NMAT – 2007
SECTION – III
INTELLIGENCE AND LOGICAL REASONING

101. 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 the group?
(1) Tin   (2) Gold   (3) Brass   (4) Copper   (5) Silver

102. In a certain code LOAD is written as 3#%5 and VIDE is written as @$56. How is DOVE written in that code?
(1) 5@#6   (2) 5#$6   (3) 5$@6   (4) 5#@6   (5) None of these

103. How many such pairs of letters are there in the word DONATIVE; each of which have as many letters between them in the word, as they have in English alphabet?
(1) None   (2) One   (3) Two   (4) Three   (5) More than three

104. If it is possible to make only one meaningful word from the first, the third, the fourth, the seventh and the eighth letters of the word DIAMETERICAL, second letter of that word is your answer. If more than one such word can be formed, your answer is P and if no such word can be formed your answer is N.
(1) R   (2) M   (3) E   (4) N   (5) P

105. AE : DH in the same way as JN : ?
(1) MQ   (2) LQ   (3) LP   (4) MR   (5) None of these

Directions for questions 106 – 110: In these question the symbols @, #, $, * and % are used with different meanings as follows:

'A @ B' means 'A is neither smaller than nor equal to B'.

'A # B' means 'A is not greater than B'.

'A $ B' means 'A is neither greater than nor equal to B'.

'A * B' means 'A is neither greater than nor smaller than B'.

'A % B' means 'A is not smaller than B'.

In each of the following questions assuming the given statements to be true, find out which of the three conclusions I, II and III given below them is/are **definitely true**.

106. **Statements :**   H @ L, L * J, J $ K, K % F
    Conclusions :   I.   L * F
                 II.   K @ L
                 III.   H @ K
(1) Only I is true   (2) Only II is true   (3) Only I and II are true
(4) All are true   (5) None of these

107. **Statements :**   R % M, M @ V, V # W, W @ T
    Conclusions :   I.   R @ V
                  II.   M # W
                 III.   R @ W
(1) Only I is true   (2) Either only I or II is true   (3) Only II and III are true
(4) None is true   (5) None of these

108. **Statements :**   D @ J, J * K, K % M, M $ N
   Conclusions :   I.   D @ M
   II.   M # J
   III.   N * D
   (1) Only I is true   (2) Only II is true   (3) Only I and II are true
   (4) Either I or III are II are true   (5) None of these

109. **Statements :**   F # R, R $ T, T $ V, W % V
   Conclusions :   I.   R $ W
   II.   W @ T
   III.   V @ F
   (1) None is true   (2) Only I and II are true   (3) Only I and III are true
   (4) Only II and III are true   (5) All are true

110. **Statements :**   X @ Y, Y # T, T $ V, V @ R
   Conclusions :   I.   X @ V
   II.   X # V
   III.   V @ Y
   (1) Only I and II are true   (2) Only either I or II is true   (3) Only III is true
   (4) Only either I or II and III are true   (5) None of these

Directions for questions 111 – 115: In each of the questions below are given four statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

111. **Statements :**   Some books are novels. All novels are stories.
                  All stories are fictions. No fiction is poem.
   Conclusions :   I.   No story is poem.
   II.   All novels are fictions.
   III.   Some books are fictions.
   (1) Only I and II follow   (2) Only II and III follow   (3) Only I and III follow
   (4) Only I and either II or III follow   (5) All follow

112. **Statements :**   Some flowers are buds. All buds are petals.
                  No petal is pollen. All pollen is fragrance.
   Conclusions :   I.   No bud is pollen.
   II.   No flower is fragrance.
   III.   No petal is fragrance.
   (1) Only I follows   (2) Only I and III follow   (3) Only II and III follow
   (4) None follows   (5) None of these

113. **Statements :** Some gems are pearls. Some pearls are rings.
    All rings are bangles. All bangles are pendants.
    Conclusions : I.   Some pearls are bangles.
    II. Some pendants are pearls.
    III. No pendant is pearl.
    (1) Only either II or III follows   (2) Only either I and III follows   (3) Only I and II follow
    (4) Only I and III follow   (5) None of these

