REVISION TEST – 1 – EM (1 – 11 UNIT TESTS)
PART -1 (MAT) – MENTAL ABILITY TEST

TIME : 90 MINUTES   **MARKS : 90**

Direction: (Question No. 1 - 10)

In each question, the numbers/letters are arranged based on some pattern or principle. Choose the correct answer for the term marked by the symbol (?)

1.   2, 9, 28, 65, 126, ?
(1) 220   (2) 226   (3) 217   (4) 247

2.   4, 9, 19, 34, ?
(1) 44   (2) 49   (3) 54   (4) 59

3.   48, 12, 4, 2, ?
(1) 1   (2) 2   (3) 0   (4) -1

4.   2, 5, 9, ?, 20, 27
(1) 14   (2) 16   (3) 18   (4) 24

5.   11, 12, 17, 18, 23, 24, ?
(1) 30   (2) 29   (3) 32   (4) 27

6.   4, 20, 6, 42, 8, 72, 10, ?
(1) 90   (2) 130   (3) 120   (4) 110

7.   2, 6, 8, 16, 30, 54, ?
(1) 74   (2) 88   (3) 100   (4) 110

8.   l _ n _ m l l m _ n _ l
(1) m, n, m, n   (2) m, n, n, m
(3) m, n, m, m   (4) n, m, m, m

9.   DG11, JM23, PS 35, ?
(1) YX49   (2) TY45   (3) UX45   (4) VY47

10.   qrp_q_ppqr_p_rpp
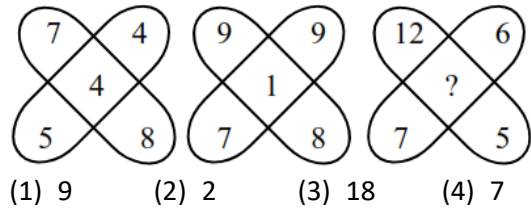(1) qrqq   (2) rqpq   (3) prpq   (4) rrpq

Direction: (Question No. 11 - 16)

In each of the following figures, numbers are written according to some patterns. One number is missing. Find the missing number that replaces the question mark (?).
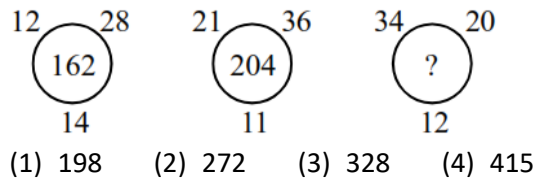
11.

(1) 4   (2) 3   (3) 2   (4) 5
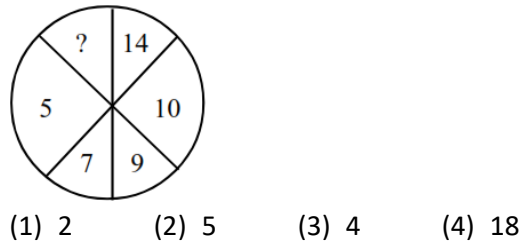
12.

(1) 1   (2) 731   (3) 1625   (4) 2031

13.

(1) 9   (2) 2   (3) 18   (4) 7

14.

(1) 198   (2) 272   (3) 328   (4) 415

15.

(1) 2   (2) 5   (3) 4   (4) 18

16.

(1) 3   (2) 19   (3) 15   (4) 6

Direction: (Question No. 17 – 21)

Each question consists of four groups. One group is different from the other three in some way. Find out the different group.

17.   (1) $1\frac{11}{25}$ (2) $1\frac{13}{36}$ (3) $5\frac{3}{16}$ (4) $5\frac{19}{25}$

18.   (1) 73   (2) 53   (3) 59   (4) 87

19.   (1) FG   (2) VT   (3) MQ   (4) PR

20.   (1) NUTS   (2) ONE   (3) NAME   (4) UNO

21.   (1) Wood   (2) Cork   (3) Stone   (4) Paper

22.   In a coding system RAT = 18 ZU, HIM = 8 RN, then FIX =?
(1) 6 SY   (2) 6 RY   (3) 7 SY   (4) 7 SY

23.   If 'GIVE' is coded as '2018522', then the code of 'PLAY' is _____.
(1) 1612124   (2) 1511262
(3) 1216124   (4) 1115262

