Coding and Decoding

Letter Coding

A particular letter stands for another letter in letter coding.

Example: If **COURSE** is coded as **FRXUVH**, how is **RACE** coded in that code?
(1) HFDU
(2) UCFH
(3) UDFH
(4) UDHF
(5) UDFG

Sol: In the given code, each letter is moved three steps forward than the corresponding letter in the word. So R is coded as U, A as D, C as F, E as H. Hence (3) is the answer.

Number Coding

- In these questions, either numerical code values are assigned to a word or alphabetical code values are assigned to numbers.

- The candidate is required to analyze the code as per directions.

Case I: When numerical values are assigned to words.

Example: If in a certain code **ROPE** is coded as **6821**, **CHAIR** is coded as **73456**what will be the code for **CRAPE**?
(1) 73456
(2) 76421
(3) 77246
(4) 77123
(5) None of these

Sol:
Clearly, in the given code, the alphabets are coded as follows.

R	O	P	E	C	H	A	I
6	8	2	1	7	3	4	5

So CRAPE is coded as 76421, So the answer is (2)

Case II: When alphabetical code values are assigned to the numbers.

Example: In a certain code **3456** is coded as **ROPE** & **15546** is coded as **APPLE**. Then how is **54613** coded?
(1) RPPEO
(2) ROPEA
(3) POEAR
(4) PAREO
(5) None of these

Sol:
Clearly in the given figures, the numbers are coded as follows.

3	4	5	6	1	4
R	O	P	E	A	L

So 54613 is coded as POEAR. The answer is (3)

Mixed Coding

•In this type of question, three or four complete messages are given in the coded language and the code for a particular word is asked.

•To a**nalyse such codes**, **any two messages bearing the common word are picked up**. The common code word will mean that word. Proceeding similarly by picking up all possible combinations of two messages the entire message can be analysed.

Example: If **tee see pee** means **drink fruit juice**, **see kee lee** means **juice is sweet**, and **lee ree mee** means **he is intelligent**, which word in that language means **sweet**?

(1) see
(2) kee
(3) lee
(4) pee
(5) Tee

Sol: In the first and the second statements the common word is **juice** and the common code word is **see**. So **see** means **juice**. In the second and the third statements, the common word is '**is**' and the common code is **lee**. So**lee** means **is**. Thus in the second statement, the remaining word **sweet** is coded as **kee**. Hence the answer is (2).

Mixed Number Coding

In this type of questions, three or four complete messages are given in the coded language and the code number for a particular word is asked.

Example: If in a certain code language, **851** means **good sweet fruit**; **783** means**good red rose** and **341** means **rose and fruit** which of the following digits stands for sweet in that language?

(1) 8
(2) 5
(3) 1
(4) 3
(5) None of these

Sol: In the first and the second statements, the common code digit is **8** and the common word is **good**. So **8** stands for **good**. In the first and the third statements, the common code digit is **1** and the common word is **fruit**. So **1**stands for **fruit**. Therefore in the first statement, **5** stands for **sweet**. Hence the answer is (2).

Decoding

In these questions, artificial or code values are assigned to a word or a group of words and the candidate is required to find out the original words.

Example: If in a certain language **FLOWER** is written as **EKNVDQ**, what will be written as **GNTRD**?

(1) HEOUS
(2) HOUES
(3) HUOSE
(4) HOUSE
(5) None of these

Sol:
Each letter of the word is one step ahead of the corresponding letter of the code.
E K N V D Q G N T R D
F L O W E R H O U S E
Thus HOUSE is written as GNTRD, So the answer is (4)

Symbols Coding

•This is a kind of coding recently included in the Reasoning section.

•In this type of questions either alphabetical code values are assigned to symbols or symbols are assigned to alphabets.

•The candidate is required to analyse the code as per direction.

Example: 1. In a certain code '**TOME**' is written as ' @ **$ * ?** ' and **ARE** is written as ' **• £ ?** ' How can '**REMOTE**' be written in that code?

