**Directions for questions 111 to 115:** The following table provide information about the break-up of number of employees of BOC Ltd. in various categories as of 31st March, 2004.

Human Resource in BOC Ltd. Number of employees as on 31st March, 2004

Employee category			Age Dis	Total (Numbers)		
		< 31	31-40	41–50	51–60	
(A)	Technical			•		•
	Executive	484	3413	10703	4180	18780
	Non-Executive	407	2684	3494	550	7135
	Total (A)	891	6097	14197	4730	25915
(B)	Non-Technical		•	•		•
	Executive	232	470	2442	1382	4526
	Non-Executive	399	1743	3519	1931	7592
	Total (B)	631	2213	5961	3313	12118
	Grand Total (A + B)	1522	8310	20158	8043	38033

The table below provides data on the sales value for each employee category (in Rs. million) for BOC Ltd. as of 31st March, 2004.

## Sales value as on 31st March, 2004

Employee category			Age Di	Total (Rs. In million)		
		< 31	31–40	41–50	51–60	
(A)	Technical	•	-	•		•
	Executive	5912.6	36826.7	85787.4	14621.1	143147.8
	Non-Executive	2990.2	17537.4	19035.5	1301.8	40864.9
	Total (A)	8902.8	54364.1	104822.9	15922.9	184012.7
(B)	Non-Technical			_		-
	Executive	2755.5	4967.3	17712.7	4689.9	30125.4
	Non-Executive	2747.3	10514.3	16605.6	3776.8	33644.0
	Total (B)	5502.8	15481.6	34318.3	8466.7	63769.4
	Grand Total (A + B)	14405.6	69845.7	139141.2	24389.6	247782.1

Value per employee is defined as the ratio of sales value for the employee category and the number of employees for that category.

- 111. Which employee category had the highest value per employee, across all age groups?
  - a. Technical, executive
  - b. Technical, non-executive
  - c. Non-technical, executive
  - d. None-technical, non-executive.

112.	What is ratio of the value per employee for non-technical employees to that of technical employees across all age groups?					
	a. 3:4	b. 3:2				
	c. 4:3	d. 2:3				

- 113. Out of the technical employees, which age group and which employee type (executive or non-executive), has the highest value per employee?
  - a. Less than 31, executive
  - b. 51-60, non-executive
  - c. 41-50, non executive
  - d. None of these
- 114. How many employee categories across all age groups (there are 4 such categories) have a value per employee more than the average value per employee for all employees of BOC Ltd?
  - a. 1 b. 2 c. 3 d. 4
- 115. Which age group of employees (across all employee categories) has the lowest value per employee?
  - a. Less than 31 b. 31–40 c. 41–50 d. 51–60

**Directions for questions 116 to 120:** The following table shows the NAV (Net Asset value) and dividend per unit of 3 different mutual-fund plans. A unit in each plan has a face value of Rs. 10,000. NAV on any date represents the value of an unit upon appreciation. The dividend per unit indicates the earning from each unit as on the record date. The table shows the values on different dates during the period May, 2002 to June, 2004.

