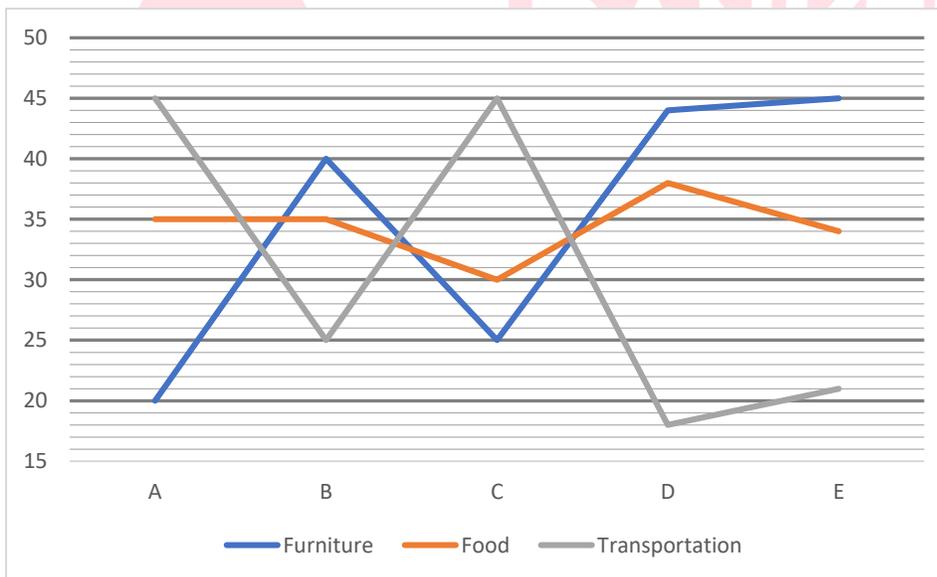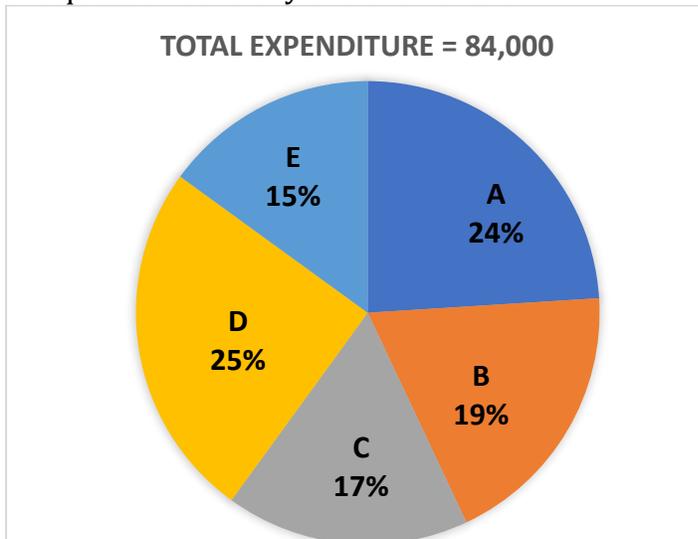Quiz Date: 7th March 2020

Directions (1-5): Pie-chart given below shows the expenditure of five different persons and line graph shows the percentage distribution of their expenditure on different things. Study the question carefully and answer them.

TOTAL EXPENDITURE = 84,000

E 15%
A 24%
D 25%
B 19%
C 17%

50
45
40
35
30
25
20
15

A   B   C   D   E

Furniture   Food   Transportation

Q1. Who among the following spend maximum amount on food?
(a) D
(b) E
(c) B
(d) C
(e) A

Q2. Amount spend by 'E' on furniture is what % more than amount spend by 'D' on Transportation?
(a) 40%
(b) 45%
(c) 50%
(d) 55%
(e) 60%