(1) £ ? • $ @ ?
(2) @ ? * $ @ ?
(3) £ ? * $ @ ?
(4) Cannot be determined
(5) None of these

Sol: From the data we have
T – @
O – $
M – *
E – ?
A – •
R – £
E – ?
Hence **REMOTE** is coded as **£ ? * $** @ **?** So (3) is the answer.

Temple of Learning
Your Ambition. Our Inspiration

Coding & Decoding Practice MCQs

1) In the following question, choose the correct code form.

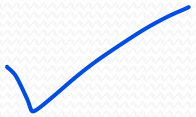
The number/word group in the question is to be codified according to the following letter codes:

RODRICK

a. 2104865
b. 2104765
c. 2102765
d. 2103765

Number	9	8	7	6	5	4	3	2	1	0
Letter	Q	U	I	C	K	L	Y	R	O	D

ANSWER: 2102765



2) In the following question, choose the correct code form.

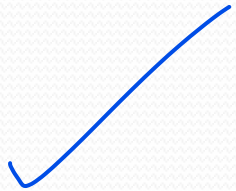
The number/word group in the question is to be codified according to the following letter codes:

3060589404

a. YDCDKUQLDL
b. YDCDKQULDL
c. YDCDKULQDL
d. YDCDKUDLQL

Number	9	8	7	6	5	4	3	2	1	0
Letter	Q	U	I	C	K	L	Y	R	O	D

ANSWER: YDCDKUQLDL



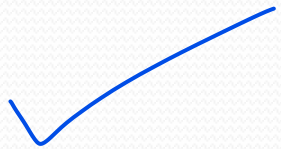
3) If ‘blue’ means ‘green’, ‘green’ means ‘yellow’, ‘yellow’ means ‘orange’, ‘orange’ means ‘black’, ‘black’ means ‘white’, ‘white’ means ‘red’, ‘red’ means ‘pink’, ‘pink’ means ‘brown’, ‘brown’ means ‘grey’, then what is the color of human blood?

a. Black
b. Red
c. White
d. Orange

ANSWER: White

Explanation:

The color of human blood is red. But here white means red, so, white is the color of blood.



4) If ‘dog’ is called ‘lion’, ‘lion’ is called ‘bison’, ‘bison’ is called ‘snake’, ‘snake’ is called ‘mongoose’, ‘mongoose’ is called ‘crocodile’, then which one is reared as pet?

a. Lion
b. Bison
c. Snake
d. Mongoose

ANSWER: Lion
Explanation:
Generally, dog is reared as pet.

But dog is called lion, so ‘lion’ is reared as pet.

5) In the following question, choose the correct code form.

If, in a language, ‘one’ is called ‘two’, ‘two’ is called ‘three’, ‘three’ is called ‘four’, ‘four’ is called ‘five’ and ‘five’ is called ‘six’.
Then what is the square of number 2?

a. Three
b. Four
c. Five
d. Six

ANSWER: Five
Explanation:
The square of 2 is 4.

But four is called five in this language. So, the correct answer is C.

6) In the following question, choose the correct code form.

According to new terminology, 'Aries' means 'air', 'Taurus' means 'light', 'Libra' means 'water' and 'Scorpio' means 'earth'. What would an organism breathe in?

a. Aries
b. Taurus
c. Libra
d. Scorpio

ANSWER: Aries
Explanation:
One breathes in air.

Air is called Aries as per the new terminology, so one would breathe in Aries.

7) In the following question, choose the correct code form.

If 'air' is called 'green', 'green' is called 'red', 'red' is called 'sea', 'sea' is called 'blue', 'blue' is called 'water' and 'water' is called 'pink', then what is the color of grass?

a. Green
b. Air
c. Red
d. Pink

ANSWER: Red
Explanation:
The color of grass is green but green is called red.
Hence, the color of grass is red.

8) Read the following information and answer the question below.

In a certain code language, 'sea is deep' means '213', 'sky is blue' means '514' and 'sea looks blue' means '264'

What number is the code for 'sea'?

a. 1
b. 2
c. 3
d. 4

ANSWER: b. 2

Explanation:

In the first and second statements, the common digit is '1' and the common word is 'is'.

