## ESIC UDC Pre Memory Based-2019 (Solutions)

## S1. Ans.(c)

S2. Ans.(e)
Sol. dww\$

## S3. Ans.(a)

## Sol. 7

## S4. Ans.(e)

Sol. a

## S5. Ans.(e)

Sol. 9@, 8\#, 7\&, 6\$, 4!
Direction (6-10):
From the given conditions;
U sits second to the right of T. Two persons sit between T and S . Two persons sit between U and Q . W sits to the immediate left of Q . P sits to the left of W but not next to T. Here there are five cases possible i.e. case 1, case 2, case 3, Case 4 and Case 5.


As many persons sits to the left of P as there are to the right of V . V does not sit next to U . here case 2,3 , 4,5 gets eliminated. So the final solution is given below;


S6. Ans.(a)


BILINGUAL

S9. Ans.(d)

## S10. Ans.(c)

## Direction (11-15):

## S11. Ans.(a)

Sol.


## S12. Ans.(b)

Sol.


## S13. Ans.(a)

Sol.


## S14. Ans.(b)

Sol.


S15. Ans.(d)
Sol.


Direction (16-20): From the given condition;
Two persons go to party between K and Z . K goes to party before Z . One person goes to party between K and J. J does not go to party just before Z. Y goes to party immediately before L. here there are two cases possible i.e. case 1 and case 2.

|  | Case 1 | Case 2 |
| :--- | :--- | :--- |
| Days | Persons | Persons |
| Monday | J |  |
| Tuesday |  | J |
| Wednesday | K |  |
| Thursday | Y | K |
| Friday | L | Y |
| Saturday | Z | L |
| Sunday |  | Z |

X goes to party before $M$ but after J. Here case 2 gets eliminated. So the final solution is given below.

| Days | Persons |
| :--- | :--- |
| Monday | J |
| Tuesday | X |
| Wednesday | K |
| Thursday | Y |
| Friday | L |
| Saturday | Z |
| Sunday | M |

## S16. Ans.(b)

S17. Ans.(a)

S18. Ans.(c)

S19. Ans.(d)

S20. Ans.(a)

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Direction (23-25): From the given Conditions:
K goes to market immediately before M and O goes to market immediately after M . One person goes to market between $M$ and $L$. Two persons go to market between 0 and $N$. here there are three case possible i.e. case 1, case 2 and Case 3.

| Case 1 | Case 2 | Case 3 |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Persons | Persons | Persons |  |  |
| L | N | K |  |  |
| K | K | M |  |  |
| M | M | O |  |  |
| O | O | L |  |  |
|  | L |  |  |  |
|  |  |  |  | N |
|  | N |  |  |  |

P goes to market immediately after Q. P do not goes to market at last. J goes to market before N. J does not go to market after 0 . One person goes to market between $P$ and 0 . Here case 2 and case 3 gets eliminated. So the final solution is given below.

| Persons |
| :--- |
| J |
| L |
| K |
| M |
| O |
| Q |
| P |
| $N$ |

## S23. Ans.(d)

## S24. Ans.(c)

## S25. Ans.(b)

## S26. Ans.(a)

Sol. Pattern of series -
$40+10=50$
$50+20=70$
$70+40=110$
$110+80=190$
$190+160=350$

## S27. Ans.(c)

Sol. Pattern of series -
$6 \times 0.5=3$
$3 \times 1=3$
$3 \times 1.5=4.5$
$4.5 \times 2=9$
$9 \times 2.5=22.5$

## S28. Ans.(d)

Sol. Pattern of series -
$120+6^{2}=156$
$156+7^{2}=205$
$205+8^{2}=269$
$269+9^{2}=350$
$350+10^{2}=450$

## S29. Ans.(e)

Sol. Pattern of series -
$1000-1^{3}=999$
$999-2^{3}=991$
$991-3^{3}=964$
$964-4^{3}=900$
$900-5^{3}=775$
S30. Ans.(c)
Sol. Pattern of series -
$3 \times 1+0=3$
$3 \times 2+1=7$
$7 x 3+2=23$
$23 \times 4+3=95$
$95 \times 5+4=479$