Q3. Find the average amount spend by A, B and C on furniture?
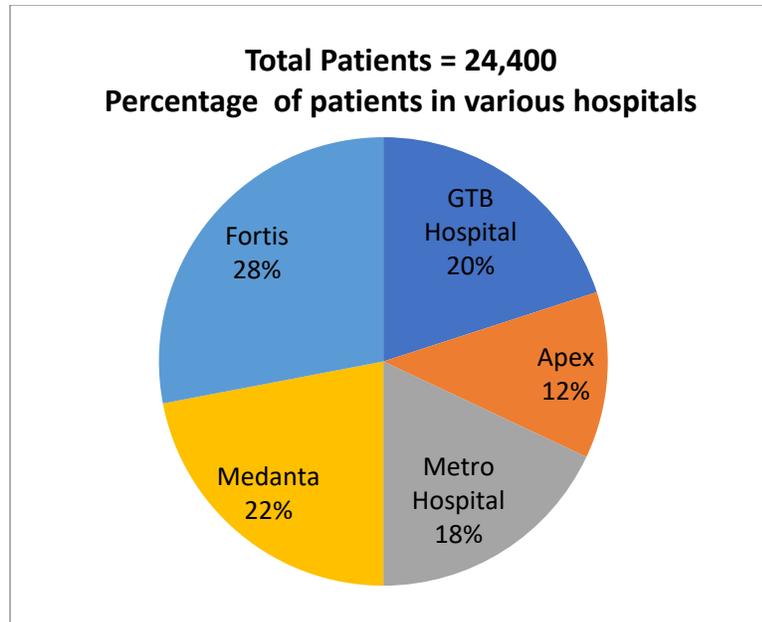(a) 4622
(b) 4626
(c) 4262
(d) 4266
(e) 4662

Q4. 'D' buy only three type of furniture X, Y and Z and amount spend on buying X, Y and Z are in the ratio 5 : 7 : 10 respectively. What is the difference between amount spend on buying Z type furniture to amount spend on buying X type furniture?
(a) 840
(b) 1260
(c) 1680
(d) 2100
(e) 2520

Q5. What is the ratio of amount spend by 'A' and 'B' together on food to the amount spend by 'C' and 'D' together on furniture respectively?
(a) 295 : 277
(b) 277 : 295
(c) 305 : 301
(d) 301 : 305
(e) 329 : 205

Directions (6-10): The following pie-chart shows the percentage of patients in various hospitals of Delhi and also the table shows the ratio of male to female patients in these hospitals. Study the graphs carefully to answer the related questions.

Total Patients = 24,400
Percentage of patients in various hospitals

Hospitals	Male: Female
GTB Hospital	4:1
Apex	3:1
Metro Hospital	5:4
Medanta	5:3
Fortis	4:3

Q6. What is the average number of male patients in GTB, Metro and Fortis hospitals together?
(a) 4,254
(b) 2,088
(c) 2,048
(d) 3,120
(e) 3,416

Q7. Number of female patients in Apex and Medanta together are approximately what percent of number of female patients in Metro and Fortis together?
(a) 85%
(b) 65%
(c) 56%
(d) 95%
(e) 80%

Q8. Number of female patients in Medanta are approximately what percent of the number of male patients in GTB Hospital?
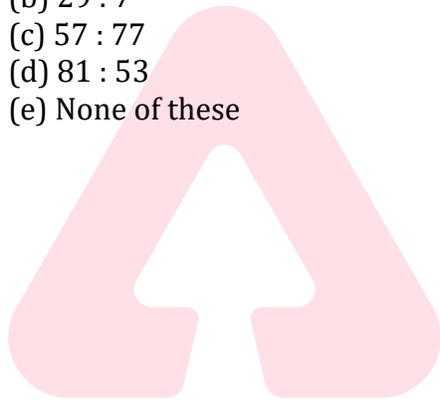(a) 75%

(b) 33%
(c) 52%
(d) 28%
(e) 80%

Q9. What is the difference between total number of male patients in Apex and Medanta together and total number of female patients in Metro and Fortis hospitals together?
(a) 671
(b) 204
(c) 300
(d) 2880
(e) 415

Q10. If 10% patients get discharged from GTB Hospital and the ratio of male to female patients discharged is 3 :1, then what is the ratio of male to female patients who are still in the GTB Hospital?
(a) 1375 : 553
(b) 29 : 7
(c) 57 : 77
(d) 81 : 53
(e) None of these