24.   If 1234 = BADC, then 5678 = ?
(1) EFGH   (2) DGFI   (3) FEHG   (4) FGHI

25. If 'DAMP' is coded as 5-2-14-17 then how 'CRY' can be coded?
    (1) 2-17-24   (2) 4-19-26
    (3) 4-17-25   (4) 26-19-5

26. If in a certain code, SIGHT is coded as FVTUG, how is REVEAL coded in that code?
    (1) YNRIRE   (2) DQHQMX
    (3) FSJSOZ   (4) ERIRNY

27. If HARP = 8034, SHUP = 6854, then RUSH = ?
    (1) 3658   (2) 3568
    (3) 3583   (4) 3685

28. If 'Clock' is called 'Television', 'Television' is called 'Radio', 'Radio' is called 'Oven', 'Oven' is called 'Grinder', 'Grinder' is called 'Iron'. In what will ladies bake?
    (1) Radio   (2) Oven   (3) Grinder   (4) Iron

29. In a certain code language, '481' means 'The Sky is blue', '246' means 'The Sea is deep' and '698' means 'sea looks blue'. In that language, which digit means 'blue' in that code?
    (1) 1   (2) 6   (3) 8   (4) 9

30. In a certain code language
    (a) 'rim tim bo' means 'Sun is Hot'.
    (b) 'sim jar tim' means 'Moon is Cool'
    (c) 'jar bo lim' means 'Sun and Moon'
    In that language which word written for 'cool' ?
    (1) lim   (2) jar   (3) tim   (4) sim

Direction (Question No. 31-33)
    In the following questions, words are given in column I and are coded in column II. But they are not arranged according the in the order of word letters in column I. Find the code language and choose correct alternative to answer the questions.

Column I	Column II
NOTA	3149
MINT	4261
PAN	984
LION	3524

31. PRINT = ?
    (1) 67251 (2) 87241 (3) 78214 (4) 87421

32. LAMP = ?
    (1) 5968 (2) 4829 (3) 5928 (4) 4368

33. OMNI = ?
    (1) 3724 (2) 5361 (3) 3642 (4) 5626

Direction (Question No. 34-35)
    In these following questions, a word has been given followed by four other words are of which **can be formed** by using the letters of the given word. Find that word.

34. **KNOWLEDGE**
    (1) KNOWN   (2) GODOWN
    (3) WONDER   (4) GOLDEN

35. **FUNDAMENTAL**
   (1) TAME   (2) NOSE
    (3) DETRIMENTAL   (4) FUNDS

Direction (Question No. 36-37)
    Find the word that **cannot** be made using the letters of the word.

36. **CARPENTER**.
    (1) NECTAR   (2) CARPET
    (3) PAINTER   (4) REPENT

37. **MANIPULATE**
    (1) MANTLE   (2) PINT
    (3) PLATE   (4) POLLUTE

Direction: (Question No. 38 - 43)
    The following Venn diagrams shows the relationship among the given three information. Identify the appropriate diagram to show the relationship among them.

(A)   (B)   (C)   (D)   (E)
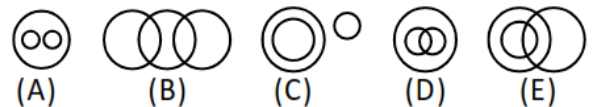
38. Deer, Frog, Mammal
    (1) C   (2) A   (3) D   (4) E

39. Human beings, Teachers, Graduates
    (1) B   (2) C   (3) D   (4) A

40. Flowers, Cloth, White
    (1) D   (2) A   (3) B   (4) C

41. Engineer, Doctor, People
    (1) C   (2) D   (3) B   (4) A

42. India, Tamil Nadu, Forests
    (1) B   (2) E   (3) C   (4) A

43. Real numbers, Rational numbers, Irrational numbers
   (1) A   (2) C   (3) D   (4) B

Direction: (Question No. 44 - 47)
    Study the information carefully and answer the following questions.