	Short Term Plan		Premium Plan			Premium Plus Plan		
Record Date			Record NAV per Dividend		Record Date		Dividend	
	Unit (Rs.)	per Unit	Date	Unit	per unit		Unit	per unit
	` ,	(Re.)		(Rs.)	(Re.)		(Rs.)	(Re.)
		` ,		, ,	,		, ,	` ,
Mar 26, 02	10.06	0.0524						
Apr 25, 02	10.078	0.0699						
May 27, 02	10.073	0.0658						
Jun 25, 02	10.071	0.0616						
Sep 26, 02	10.2474	0.2						
Dec 26, 02	10.2982	0.2						
Apr 03, 03	10.218	0.1313	Apr 03, 03	10.9042	0.1313	Apr 03, 03	10.9056	0.1313
Apr 16, 03	10.1224	0.0196	Apr 16, 03	10.8131	0.0205	Apr 16, 03	10.8149	0.0214
May 02, 03	10.1301	0.0241	May 02, 03	10.8232	0.0252	May 02, 03	10.8242	0.0263
May 19, 03	10.1423	0.0268	May 19, 03	10.8381	0.0279	May 19, 03	10.8383	0.0291
Jun 02, 03	10.1441	0.023	Jun 02, 03	10.8418	0.024	Jun 02, 03	10.841	0.0249
Jun 16, 03	10.1368	0.0211	Jun 16, 03	10.8355	0.0221	Jun 16, 03	10.8342	0.023
Jul 01, 03	10.1318	0.0226	Jul 01, 03	10.8318	0.0236	Jul 01, 03	10.8299	0.0247
Jul 16, 03	10.1283	0.0226	Jul 16, 03	10.8298	0.0236	Jul 16, 03	10.8272	0.0247
Aug 01, 03	10.1282	0.023	Aug 01, 03	10.8315	0.0241	Aug 01, 03	10.8282	0.0252
Aug 16, 03	10.1195	0.0195	Aug 16, 03	10.8239	0.0205	Aug 16, 03	10.8198	0.0216
Sep 01, 03	10.1436	0.0208	Sep 01, 03	10.8512	0.0219	Sep 01, 03	10.8463	0.023
Sep 16, 03	10.1351	0.0164	Sep 16, 03	10.8437	0.0175	Sep 16, 03	10.8379	0.0185
Oct 01, 03	10.1565	0.0247	Oct 01, 03	10.8678	0.0257	Oct 01, 03	10.8612	0.0267
Oct 16, 03	10.17	0.0247	Oct 16, 03	10.8845	0.0257	Oct 16, 03	10.8768	0.0267
Nov 01, 03	10.136	0.0153	Nov 01, 03	10.8504	0.0164	Nov 01, 03	10.8418	0.0175
Nov 16, 03	10.1261	0.0144	Nov 16, 03	10.8409	0.0154	Nov 16, 03	10.8315	0.0164
Dec 01, 03	10.1143	0.0144	Dec 01, 03	10.8294	0.0154	Dec 01, 03	10.8193	0.0164
Dec 16, 03	10.1335	0.0185	Dec 16, 03	10.8512	0.0195	Dec 16, 03	10.8403	0.0205
Jan 01, 04	10.1432	0.0197	Jan 01, 04	10.8633	0.0208	Jan 01, 04	10.8515	0.0219
Jan 16, 04	10.1345	0.0144	Jan 16, 04	10.8556	0.0154	Jan 16, 04	10.8428	0.0164
Feb 02, 04	10.1267	0.0163	Feb 02, 04	10.8486	0.0175	Feb 02, 04	10.8352	0.0186
Feb 16, 04	10.1129	0.0115	Feb 16, 04	10.8348	0.0125	Feb 16, 04	10.8204	0.0134
Mar 01, 04	10.1166	0.0096	Mar 01, 04	10.8397	0.0105	Mar 01, 04	10.8246	0.0115
Mar 16, 04	10.1354	0.0164	Mar 16, 04	10.8609	0.0175	Mar 16, 04	10.8449	0.0185
Apr 01, 04	10.1468	0.0186	Apr 01, 04	10.8744	0.0197	Apr 01, 04	10.8577	0.0208
Apr 16, 04	10.153	0.0175	Apr 16, 04	10.8824	0.0185	Apr 16, 04	10.8649	0.0195
May 03, 04	10.1499	0.0198	May 03, 04	10.8807	0.021	May 03, 04	10.8625	0.0221
May 17, 04	10.1294	0.0077	May 17, 04	10.8602	0.0086	May 17, 04	10.841	0.0096
Jun 01, 04	10.1308	0.0082	Jun 01, 04	10.8625	0.0092	Jun 01, 04	10.8425	0.0103
Jun 16, 04	10.1107	0.0041	Jun 16, 04	10.8417	0.0051	Jun 16, 04	10.8209	0.0062

116. On how many record dates, did each unit of Short Term Plan have a NAV more than Rs. 10.15?
a. 4 b. 5 c. 6 d. None of these

117. On how many record dates was the sum of NAV and dividend per unit of Premium Plan greater than Rs. 10.90 per unit?

a. 2

b. 3

c. 4

d. None of these

118. On how many record dates was the difference between NAV and dividend per unit of Premium Plus Plan less than Rs. 10.80 per unit?

a. 2

b. 3

c. 4

d. None of these

Additional directions for questions 4 and 5: It makes a good investment strategy if a unit is purchased at low NAV and sold at a high NAV. It is assumed that any number of units (from any of the three plans) can be sold or purchased on any record date. It is also assumed that there are only these three mutual fund plans which are available in the market.