## S31. Ans.(d)

Sol. Let the present age of $M=A$
The present age of $\mathrm{N}=\mathrm{B}$
A $+\mathrm{B}=63$
Four years ago, the ratio of their ages was 3:2
According to question $=3 x+4+2 x+4=63$
$5 x+8=63$
$5 \mathrm{x}=63-8$
$\mathrm{x}=11$
$3 \mathrm{x}=3 \mathrm{x} 11=33$
Present age of $M=33+4=37$
the age of $M$, 2 years hence
$37+2=39$ years
S32. Ans.(a)
Sol.

$\mathrm{A}, \mathrm{B}$, and C work together $=\frac{\text { total work }}{\text { Efficiency }}=\frac{60}{13}=4 \frac{8}{13}$ days


## S33. Ans.(b)

Sol. Let the principal is $=100 \mathrm{x}$
compound interest obtains on a certain amount in 2 years at the rate of $20 \%$ p.a.is Rs. 1320
$1^{\text {st }}$ year interest $=20 \%$
$2^{\text {nd }}$ year interest $=20 \%+4 \%$
Total interest $=20 \%+20 \%+4 \%=44 \%$
$100 \mathrm{x} 44 / 100=44 \mathrm{x}$
$44 \mathrm{x}=1320$
$\mathrm{x}=30$
principal $=100 \mathrm{x}=100 \times 30=$ Rs. 3000
simple interest obtains on the same amount in 2 years at the rate of $10 \%$ p.a.
$3000 \times 10 / 100 \times 2=$ Rs. 600

## S34. Ans.(d)

Sol. According to the question
$4,000 \times 12: 3,200 \times 7$
15:7
total profit at the end of the year is Rs. $1540=15 \mathrm{x}+7 \mathrm{x}$
$22 \mathrm{x}=1540$
$\mathrm{x}=1540 / 22$
$\mathrm{x}=70$
profit earned by $\mathrm{A}=70 \times 15=$ Rs. 1050

## S35. Ans.(e)

Sol. Let the speed of train $=t$
According to the ques.
$\frac{250}{5+t}=20$
$7.5 \mathrm{~m} / \mathrm{sec}=\mathrm{t}$

## S36. Ans. (b)

Sol. Numbers of runs made by running $=220-(6 x 4+16 \times 6)=220-120=100$ $100 \times \frac{100}{220}=\frac{500}{11} \%$

## S37. Ans.(a)

Sol. Let the length of wire $=h$
Radius $=4 / 2 \mathrm{~mm}=4 / 20 \mathrm{~cm}$
$\frac{22}{7} \times \frac{4}{20} \times \frac{4}{20} \times h=88$
$\mathrm{h}=700 \mathrm{~cm}$
$\mathrm{h}=7 \mathrm{~m}$

## S38. Ans.(c)

Sol. Required ratio $=250+600: 150+250$
= 850: 400
= 17: 8

## S39. Ans.(a)

Sol. Required percentage $=100 \times 250 / 350=71 \frac{3}{7} \%$

## S40. Ans.(b)

Sol. Total number of books did not issue in all given five months $=$
In month of March $=550-400=150$
In month of April $=450-250=200$
In month of May $=350-150=200$
In month of June $=700-450=250$
In month of July $=850-600=250$

## HINDI

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## BOOKS KIT

## S41. Ans.(d)

Sol. Required average $=(400+450+150+600) / 4=1600 / 4=400$
$150+200+200+250+250=1050$

## S42. Ans. (d)

Sol. Let Hindi and English books issued in June are 4x and 5x respectively
$9 \mathrm{x}=450$
$\mathrm{x}=50$
$4 \times 50=200$
And, let Hindi to English books available in month of June 9y and 5y respectively
$14 y=700$
$\mathrm{y}=50$
$5 y=5 \times 50=250$.
Required difference $=250 .-200=50$

## S43. Ans.(b)

Sol. $25 \% 0$ ? $?=400+60$
$25 / 100 \times ?=460$
? $=460 \times 4$
? $=1840$

## S44. Ans.(a)

Sol. $40 \%$ of $5 / 8$ of $2 / 9$ of $450=$ ?
$40 / 100 \times 5 / 8 \times 2 / 9 \times 450=$ ?
$25=$ ?

