

### ANSWER KEY

1	(c)	21	(c)	41	(a)	61	(d)	81	(c)	101	(a)	121	(c)
2	(b)	22	(d)	42	(b)	62	(a)	82	(d)	102	(d)	122	(c)
3	(d)	23	(d)	43	(d)	63	(b)	83	(d)	103	(c)	123	(c)
4	(a)	24	(b)	44	(a)	64	(c)	84	(a)	104	(d)	124	(d)
5	(a)	25	(b)	45	(b)	65	(d)	85	(a)	105	(b)	125	(d)
6	(d)	26	(d)	46	(a)	66	(a)	86	(d)	106	(b)	126	(c)
7	(c)	27	(a)	47	(c)	67	(c)	87	(b)	107	(d)	127	(b)
8	(a)	28	(d)	48	(b)	68	(c)	88	(d)	108	(c)	128	(b)
9	(c)	29	(a)	49	(b)	69	(b)	89	(c)	109	(c)		
10	(d)	30	(c)	50	(a)	70	(b)	90	(b)	110	(d)		
11	(b)	31	(b)	51	(c)	71	(d)	91	(b)	111	(c)		
12	(a)	32	(c)	52	(c)	72	(c)	92	(c)	112	(a)		
13	(c)	33	(d)	53	(b)	73	(b)	93	(c)	113	(b)		
14	(b)	34	(b)	54	(c)	74	(a)	94	(d)	114	(b)		
15	(d)	35	(d)	55	(d)	75	(d)	95	(c)	115	(d)		
16	(c)	36	(b)	56	(c)	76	(a)	96	(b)	116	(c)		
17	(a)	37	(d)	57	(d)	77	(b)	97	(a)	117	(a)		
18	(d)	38	(a)	58	(b)	78	(a)	98	(b)	118	(b)		
19	(c)	39	(d)	59	(a)	79	(d)	99	(b)	119	(d)		
20	(c)	40	(c)	60	(d)	80	(d)	100	(d)	120	(b)		

### HINTS & SOLUTIONS

- (c) The increase in share of FDI inflow between the terminal years 2007 and 2012 of the given sectors are :  
 Services sector : 2.6  
 Construction Development: 2.9  
 Automobile Industry : 3  
 Power : 1.9  
 Therefore, it is the highest for the Automobile Industry.
- (b) Since the average share for each sector is to be calculated over the same period, the sector with the highest FDI inflow over the given period will also have the highest average. The actual average need not to be found.  
 The share of total FDI inflows from the period 2007 to 2012 for the given sectors is:  
 Chemicals (other than Fertilizers): 25.1  
 Automobile Industry: 23.7  
 Metallurgical Industries: 25.3  
 Hotel and Tourism: 25.0  
 Thus the share has been second lowest for the chemicals (other than Fertilizers)
- (d) It can be verified from the table that options a, b and c are true.  
 Option: d is false. The percentage share of FDI inflow from 2007 to 2010 in Chemicals (other than Fertilizers) does not show a continuous increase.  
 It shows (a) decline in 2009.
- (a) Statements (ii) is true.  
 In 2011, the construction development sector was ranked fourth not fifth in terms of percentage share of FDI inflow. Hence statement (i) is false.  
 In 2012, the Drugs and Pharmaceuticals sector was ranked 3<sup>rd</sup> lowest from the bottom in terms of percentage of FDI inflow in the country.  
 Hence, statement (iii) is false.
- (a) Increase in FDI inflow percentage share for different sectors is as follows:  
 Telecommunications between 2007 and 2008: 2.8.  
 Computer Software and Hardware between 2009 and 2010: 2.2  
 Automobile between 2011 and 2012: 2.4  
 Power between 2007 and 2008: 2.6  
 The highest figure is 2.8.
- (d) Absolute decline of the following given region – period combinations are  
 ASEAN (05-06 to 06-07) = 10.10 – 9.98 = 0.12  
 South Asian (04-05 to 05-06) = 5.51 – 5.38 = 0.13  
 West Asia (GCC) (08-09 to 09-10) = 17.21 – 17.06 = 0.15  
 North Africa (09-10 to 10-11) = 1.75 – 1.59 = 0.16
- (c) From the table we see that export shares have decreased 7 times for North America and 6 times each for the other three regions.

