

## Coding and Decoding

### CHAPTER HIGHLIGHTS

📖 Coding

📖 Decoding

### CODING AND DECODING

Before looking at the different types of questions and some of the codes that can be used with the help of examples, let us first understand what we mean by *coding* and *decoding*. When we say *coding*, a particular code or pattern is used to express a word in English language as a different word or in a different form. The coded word itself does not make any sense unless we know the pattern or code that has been followed. *Decoding* refers to the process of arriving at the equivalent English word from the code word given.

In the questions, a particular code is given and on the basis of this given code, we have to find out how another word (in English language) can be coded. The correct code for the given word has to be selected from the answer choices on the basis of the code given in the question.

#### Solved Examples

##### Example 1

In a certain code language, if the word 'PARTNER' is coded as OZQSMDQ, then what is the code for the word 'SEGMENT' in that language?

- (A) TFHNFOU (B) RDFLDMS  
(C) RDELDMS (D) RDFEDNS

##### Solution

Word : P A R T N E R  
Logic : -1 -1 -1 -1 -1 -1 -1  
Code : O Z Q S M D Q

Similarly, the code for SEGMENT is

Word : S E G M E N T  
Logic : -1 -1 -1 -1 -1 -1 -1  
Code : R D F L D M S

##### Example 2

In a certain code language, if the word 'RECTANGLE' is coded as TGEVCPING, then how is the word 'RHOMBUS' coded in that language?

- (A) TJOQDWV (B) TJQNDWU  
(C) TJQODWU (D) TJQOEWU

##### Solution

Word : R E C T A N G L E  
Logic : +2 +2 +2 +2 +2 +2 +2 +2 +2  
Code : T G E V C P I N G

Similarly, the code for RHOMBUS is

Word : R H O M B U S  
Logic : +2 +2 +2 +2 +2 +2 +2  
Code : T J Q O D W U

##### Example 3

In a certain code language, if the word 'SPHERE' is coded as EREHPS, then how is the word 'EXHIBITION' coded in that language?

- (A) NOTITBIHXE (B) NOITIDIHXE  
(C) NOITIBIHWE (D) NOITIBIHXE

**Solution**

Word: S P H E R E  
 Logic: The letters in the given word are reversed.  
 Code: E R E H P S

Similarly, the code for EXHIBITION, is

Word: E X H I B I T I O N  
 Logic: The letters in the given word are reversed.  
 Code: N O I T I B I H X E

**Example 4**

In a certain code language, if the word ‘REJECTION’ is coded as SGMHWPWW, then how is the word ‘MECHANIC’ coded in that language?

- (A) NGFLFTPK (B) NGPLFTPK  
 (C) NGFKFTPK (D) NGPTPKIL

**Solution**

Word: R E J E C T I O N  
 Logic : +1 +2 +3 +4 +5 +6 +7 +8 +9  
 Code : S G M I H Z P W W

Similarly, the code for MECHANIC is

Word : M E C H A N I C  
 Logic : +1 +2 +3 +4 +5 +6 +7 +8  
 Code : N G F L F T P K

**Example 5**

In a certain code language, if the word ‘PLAYER’ is coded as AELPRY, then how is the word ‘MANAGER’ coded in that language?

- (A) AEAGMNR (B) AAGEMNR  
 (C) AAEGMNR (D) AAEGNMR

**Solution**

Word: P L A Y E R  
 Logic: The letters in the word are arranged in the increasing order of their value as in the alphabet.  
 Code: A E L P R Y

Similarly, the code for MANAGER is AAEGMNR.

**Example 6**

In a certain code language, if the number 1 is assigned to all the letters in odd numbered places in the alphabet and the remaining letters are assigned the number 2, then what is the code for the word ‘INDIAN’?

- (A) 121212 (B) 111222  
 (C) 112212 (D) 122112

**Solution**

The code for the word INDIAN is 122112.