114. **Statements :** All cells are batteries. All batteries are curtains.
    Some curtains are clothes. All clothes are shirts.
    Conclusions : I.   All cells are curtains.
    II. Some batteries. Are shirts.
    III. Some curtains are shirts.
    (1) Only I and II follow   (2) Only I and III follow   (3) Only I follows
    (4) None follows   (5) None of these

115. **Statements :** Some bottles are idols. Some idols are temples.
    No temple is room. All rooms are flats.
    Conclusions : I.   Some temple are flats.
    II. No idol is room.
    III. No temple is flat.
    (1) Only I follows   (2) Only I and II follow   (3) All I, II and III follow
    (4) Only either I or III follows   (5) None of these

Directions for questions 116 – 120: Given an input line the machine arranges the words and numbers step by step in a systematic manner as illustrated below:

Input   :   subsidy 76 48 follow 35 next 63 must
Step I   :   35 subsidy 76 48 follow next 63 must
Step II   :   35 subsidy 48 76 follow next 63 must
Step III   :   35 subsidy 48 next 76 follow 63 must
Step IV   :   35 subsidy 48 next 63 76 follow must
Step V   :   35 subsidy 48 next 63 must 76 follow

Output in Step V is the final output and Step VI is the last step.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

116. If the second step of an input is "21 white direct 72 status front 37 69", how many more steps are required to complete the arrangement?
    (1) Three   (2) Four   (3) Five   (4) Six   (5) None of these

117. What will be the third step for the input "17 85 pearls garland 67 93 restriction judgement"?
    (1)   17 restriction 67 pearls garland 85 93 judgement
    (2)   17 restriction 67 pearls 93 garland 85 judgement
    (3)   17 restriction 85 pearls 67 garland 93 judgement
    (4)   17 restriction 67 pearls 85 garland 93 judgement
    (5)   None of these

118. If the fourth step of an input is "35 wealth 52 task 72 57 jogging playground" what will definitely be the first step?
    (1)   task wealth 35 52 57 jogging 72 playground
    (2)   wealth task 35 52 57 jogging 72 playground
    (3)   wealth task 35 52 jogging 57 72 playground
    (4)   cannot be determined
    (5)   None of these

19. If the second step of an input is "26 shop finance 48 game music 63 37"; what will be the fifth step?
    (1)   26 shop 37 music 48 finance game 63
    (2)   26 shop 37 music finance 48 game 63
    (3)   26 shop 37 music 48 game finance 63
    (4)   There is no fifth step
    (5)   None of these

120. How many steps are required to complete the arrangement for the input "56 punish 48 find design 23 lavish 36"?
    (1) Seven   (2) Five   (3) Four   (4) Eight   (5) None of these

Directions for questions 121 – 125: In each of these questions a combination of digit/symbol is given followed by four combinations of letter codes numbered (1), (2), (3) and (4). Digits/Symbols are to be coded by the letter codes as per the scheme and conditions given below. The number of letter code combination which correctly represents digits/symbols combination is your answer. If none of the combinations is correct, your answer is (5) i.e. 'None of these'.

Digit/Symbol :	#	1	5	8	$	3	7	2	9	@	%	↑	6	4	©
Letter code :	P	I	A	R	J	H	F	W	L	T	Q	E	D	U	B

Conditions :   I.   If the first element is a symbol and the last element is an odd digit, their codes are to be swapped.
                II.   If the first as well as the last element is a symbol, both are to be coded by the code for the first element.
                III. If the first element is an even digit and the last one is a symbol, both are to be coded by X.

121. 57#8$@ :
    (1) TFPRJA   (2) AFPRJT   (3) AFRPTJ   (4) TFRPJA   (5) None of these
122. ©84@39 :
    (1) LRUTHB   (2) BRUTHL   (3) BRTUHL   (4) LRUHTB   (5) None of these
123. ↑8413$:
    (1) JURIHJ   (2) JRUIHE   (3) ERUIHE   (4) ERUIHJ   (5) None of these
124. 25@7#$:
    (1) WATFPJ   (2) WATFPW   (3) JATFPJ   (4) XATFPJ   (5) None of these
125. %43698 :
    (1) RUHDLR   (2) QUHDLR   (3) QUHDLQ   (4) RUHDLR   (5) None of these

Directions for questions 126 – 130: Study the following information carefully to answer these questions.