So, '1' is the code for 'is'.

In the second and third statements, the common digit is '4' and the common word is 'blue'.

So, '4' is the code for 'blue'.

Thus, in the second statement, '5' is the code for 'sky'.

In the first and third statements, the common digit is '2' and the common word is 'sea'.

So, '2' is the code for 'sea'.

Thus, in the first statement, '3' is the code for 'deep'.

In the third statement, '6' is the code for 'looks'.

9. In a certain language, if SUNSHINE is coded as TVOTIJOF then how will MOON be coded:

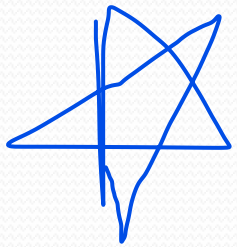
a. NPPQ
b. NPPO
c. PPON
d. NQQP

Answer: b. NPPO

+1 in all the letters.

10. In a certain language, if WRONG is coded as GNORW then how will RIGHT be coded:

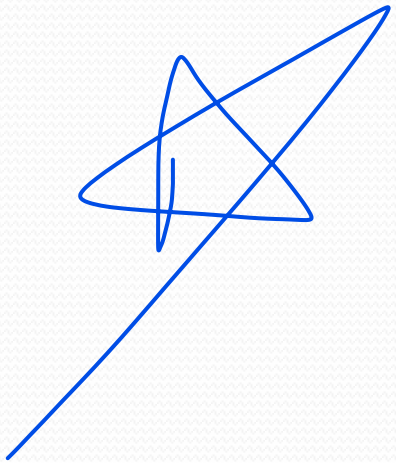
a. HIRGT
b. SJHIU
c. THIGR
d. None of the above



Answer: c. THGIR
Coded word GNORW has same letters as in the original word. By looking at the pattern of coding, it can be observed that all the letters of WRONG are arranged in Ascending Order. So, in the same way, RIGHT will be coded as THGIR.

11. If SNOW is coded as 7100, then WALL will be coded as

a. 5000
b. 4700
c. 4800
d. 4000

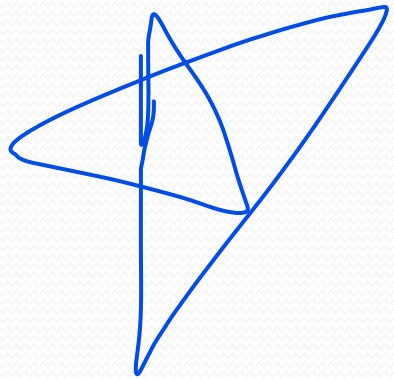


Answer: c. 4800

Here, Total of all the individual letters' numeric position is done and just to add some more complexity 00 is appended at the end. S=19, N=14, O=15 and W=23. So 19+14+15+23= 7100.

12. If MOUSE is coded as PNUFT, then CLOCK will be coded as

a. MDOLD
b. MDPLD
c. NDOLD
d. MDOLE



Answer: a. MDOLD
First 2 letters, M and O are grouped and last 2 letters S and E are grouped. After grouping, +1 is added and the position of the letters is interchanged. Like in MO group, +1 is added so the result will be NP and then the letters are interchanged and so the result for 1st group will be PN. Same for the second group and the middle odd letter is as it is.

13) In the following question, choose the correct code form.

If BATMAN is coded as 123416, PERMAN is coded as 987416, then TAPER is coded as?

a. 32987
b. 92897
c. 38972
d. 32978

ANSWER: a. 32987
Explanation:

Letter	T	A	P	E	R
Code	3	2	9	8	7

Letter	A	B	T	M	N	P	E	R
Code	2	1	3	4	6	9	8	7

14) In the following question, choose the correct code form.

If R=19, RON = 50, then what FONTS equal to?

a. 75
b. 76
c. 77
d. 79

ANSWER: d. 79
Explanation:
In then given series, Z = 27, Y = 26, X =25 and so on till A = 2.

Then, FONTS = 7 + 16 + 15 + 21 + 20 = 79

15) In the following question, choose the correct code form.

