Solution

		21	B	46	A
		22	D	47	E
		23	A	48	E
		24	C	49	C
		25	D*	50	B
1	D	26	A	51	B
2	C	27	E	52	B
3	A	28	*	53	E
4	B	29	C	54	B
5	E	30	D	55	C
6	C	31	B	56	E
7	C	32	B	57	B
8	D	33	A	58	B
9	A	34	E	59	D
10	E	35	E	60	C
11	B	36	A	61	A
12	A	37	C	62	E
13	D	38	D	63	B
14	B	39	A	64	A
15	A	40	A	65	C
16	A	41	E	66	B
17	D	42	B	67	D
18	C	43	A	68	D
19	A	44	C	69	D
20	D*	45	A	70	C

SOLUTION

- NUMERICAL ABILITY

1. $\frac{400\times185}{100}+\frac{240\times35}{100}=\frac{1648\times?}{100}$

$\Rightarrow 74000+8400=1648\times?$

$\Rightarrow 82400=1648\times?$

$\therefore ?=\frac{82400}{1648}=50$

2. $\sqrt{24^4}+244=?\times20^2$

$\Rightarrow 24\times24+224=?\times 20^2$

$\Rightarrow 576+224=?\times400$

$\Rightarrow 800=?\times400$

$\therefore ?=\frac{800}{400}=2$

3. $?=12.28\times1.5-36\div2.4$

$=18.42-\frac{36}{2.4}=18.42-15$

$=3.42$

4. $?=175\times28+275\times27.98$

$\approx 175\times28+275\times28$

$\approx 28(175+275)$

$\approx 28\times450\approx 12600$

5. $?=325\times 16\div4+37$

$\approx\frac{325\times16}{4}+37$

$\approx 1300+37\approx1337$

$\therefore$ Required answer $=1340$

6. $?=1164\times128\div8.008+969.007\approx\frac{1164\times128}{8}+969$

$\approx 18624+969$

$\approx 19593\approx19600$

7. The pattern of the number series is

$17\times3+1=51+1=52$

$52\times3+2=156+2=158$

$158\times3+3=474+3=477$

$477\times3+4=1431+4=1435$

8. The pattern of the number series is

$3\times7+1=21+1=22$

$22\times6+2=132+2=134$

$134\times5+3=670+3=673$

$673\times4+4=2692+4=2696$

9. The pattern of the number series is

$6\times1+1\times7=6+7=13$

$13\times2+2\times6=26+12=38$

$38\times3+3\times5=114+15=129$

$129\times4+4\times4=516+16=532$

10. The patter of the number series is

$\frac{286}{2}-1=143-1=142$

$\frac{142}{2}-1=71-1=70$

$\frac{70}{2}-1=85-1=34$

$\frac{34}{2}-1=17-1=16$

11. Ratio of the equivalent capitals of Prakash, Sunil and Anil

$=11:16.5:8.25=4:6:3$

Anil's share in the profit

$=\text{Rs.}\left[\frac{3}{(4+6+3)}\times19.5\right]\text{lakh}$

$=\text{Rs. }4.5\text{ lakh}$

$\therefore$ 50% of Rs.4.5 lakh $=$Rs.2.25 lakh

12. According to the question,

1 man $=2$ women

$\therefore$ 8 men $=16$ women

$\Rightarrow$ (16+4)women $=20$ women

Now 4 men+8 women $=16$ women

20 women's 2 days' work

$=\frac{2}{6}=\frac{1}{3}$part

Remaining work= $1-\frac{1}{3}=\frac{2}{3}$

$\because$ 20 women complete 1 work in 6 days.

$\therefore$ 16 women will do $\frac{2}{3}$ work in

$=\frac{20\times 6}{16}\times\frac{2}{3}$ = 5 days

13. Purchase cost of the TV set= Rs. 11250

$\therefore$ Marked price $=\frac{11250\times 100}{90}$ = Rs. 12500

It there would have been no discount then the total purchase cost would be=12500+ 150+800=Rs. 13450

$\therefore$ Required selling price

$\frac{13450\times 115}{100}$ = Rs. 15467.50

14. Amount =Principal $\left(1+\frac{\text{Rate}}{100}\right)^{\text{time}}$

$=20000\left(1+\frac{10}{100}\right)^2\left(1+\frac{20}{100}\right)$

(Rate of interest of the first year =10%, Time =2 half years)

$=\text{Rs. }\left(20000\times\frac{11}{10}\times\frac{11}{10}\times\frac{6}{5}\right)$

=Rs. 29040

$\therefore$ C.I.= Rs. (29040-20000)=Rs. 9040

15. The word DESIGN consist of 6 distinct letters.

According to the question

E.....I

I.....E

Required number of arrangements

=2!×4!