○ - Farmers
◁ - Engineers
▭ - Photographers
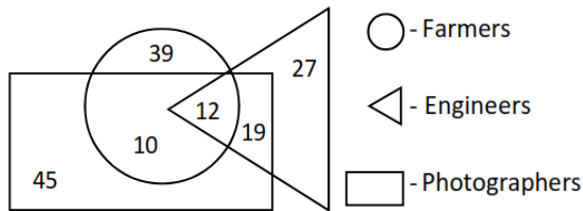
44. How many Engineers doing farming?
(1) 29   (2) 12   (3) 31   (4) 22

45. How many Farmers are Photographers?
(1) 41   (2) 12   (3) 22   (4) 10

46. How many Engineers are there who are not photographers?
(1) 66   (2) 27   (3) 39   (4) 46

47. How many persons are Photographers only?
(1) 39   (2) 45   (3) 10   (4) 12

Directions: (Question No. 48 - 50)
Study the figure and answer the question given below.
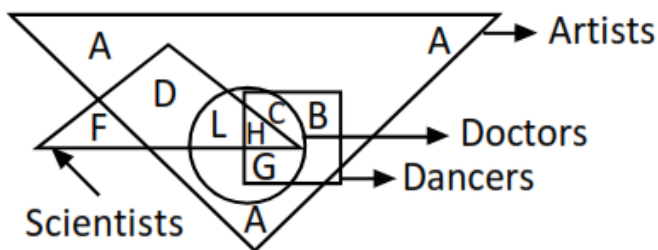
48. Which letter represents who are Scientists only?
(1) H   (2) D   (3) L   (4) F

49. Which letter represents the artists who are neither scientists nor doctors?
(1) A and B   (2) A and L
(3) B and G   (4) L and H

50. Which letter represents the artists who are dancers as well as doctors only?
(1) A and D   (2) C and G
(3) C and D   (4) G and H

51. If + means ×, − means ÷, × means +, and ÷ means −, then the value of $10 \times 18 - 9 + 3 \div 1 = ?$
(1) 18   (2) 17   (3) 16   (4) 15

52. If '×' means '−' , '−' means '×', '+' means '÷' and '÷' means '+', then $(15 - 10) \div (130 + 10) \times 50 = ?$
(1) 1800   (2) 113   (3) 2000   (4) 123

53. If '÷' means '−', '−' means '×', '×' means '+' and '+' means '÷' then $20 \times 60 \div 40 - 20 + 10 = ?$
(1) 80   (2) 60   (3) 40   (4) 0

54. Insert the arithmetical operations in the following numerical figure 4_3_4 = 48
(1) +, +   (2) +, -   (3) ×, +   (4) ×, ×

55. If 'A' means '−', 'B' means '÷', 'C' means '+' and 'D' means '×', then 15B3C 24A 12D2 =?
(1) 34   (2) 2   (3) $\frac{5}{9}$ (4) 5

56. Find out which numbers/signs should be interchanged to get the correct equation among given alternatives.
$12 + 6 = 8 \div 4 \times 3$
(1) + and ÷   (2) 6 and 3
(3) = and ×   (4) + and =

Directions: Question No. 57-60)
In each of the following questions, which one of the given responses would be a meaningful order of the following?

57. (a) Police   (b) Punishment   (c) Crime
(d) Judge   (e) Judgement
(1) c, a, d, e, b   (2) c, a, b, d, e
(3) a, b, d, c, e   (4) e, d, c, b, a

58. 1. rat   2. Eagle   3. Snake   4. grain
5. field
(1) 5, 4, 1, 3, 2   (2) 4, 3, 2, 5, 1
(3) 5, 1, 3, 2, 4   (4) 5, 3, 2, 4, 1

59. a. Child   b. Profession   c. Marriage
d. Infant   e. Education
(1) a, c, e, b, d   (2) b, a, d, c, e
(3) d, a, e, b, c   (4) e, d, a, c, b

60. 1. Pollution   2. Over Population   3. Death
4. Disease
(1) 2, 3, 4, 1   (2) 3, 4, 2, 1
(3) 2, 1, 4, 3   (4) 1, 2, 3, 4

61. Pointing to a photograph a man said, "I have no brother or sister. But that man's father is my father's son". Whose photograph was it?
(1) His own   (2) His son's
(3) His father's   (4) His nephew

62. Nivashini is the daughter of Kanmani. Kanmani is the mother of Dhanya. Adhitya is the brother of Dhanya. What is the relation between Adhitya and Nivashini?
(1) Father   (2) Brother
(3) Grandfather   (4) Son

Direction: (Question No. 63 - 65)

Read the following information and answer the questions given below.