If ANY = 40, MANY = 53 then MANIAC = ?

a. 41
b. 42
c. 43
d. 44

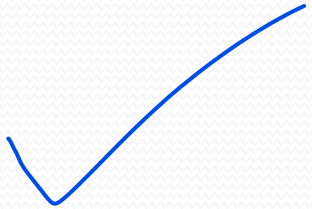
ANSWER: a. 41
Explanation:
In the given code, A = 1, B = 2, C = 3 and so on till Z =26.

So, MANIAC = 13 + 1 + 14 + 9 + 1 + 3 = 41

16) In the following question, choose the correct code form.

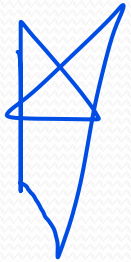
If ACID is written as 1C3D, PAMPER is written as P1MP2R, then how will BOMBAY be written?

a. B4MB1Y
b. B3MB1Y
c. B5MB2Y
d. B4MB2Y



ANSWER: a. B4MB1Y
Explanation:
Vowels A, E, I, O, U are coded as 1, 2, 3, 4, 5 respectively.
Each of the consonants is kept same.

So, the code for BOMBAY becomes B4MB1Y



17) In the following question, choose the correct code form.

If in a certain language, MORALE is coded as 296137, CHARCOAL is coded as 45164913, how is the word REAL-MOLE coded in that language?

a. 67193237
b. 67132937
c. 67123937
d. 67172937

ANSWER: b. 67132937
Explanation:

Letter	R	E	A	L	M	O	L	E
Code	6	7	1	3	2	9	3	7

Letter	A	M	L	C	H	R	E	O
Code	1	2	3	4	5	6	7	9

18) In a certain code language, ‘it be pee’ means ‘dogs are blue’, ‘sik hee’ means ‘large horses’ and ‘pee mit hee’ means ‘horses are pigs’.

How is ‘pig’ written in this code?

a. Hee
b. Pee
c. Sik
d. Mit

ANSWER: Mit
Explanation:
In the second and third statements, the common code is ‘hee’ and the common word is ‘horses’. So, ‘hee’ means ‘horses’.

Thus, ‘sik’ means ‘large’ from second statement.

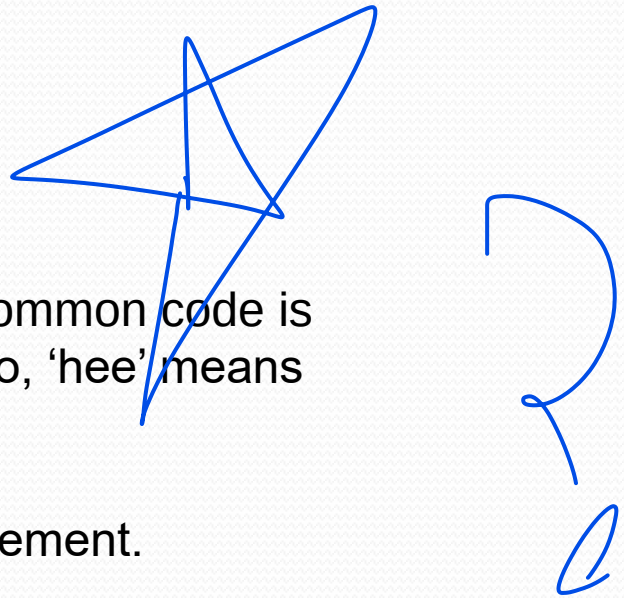
In first and third statements, the common code is ‘pee’ and common word is ‘are’. So, ‘pee’ means ‘are’.

Thus, ‘mit’ means ‘pigs’ from third statement.

19) In a certain code language, ‘it be pee’ means ‘dogs are blue’, ‘sik hee’ means ‘large horses’ and ‘pee mit hee’ means ‘horses are pigs’.