8. (a) For all four given regions, growth is negative for the given period. Hence, the annual growth rate is lowest for the region with the greatest magnitude of growth rate.

Therefore, the annual growth for the given regions are:

$$\text{North Africa} = \frac{1.59 - 1.75}{1.75} \times 100 = -9.14\%$$

$$\text{North East Asia} = \frac{14.83 - 16.12}{16.12} \times 100 = -8\%$$

$$\text{North America} = \frac{10.98 - 11.89}{11.89} \times 100 = -7.65\%$$

$$\text{EU countries} = \frac{18.33 - 20.16}{20.16} \times 100 = -9.07\%$$

9. (c) From all the options we see that the simple average export share is calculated over the same time period. So, there is no need to calculate the average. Therefore, we just find the highest total share for each region given in the options.

$$\text{North Africa (2008-09 \& 2009-10)} = 1.84 + 1.75 = 3.59$$

$$\text{East Africa (2004-05 \& 2007-08)} = 1.37 + 2.58 = 3.95$$

$$\text{Latin America (2002-03 \& 2004-05)} = 2.06 + 2.15 = 4.21$$

$$\text{West Africa (2007-08 \& 2010-10)} = 2.13 + 1.71 = 3.84$$

10. (d) As we see from the option that more calculations are required to verify option (d) compared to the other three. So, it is faster to check options (a), (b) and (c) before moving on to option (d) if required).

Option (a) is true as South Asia is ranked 6<sup>th</sup>

Option (b) is true as North Africa has the lowest export share for 7 years out of the 10 years.

Option (c) is true as Latin America (2.15) has the fourth lowest export share in 2004-05 with East Africa (1.37), North Africa (1.62) and West Africa (1.98) below it.

As options (a), (b) & (c) are true, therefore option (d) has to be false.

11. (b)

S. No.	Industry	Total Managerial Wage Bill	Total Managerial Staff	Average Managerial Wage
1.	3	2773	1174	2.36
2.	5	3484	1580	2.205
3.	6	2967	938	3.16
4.	7	8087	3489	2.317

Therefore, the average managerial wage is highest for industry 6.

12. (a)

S. No.	Industry	Profit (P)	Net value added (N)	(P/N)
1.	4	3990	5831	0.68
2.	5	34943	71739	0.49
3.	6	31219	42434	0.74
4.	7	45392	72290	0.63

Therefore, the profit expressed as a ratio of net value added is highest for Industry 6.

13. (c)

S. No.	Industry	Gross Value	Gross Value/Worker
1.	1	3219	0.355
2.	2	2433	2.774
3.	3	30307	5.358
4.	4	6875	6.256
5.	5	97413	12.975
6.	6	45949	13.786
7.	7	83536	5.331

The difference required in each option is:

Option (a): 8.428

Option (b): 4.976

Option (c): 10.201

Option (d): 7.53

Therefore, the difference is highest for option (c).

14. (b)

S. No.	Industry	Fuel Consumption (F)	Input Cost (IC)	(F/I) × 100
1.	2	762	5990	12.72
2.	3	10817	80238	13.48
3.	6	6461	138780	4.65
4.	7	32178	171246	18.79

Therefore, the fuel consumption as a percentage of input cost is highest for industry 7.

15. (d) In each option, a certain ratio has to be found and its rank for a specific industry is to be verified.

Option (a): Number of workers per factory.

S. No.	Industry	No. of workers	No. of factories	Corresponding Ratio	Rank
1.	1	9066	65	139.47	2
2.	2	877	110	7.97	7
3.	3	5656	32	176.75	1
4.	4	1099	30	36.63	6
5.	5	7508	78	96.25	3
6.	6	3333	39	85.46	4
7.	7	15670	300	52.23	5

Therefore, the statement in option (a) is false.

Option (b): Expense on material consumption as a % of input cost.