- If Arun invests in one of these three plans on August 01, 2003 and wants to get maximum profit by selling off all the units on January 01, 2004. Which plan should he opt for?
  - a. Short Term Plan
- b. Premium Plan
- c. Premium Plus Plan d. Either (a) or (c)

120. On how many record dates were there a gain in NAV over the immediately preceeding record date in Premium Plan?

a. 12

b. 14

c. 16

d. None of these

Directions for questions 121 to 123: The tables given below are part of the car rental tariff card for the Dial-A-Tour car rental agency in 2004. The tariff card is used along with the terms and conditions given along it. The base column in the traiff card indicates the base time (in hrs) and base distance (in km) for which the vehicle is rented out. For example, 4 hrs 40 km indicates that the car is rented out for use for a maximum time of 4 hrs and a maximum distance of 40 kms. If it is used beyond 4 hrs or 40 km or both, extra rates apply.

## Car Rental Tariff All Rates mentioned in the tables are in INDIAN RUPEES

Base	Non A/C (Ambassador / Maruti van)		Fiat Uno / Wagon.R Indica (A/C)		Cielo / Ikon / Hyundai Accent / Indigo (A/C)
2 hrs 20 km	250.00	_	_	_	_
4 hrs 40 km	375.00	475.00	475.00	600.00	750.00
8 hrs 80 km	625.00	850.00	850.00	1200.00	1450.00
Extra km	5.50	8.50	8.50	12.00	14.00
Extra hrs	40.00	60.00	60.00	85.00	100.00

Base	Tata Sumo Non	Tata Sumo	Totota Qualis	Toyota Qualis	
	/AC	A/C	Non A/C	A/C	
4 hrs 40 km	475.00	575.00	650.00	750.00	
8 hrs 80 km	925.00	1150.00	1250.00	1400.00	
Extra km	6.50	8.50	8.50	9.50	
Extra hrs	65.00	90.00	90.00	125.00	

## Terms and conditions:

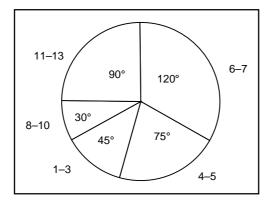
- 1. For outstation, minimum distance per Calendar day is 250 km. Also outstation charges of Rs. 200 per Calendar day apply.
- 2. Parking changes and interstate permit extra.
- 3. Opening km and timing starts from our office and closes at our office.
- 4. Billing will be based on tariff card and extra km and hours will be added to the base rate.
- 121. A Toyota Qualis (A/C), a Maruti Esteem (A/C) an Indigo (A/C) were hired by three different people for 8 hrs 80 kms. All three ended up using the cars for 10 hrs and a distance of 122 kms. Which of the three, incurred the least expense?
  - a. Toyota Qualis (A/C)

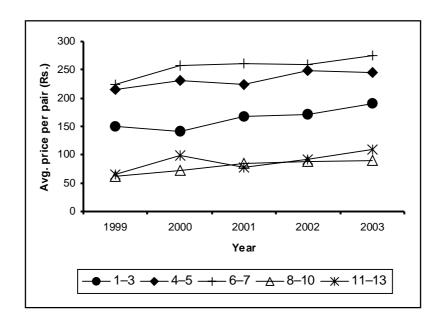
b. Maruti Esteem (A/C)

c. Indigo (A/C)

- d. Either (b) or (c)
- 122. If extra tariff (=10 x Extra km rate + Extra hour rate), is calculated for all models, which car model has the second lowest extra tariff?
  - a. Ambassador / Maruti Van (Non-A/C)
  - b. Tata Sumo (Non-A/C)
  - c. Ambassador / Fiat Uno / Wagon R / Indica (A/C).
  - d. None of these
- 123. Which car model is best to be hired for outstation trip, amongst those given in the table?
  - a. Ambassador / Maruti Van (Non-A/C)
  - b. Tata Sumo (Non-A/C)
  - c. Ambassador / Fiat Uno / Wagon R / Indica (A/C).
  - d. Data insufficient