How is ‘pigs are large horses’ written in this code?

a. Mit pee sik hee
b. Sik it pee be
c. Cannot be determined
d. None of these



ANSWER: Mit pee sik hee
Explanation:
In the second and third statements, the common code is ‘hee’ and the common word is ‘horses’. So, ‘hee’ means ‘horses’.

Thus, ‘sik’ means ‘large’ from second statement.

In first and third statements, the common code is ‘pee’ and common word is ‘are’. So, ‘pee’ means ‘are’.

Thus, ‘mit’ means ‘pigs’ from third statement.

So, the code is ‘Mit pee sik hee’

what about positioning of elements ?????

20) In a certain language, CAP is coded as 66, how will PEN be coded

a. 40
b. 66
c. 80
d. 46

Answer: 46

Here reverse numeric value concept is used. So, in this question the reverse numeric values are considered and added. C=24, A=26, P=11. 24+26+11=61 and the same logic for PEN. P=11, E=22 and N=13. Answer=46

21. In a certain code language, **743** means **Mangoes are good**, **657** means **Eat good food,** and **934** means **Mangoes are ripe**. Which digit means **ripe** in that language?

a. 5
b. 4
c. 9
d. 7

Answer. c. In the first and the third statements, the common code digits are 4 and 3 ; and the common words are mangoes and are. So 4 and 3 are the codes for mangoes and are. Thus in the third statement 9 means ripe.

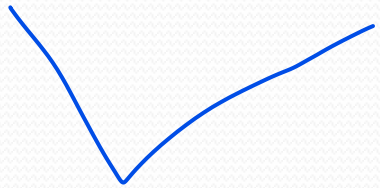
22. In a certain code, **247** means **spread red carpet, 256**means **dust one carpet** and **234** means **one red carpet** which digit in that code means **dust**?

a. 2
b. 3
c. 5
d. 6

Answer. c. In the first and the second statements, the common code digit is 2 and the common word is carpet. So 2 means carpet. In the second and the third statements, the common code digit is 6 and the common word is one. So 6 means one. Therefore in the second statement, 5 means dust.

23. In a certain code language, **134** means **good and tasty**, **478** means **see good pictures,** and **729** means **pictures are faint.** Which of the following digits stands for **see**?

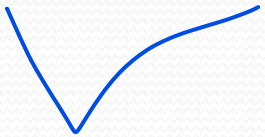
a. 4
b. 7
c. 9
d. 8



Answer. d. In the first and the second statements, the common code digit is 4 and the common word is good. So 4 stands for good. In the second and the third statements, the common code digit is 7 and the common word is pictures. So 7 stands for pictures. Thus in the second statement 8 stands for see.

24. In a certain code language **TSSNOFFQ** is written as **STRONGER** then **GQFDENN** will be written as

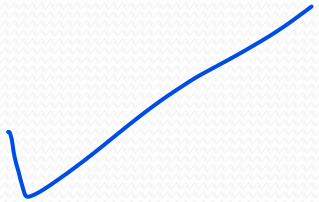
a. DOMEERF
b. FEEDORM
c. FREEDOM
d. FREEDMO



Answer. c. The first letter is moved one step backward and second is moved one step forward the third letter is moved one step backward, the fourth letter one step forward and so on. So the answer is **c.**

25. If **FULFNHW** is the code for **CRICKET**, **EULGH** will be coded as

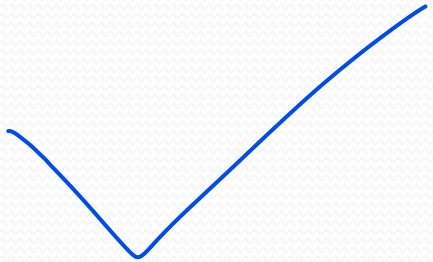
a. PRIDE
b. BRIDE
c. BLADE
d. BLIND



Answer. b. Each letter of the word is three steps ahead of the corresponding letter of the code.

26. If KEYS= MDAR, then LOCK= ?

a. NEJJ
b. NNEJ
c. JENN
d. JENJ



Answer: b. NNEJ

+2 Increment and -1 decrement in the next letter and the pattern continues.
So, K=M, E=D, Y=A and S=R.