S. No.	Industry	Materials Consumed	Input Cost	Percentage	Rank
1.	1	2519	3256	77.36	4
2.	2	4135	5990	69.03	6
3.	3	57275	80238	71.38	5
4.	4	34027	41037	82.92	3
5.	5	327400	371605	88.1	2
6.	6	123275	138780	88.83	1
7.	7	106233	171246	62.04	7

Therefore, the statement in option (b) is false.

Option (c): Profit earned as a % of emolument

S. No.	Industry	Profit Earned	Emolument	Percentage	Rank
1.	1	816	2095	38.94	7
2.	2	913	747	122.22	6
3.	3	9356	6479	144.41	5
4.	4	3990	1024	389.65	2
5.	5	34943	9284	376.38	3
6.	6	31219	6084	513.13	1
7.	7	45392	15053	301.55	4

Therefore, the statement in option (c) is false.

**Note:** Since the first three options are proved to be false, therefore, the last one has to be true. There is no need to calculate it, but it can be verified using a similar table, as shown above.

16. (c) The countries are ranked according to the number of days required to start a new business, (with the country requiring least number of days being rank highest). Therefore, the top 3 countries, in ascending order, are Paraguay, United Kingdom, and Chile. Among these, Paraguay has the least ratio of cost to per capita income (2.6).

17. (a) The ratio of export to import for each of the given countries are:

$$\text{UK} = \frac{13}{17} = 0.765$$

$$\text{UAE} = \frac{11}{14} = 0.786$$

$$\text{Chile} = \frac{23}{25} = 0.92$$

$$\text{Georgia} = \frac{22}{23} = 0.957$$

Therefore, the least ratio of number of days required for the export to import is for UK.

18. (d) First of all, we check the statements in option (a), (c) and (d) as they require a comparison of only two quantities. The statement in option (a) is false as the number of days required for exporting in Tanzania is more than the number of days required for importing. The statement in option (c) is false as the number of days required to start a business in Paraguay is less than the number of days required for importing. The statement in option (d) is true as the number of days required for exporting in Georgia is less than the number of days required for importing.

Therefore, there is no need to check option (b) once option (d) is proved to be true.

19. (c) It can be easily verified from the graph that the statements in options (a), (b) and (d) are true. The statement in option (c) is false as the number of days required for importing in Georgia is less than the number of days required for exporting in Niger.

20. (c) Denote the professors by their institution names.

From (j): Mercury, Pluto, and Mars stay in 201, 203, 205 or 202, 204, 206.

From (i) Mercury stays in an odd numbered room.

Thus Mercury, Pluto, and Mars stay in 201, 203 and 205 respectively.

From (d) and (k), Neptune stays in 206.

From (g) Pluto published 12 journals and donated to 8 institutions.

From (e), Jupiter Published 8 journals less than Pluto and donated to 10 more institutions. Therefore, Jupiter published 4 journals and donated to 18 institutions.

From (c) the professor from room 202 published 24 journals. Hence, he cannot be Jupiter. Therefore, Uranus stays in room 202 and Jupiter in 204.

From (d), Uranus and Neptune put together published 40 journals. So Neptune published 16 journals.

From (h), Neptune donated to 24 institutions.

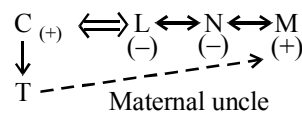
From (i) Mars published 8 journals.

Thus, all the data can be shown as given in the table below.

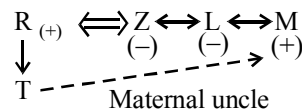
Room Number	Institution	Number of journals	Number of donations
201	Mercury		
202	Uranus	24	
203	Pluto	12	8
204	Jupiter	4	18
205	Mars	8	Mercury-2
206	Neptune	14	24

Mars stays in room number 205

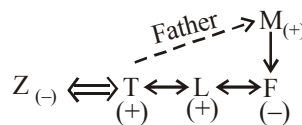
21. (c) Jupiter donated to 18 institutions.  
 22. (d) The professor from Neptune is staying in room number 206.  
 23. (d) The professor from Neptune donated to 24 institutions.  
 24. (b) The professor from Uranus published maximum number of journals.  
 25. (b) The professor from Jupiter published in 4 journals.  
 26. (d) Since the first letter is a consonant (N) and the last letter is a vowel (A), both N and A will be coded as 0. Thus, NFRSCA is coded as 053%20.  
 27. (a) Since the first and last letters are both vowels [A and E], they are coded as % condition (iii) is applied. Thus, ARFTHE is coded as %358#%.  
 28. (d) Option (a) :



Option (b) :



Option (c) :



Thus, none of the given option means M is the grandfather of T. Hence option (d).