All six members of a family P, Q, R, S, T and U are travelling together. S is daughter of P. U is brother of Q. Q is daughter of R. But R is not the mother of Q. P and R are married couple. T is brother of P.

63. Who is U's mother?
(1) S   (2) P   (3) R   (4) T

64. How T is related to S?
(1) Uncle   (2) Father
(3) Brother   (4) Maternal Uncle

65. How many children does P have?
(1) 1   (2) 2   (3) 4   (4) 3

66. If P#Q means P is husband of Q, P&Q means P is daughter of Q, then how C is related to A according to A&B#C??
(1) Mother   (2) Daughter
(3) Wife   (4) Husband

67. Find the number of triangles in the following figure.
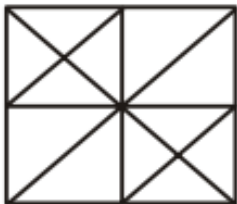
(1) 12   (2) 20   (3) 24   (4) 28

68. Find the number of rectangles in the following figure.
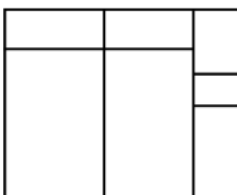
(1) 16   (2) 20   (3) 17   (4) 18

69. Find the number of squares in the following figure.
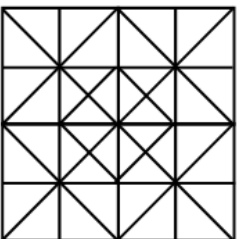
(1) 30   (2) 35   (3) 40   (4) 60

70. Find the number of trapeziums in the following figure.
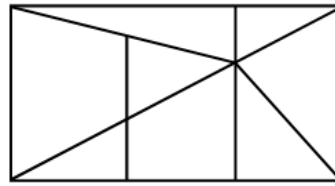
(1) 8   (2) 10   (3) 9   (4) 12

71. The right time shown by a clock is 2 : 00. What will be the time if the hour hand rotates 135° in clockwise direction?
(1) 6 : 00   (2) 6 : 30   (3) 7 : 00   (4) 7 : 00

72. What is the angle between the two hands at 7:30 in the clock?
(1) 45°   (2) 60°   (3) 15°   (4) 30°

73. A clock has 3:15, so what does the time of the clock appear when you look on the mirror?
(1) 9:15   (2) 8:45
(3) 3:45   (4) 8:15

74. If February 1st of 2000 is Tuesday, then what day is March 1st of 2000?
(1) Wednesday   (2) Tuesday
(3) Monday   (4) Sunday

75. If the day before yesterday was Friday, what will be the day after tomorrow?
(1) Friday   (2) Saturday
(3) Monday   (4) Tuesday

76. Three different positions of a dice are shown in the figure. Observe the figure and answer the following question.
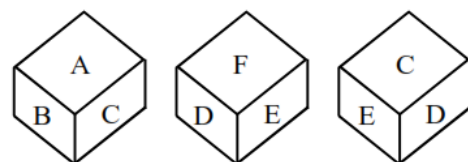
If letter C is at the bottom, then which letter will be at the top?
(1) A   (2) B   (3) E   (4) F

77. Three positions of a dice are given below. Observe the figure and answer the following question.

Find the number of dots on the face opposite to the face with one dot?
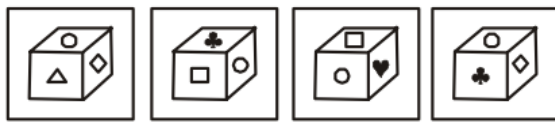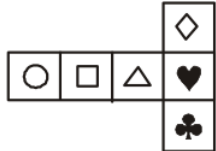(1) 2   (2) 3   (3) 4   (4) 5