Three families X, Y and Z comprising of ten members A, B, C, D, E, F, G, H, J & K. Each family has at least three members out of which at least one male and one female. They travel in three cars I, II and III in such a way that at least three members travel in each car and all the members of any of the families do not travel together. At least one female and one male travel in each car.

A is wife of J and mother of F and they belong to family X, E is sister of B who is son of C and belongs to family Y. G is father of H and husband of K. D is father of B, A and K travel in Car I only with H. E and B do not travel in the same car. G and C travel in car II. B does not travel with D and F. J does not travel with F.

126. Which of the following group of people represent one complete family?
    (1) GJF   (2) GKF   (3) GKH   (4) AJH   (5) None of these
127. How is J related to F?
    (1) Father   (2) Brother   (3) Son   (4) Cannot be determined   (5) None of these
128. How is H related to K?
    (1) Daughter   (2) Son   (3) Mother   (4) Cannot be determined   (5) None of these
129. Four member travel in which car?
    (1) Car I   (2) Car II   (3) Car III   (4) Car I and II   (5) Car II or III
130. Which of the following combination of family and its members is correct?
    (1) X-A, F, H   (2) Y – G, K, H (3) Z – A, J, F   (4) X – G, J, H   (5) Y – C, D, E, B

Directions for questions 131 – 135: 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 left to right.

Rules :

(i)   If a two digit even number which is not a perfect square is followed by a prime number they are to be multiplied.

(ii)   If an even number is followed by another even number, the first number is to be divided by the second number.

(iii)   If an composite odd number is followed by another odd number they are to be added.

(iv)   If an even number which is a perfect square is followed by an odd number the second number is to be subtracted from the first number.

(v)   If a prime number is followed by an odd number, they are to be multiplied.

(vi)   If an odd number is followed by an even number the second one is to be subtracted from the first number.

131. 28   11   44
     x   25   37
     If x is the resultant of the first row, what is the resultant of the second row?
     (1) 212   (2) 138   (3) 202   (4) 198   (5) None of these
132. 64   15   m
     17   21   76
     If m is the resultant of the second row, what is resultant of the first row?
     (1) 303   (2) 330   (3) 230   (4) 406   (5) None of these
133. 48   16   15
     256   a   60
     If 'a' is the resultant of the first row, what is the resultant of second row?
     (1) 251   (2) 271   (3) 171   (4) 151   (5) None of these
134. 23   15   95
     x   10   17
     If 'x' is resultant of first row, what is the resultant of the second row?
     (1) 425   (2) 8   (3) 42   (4) 72   (5) None of these
135. 32   7   14
     57   y   15
     If 'y' is the resultant of the first row, what is the resultant of the second row?
     (1) 415   (2) 56   (3) 52   (4) 325   (5) None of these

Directions for questions 136 – 140: Below in each question are given two statements (A) and (B). 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 choices correctly depicts the relationship between these two statements.

Mark answer (1)   if statement (A) is the cause and statement (B) is its effect.
Mark answer (2)   if statement (B) is the cause and statement (A) is its effect.
Mark answer (3)   if both the statements (A) and (B) are independent causes.
Mark answer (4)   if both the statements (A) and (B) are effects of independent causes.
Mark answer (5)   if both the statements (A) and (B) are effects of some common cause.

136. **Statements :**   (A) Rise in petrol prices was announced recently.
                         (B) Number of cars on the road is increasing constantly.
137. **Statements :**   (A)   A bandh was called on Monday in protest against land acquisition to set up
                                SEZs.
                         (B)   Violence and arson totally disrupted normal life on Monday.
138. **Statements :**   (A)   The health department of the Government of State 'X' ordered all the hospitals to
                                store sufficient stock of medicines to handle the epidemics generally breaking out
                                at the onset of monsoon.
                         (B)   The health department of the Government of state 'X' campaigned the need for
                                maintaining cleanliness among public particularly those residing in slum areas.

139. **Statements :** (A) Rupee has been consistently strengthening for past few months.
  (B) Reserve Bank of India has recently reduced the interest rates.

