000}{(10\% \text{ of } 4200 - 15\% \text{ of } 2000)} \\ &= \frac{800}{120} = \frac{20}{3}\end{aligned}$$

S4. Ans.(b)

Sol.

$$\begin{aligned}\text{Required total no. of male players} &= (17\% \text{ of } 4200 - 13\% \text{ of } 2000) + (35\% \text{ of } 4200 - 40\% \text{ of } 2000) + (25\% \text{ of } 4200 - 22\% \text{ of } 2000) \\ &= 454 + 670 + 610 \\ &= 1734\end{aligned}$$

S5. Ans.(a)

Sol.

$$\begin{aligned}\text{Required percentage} &= \frac{(13\% \text{ of } 4200 - 10\% \text{ of } 2000)}{25\% \text{ of } 4200} \times 100 \\ &= \frac{34600}{1050} = 32.95\% \\ &\simeq 33\%\end{aligned}$$

S6. Ans.(b)

Sol.

Required difference

$$= \frac{1}{2} [(15 + 22)\% - (21 + 11)\%] 7200 = \frac{1}{2} [5\%] 7200 = 180$$

S7. Ans.(e)

Sol.

Total enrolled students in singing and painting in 2017

$$= \left(\frac{4}{3} \times 18\% + \frac{6}{5} \times 15\% \right) 7200 = 42 \times 72 = 3024$$

S8. Ans.(a)

Sol.

Required ratio

$$= (21\% + 13\%) : 160\%(22\% + 15\%)$$

$$= 5 \times 34 : 8 \times 37 = 170 : 296$$

$$= 85 : 148$$

S9. Ans.(c)

Sol.

$$\text{Required average} = \frac{1}{3} (18 + 21 + 15)\% \times 7200$$

$$= 18 \times 72 = 1296$$

S10. Ans.(e)

Sol.

Total enrolled students in Painting and Singing in 2017

$$= \frac{4}{3} \times (15\% + 18\%) \times 7200 = 3168$$

Let total enrolled girls in 2017 in Painting & Singing = x

So,

$$3168 = \left(x + \frac{6}{5}x \right)$$

$$\text{Or, } x = \frac{3168 \times 5}{11} = 1440$$

S11. Ans.(b)

Sol.

$$\text{Total number of professors} = \frac{1}{9} \times \frac{9}{25} \times 375 = 15$$

S12. Ans.(c)

Sol.

$$\text{Number of male students in college P in 2010} = \frac{13}{25} \times 500 = 260$$

$$\text{Required percentage} = \frac{300-260}{300} \times 100$$

$$= \frac{40}{3} \%$$

$$= 13\frac{1}{3} \%$$

S13. Ans.(a)

Sol.

$$20\% \text{ students in college R in 2014} = \frac{20}{100} \times 450 = 90$$

$$\text{Total students of college R 2012} = 250 + 90 = 340$$

$$\text{Required ratio} = \frac{340}{1110}$$

$$= \frac{34}{111}$$

S14. Ans.(e)

Sol.

Total students in college Q in all years

$$= 350 + 375 + 375 + 450 + 325$$

$$= 1875$$

Total students in college R from all years

$$= 275 + 300 + 250 + 500 + 450$$

$$= 1775$$

$$\text{Required percentage} = \frac{375-355}{355} \times 100$$

$$= 5.6\%$$

$$\sim 6\% \text{ more}$$

S15. Ans.(a)

Sol.

Total students in 2015 who are enrolled now are

$$= 1300 \times \frac{80}{100} + 1200 \times \frac{75}{100} + 400$$

$$= 2340$$

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