## (O) Union Bank

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Union Bank of India Probationary
Officers Exam., 2008
Reasoning : Solved Paper
(Held on 7-9-2008)

1. How many such pairs of letters are there in the word GUARDIAN each of which has as many letters between them in the word as in the English alphabet?
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
2. Four of the following five are alike in a certain way and so form a group. Which is the onethat does not belong to that group ?
(A) 19
(B) 17
(C) 23
(D) 29
(E) 27
3. How many meaningful English words can be made with the letters TEBI using each letter only once in each word?
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
4. In a certain code LONG is written as 5123 and GEAR is written as 3748 . How is

LANE written in that code?
(A) 5427
(B) 5247
(C) 5847
(D) 5237
(E) None of these
5. ' BD ' is related to ' EG ' and ' MO ' is related to ' PR ' in the same way as ' FH ' is related to $\qquad$
(A) JM
(B) IL
(C) JL
(D) IK

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(E) None of these
6. How many such digits are there in the number 58674139 each of which is as far away from the beginning of the number as when the digits within the number are rearranged in descending order?
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
7. In a certain code BREAKDOWN is written as BFSCJMVNC. How is ORGANISED written in that code ?
(A) PSHBMCDRH
(B) BHSPMCDRH
(C) BHSPOCDRH
(D) BHSPNHRDC
(E) None of these
8. In a certain code language 'pik da pa' means 'where are you'; 'da na ja' means 'you may come' and 'na ka sa' means 'he may go', which of the following means 'come' in that code language?
(A) da
(B) ja
(C) na
(D) Cannot be determined
(E) None of these
9. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group ?
(A) Copper
(B) Iron
(C) Aluminium
(D) Zinc
(E) Steel
10. What should come next in the following number series ?
$\begin{array}{lllllllllllllllllllllllll}9 & 8 & 9 & 8 & 7 & 9 & 8 & 7 & 6 & 9 & 8 & 7 & 6 & 5 & 9 & 8 & 7 & 6 & 5 & 4 & 9 & 8 & 7 & 6 & 5\end{array}$
(A) 3
(B) 4
(C) 2
(D) 1
(E) None of these
11. Which of the following is the middle digit of the second highest among the following five numbers?
$P$ age|3

254319963842697
(A) 5
(B) 1
(C) 6
(D) 4
(E) 9
12. Meeta correctly remembers that her father's birthday is after 8th July but before 12 th July. Her brother correctly remembers that their father's birthday is after 10th July but before 15th July. On which day of July was definitely their father's birthday?
(A) 10th
(B) 11th
(C) 10th or 11th
(D) Cannot be determined
(E) None of these
13. In a class of 50 students $M$ is eighth from top. $H$ is 20 th from bottom. How many students are there between M and H ?
(A) 22
(B) 23
(C) 24
(D) Cannot be determined
(E) None of these
14. Among $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and F each scoring different marks in the annual examination, D scored less than only F among them. B scored more than A and C but less than D. Who
among them scored least marks among them ?
(A) A
(B) C
(C) B
(D) Data inadequate
(E) None of these
15. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
(A) B D F
(B) V X Z
(C) F I K
(D) M O Q
(E) L N P

Directions-(Q. 16-22) In each question below are three statements followed by two
conclusions numbered I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts. Give answers :

P age|4
(A) If only conclusion I follows.
(B) If only conclusion II follows.
(C) If either conclusion I or II follows.
(D) If neither conclusion I nor II follows.
(E) If both conclusions I and II follow.
16. Statements :

Some desks are tents.
Some tents are rivers.
All rivers are ponds.

Conclusions :
I. Some ponds are tents.
II. Some ponds are desks.
17. Statements:

All chair are pens.
Some pens are knives.
All knives are rats.

Conclusions:
I. Some rats are chairs.
II. Some rats are pens.
18. Statements :

Some forests are huts.
Some huts are walls.
Some walls are nets.

Conclusions :
I. Some nets are forests.
II. Some nets are huts.
19. Statements:

All tables are windows.
All windows are rooms.
All rooms are buses.

Conclusions :
I. Some buses are tables.
II. Some rooms are tables.
20. Statements:

Some trees are boxes.
All boxes are bricks.
All bricks are dogs.
Conclusions :
I. Some dogs are trees.
II. Some bricks are trees.

P age|5
21. Statements :

All goats are flowers.
No flower is branch.
Some branches are roots.
Conclusions :
I. Some roots are goats.
II. No root is goat.
22. Statements :

All pots are rings.
All bangles are rings.
All rings are paints.
Conclusions :
I. Some paints are pots.
II. Some bangles are paints.