**Directions for questions 124 to 127:** The following data gives information on the shoes sold by a shoe factory. The line chart shows the average price per pair of different types of shoes for each shoe size band for the period 1999 to 2003. The pie chart shows the break-up of volume (in number of pairs) of shoes of each size band sold by the same shoe factory in 2001. The average price per pair of different types of shoes for each shoe size band is given by the weighted average price of each type of shoe, weighted by its sales volume.





- 124. Which shoe size band had the highest sales value for the given shoe factory in 2001?
  - a. 1–3

b. 4–5

c. 6-7

- d. Data insufficient
- 125. What is the average annual percentage increase in average price per pair of shoe in the size band 6–7 during the period 1999 to 2003 for the given shoe factory?
  - a. 1.11%

b. 5.55%

c. 8.33%

- d. 9.09%
- 126. What is the ratio of sales value of shoe size band 6–7 to that of shoe size band 11–13 for the year 2001 for the given shoe factory
  - a. 4:5

b. 7:3

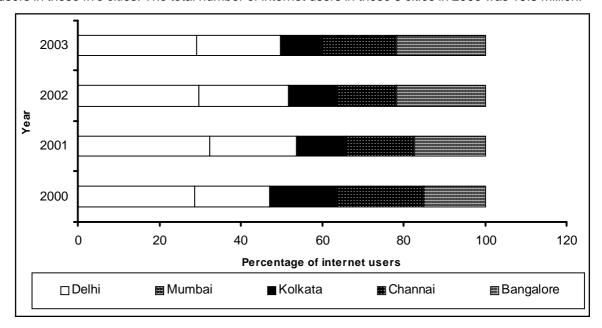
c. 9:2

- d. Data insufficient
- 127. Which shoe size band and in which year had the steepest percentage change in the average price per pair over the previous year during the period 1999 to 2003 for the given shoe factory?
  - a. 11-13, 2002

c. 8-10, 2001

d. 11-13, 2000

**Directions for questions 128 to 131:** The following bar chart shows the distribution of the total number of Indians using internet in five major cities of India (Delhi, Mumbai, Kolkata, Chennai, Bangalore) during the period of 2000–2003. The number of internet users in each city is given as a percentage of total internet users in these five cities. The total number of internet users in these 5 cities in 2000 was 15.8 million.



- 128. Which city in India, among the 5 cities given, had the highest number of internet users in India in 2003?
  - a. Bangalore

b. Delhi

c. Mumbai

- d. Data insufficient
- 129. If the total number of internet users in 2001 increased by 5% over the previous year, which cities in India had more than 3.5 million internet users in 2001?
  - a. Delhi

b. Mumbai

c. Both (a) and (b)

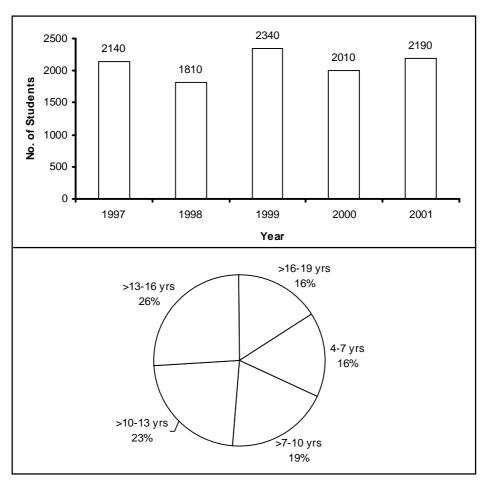
- d. Data insufficient
- 130. If India had a total of 25.8 million internet users in 2000, then what percentage of India's internet using population belongs to the given 5 major cities of India in 2000?
  - a. 61%

b. 48%

c. 75%

- d. Data insufficient
- 131. Find out the correct sequence of the given 5 major cities in terms of number of internet users in these cities in 2002.
  - a. Delhi, Chennai, Mumbai, Kolkata, Bangalore
  - b. Delhi, Mumbai, Bangalore, Chennai, Kolkata
  - c. Delhi, Kolkata, Bangalore, Mumbai, Chennai
  - d. Delhi, Mumbai, Chennai, Bangalore, Kolkata

**Directions for questions 132 to 135:** Answer the questions based on the following information. The following chart shows the total number of students in Indian Public School from 1997 to 2001. The agewise distribution of students in 1999 is shown in the pie chart.