Persons	Sport	Chess	Tennis
P(-)	×	×	×
Q(+)	✓	×	×
R(-)	×	×	✓
S(-)	×	×	×
T(+)	×	✓	×

P & S = Bachelors

R ↔ T  
(-) (+)

Q(+) ↔ R(-)

29. (a) T is to the left of R and to the right of P

P T R

P is to the right of Q and Q is to the right of S.

S Q P T R

Thus, P is in the middle.

Hence, option (a).

30. (c) Option (a) is incorrect as the passage clearly mentions that the fruit of the tree is poisonous not Purol. Purol is a substance found in the bark.

According to the passage, Purol only has antidepressant properties. This eliminates option (b). According to the passage, Purol is a "promising new drug". This indicates that drugs treating depression existed prior to the discovery of Purol. This eliminates option (d).

Option (c) is necessarily true as according to the passage, "The Asatra Vriksha has a fleshy, poisonous fruit".

31. (b) *agnoscrenia* means poisonous spider and *agnosdeery* means brown spider. Thus, the common term between them is *agnos*, which means spider.

Thus, options (a) and (d) are eliminated.

*Agnoscrenia* means poisonous spider and *delanocrenia* means poisonous snake. Thus, the common term between them is *crenia*, meaning poisonous. Therefore, *delano* means snake.

Hence, option (c) is also eliminated.

Therefore, black widow spider can mean *agnosvitribulunin*.

32. (c) The passage is a comparison between the raw data resulting from a study. There were as many unemployed educated youth as unemployed uneducated youth. The conclusion being that educated provided no guarantee in securing employment.

Option (a) is incorrect because these numbers are not really comparable as this data would not be able to either support or disqualify the findings of the study as option (a) does not pertain to youths.

Option (b) is incorrect as just this information would not suffice to prove the study findings.

Option (d) is incorrect because it only considers the increased number of educated youth. This is not complete information to support the study findings as

it does not include uneducated youth.

Option (c) is correct because the percentage figures would provide comparative data to validate the conclusion mentioned in the passage.

Sol. (for Qs. 33-35)

Badminton



Where ○ — Female

□ — Male

36. (b) Angle between 2 & 4 at the centre is 60°. In 20 minutes, the hour hand moves 10°. Thus, angle between the two hands at 2 hrs. 20 minutes would be 60 – 10 = 50°.

37. (d) The sequence 'cabbac' repeats itself.

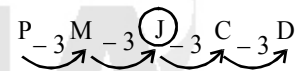
Required sequence is

c a b b a c c a b b a c c a b b a c

38. (a) The subscript in the terms follows the pattern: 2 \_ 4 \_ 6. Hence, the subscript in the missing terms is 3 and 5 respectively.

Also, the position of the subscript follows the pattern B \_ D \_ C. Hence, it should be with the letters C and B respectively in the missing terms.

39. (d) There is a gap of two letters between the given letters.



Difference between numbers = 3 × 1 = 3, 4 × 2 = 8, 5 × 3 = 15, 6 × 4 = 24, 7 × 5 = 35

40. (c) Swami Vivekananda born on 12 January 1863 founded the Ramakrishna Math and the Ramakrishna Mission. His birthday is celebrated as National Youth Day. Sir M. Visvesvaraya born on 15 September 1860 was a notable Indian engineer. 15 September is celebrated as Engineer's Day. Rajiv Gandhi was born on 20 August 1944. His birth anniversary is celebrated as Sadbhavna Diwas (Harmony Day) Dr. B.C Roy was born on 1 July 1882. His birthday is celebrated as the National Doctors' Day

41. (a) Agatha Christie was an English crimenovelist, short story writer, and playwright. she is best known for the 66 detective novels and 14 short story collections she wrote under her own name, most of which revolve around the investigations of such characters as Hercule Poirot, Miss Jane Marple and Tommy and Tuppence.