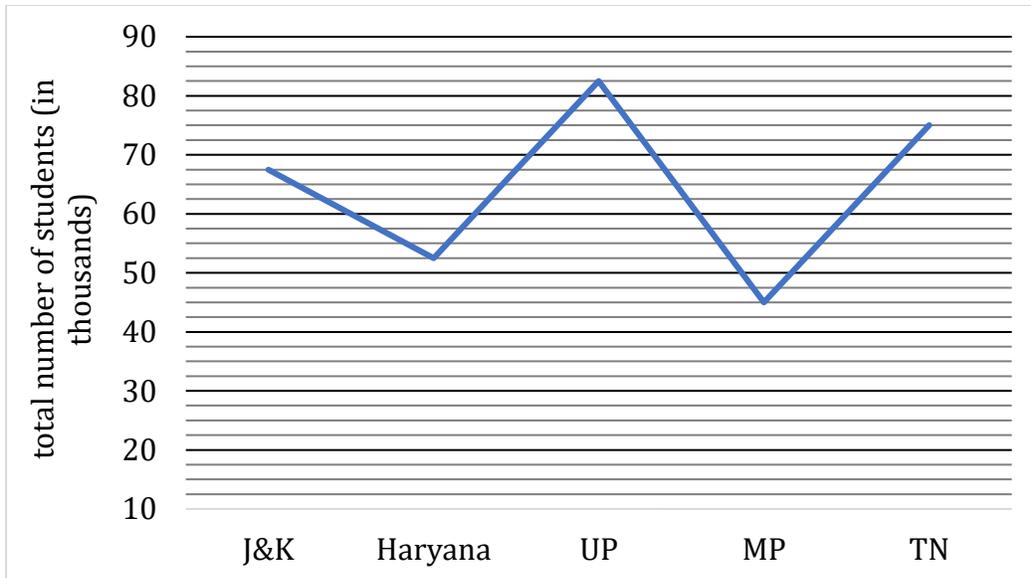**Directions(11- 15):** The following line graph and table show the total number of students who appeared for UPSC Pre exam in 2018 from five different states and ratio of Boys to girls in them from five different states of India. Study the graph carefully to answer the following questions.

States	Ratio of boys to girls
	Boys : Girls
J&K	5 : 4
HARYANA	11 : 4
UP	3 : 2
MP	5 : 1
TN	17 : 8

Note : Ratio of Boys to girls remain same for Pre exam and Mains exam both.

Q11. If 20% students from J&K have qualified for Mains exam, then total no. of boys in J&K who have qualified for Mains exam is approximately what percent of total no. of students from J&K who did not qualify for Mains exam?
(a) 18%
(b) 14%
(c) 12%
(d) 6%
(e) 10%

Q12. What is the difference between boys and girls from TN who have appeared for the exam (in thousands)?
(a) 27
(b) 22
(c) 35
(d) 32
(e) 18

Q13. If three fifth of total students of Haryana are qualified for Mains exam, then what is the ratio of boys who are qualified from Haryana to the total students who were not qualified from Haryana?
(a) 12 : 13
(b) 13 : 12
(c) 10 : 11
(d) 11 : 10
(e) 9 : 11

Q14. What is the difference between average of boys and average of girls who are qualified from all the five states?
(a) 20,200
(b) 21,100
(c) 20,110
(d) Cannot be determined
(e) None of these

Q15. If 10%, 20% and 25% students leave the Pre exam due to some internal reasons in states J&K, MP and TN respectively then what is the ratio of total students who have given the Pre exam from these states respectively?
(a) 51 : 40 : 45
(b) 40 : 45 : 51
(c) 27 : 16 : 25
(d) 16 : 27 : 18
(e) 27 : 25 : 16

Solutions

S1. Ans.(a)
Sol.
Amount spend by 'A' on food = $84000 \times \frac{24}{100} \times \frac{35}{100} = 7056$
Amount spend by 'B' on food = $84000 \times \frac{19}{100} \times \frac{35}{100} = 5586$
Amount spend by 'C' on food = $84000 \times \frac{17}{100} \times \frac{30}{100} = 4284$
Amount spend by 'D' on food = $84000 \times \frac{25}{100} \times \frac{38}{100} = 7980$
Amount spend by 'E' on food = $84000 \times \frac{15}{100} \times \frac{34}{100} = 4284$

S2. Ans.(c)
Sol.
Amount spend by 'E' on furniture = $84000 \times \frac{15}{100} \times \frac{45}{100}$
= 5670

Amount spend by 'D' on transportation $= 84000 \times \frac{25}{100} \times \frac{18}{100}$

= 3780

$Required\ \% = \frac{5670 - 3780}{3780} \times 100$

= 50%

S3. Ans.(e)
Sol.
Required average $= \frac{1}{3} \times 84,000 \left[\frac{24}{100} \times \frac{20}{100} + \frac{19}{100} \times \frac{40}{100} + \frac{17}{100} \times \frac{25}{100}\right]$

