

ANSWER WITH EXPLANATION

1. A R provides the correct reason for A.
2. A Due to higher density of sea water, the upthrust produced by the sea water on the ship is greater as compared to that produced by river water.
3. B Both A and R are true. Indian President is the constitutional or titular head of the executive, the real power being vested in the Council of Ministers.
4. D India drafted its own Constitution and formed its own government after gaining independence. So, A is false. But R is true.
5. B Diamond is hard due to its rigid three dimensional structure and so, it is used for cutting glass. Refractive index of diamond is high and this gives it greater transparency and brilliance.
6. A Mercury freezes at -39°C , while alcohol freezes at a point far below -100°C . So, alcohol is used to measure lower temperatures. Similarly, mercury boils at 357°C , while alcohol boils at 78°C . So, mercury is used to measure high temperatures.
7. A During severe winters, water in the pipes freezes to ice and expands, resulting in bursting of pipes.
8. C There is a vacuum inside the electric bulb. When the bulb breaks, air rushes in at great speed from all sides to fill the vacuum, thus producing a 'bang'.
9. B Due to decrease in pressure at higher altitudes, water boils much below 100°C so that the food does not get sufficient heat for being cooked. Salt increases the boiling point of water.
10. A Carbon monoxide, when inhaled, combines with haemoglobin of blood to form carboxy-haemoglobin which inhibits the transport of oxygen.

Q11. A

Explanation:

Clearly, a study of rival products in the market will help assess the cause for the lowering down of sales and then a suitable action can be taken. Thus, only I follow.

Q12 A

Explanation:

Clearly, such projects shall be an asset and a source of income to the country later on. So, course I shall follow.

Q13. A

Explanation:

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Clearly, the decision to revise its fee structure for artists is taken by Doordarshan as a remedy to the challenging problem that had arisen before it. It cannot wait till other media take action. So, only course I follows

Q14. **B**

Explanation:

Clearly, the statement stresses on teachers' lack of awareness and knowledge in population education and as such the best remedy would be to guide them in this field through orientation programmes. So, only course II follows.

Q15. **E**

Explanation:

Clearly, the two diseases mentioned are caused by unhygienic conditions. So, improving the hygienic conditions is a step towards their eradication. Also, periodic medical check-up will help timely detection of the disease and hence a proper treatment. So, both I and II follow.

Q16. **E**

Explanation:

Clearly, the problem demands taking extra care and adequate precautions to protect crops from insects and extending help to farmers to prevent them from incurring huge losses. Thus, both the courses follow.

Q17 **B**

Explanation:

Seeing the tremendous response, the dealer must make suitable arrangements and deploy more personnel to take care of customers so that they don't have to wait excessively long for booking. So, only course II follows

18. **E**

Explanation:

The Act is aimed at eradication of the disease and so it needs to be proclaimed and promoted. So, both the courses follow.

Q19 **E**

Explanation:

Clearly, the situation demands making the education system more flexible and changing it periodically according to the needs of the time. So, both the courses follow.

Q20 **A**

Explanation:

Clearly, one complaint is enough for a wrong doing. This should be confirmed by catching the guilty red-handed and then strict action taken against him. So, only course I follows.

DIRECTION 20-25

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ven numbers are arranged at the right end, from left to right in ascending order after adding one in each number.

Odd numbers are arranged at the left end, from right to left in ascending order after the digits are interchanged within the number.

Input: 86 12 53 22 45 19 32 29 74 93

Step I: 91 86 53 22 45 32 29 74 93 13

Step II: 92 91 86 53 45 32 74 93 13 23

Step III: 54 92 91 86 53 74 93 13 23 33

Step IV: 35 54 92 91 86 93 13 23 33 75

Step V: 39 35 54 92 91 13 23 33 75 87

Q21 E, Q22. C, Q23. A, Q24. B, Q25. D

DIRECTION 26-30 Reference:

1. Arrange all prime numbers in increasing order
2. Then arrange the words that start with vowels in ascending order
3. Then arrange odd numbers in increasing order
4. After odd numbers, arrange remaining consonant in alphabetical order
5. At last, Even number is placed in increasing order

INPUT: emit random 23 violence 19 speaker 39 expert 33 award 28

Step 1: 19 emit random 23 violence speaker 39 expert 33 award 28

Step 2: 19 23 emit random violence speaker 39 expert 33 award 28

Step 3: 19 23 award emit random violence speaker 39 expert 33 28

Step 4: 19 23 award emit expert random violence speaker 39 33 28

Step 5: 19 23 award emit expert 33 random violence speaker 39 28

Step 6: 19 23 award emit expert 33 39 random violence speaker 28

Step 7: 19 23 award emit expert 33 39 random speaker violence 28

Q26. B, Q27. B, Q28. B, Q29. C, Q30. C

DIRECTION 31-35. Lowest number of letter in a word is arranged in left end in step I and is replaced with its next letters and highest number is arranged in right end in step I with number-1.