42. (b) The Indian National Army was an armed force formed by Indian nationalists in 1942 in Southeast Asia during World War II to secure Indian independence with Japanese assistance. Initially formed in 1942 under Mohan Singh, the first INA collapsed in December that year before it was revived under the leadership of Subhash Chandra Bose in 1943.

43. (d) Bashar Hafez al-Assad is the President of Syria since 2000, when he succeeded his father, Hafez al-Assad, who led Syria for 30 years until his death.

44. (a) Britain will hand over administration of the London

- interbank offered rate to the operator of the New York Stock Exchange, NYSE Euronext as regulators try to revive confidence in the scandal-hit benchmark.
45. (b) The South Asian Association for Regional Cooperation (SAARC) is an economic and geopolitical organization of eight countries that are Nepal, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, Afghanistan,
46. (a) Caveat emptor means "Let the buyer beware. Under the principle of caveat emptor, the buyer could not recover damages from the seller for defects on the property that rendered the property unfit for ordinary purposes. Quid pro quo means "one thing for another" means an exchange of goods or services. videlicet means "that is to say". ibidem means "in the same place" is used to provide an endnote or footnote citation or reference for a source that was cited in the preceding endnote or footnote
47. (c) The Cuckoo's Calling published in 2013 is a crime fiction novel by J. K. Rowling, published under the pseudonym Robert Galbraith. Taiye Selasi's Ghana Must Go is an ambitious first novel. Keith Lowe's Savage Continent is a history of Europe in the aftermath of the Second World War. Who Says Elephants Can't Dance? is an account of IBM's historic turnaround as told by Louis V. Gerstner.
48. (b) Amazon.com founder and chief executive Jeffrey P. Bezos formally took over as the owner of The Washington Post from the Graham family.
49. (b) P Kashyap, Indian shuttler was picked up by Banga Beats for USD 75,000
50. (a) Mohamed Al Magariaf is a Libyan politician who served as the President of the General National Congress. Adly Mansour is an Egyptian judge and statesman who served as the acting President of Egypt from 3 July 2013 to 8 June 2014. Mohamed Morsi is the first democratically elected Egyptian politician who served as the fifth president of Egypt. Muhammad Hosni El Mubarak was fourth President of Egypt. So Al Magraif is odd one out as not being Egyptian.
51. (c) Narayana Murthy co-founder of Infosys, Murthy worked as chief systems programmer and Patni Computer Systems. Murthy has also been honoured with the Padma Vibhushan and Padma Shri awards. He is not associated with Unique Identification Authority of India (UID).
52. (c) Ban Ki-moon is the eighth and current Secretary-General of the United Nations, after succeeding Kofi Annan in 2007. Boutros Boutros-Ghali is an Egyptian politician and diplomat who was the sixth Secretary-General of the United Nation. Pascal Lamy is a French political advisor and businessman. He was the Director-General of the World Trade Organization until 1 September 2013. So Lamy is odd one out as all others have been Secretary General UN.
53. (b) Abhinav Singh Bindra is a World and Olympic champion in the 10 m Air Rifle event. Sushil Kumar Solanki is an Indian World Champion wrestler. Gagan Narang is an Indian shooter. Subedar Major Vijay Kumar is a sport shooter. So except for Sushil Kumar all others are shooters.
54. (c) Raghuram Rajan is the current and the 23rd Governor of the Reserve Bank of India, Rajan was chief economic adviser to India's Ministry of Finance during the previous year and chief economist at the International Monetary Fund from 2003 to 2007.
55. (d) The Trans-Afghanistan Pipeline is also known as Turkmenistan-Afghanistan-Pakistan-India Pipeline or TAPI is a proposed natural gas pipeline being developed by the Asian Development Bank.
56. (c) Makalu is the fifth highest mountain in the world at 8,463 metres. Kangchenjunga is the third highest mountain in the world with an elevation of 8,586 m. K2 or Mount Godwin-Austen is at 8,611 m, Lhotse is the fourth highest at 8,516 metres. So correct sequence is K2-Kanchenjunga-Lhotse-Makalu.
57. (d) The Din-i Ilahi was propounded by the Akbar in 1582 AD, intending to merge the best elements of the religions of his empire, and thereby reconcile the differences that divided his subjects. The Akbarnama is written by Abul Fazl. Ain-i-Akbari is written by Abu'l-Fazl ibn Mubarak. Zij-i ilkhini was compiled by Nasir al-Din al-Tusi
58. (b) Christine Lagarde has been the Managing Director of the International Monetary Fund (IMF) since 5 July 2011. Roberto Azevêdo is a Brazilian diplomat and the current Director-General of the World Trade Organization. Karen Christiana Figueres is a Costa Rican diplomat. She was appointed Executive Secretary of the UN Framework Convention on Climate Change (UNFCCC) on May 17, 2010, Jim Yong Kim is a Korean-American physician and anthropologist who has been the 12th President of the World Bank since July 1 2012.
59. (a) If exports exceed imports, the net exports figure would be positive, indicating that the nation has a trade surplus. If exports are less than imports, the net exports figure would be negative, and the nation has a trade deficit. The favourable balance of trade indicates good economic condition of the country and resulting in appreciation of currency.
60. (d) Canada is the country with the longest coastline of 265523 km. USA has 133312 km of coastline. Australia's coastline is 66530 kilometers and India has 17181 km of coastline.
61. (d) The Association of Southeast Asian Nations (ASEAN) has 10 members Indonesia, Malaysia, the Philippines, Singapore and Thailand, Brunei, Cambodia, Laos, Myanmar and Vietnam. The Asia-Pacific Trade Agreement (APTA) has Bangladesh, China, India, Republic of Korea, Lao People's Democratic Republic,