**Example 7**

In a certain code language, if CRICKET is coded as 3923564, ROCKET is coded as 913564, and KETTLE is coded as 564406, then how is LITTLE coded in that language?

- (A) 244060 (B) 024406  
 (C) 020446 (D) 200446

**Solution**

As we observe that the letters and their corresponding codes are given in an order, i.e. the code for C is 3, R is 9, I is 2, and so on. Hence, the code for LITTLE is 024406.

**Direction for questions 8 to 10:** In a certain code language, the codes for some words are as follow.

- NATION - agv nab  
 REMOTE - rzgr be  
 STAIR - efgn v  
 FORMAL - bensy z  
 COMMON - zabzpb  
 FOR - ebs

On the basis of the above coding pattern, answer the following questions.

8. What is the code for ‘SCREEN’?  
 (A) fepcra (B) fpersa  
 (C) fpreba (D) fperra
9. What is the code for ‘RATION’?  
 (A) ensvba (B) engvba  
 (C) engrba (D) engvca
10. What is the code for ‘CREATOR’?  
 (A) prengbc (B) persbgc  
 (C) perngbe (D) pebryc

**Solutions for questions 8 to 10:**

The given words and their codes are as follow

- (A) NATION - agv nab  
 (B) REMOTE - rzgr bi  
 (C) STAIR - efgn v  
 (D) FORMAL - bensy z  
 (E) COMMON - zabzpb  
 (6) FOR - ebs

In the 1<sup>st</sup> word, the letter N is repeated and so is the code *a*. Hence, for N, the code is *a*. Similarly, from the 2<sup>nd</sup> word, the code for E is ‘*r*’. In 1<sup>st</sup> and 6<sup>th</sup> words, the letter *o* is common and so is the code *b*. Hence, the code for *o* is *b*. In the 5<sup>th</sup> word, the letter *m* is repeated and so is the code *z*. Hence, the code for *m* is *z*. Similarly, the codes for the remaining letters can be determined.

The letters and their respective codes are as follows:

Letter	A	C	E	F	I	L	M	N	O	R	S	T
Code letter	n	p	R	s	v	y	z	a	b	e	f	G

8. The code for ‘SCREEN’ is fperra.  
 Hence, the correct option is (D).
9. The code for ‘RATION’ is engvba.  
 Hence, the correct option is (B).
10. The code for ‘CREATOR’ is perngbe.  
 Hence, the correct option is (C).

## EXERCISES

**Direction for questions 1 to 12:** Select the correct alternative from the given choices.

- In a certain code language, if the word CIRCUMSTANCE is coded as CRUSACICMTNE, then how is the word HAPPINESS coded in that language?  
(A) HPEISAPNS (B) HPISEAPNS  
(C) HPIESPANS (D) HPIESAPNS
- In a certain code language, if the word REGISTRATION is coded as TSIGERNOITAR, then how is the word ACCURATE coded in that language?  
(A) UCCAETAR (B) UACCETAR  
(C) UCACETAR (D) UCCATEAR
- In a certain code language, if the word LIBERAL is coded as MJCFSBM, then how is the word REDUCTION coded in that language?  
(A) EDCTBSHNM (B) SFEVDUJPO  
(C) SFEVCTJPO (D) SFDUCTJPO
- In a certain code language, if the word STRUCTURE is coded as TVUYHZBZN, then how is the word REMEDY coded in that language?  
(A) SGPIJE (B) SGPEJD  
(C) SGPIHE (D) SGPIIE
- In a certain code language, if the word SEARCH is coded as IDSBFT, then how is the word FURNISH coded in that language?  
(A) ITKNSVG (B) ITJORWG  
(C) ITJOSVG (D) ITHNRVG
- In a certain code language 'two' is called 'three', 'three' is called 'four', 'four' is called 'one', 'one' is called 'five', 'five' is called 'six', and 'six' is called 'nine', then what in the code language is the sum of one and three?  
(A) six (B) two (C) nine (D) one
- In a certain code language if 'pink' means 'black', 'black' means 'white', 'white' means 'yellow', 'yellow' means 'orange', 'orange' means 'red', and 'red' means 'green', then which colour stands for peace in that code?  
(A) Red (B) Black  
(C) Orange (D) Green
- In a certain code language, if MENTION = 49 and NEUROTIC = 64, then MARVELLOUS = ?  
(A) 81 (B) 88 (C) 64 (D) 100
- In a certain code language, if CABINET = 70 and BEAUTY = 60, then PRODUCTION = ?  
(A) 90 (B) 100 (C) 110 (D) 120
- In a certain code language, if IMPEND = 61 and DISH = 40, then FRUIT = ?  
(A) 86 (B) 68 (C) 74 (D) 76
- In a certain code language, if BUG = 90 and ALMS = 180, then CADET = ?  
(A) 153 (B) 165 (C) 175 (D) 148