S45. Ans.(c)
Sol. $\sqrt{324}+\sqrt{961}=$ ?
$18+31=49$

## S46. Ans.(e)

Sol. $270 \div(45 \%$ of 200$)+40=$ ?
$270 / 90+40=43$

S47. Ans.(a)
Sol. $\frac{5500}{?-25}-33.33 \% 60=2730$
$\frac{5500}{?-25}-60 \times 1 / 3=2730$
$\frac{5500}{?-25}=2750$
$5500 / 2750=?-25$
?-25 = 2
? $=27$

## S48. Ans.(a)

Sol. Let the cost price of article be 100x.
So, after $25 \%$ profit, selling price $=100 x+25 \%$ of $100 x=100 x+25 x=125 x$
And, ATQ
$125 \mathrm{x}=12500$
So, $x=12500 / 125=100$
So, C.P of article $=100 \mathrm{x}=$ Rs. 10000
S49. Ans.(a)
Sol. Arjun's monthly income $=55000$
As, ATQ
Kamini monthly income $=\frac{3}{5} \times 55000=33000$
So, Kamini annual income $=12 \times 33000=$ Rs. 396000

## S50. Ans.(b)

Sol. Let speed of stream $=s \mathrm{~km} / \mathrm{hr}$
$\therefore(8-s) \times 6=(8+s) \times 4$
$\Rightarrow 48-6 s=32+4 s$
$\Rightarrow s=1.6 \mathrm{~km} / \mathrm{hr}$

## S51. Ans.(b)

Sol. Refer the third paragraph "If you find that you have little tolerance for the idiosyncracies of others, or you don't get how group dynamics work, you might be happier travelling alone."

## S52. Ans.(c)

Sol. Refer the last lines of first paragraph of the passage which gives the exact explanation that sometimes we can feel lonely while travelling alone unless you can solve it yourself.

## S53. Ans.(c)

Sol. Refer the last paragraph of the passage "Fear of the unknown, or maybe you have a spouse, relative, or friend who may be upset by your decision to take off by yourself".


## S54. Ans.(e)

Sol. Refer the first few lines of third paragraph.

## S55. Ans. (d)

Sol. Both sentences (II) and (III) are correct. Refer the first paragraph.

## S56. Ans.(c)

Sol. the correct sequence is FAEBDC

## S57. Ans.(a)

Sol. the correct sequence is FAEBDC

## S58. Ans.(e)

Sol. the correct sequence is FAEBDC

## S59. Ans.(a)

Sol. the correct sequence is FAEBDC
S60. Ans.(d)
Sol. the correct sequence is FAEBDC

## S61. Ans.(b)

Sol. Replace 'on Mumbai recently' with 'in Mumbai recently'

S62. Ans.(c)
Sol. Replace 'are highly uneven' with 'is highly uneven'

## S63. Ans.(b)

Sol. Replace 'are been infected' with 'are being infected'

## S64. Ans.(e)

Sol. No correction required.
S65. Ans.(c)
Sol. Replace 'likely to' with 'likely to be'

## S66. Ans.(e)

Sol. The sentence is grammatically correct.

## S67. Ans.(b)

Sol. The use of ' $a$ ' is superfluous.

## S68. Ans.(d)

Sol. 'beside' will be used in place of 'besides' as 'besides' means 'in addition to' whereas 'beside' means 'at the side of'.
Ex. Ram was sitting beside Sita.

S69. Ans.(a)
Sol. 'my' will be used in place of 'me'.

## S70. Ans.(e)

Sol. The sentence is grammatically correct.


S73. Ans.(c)

S74. Ans.(e)

S75. Ans.(a)

