TIPS TO SOLVE CODING – DECODING QUESTIONS IN REASONING SECTION:

DECIPHERING MESSAGE WORD CODES:

In this type of questions,

some messages are given in the coded language

the code for a particular word or a message is asked

Points to remember while solving this question:

Compare any two messages bearing a common word

Compare the codes of these two messages to find a common code-word
This common code word will represent the common word in the message

Repeat the same by picking all the possible combinations of common words from messages and thus determining the common code-words

Thus the entire message can be decoded and the codes for individual words can be found

QUESTION:

In a certain language,

‘you are good’ is written as ‘pi da na’

‘good and bad’ is written as ‘da to pa’

‘they are bad’ is written as ‘ti na to’

1) What is the code for ‘they’?

(a) na       (b) to       (c) ti       (d) pi
2) How is the message ‘you are nice’ is written in this language?

(a) Pi to ti   (b) pi mb na   (c) na to da   (d) pi na da

Given:

List down all the words in the messages

Message 1: you, are, good

Message 2: and, bad (take only words which are not repeated)

Message 3: they (take only words that are not repeated)

Solution:

Compare the common words in messages to find their respective code-words

MESSAGE 1:

From the question, the word ‘good’ is common in message 1 & 2. So its code is also common in both code 1 & 2 i.e., ‘da’

Good => da

The word ‘are’ is common in message 1&3, i.e., ‘na’

Are => na

The word ‘you’ is not repeated in any of the messages, so it is represented by the code other than da and na in code1 i.e., pi

You => pi

MESSAGE 2:

The word ‘bad’ is common in both messages 2&3, therefore the common code-word from codes 2&3 is the code for ‘bad’ i.e., ‘to’

Bad => to
Code for the word ‘good’ is already found
Good => da

Since, we know the code for both ‘good’ & ‘bad’ the remaining code ‘pa’ is for ‘and’
And => pa

MESSAGE 3:

The code for both words ‘are’ & ‘bad’ are already found in the previous steps. Therefore, the remaining code ‘ti’ is for ‘they’
They => ti

1) What is the code for ‘they’?

   (b) na     (b) to     (c) ti     (d) pi

As found in the solution, they => ti
ANSWER: (c) ti

2) How is the message ‘you are nice’ is written in this language?

(a) pi to ti  (b) pi mb na  (c) na to da  (d) pi na da

The codes for the words ‘you’ & ‘are’ are already found in the solution you => pi
are => na

Now the word ‘nice’ is not present in the messages given in the question. Therefore, the code for ‘nice’ should be a code which is not given in the question.

The code for ‘you are nice’ should have both the codes ‘pi’ & ‘na’ with a new code word

Considering options (a) & (c), they have either ‘pi’ or ‘na’ not both ‘pi’ & ‘na’ together. So they cannot be the code for ‘you are nice’
Considering option (d), this has both ‘pi’ and ‘na’ but the code also consists of ‘da’ which represents ‘good’

Now we have option (b), which has a new code-word ‘mb’ that is not present in the question along with both the codes ‘pi’ & ‘na’

Therefore, ‘you are nice’ is written as ‘pi mb na’

ANSWER: (b) pi mb na

In these type of questions, the position of the code-words in the code does not matter.
For example, ‘you are nice’ can be written as follows:

‘pi mb na’

‘mb pi na’

‘na pi mb’

‘pi na mb’

‘mb na pi’

‘na mb pi’

All the above combinations are correct.