78. Three positions of a dice are given below. Observe the figure and answer the following question.
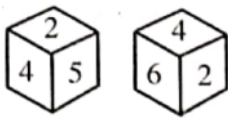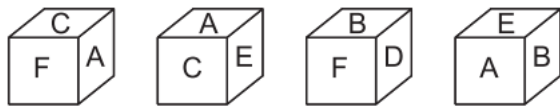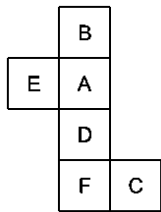

Which number is on the face opposite to 6?
(1) 2 (2) 3 (3) 4 (4) 5

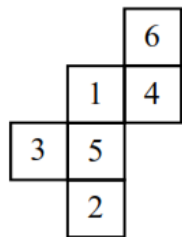79. The figure (x) is folded to form a box. Choose the box from given alternative that is similar to the box formed.

(1) (2) (3) (4)

80. If the given is folded to form a box, which among the boxes below will be formed?

(1) (2) (3) (4)

81. A sheet of paper as shown the figure is folded to form a cube. Select the correct pair of opposite faces from four alternatives given below:

(1) 1,2; 4, 5; 3, 6 (2) 1, 2; 3, 4; 5, 6
(3) 1, 2; 5, 4; 4, 6 (4) 6, 2; 3, 4; 1, 6

Direction: (Question No 82- 84)
In each of the following figures, a part of the figure is missing. Identify the missing part among the four alternatives given:
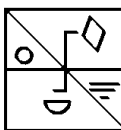
82.
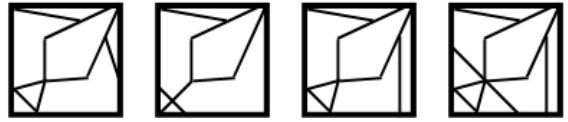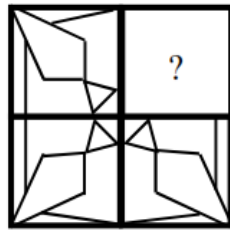
(1) (2) (3) (4)

83.
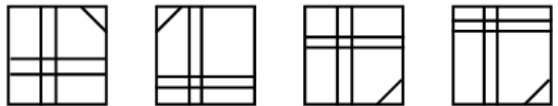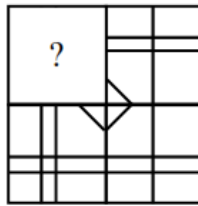
(1) (2) (3) (4)

84.
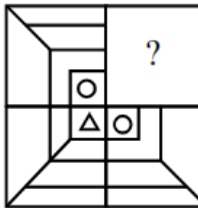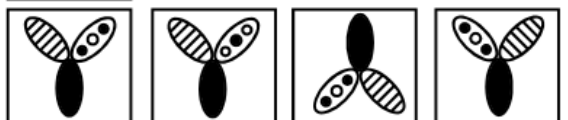

(1) (2) (3) (4)

85. Find the water image of the following figure.
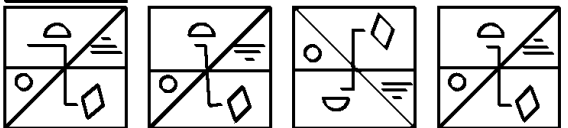
(1) (2) (3) (4)

86. Find the water image of the following figure.

(1) (2) (3) (4)

5

87. Find the water image of the following figure.

(1)   (2)   (3)   (4)

88. The mirror image of the following figure is:

(1)   (2)   (3)   (4)
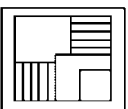
89. The mirror image of the following figure is:
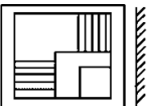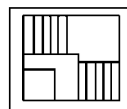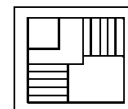

(1)   (2)   (3)   (4)

90. The mirror image of the following figure is:

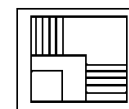(1)   (2)   (3)   (4)