Directions-(Q. 23-29) Study the following arrangement carefully and answer the questions given below-
B\# AR $58 \mathrm{E} \% \mathrm{M}$ F4 J 1 U @ H2 © 9 T I6 * W 3 P \# K 7 \$ Y
23. Which of the following is the twelfth to the left of the twentieth from the left end of the above arrangement?
(A) $\%$
(B) W
(C) $\$$
(D) J
(E) None of these
24. How many such numbers are there in the above arrangement each of which is immediately preceded by a consonant and also immediately followed by a symbol?
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
25. How many such symbols are there in the above arrangement each of which is immediately preceded by a letter and also immediately followed by a number?
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
26. How many such consonants are there in the above arrangement each of which is immediately preceded by a consonant and also immediately followed by a number?
P agel6
(A) None
(B) One
(C) Two
(D) Three
(E) More than three
27. If all the numbers in the above arrangement are dropped, which of the following will be the eleventh from the right end ?
(A) U
(B) T
(C) F
(D) H
(E) None of these
28. How many such vowels are there in the above arrangement each of which is either immediately preceded by a symbol or immediately followed by a symbol or both?
(A) None
(B) One
(C) Two
(D) Three
(E) Four
29. Four of the following are alike in a certain way based on their positions in the above arrangement and so form a group. Which is the one that does not belong to that group ?
(A) 1 @ 4
(B) © TH
(C) W P 6
(D) \# 73
(E) 92 I

Directions (Q. 30-36)—In each question below is given a group of digits/symbols
followed by four combinations of letters lettered (A), (B), (C) and (D). You have to find out which of the combinations correctly represents the group of digits/symbols based on the following letter coding system and mark the letter of that combination as the answer. If none of the letter combinations correctly represents the group of digits/ symbols, mark (E) i.e. 'None of these' as the answer.

Digit/Symbol :

Letter Code :
P M IT R Q J FHAE UNBG L
Conditions :
(i) If the first element in the group is a symbol and the last element is a digit, the codes are to be interchanged.
(ii) If the first element in the group is a digit and the last element is a symbol both are to be coded as the code for the digit.
(iii) If both the first and the last elements are even digits both are to be coded as ' X '.

P age|7
(iv) If both the first and the last elements are odd digits, both are to be coded as ' Y '.
30.4\%@93*
(A) PMFTIB
(B) PMFTIP
(C) BMFTIB
(D) XMFTIX
(E) None of these
31. \$1896©
(A) RQJTNH
(B) HQJTNR
(C) RQJTNR
(D) YQJTNY
(E) None of these
32. 2 *\#836
(A) YBEJIY
(B) ABEJIN
(C) NBEJIA
(D) XBEJIX
(E) None of these
33.8732@9
(A) TGIAFJ
(B) YGIAFY
(C) JGIAFT
(D) XGIAFX
(E) None of these
34. 7\#\$\%35
(A) GERMIU
(B) UERMIG
(C) GERMIG
(D) XERMIX
(E) None of these
35. 931\%®d
(A) TIQMHL
(B) LIQMHT
(C) LIQMHL
(D) TIQMHT
(E) None of these
36. $46 * 389$
(A) PNBIJT

P a ge|8
(B) XNBIJX
(C) TNBIJP
(D) PNBIJP
(E) None of these

Directions-(Q. 37-43) In the following questions, the symbols @, ©, \%, \$ and d are
used with the following meanings illustrated.
' $\mathrm{P} \% \mathrm{Q}$ ' means ' P is greater than Q '.
' $P$ d Q' means ' $P$ is neither greater than nor smaller than $Q$ '.
' P @ Q ' means ' P is smaller than Q '.
' $P$ © $Q$ ' means ' $P$ is either smaller than or equal to $Q$ '.
' $\mathrm{P} \$ \mathrm{Q}$ ' means ' P is either greater than or equal to Q '.