- Sri Lanka ,Nepal,Philippines & Mongolia . Mercosur is an economic and political agreement among Argentina, Brazil, Paraguay, Uruguay, and Venezuela; with Bolivia. The North American Free Trade Agreement (NAFTA) is an agreement signed by Canada, Mexico, and the United States
62. (a) Jawahar Gram Samridhi Yojana (JGSY) is the restructured and comprehensive version of the erstwhile Jawahar Rozgar Yojana(JRY). It has been launched on 1st April, 1999. It has been designed to improve the quality of life of the rural poor by providing them additional gainful employment.
63. (b) Jamnagar is in Gujarat. Kochi is in Kerala. Chennai is in Tamil Nadu. Vishakhapatnam is in Andhra Pradesh
64. (c) The North-South-East-West Corridor (NS-EW) is the argest ongoing highway project in India connecting Srinagar, Kanyakumari, Porbandar and Silchar,. Jhansi is the junction of North-South and East-West Corridors.
65. (d) According to the doing business report by World bank - India ranks 134, Brazil ranks 116 ,China 96 and Russia 92
66. (a) Hydrogen is more plentiful than any other element, making up about 3/4 the mass of the universe. Helium is second, making up almost all of the remaining 25%. Oxygen is third
67. (c) The McMahon Line is the effective boundary between China and India, although its legal status is disputed by the Chinese government. The line is named after Sir Henry McMahon It extends for 550 miles (890 km) from Bhutan in the west to 160 miles (260 km) east of the great bend of the Brahmaputra River in the east,
68. (c) The meanings of the words are as follows:  
Note: Although the question paper says “anthromorphous”, the correct term is ‘anthropomorphous’.  
Anthropomorphous - resembling or made to resemble a human form  
Anachronistic - an error in chronology in which a person, object, event, etc., is assigned a date or period other than the correct one.  
Anthology - a book or other collection of selected writings by various authors.  
Ascension - to move, climb, or go upward.
69. (b) The correct combinations are as follows:  
Cacology - Poor diction or poor choice of words  
Ethology - Study of human character  
Misology - Hatred of reasoning  
Cryology - Study of snow and ice
70. (b) All of the statements are in the future tense. Only “envisages” which means “to contemplate; visualize” fits in all the blanks grammatically and logically. “Seeks” does not fit into the fourth blank. Eliminate option (a).  
The verb “hopes” needs to be used in combination with the preposition “for” in order for the statements to be grammatially correct. Eliminate option (c).
- The verb “demands” needs to be used in combination with an article in order for the statements to be grammatically correct. Eliminate option (d).
71. (d) Only “provided” fits into all of the blanks contextually and logically.
72. (c) The statements discuss the innovative style adopted by Gauhar with regard to her singing.  
Statement [i] uses the pronoun “she”. Hence, it cannot begin the order of the statements. Eliminate option (a).  
Between statements (ii) and (iv), statement (ii) makes for a better introductory statement as it sets context for the others. Moreover, “defy the norms” in statement (iv) attributes to “innovation” in statement (i) for context. Eliminate option (d).  
Statement (iii) logically concludes the order.  
Thus, the correct order is ii, i, iv, iii.
73. (b) “Afternoon” is followed by “dusk” and “twilight”. Only option (b) beginning with statement (iii) follows this chronological order.  
Statement (iii) describes the weather in the afternoon followed by statement (i) which explains what the author did at “dusk”.  
Since the author “allowed Adele to put away...run downstairs”, it logically follows that s/he was “left alone”. Hence, statement (iv) follows.  
Statement (ii) describes the scenario during “twilight” and leads a conclusive tone to the statements.  
Thus, the correct order is iii, i, iv, ii.
74. (a) The relationship between the first two words is antonymous. “Alleviate” means ‘to make easier to endure; lessen; mitigate’ while “aggravate” means ‘to make worse or more severe’.  
“Rigid” is antonymous to “elastic”.  
“Flexible” and “malleable” are synonymous to “elastic”, while “strong” has nothing to do with “elastic”.
75. (d) “Benevolent” and “kind” are synonymous to each other.  
“Muddy” is synonymous to “unclear”.  
“Luminous” meaning ‘radaiting or reflecting light; shining; bright and thick are not associated with “unclear”’.
76. (a) A “person who knows or speak many languages” is called a “polyglot”.  
“Potable” means ‘fit or suitable for drinking’.  
“Plebiscite” means ‘a direct vote of the qualified voters of a state in regard to some important public question’.  
“Paramour” means ‘an illicit lover, especially of a married person’.
77. (b) “Deserving blame for an offense or crime” is the meaning of the adjective “culpable”.  
“Hedonist” refers to ‘a person whose life is devoted to the pursuit of pleasure and self-gratification’.  
“Misanthrope” refers to ‘a hater of humankind’.  
“Regicide” refers to ‘the killing of a king’.
78. (a) “To have a jaundiced eye” means ‘to have a prejudiced