- 132. What is the percentage of students in the 4–7 years range over the total number students in Indian Public School in 2000, if the number of students in that group is 50 more than that in 1999?

  a. 18.6% b. 19.5% c. 20.7% d. None of these
- 133. What is the difference in number of students of of Indian Public School in 1999 as compared to 2001 in 13–16 years group?
  - a. 39
- b. 49
- c. 59
- d. Data insufficient
- 134. If an increase of 10% happens for all groups ranging from 4 to 13 years in 2000 over 1999, what is the number of students in the age group of 13-19 yrs in 2000?
  - a. 305
- b. 421
- c. 517
- d. Data insufficient
- 135. What is the average number of students per year across all age groups in Indian Public School from 1997 to 2001?
  - a. 2094
- b. 2096
- c. 2097
- d. 2098

**Directions for questions 136 and 137:** Answer the questions based on the following information. In a class, there are 6 boys and 6 girls. 1 boy has 3 girlfriends, 2 boys have 2 girlfriends each and 3 boys have 1 girlfriend each. If every girl has a boyfriend.

- 136. Which of the following is possible?
  - a. One girl has six boyfriends.
  - b. Two girls have three boy friends each and another girl has two boyfriends.
  - c. Four girls have two boyfriends each.
  - d. None of these.
- 137. Which of the following is not possible?
  - a. One girl has five boyfriends.
  - b. Two girls can have three boy friends in common.
  - c. Only three girls have two boy friends each.
  - d. None of these

**Directions for questions 138 to 140:** Answer the questions based on the following information.

A, B, C, and D are four siblings of different genders — two males (M) and two females (F). It is known that B is younger to A, D is younger to C and D is a female.

- 138. The gender of A can be determined if the siblings in the decreasing order of their ages are
  - a. MMFF
- b. MFFM
- c. FMFM
- d. FMMF
- 139. The gender of B cannot be determined if the siblings in the deceasing order of their ages are
  - a. MFMF
- b. MFFM
- c. FMFM
- d. FMMF
- 140. The gender of C can be determined if the siblings in the deceasing order of their ages are
  - a. MFFM
- b. FFMM
- c. FMFM
- d. FMMF

**Directions for questions 141 to 143:** Answer the questions based on the following information.

A boss can do a job in two days if his four secretaries A, B, C and D are all present. His efficiency got

reduced to  $\frac{1}{6}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$  respectively according as A, B, C and D remain absent. In any day only one secretary remains absent. Also the boss finishes his work exactly in integeral number of days.

- 141. Which of following secretaries cannot be absent for an odd number of days?
  - a. A

b. B

c. C

d. D

- 142. If each secretary remained absent for at least one day, then in how many days will the boss finish the work?
  - a. 5, 6 or 7 days

b. 6, 7 or 8 days

c. 6, 8 or 9 days

d. 7, 8 or 9 days

143.	If the boss finished his was	work in 6 days with one s	ays with one secretary being present everyday, then the secretary						
	a. A	b. B	c. C	d. Cannot be determined.					
<b>Directions for questions 144 to 146:</b> Answer the questions based on the following information. A, B,C and D are four children playing a game of passing a ball to one another, the child receiving the ball does not pass it immediately to the one from whom he gets it. If during the game A, B and C held the ball 3, 5 and 7 times respectively, if C started the game and the first/last holding of the ball also counts, then answer the questions given below.									
144.	The minimum number	of times D held the ball w	ould have been						
	a. 1	b. 2	c. 3	d. 4					
145.	The minimum number of a. 3	of times D held the ball, gi b. 4	iven that he held the ball i c. 5	n the last, would have been d. 6					
146.	The maximum number	of times D held the ball	would have been						
	a. 6	b. 7	c. 8	d. 9					
A, B, obser	C, D and E are five stovations:  I. If E had got 30 mar II. If D had got 20 mar III. If C had got 20 mar least marks.  IV. If A had got 30 mar least mark.  Now answer the fol	ks more, he would have ks more, he would have ks less, he would have ks less, he would have	got marks equal to that ogot marks equal to that ogot marks equal to that o	ks 100 study the following of the topper.					
147.	The topper must be a. A	b. B	c. A or C	d. A, B or C					
148.	The student who got that. E	ne least marks must be b. D	c. E or D	d. E, D or A					
149.	The second topper mu a. B	st be b. C	c. B or C	d. B, C or A					
150.	The student who got that a. D	e fourth rank must be b. E	c. D or E	d. D, E or C					