In each of the following questions assuming the given statements to be true, find out which of the two conclusions I and II given below them is/are definitely true. Give answers :
(A) If only conclusion I is true.
(B) If only conclusion II is true.
(C) If either conclusion I or conclusion II is true.
(D) If neither conclusion I nor conclusion II is true.
(E) If both conclusions I and II are true.
37. Statements: M @ J, J © R, R d K

Conclusions : I. K d J
II. K \% J
38. Statements : N \$ T, T d H, N @ W

Conclusions : I. W \% T
II. H © N
39. Statements : F @ R, R © V, V \$ T

Conclusions : I. V \% F
II. F @ T
40. Statements : W © D, D \$ B, B @ H

Conclusions : I. H \% D
II. W @ B
41. Statements : F d T, T \$ M, M © R

Conclusions: I. R \$ F
II. M © F
42. Statements: H \$ N, N \% R, R @ J

Conclusions: I. R @ H
II. J \% H

P a ge|9
43. Statements : V \% B, B \$ D, D © E

Conclusions : I. E d B
II. D@V

Directions-(Q. 44-49) Study the following information and answer the questions given below-
$\mathrm{M}, \mathrm{N}, \mathrm{P}, \mathrm{R}, \mathrm{T}, \mathrm{W}, \mathrm{F}$ and H are sitting around a circle facing at the centre. P is third to the
left of $M$ and second to the right of $T$. $N$ is second to the right of $P$. $R$ is second to the right of W who is second to the right of M . F is not an immediate neighbour of P .
44. Who is to the immediate right of P ?
(A) H
(B) F
(C) R
(D) Data inadequate
(E) None of these
45. Who is to the immediate right of H ?
(A) R
(B) F
(C) M
(D) Data inadequate
(E) None of these
46. Who is to the immediate left of R ?
(A) P
(B) H
(C) W
(D) T
(E) Data inadequate
47. Who is third to the right of H ?
(A) T
(B) W
(C) R
(D) F
(E) Data inadequate
48. Who is second to the right of F ?
(A) M
(B) R
(C) T
(D) Data inadequate
(E) None of these
49. In which of the following is the first person sitting in between the second and the

P age| 10
third person ?
(A) NHM
(B) PHN
(C) TRP
(D) TWF
(E) None of these

Directions- (Q. 50-55) In each of the following questions, two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the questions below the rows of numbers are to be answered. The operations of numbers progress from the left to the right.
Rules :
(i) If an odd number is followed by another composite odd number, they are to be added.
(ii) If an even number is followed by an odd number they are to be added.
(iii) If an even number is followed by a number which is the perfect square, the even number is to be subtracted from the perfect square.
(iv) If an odd number is followed by a prime odd number, the first number is to be divided by the second number.
(v) If an odd number is followed by an even number the second one is to be subtracted from the first number.
50. 15821
p 327
If 'p' is the resultant of the first row, what will be the resultant of the second row?
(A) 58
(B) 76
(C) 27
(D) 82
(E) None of these
51. 126417

20 m 16
If ' $m$ ' is the resultant of the first row, what will be the resultant of the second row ?
(A) 69
(B) 85
(C) 101
(D) 121
(E) None of these
52. 851735

1619 r
If ' $r$ ' is the resultant of the first row, what will be the resultant of the second row?
(A) 175
(B) -5
(C) 75
(D) 210

P age|11
(E) None of these
53. 24153
d 615
If ' $d$ ' is the resultant of the first row, what will be the resultant of the second row?
(A) 37
(B) 8
(C) 22
(D) 29
(E) None of these
54. 284915
h 312
If ' $h$ ' is the resultant of the first row, what will be the resultant of the second row?
(A) 13
(B) 15
(C) 19
(D) 27
(E) None of these
55. 36153

123 n
If ' $n$ ' is the resultant of the first row, what will be the resultant of the second row?
(A) $15 / 17$
(B) 32
(C) $12 / 17$
(D) 36
(E) None of these

Directions-(Q. 56-60) Below in each question are given two statements I and II. These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answers :
(A) If statement I is the cause and statement II is its effect.
(B) If statement II is the cause and statement I is effect.
(C) If both the statements I and II are independent causes.
(D) If both the statements I and II are effects of independent causes.
(E) If both the statements I and II are effects of some common cause.
56. I. This year, the cut off percentage for admission to junior colleges have increased over the last year.
II. This year performance of students in Xth final exam was considerably higher than the previous year.

62.

63.


65.

66.


67. | $\bullet$ | $z$ |  | $\bullet$ | $z^{\Delta}$ | $\Delta$ | $*$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $a^{*}$ |  | $z^{*}$ | $\Delta$ |  | $\Delta$ |  |



II. Govt. has now sanctioned a huge amount of money to maintain the national highways.
58. I. Many students of the local school have failed in English Language paper in the annual examination.
II. Many students of the local school have failed in Mathematics paper in the annual examination.
59. I. Rain and thunder showers bashed the city during the past three days.
II. Many people stayed indoor during the past three days.
60. I. There has been a considerable increase in the sale of fat free food articles.
II. Now people have become more conscious about their health condition and food habits.

Directions-(Q. 61-75) In each of the questions given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued?
7. I. The conditions of most of the national highways are very bad.