- In a certain code language, if INFER = 25 and JERSEY = 28, then CHOICE = ?  
(A) 34 (B) 39 (C) 41 (D) 47

**Direction for questions 13 to 15:** These questions are based on the following data.

In a certain code language, if the word ROUTINE is coded as JMPRRLJ and the word FIDELITY is coded as LGHCXGNW, then how will you code the following words in that language?

- PREVAIL  
(A) FPLRDGX (B) FPJTBGX  
(C) FTJBNKX (D) FPJVBIX
- LANGUAGE  
(A) XYBDPXNC (B) XYBDPXM  
(C) XYCEPXNC (D) XYBEPYNC
- TOBACCO  
(A) NMDXEAF (B) NMDYEBF  
(C) NMCYFBD (D) NMDYFAD

**Direction for questions 16 to 20:** For the following groups of letters given in column I, the codes are given in column II. Answer the following questions by finding the codes for the groups from the given columns.

	Column I	Column II
(A)	lit kit bit dit	b r p d
(B)	fit git mit kit	t d s v
(C)	rit bit git tit	x p v w
(D)	nit dit fit rit	r s x j

- What is the code for lit?  
(A) v (B) r (C) p (D) b
- What is the code for tit?  
(A) w (B) x (C) p (D) v
- What is the code for rit?  
(A) j (B) s (C) r (D) x
- What is the code for nit?  
(A) x (B) s (C) j (D) r
- What is the code for kit?  
(A) r (B) p (C) x (D) d

**Direction for questions 21 to 25:** For the words given in column I, the codes are given in column II. Answer the following questions by finding the codes for the letters from the words and their codes given in the columns.

	Column I	Column II
(A)	PRETEND	4396408
(B)	COMMON	615715
(C)	HOUSE	4*2&1
(D)	SUPPORT	3*21839
(E)	DRUM	5*08

21. What is the code for the word PROTECT?  
(A) 3895479 (B) 3846978  
(C) 3819479 (D) 3814978
22. What is the code for the word HORMONE?  
(A) &385364 (B) &176561  
(C) &175184 (D) &185164
23. What is the code for the word EMPEROR?  
(A) 5495717 (B) 4534818  
(C) 3453919 (D) 4537178
24. What is the code for the word DETHRONE?  
(A) 049&7264  
(B) 049&8164  
(C) 059&7164  
(D) 059&8164
25. What is the code for the word COMPOUND?  
(A) 71531\*60 (B) 72532\*80  
(C) 91531\*70 (D) 72542\*60
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**ANSWER KEYS**

- |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. D  | 2. A  | 3. B  | 4. D  | 5. C  | 6. D  | 7. B  | 8. D  | 9. B  | 10. C |
| 11. B | 12. A | 13. B | 14. D | 15. D | 16. D | 17. A | 18. D | 19. C | 20. D |
| 21. C | 22. D | 23. B | 24. B | 25. A |       |       |       |       |       |