=2×4×3×2×1=48

16. From statement of (I) and (II),

D+E=14

And A+B+C+F=4×50=200

$\therefore\ \frac{A+B+C+D+E+F}{6}$

$=\frac{14+200}{6}=\frac{214}{6}=35\frac{2}{3}$ years

17.Area of the right angled triangle =1/2×base× height

Clearly, taking any two of the given statements the area can be obtained.

18.From all three statements,

(A+B)'s day's work= $\frac{1}{8}$ ....(i)

(B+C)'s day's work= $\frac{1}{10}$ ...(ii)

(A+C)'s day's work = $\frac{1}{12}$ ...(iii)

Adding all three equations

(A+B+C's 2 day's work

$=\frac{1}{8}+\frac{1}{10}+\frac{1}{12}$

$=\frac{15+12+10}{120}=\frac{37}{120}$

$\therefore$(A+B+C)'s 1 day's work

=37/40 ...(iv)

By equation (iv) – (iii)

B's 1 day's work = $\frac{37}{240}-\frac{1}{12}$

$\therefore$ B will complete the work in =240/17 days

19. From statement (I),

$x=\frac{x\times 10\times r}{100}$

$\Rightarrow$r= 10% per annum

From statement (II),

Principal =Difference $\left(\frac{100}{\text{Rate}}\right)^2$

20.from all three statements,

M + Sc. +E=198

Let Abhijit get x marks in English.

$\therefore$ x+x+12+x+32=198

$\Rightarrow$ 3x+44=198

$\Rightarrow$ 3x =198 -44=154

$\Rightarrow$ x=154/3

21.Number of students passed from institute F in 2003

$=\frac{700\times 66}{100}=462$

Number of students passed from institute B in 2005

$\frac{570\times 50}{100}=285$

$\therefore$Required ratio= 462: 285

=154 : 95

22.Average number of students appeared

Institute A

$\frac{450+520+430+400+480+550+500}{7}$

$=\frac{3330}{7}$

Institute D

$\frac{640+620+580+600+700]+750+720}{7}$

$=\frac{4610}{7}$

$\therefore$Required ratio= $\frac{3330}{7}:\frac{4610}{7}\Rightarrow 333:461$

23.total number of students passed from all institutes together in 2006.

$=\left(550\times\frac{40}{100}+\frac{450\times 60}{100}+\frac{500\times 68}{100}+\frac{750\times 60}{100}+\frac{450\times 50}{100}+\frac{650\times 60}{100}\right)$

=(220+270+340+450+225+390)

=1895

24.Toal number of students appeared from all institutes in 2004

$=(400+600+450+600+720+780)$

$=3550$

Total number of students passed in 2004

$$=\left(\frac{400\times65}{100}+\frac{600\times75}{100}+\frac{450\times70}{100}+\frac{600\times75}{100}+\frac{720\times60}{100}+\frac{780\times70}{100}\right)$$

$=(260+450+315+450+546+432)$

$=2453$

$\therefore$ Required percentage $=\frac{2453}{3550}\times100=69$

25 Total number of students appeared from institute C over the years

$=300+350+380+450+400+500+470=2850$

Total number of students passed from institute C over the years

$$=\left(\frac{300\times65}{100}+\frac{350\times60}{100}+\frac{380\times50}{100}+\frac{450\times70}{100}+\frac{400\times75}{100}+\frac{500\times68}{100}+\frac{470\times60}{100}\right)$$

$=(195+210+190+315+300+340+282$

$=1832$

$\therefore$ Required Percentage $=\frac{1832}{2850}\times100=65$

26. Increase in exports of company C form 2004 to 2008

$=(750-500)$thousand tonnes

$=250$ thousand tonnes

Percentage increase

$=\frac{250}{500}\times100=50\%$

27. Total exports of company A

$=(350+500+400+600+550+400+500)$

$=3300$ thousand tonnes

Total exports of company B

$=(500+400+600+800+900+700+700)$

$=4600$ thousand tonnes

$\therefore$ Required percentage

$=\frac{3300}{4600}\times100=72$

28. It is obvious from the graph.

29. Average exports of company B of all the years.

$=\left(\frac{4600}{7}\right)$ thousand tonnes

$=657.14$ thousand tonnes.