**Directions for questions 151 to 153:** Read the following arguments and answer the questions that follow:

Knowing a mathematical truth requires that one be able to give an appropriate kind of justification: one must be able to prove it, say, or have learnt it from someone of whom one can reasonably suppose that he is able to prove it. Similarly, knowing what time it is requires having looked at a working clock recently, or having heard the time signal on the radio, or having asked someone with a watch; and so on. And knowing moral truths is no different.

Moral judgment, no less than scientific or historical knowledge, depends on a particular kind of justification. I can therefore recognise the opinion of another person as the result of a moral judgment they have made — rather than as no more than a prejudice, or a mere expression of their feelings — even if I do not agree with them. This is one way in which morality is objective, despite the obvious fact that we don't all agree in our moral judgements.

Whatever morality we hold, the requirements we make of moral arguments would presumably include each of the following: Consistency, Disinterestedness and Forethought.

- 151. Which of the following, if true, casts a serious doubt on the conclusion on *Consistency* drawn above?
  - a. Consistency includes applying one's moral values equally to oneself and to others, to one's friends and to one's enemies.
  - b. The declaration of human rights, like Thomas Jefferson's "All men are created equal ...," is rather limited in scope because it is not at all true in practice that everyone women, for example, or non-Europeans, or the lower peasantry is accorded equal respect.
  - c. Everyone's freedom matters in theory at least.
  - d. Middle-class society can now be challenged by those it suppressed according to its own logic, caught out in a performative contradiction between what it said and what it did.
- 152. Which of the following statements about *Disinterestedness* is best supported by the statements above?
  - a. Disinterestedness is viewing actions 'sub specie aeternitatis': looking at them 'from eternity,' as it were, not from one's present situation only, here and now.
  - b. Someone who has just had a member of their family murdered may not be capable of making a proper moral judgment about the death penalty, as their opinion may be affected by a desire for revenge.
  - c. Disinterestedness requires a person to be free from bias or partiality.
  - d. All of the above
- 153. Which of the following statements about *Forethought* is least supported by the statements above?
  - a. Forethought requires one to view one's actions together with their foreseeable consequences.
  - b. When boys and girls start going out, boys benefit from the fact that the girls may want to be more deeply involved than the boys feel like being.
  - c. When boys and girls start going out, instead of taking advantage, boys ought to take into account that the girls may be more liable to be hurt.
  - d. None of the above



**Directions for questions 154 and 155:** The arguments as it is presented in the questions below would be most strengthened if which of the following choices would complete the sentence?

- 154. According to Jeremy Bentham's theory of Utilitarianism (from Lat. *utilitas*, usefulness, advantage,), our actions should maximize the balance of pleasure over pain, for which he devised scales to be able to compare them; and since a greater interest should not be given up for a smaller one, the morally right action is that which produces ...
  - a. the greatest happiness of the greatest number.
  - b. the intensity of pleasures and pains.
  - c. a human being satisfied.
  - d. each action separately.
- 155. I esteem the man whose self-love, by whatever means, is so directed as to give him a concern for others, and render him serviceable to society; ...
  - a. the notion of morals implies some sentiment common to all mankind, which recommends the same object to general approbation.
  - b. he must here depart from his private and particular situation, and must choose a point of view, common to himself with others.
  - c. virtue and vice become then known.
  - d. as I hate and despise him who has no regard to anything beyond his own gratifications and enjoyments.
- 156. Since our genes already determine, to some extent at least, our character, we cannot be fully responsible for some of our actions, as we are not for the inherited diseases we develop.