$= \frac{28000}{10000}[\ 480 + 760 + 425]$

= 2.8 (1665) = 4662

S4. Ans.(d)
Sol.
Required volume $= 84000 \times \frac{25}{100} \times \frac{(10-5)}{22} \times \frac{44}{100}$

= 2100

S5 Ans.(d)
Sol.
Amount spend by A & B on food $= 84000 \times \left[\frac{24}{100} \times \frac{35}{100} + \frac{19}{100} \times \frac{35}{100}\right]$

= 8.4 [840 + 665]

= 12642

Amount spend by C & D on furniture $= 84000 \left[\frac{17}{100} \times \frac{25}{100} + \frac{25}{100} \times \frac{44}{100}\right]$

= 8.4 [1525]

= 12810

Required ratio $= \frac{12642}{12810} = \frac{301}{305}$

S6. Ans.(e)
Sol.

Required average no. of male patients

$$= \frac{1}{3} \times \left(\frac{4}{5} \times 20 + \frac{5}{9} \times 18 + \frac{4}{7} \times 28 \right) \times 244$$
$$= 3,416$$

S7. Ans.(c)
Sol.
No. of female patients in Apex and Medanta together

$$= \left(\frac{1}{4} \times 12 + \frac{3}{8} \times 22 \right) \times 244$$
$$= 732 + 2013$$
$$= 2745$$
No. of female patients in Metro and Fortis hospitals together
$$= \left(\frac{4}{9} \times 18 + \frac{3}{7} \times 28 \right) \times 244$$
$$= 4880$$

$\therefore$ Required percentage $= \dfrac{2745}{4880} \times 100 \simeq 56\%$

S8. Ans.(c)
Sol.
Required percentage

$$= \frac{\frac{3}{8} \times 22}{\frac{4}{5} \times 20} \times 100$$
$$= 51.5625$$
$$\simeq 52\%$$

S9. Ans.(a)
Sol.
No. of male patients in Apex and Medanta hospitals together

$$= \left(\frac{3}{4} \times 12 + \frac{5}{8} \times 22 \right) \times 244$$
$$= 5551$$
No. of female patients in Metro and Fortis hospitals together
$$= \left(\frac{4}{9} \times 18 + \frac{3}{7} \times 28 \right) \times 244$$
$$= 4880$$
$\therefore$ Required difference = 5551 – 4880 = 671

S10. Ans.(b)
Sol.
No. of patients who get discharged from GTB Hospital

$$= \frac{10}{100} \times \frac{20}{100} \times 24400$$
$$= 488$$

No. of male patients who do not discharged from GTB Hospital

$= \dfrac{4}{5} \times 20 \times 244 - \dfrac{3}{4} \times 488$

$= 3,538$

No. of female patients who do not discharged from GTB Hospital

$= \dfrac{1}{5} \times 20 \times 244 - \dfrac{1}{4} \times 488$

$= 854$

∴ Required ratio $= \dfrac{3538}{854} = \dfrac{29}{7}$

S11. Ans.(b)

Sol.

No. of boys who have qualified for Mains exam from J&K

$= \dfrac{20}{100} \times \dfrac{5}{9} \times 67,500$

$= 7500$

No. of students from J&K who did not qualify for Mains exam

$= \dfrac{80}{100} \times 67,500$

$= 54,000$

∴ Required percentage

$= \dfrac{7500}{54000} \times 100$

$\simeq 14\%$

S12. Ans.(a)

Sol.

Required difference $= \dfrac{9}{25} \times 75 = 27\ thousands$

S13. Ans.(d)

Sol.

Total boys qualified for Mains exam from Haryana

$= \dfrac{11}{15} \times \dfrac{3}{5} \times 52,500$

$= 23,100$

Total students who were not qualified for Mains exam from Haryana

$= \dfrac{2}{5} \times 52,500$

$= 21000$

∴ Required ratio $= \dfrac{23100}{21000}$

$= 11 : 10$

S14. Ans.(d)

Sol.

Here, answer cannot be determined because we don't know how many students qualified for Mains exam.

S15. Ans.(c)
Sol.
Required ratio = 0.9 × 67.5 : 0.8 × 45 : 0.75 × 75
= 27 : 16 : 25

RBI ASSISTANT
MAHA PACK
Live Class, Video Course Test Series, e-Books
Bilingual

For any Banking/Insurance exam Assistance, Give a Missed call @ 01141183264

adda247