Lowest number is arranged in left end with number+1 in step II and highest number of letter in a word is arranged in right end in step II and is replaced with its previous letter.

Second lowest number of letter in a word is arranged in left end in step III and is replaced with its next letter and second highest number is arranged in right end in step III with number-1.

Above same logic is applied for other steps.

Input: 94 squats 81 expected 13 back 34 present 67 start

Step I: cdbl squats 81 expected 13 34 present 67 start 93

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Step II: 14 cdbl squats 81 34 present 67 start 93 dwodbsdc

Step III: tubsu 14 cdbl squats 34 present 67 93 dwodbsdc 80

Step IV: 35 tubsu 14 cdbl squats 67 93 dwodbsdc 80 oqdrdms

Step V: trvbut 35 tubsu 14 cdbl 93 dwodbsdc 80 oqdrdms 66

Q31. D, Q32. A, Q33. D , Q34. C, Q35. B

DIRECTION 36-39:

The given output is obtained by following the below mentioned logic:

Change in Word: Words are selected on the basis of decreasing order of number of vowels within a word i.e. The word with highest number of vowels is considered first, if there are more than one word with same number of vowels then preference is given to the word that comes first as per dictionary order. Words are placed at the left end.

Change in Number: Numbers are selected on the basis of descending order. If the number is an **even number** then change it by adding 2 to it and shift to the extreme left end. If the number is an **odd number** then change it by subtracting 2 from it and shift it to the extreme left end.

Note: Changes in word and number take place simultaneously at each step.

Reference:

Input: fire 76 for 53 fauna 14 favour 27 freedom 36

Step1: 78 fauna fire for 53 14 favour 27 freedom 36

S.No.	Word	No. of vowels	Order of Preference	Number	Changed Number	Order of Preference
1	fire	2	4th	76 - Even	78	1st
2	for	1	5th	53 - Odd	51	2nd
3	fauna	3	1st	14 - Even	16	5th
4	favour	3	2nd	27 - Odd	25	4th
5	freedom	3	3rd	36 - Even	38	3rd

Inference:

On the basis of given logic, following table is prepared which shows the changes in numbers and words and their order of preference in which they are to be rearranged.

Input: prison 24 pirates 61 proxy 70 prone 53 prejudice 17

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S.No.	Word	No. of vowels	Order of Preference	Number	Changed Number	Order of Preference
1	prison	2	3rd	24 - Even	26	4th
2	pirates	3	2nd	61 - Odd	59	2nd
3	proxy	1	5th	70 - Even	72	1st
4	prone	2	4th	53 - Odd	51	3rd
5	prejudice	4	1st	17 - Odd	15	5th

Final Output:

Thus, for the given Input: prison 24 pirates 61 proxy 70 prone 53 prejudice 17

Step 1: 72 prejudice prison 24 pirates 61 proxy prone 53 17

Step 2: 59 pirates 72 prejudice prison 24 proxy prone 53 17

Step 3: 51 prison 59 pirates 72 prejudice 24 proxy prone 17

Step 4: 26 prone 51 prison 59 pirates 72 prejudice proxy 17

Step 5: 15 proxy 26 prone 51 prison 59 pirates 72 prejudice

Q36. B, Q37. A, Q38. D, Q39. C

Q40. D

In this question both words and numbers are arranged in each step.

For word, we have to take that particular word which is smallest according to English dictionary and reverse that particular word according to English alphabet and then arrange it from left to right at the left most end of each step.

And **for number** take smallest number, then reverse that particular number and then add one to it and arrange it from left to right at the right most end of each step.

Same process is repeated up to the last step.

Given Input: **toy 85 star 17 26 moon earth 61 cat 53**

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
z	y	x	w	v	u	t	s	r	q	p	o	n	m	l	k	j	i	h	g	f	e	d	c	b	a

In the given Input, smallest alphabet is "cat", when reversing it according to the English alphabet, we get "xzg"

In the given Input, smallest number is "17", when reversing it, we get "71" then adding 1 to it, we get, "72"

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Step I: xzg toy 85 star 26 moon earth 61 53 72

Step II: vzigz xzg toy 85 star moon 61 53 72 63

Step III: nllm vzigz xzg toy 85 star 61 72 63 36

Step IV: hgzi nllm vzigz xzg toy 85 72 63 36 17

Step V: glb hgzi nllm vzigz xzg 72 63 36 17 59

Step (V) is the last step.

Q41. B

Q42. A

Q43. A

Q44. D

Q45. B

Q46. D

Q47. B

Q48. A

Q49. A

Q50. C