Problem Figures
61.
62.

63.

65.

66.

67. | $\bullet$ | $z$ |  |  |  | $z$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\Delta$ | $\Delta$ | $*$ | $\Delta$ |  |  |
| $\square$ |  | $z$ | $\Delta$ |  | $\Delta$ |
|  |  |  | 0 |  |  |



(A) (B) (C) (D) (E)


Problem Figures
61.
62.

63.

65.

66.

67. | $\bullet$ | $z$ |  |  |  | $z$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\Delta$ | $\Delta$ | $*$ | $\Delta$ |  |  |
| $\square$ |  | $z$ | $\Delta$ |  | $\Delta$ |
|  |  |  | 0 |  |  |



(A) (B) (C) (D) (E)

69.

70.

71.

72.

73.

75.


P a g e | 13
Answers with Hints

1. (D)
2. (E) All the rest are prime numbers.
3. (B) B I T E
4. (A) 5. (D) 6. (C) 7. (B) 8. (B)
5. (E) All the rest are pure metals.
6. (B) 98987987698765987654987654
7. (D) $963,842,697,319,254$
8. (B) 13. (A) 14. (D) 15. (C)
9. (A) 17. (B) 18. (D) 19. (E)
10. (E) 21. (C) 22. (A)
11. (A) 20th from the left end is T and 12 th to the left of T is $\%$.
12. (C) H 2 © and K 7 \$
13. (A)
14. (B) M F 4
15. (D) After dropping all the numbers.

B \# AR E \% M FJ U@H © T I * W P \# K \$ Y

11th from the right end is H .
28. (D) \# A, E \% and U @
29. (E) 30. (B) 31. (A) 32. (D) 33. (C) 34. (E)
35. (D) 36. (A) 37. (C) 38. (E) 39. (A)
40. (D) 41. (B)
42. (A) 43. (B) 44. (A) 45. (E) 46. (D) 47. (D) 48. (C)
49. (A) 50. (A) 51. (E) 52. (B) 53. (C) 54. (D) 55. (A


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| :--- | :--- |

56. (D) 57. (A) 58. (E) 59. (A) 60. (B)
57. (B) In each subsequent figure one time the three designs remain same and next time after shifting one side anticlockwise direction then it remain same position. Inside shaded part of the designs form after rotating $90^{\circ}$ anticlockwise in the two designs and forms after rotating $90^{\circ}$ clockwise in a simple square design with this also.
58. (D) In each subsequent figure the outside bigger design ' $<$ ' forms after rotating $45^{\circ}$ and $90^{\circ}$ anticlockwise respectively and the inside smaller design ' $\wedge$ ' forms after rotating $90^{\circ}$ and $180^{\circ}$ anticlockwise respectively.
59. (E)
60. (A) In each subsequent figure the curved lines on upper side straight horizontal line increase in sequence of $2,3,1$ respectively from left to right and from upper side to lower side and one curved line is missing from back side each time. The curved lines on lower side straight horizontal line increase in sequence of $3,4,2$ respectively from left to right and from upper side to lower side and is also missing 1 and 2 respectively from back side. 65. (C) In each subsequent figure the designs shift half side anticlockwise first and then one side anticlockwise respectively and a new design forms one by one from back side each time then forward side respectively.
61. (E) In each subsequent figure one design forms on upper left side corner first and then this design shifts half side, one side and, one and half side clockwise respectively. These designs rotate $90^{\circ}$ clockwise each time with this change also.
62. (B)
63. (A) In each subsequent figure the curved lines on the upper and lower side horizontal lines reverse in sequence one and three in clockwise direction from upper left respectively.
64. (B) In each subsequent figure the outside half circle forms inside after reversing and shifting one side anticlockwise and then it forms outside after reversing on the same side.

So these sequences continue respectively. The second design square forms once on next side anticlockwise after reversing from outside to inside.
70. (E) 71. (A)
72. (C) In each subsequent figure increase in the number of triangles from upper left corner beome on the basis of increasing of lines three, four, five, six and seven lines respectively.
73. (B)
74. (E) In each subsequent figure the circles form on the place of two-two stars from upper left corner. These small circles form on the place of existing stars in the next two lines after forming upto lower left as $4,5,6,7$ and 8 respectively and then two-two stars form on the place of circles from back side.
75. (D) In each subsequent figure the 'square' forms one side clockwise first and then half side anticlockwise respectively. Similarly, the 'circle' shifts half side, one side, one and half side, two side and two and half side anticlockwise respectively in each subsequent figure also.