30. Total exports of three companies in 2003

$=500+400+550$

$=1450$ thousand tonnes

Total exports of the three companies in 2006

$=550+900+600=2050$

$\therefore$ required ratio $=1450:2050=29:41$

31. Average of marks percentage in Science

$=\frac{76+84+66+72+88+64}{6}$

$=450/6=75\%$

$\therefore 75\%$ of $150=\frac{150\times75}{100}=112.5$

32. Average of the marks percentage in Geography

$=\frac{66+72+78+80+68+74}{6}$

$=438/6=73\%$

$\therefore$ 73% of $75=\frac{75\times73}{100}=54.75$

33. Total marks obtained by D in Maths, science and English together

$=68+\frac{72\times150}{100}+\frac{66\times50}{100}$

$=68+108+33=209$

Total marks obtained by F in these subjects

$=79+\frac{64\times150}{100}+\frac{80\times50}{100}$

$=79+96+40=215$

$\therefore$ Required ratio $=209:215$

34. Marks obtained by C in:

History $\Rightarrow \frac{75\times56}{100}=42$

Geography $\Rightarrow \frac{75\times78}{100}=58.50$

Maths $\Rightarrow 71$

Sience $\Rightarrow \frac{150\times66}{100}=99$

English $\Rightarrow \frac{50\times86}{100}=43$

Hindi $=\frac{60\times70}{100}=42$

Total marks obtained

$=42+58.5+71+99+43+42$

$=355.5$

$\therefore$ Required percentage

$=\frac{99}{355.5}\times100=27.85\approx28$

35. Total marks obtained by B

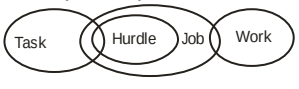
$=\frac{76\times75}{100}+\frac{75\times72}{100}+65+\frac{150\times84}{100}+\frac{50\times74}{100}+\frac{60\times75}{100}$

$=57+54+65+126+37+45$

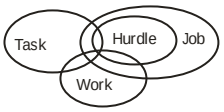
$=384$

- REASONING ABILITY

Ans. (36-37)



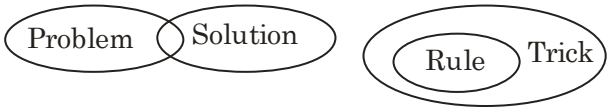
Or



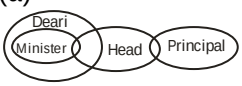
36.(a)

37.(c)

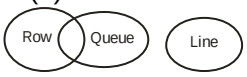
38.(d)



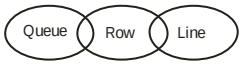
39. (a)



40.(a)



Or



Ans (41-42):

(+) →Male

(-)→ Female

D(+) ←Father— A(+)

L

↓son

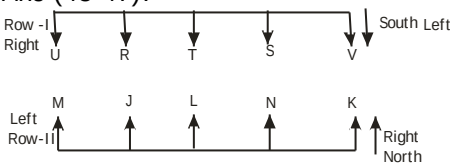
↓wife

P(-) ←Mother— J(-) —Husband→ U(+)

41.(e)

42.(b)

Ans (43-47):



43.(a)

44.(c)

45.(a)

46.(a)

47.(e)

Ans(48-49)

Statements : P <L ≤A=N ≥E ≥D

Q≥ N < O

P < L ≤ A=N ≤Q

Q≥A=N≥E≥D

48.(e)Conclusions I. L≤E→ False

II. P<Q →True

49.(c)Conclusions I. Q≥D→True

II. A<D →False

Ans (50-51):

Statements :P ≤U=N≤C≥H>S

K≥C

50.(b)Conclusions: I P≤C→True II. U>H →false

51.(b) conclusions: I.K >U II. U=K]either conclusion I or II

52.(b) Statement : D ≥I>S≥M≤A<L

Conclusions: I.D≥A→False II. L>I →False

53-57:

committee (to) [review] papers→ es [fr] (re) pt

review meeting (in) morning→ [ch] ba (mo) [fr]

meeting (to) appoint members→ (re) dv [ch] gi

appoint chairman (in) [review] → (mo) gi [fr] yu

53.(e)

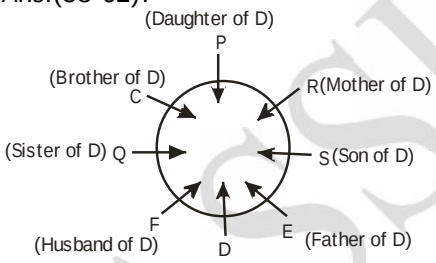
54.(b)

55.(c)

56.(e)

57.(b)

Ans.(58-62):



58.(b)

59. (d)

60.(c)

61.(a)

62.(e)

Ans (63-65):

W > U > V > T > S > R

↓ ↓ ↓

64 64-21=43 20

63.(b)

64.(a)

65.(c)

Ans.(66-70)

Month	Person	Flower
February	Q	Lily
March	R	Sunflower
April	N	Marigold
June	P	Rose
September	M	Orchid
October	S	Jasmine
November	O	Daffodil

66.(b)

67.(d)

68.(d)

69.(d)

70.(c)