140. **Statements :** (A) An increase in number of cases of depression is being observed these days among the young students.
  (B) Young students have to tackle with more competition than their counterparts faced in the past.

Directions for questions 141 – 145: Study the following information carefully to answer those questions.

H, K, L, M, J, D, F, T and W are sitting around a circle facing the center. L is second to the right of T and third to the left of W. H is second to the left of T. J is fourth to the left of M who is not neighbour of L. F is to the immediate left of J. D is not neighbour of W.
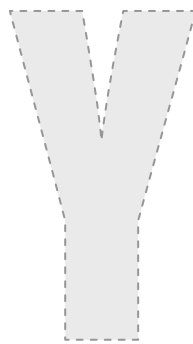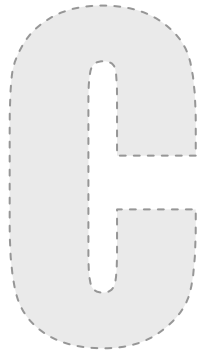
141. Who is second to the right of D?
  (1) M (2) F (3) K (4) K or F (5) None of these

142. Who is to the immediate left of H?
  (1) F (2) M (3) J (4) K (5) None of these

143. Which of the following pairs of persons have the first person sitting to the immediate right to second person?
  (1) HT (2) MT (3) FJ (4) WF (5) FL

144. Which of the following is the correct position of W with respect to L?
  (1) Second to the left (2) Third to the left (3) Third to the right
  (4) Second to the right (5) None of these

145. Four of the following five are alike in a certain way on the basis of their positions in the arrangement and so form a group. Which is the one that does not belong to the group?
  (1) MDT (2) KWH (3) FLJ (4) DTL (5) MHT

Directions for questions 146 – 150: Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

Mark answer (1) – if the inference is "definitely true" i.e. it properly follows from the statement of facts given.
Mark answer (2) – if the inference is "probably true" though not "definitely true" in the light of the facts given.
Mark answer (3) – if the data are inadequate i.e. from the facts given you cannot say whether the inference is likely to be true or false.
Mark answer (4) – if the inference is "probably false" though not "definitely false" in the light of the facts given.
Mark answer (5) – if the inference is "definitely false" i.e. it cannot possibly be drawn from the facts given or it contradicts the given facts.

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Traditionally, manmade fibres have been subjected to very high levels of tax in India. The upstream industry of the domestic producers of these industrial inputs – used to be protected by abnormally high customs duties. This had undermined the ability of the downstream users of these goods to compete in the global market. Which is why India is a predominantly cotton based (60 : 40) textile/garment industry, quite the mirror reflection of the world. This 'skewed fibre mix' has reduced India's playing field in the US and the EU markets which are synthetics rich. Recent years' rapid increase in cotton output – has caused – a revolution of sorts, further buttressing India's global competitiveness in cotton dominant cloth. First, the industry's scope for expanding exports due to cotton advantage has been limited and even that was further circumscribed by rupee's appreciation. In 60% of the US and EU markets, recent year's tax cuts have barely made an impact. And the strong rupee ensured it won't.

146.   About 60% of the fibre, used by developed countries are man made.
147.   Strengthening of rupee has helped India to enhance its cotton exports.
148.   India is the largest cotton exporter in the world.
149.   Indian Government has reduced the taxes on exports of cotton recently.
150.   India has an edge over other countries in the cotton made fabrics.

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ANSWERS

101. (3)	102. (4)	103. (5)	104. (5)	105. (1)	106. (2)	107. (1)	108. (3)
109. (5)	110. (3)	111. (5)	112. (2)	113. (3)	114. (2)	115. (4)	116. (3)
117. (4)	118. (4)	119. (1)	120. (1)	121. (2)	122. (1)	123. (3)	124. (5)
125. (2)	126. (3)	127. (1)	128. (4)	129. (1)	130. (5)	131. (1)	132. (2)
133. (5)	134. (5)	135. (5)	136. (3)	137. (1)	138. (5)	139. (1)	140. (2)
141. (2)	142. (4)	143. (5)	144. (3)	145. (1)	146. (4)	147. (5)	148. (4)
149. (3)	150. (3)						