Which of the following, if true, would most strengthen the conclusion drawn in the passage above?

- a. Our social environment and learning influence our personality to a great extent.
- b. Freedom can only be described negatively, i.e. we can argue that we were not unfree in certain respects, e.g. free from our parents' influence
- c. Amongst certain conservative groups there has been a change in the attitude to homosexuality: if it was a (partly) genetic trait, as some recent evidence has suggested, then it should no longer be considered a sin (— even though homosexual behaviour might still be.)
- d. None of the above
- 157. The way someone has been brought up and their experiences determine, to some extent at least, how they will behave.

Which of the following, if true, would provide the strongest evidence against the above?

- a. People often behave more violently if they come from the ghettos, so it cannot all be their fault.
- b. People are more often studious if they come from a certain kind of middle class family, so it cannot all be to their credit.
- c. All people have a hidden desire for money or status.
- d. (a) and (b)



158. There was a young man who said: "Damn!

It grieves me to think that I am

Predestined to move

In a circumscribed groove:

In fact, not a bus, but a tram."

We can infer from the above limerick that the writer expresses a position of

- a. Pessimism
- b. Volition
- c. Fatalism
- d. Monomania

159. While in the world there are only things and events, we can think of events only in terms of their descriptions, such as "a ball hitting the ground."

But certain events are capable of having essentially different descriptions: thus, the same event can be described as my arm moving upwards, or as my moving my arm up. The first is a physical description, the second a psychological one in terms of my intention or will.

Similarly, another event can be described as the pulling of a trigger, as the deliberate killing of someone I dislike, or as cold-blooded murder.

Which of the following conclusions regarding the parallel observation can be most properly drawn from the data above?

- a. The first is a psychological, the second a physical, and the third a moral description.
- b. The first is a physical, the second a moral, and the third a psychological description.
- c. The first is a psychological, the second a moral, and the third a physical description.
- d. The first is a physical, the second a psychological, and the third a moral description.
- 160. It is because homo homini lupus ["man is as a wolf to man"], so that in the state of nature there is bellum omnium contra omnes ["war of all against all"] and the life of man is "solitary, poor, nasty, brutish, and short," that people must submit to the absolute supremacy of the state, the great Leviathan, which is pictured as like a human being, whose health is peace, and whose soul is the sovereign: he establishes morality, he creates the law.

Which of the following most accurately states a hidden assumption that the author must make in order to advance the argument above?

- a. Political philosophers are masters of the art of sophistry.
- b. Everyone always acts out of self-interest; an action is called right just because it is in the interest of the agent.
- c. Our actions are motivated by altruistic motives.
- d. All of the above

**Directions for questions 161 to 165:** Each question consists of a question and two statements, I and II. Choose

- a. If one of the two statements (I or II) alone is sufficient to answer the question, but cannot be answered by using the other statement alone.
- b. If each statement alone is sufficient to answer the question asked.
- c. If I and II together are sufficient to answer the question but neither statement alone is sufficient.
- d. If even I and II together are not sufficient to answer the question.
- 161. Find the value of N, if N is a 2-digit number.
  - I. N, when divided by 10 leaves a remainder 9.
  - II. N when divided by 9 leaves a remainder 7.
- 162. What are the three numbers?
  - I. The product of the three numbers is 24.
  - II. The sum of the three numbers is a prime number.
- 163. How many digits does the number 32<sup>32</sup> have in terms of K<sub>1</sub> or K<sub>2</sub>?
  - I.  $\log_{10} 2 = K_1$ , where  $K_1$  is a known number.
  - II.  $\log_4 100 = K_2$ , where  $K_2$  is a known number.
- 164. What is the value of X, if X is an integer?
  - I.  $X = \sqrt{9}$
  - II.  $X^2 1 < 0$
- 165. Is ABCD a rhombus?
  - I. The four triangles enclosed by the diagonals and the sides have equal areas.
  - II. ABCD is a parallelogram in which a circle can be inscribed touching all the four sides.