- view of something'. This eliminates options (b), (c) and (d).
79. (d) "To lose one's bearings" means 'to become bewildered, to be confused'. This is similar in meaning to option (d) which states 'to be uncertain of one's position'. This eliminates options (a), (b) and (c).
80. (d) Options (a), (b) and (c) do not contain grammatical errors. Option (d) alone is incorrect in its usage of "neither/nor" which should be followed by a singular or plural verb depending on the element closest to it. In option (d), the correct phrase would be 'neither Priya nor Shikha is a good dancer'.
81. (c) The usage of "each" is followed by the singular form of the verb following it. This eliminates option (a) and (b). Between options (c) and (d), option (c) is more appropriate since the past perfect tense will be used for the action that took place earlier. Therefore, since the each of the girls "had been ill-treated" and was then "abandoned", the correct sentence is put forth by option (c).
82. (d) "As busy as a bee" indicates a comparison where being busy has been compared to the activities of a bee which are just as hectic. This figure of speech is a "simile" which means 'something involving the comparison of one thing with another thing of a different kind, used to make a description more emphatic or vivid'.  
A "metaphor" is also a form of comparison but 'a figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable'. In the given phrase, the comparison is explicit and not applied. This eliminates option (b).  
An "oxymoron" is 'a figure of speech in which apparently contradictory terms appear in conjunction' and an "adage" is 'a proverb or short statement expressing a general truth'. Eliminate options (a) and (c).
83. (d) The correct spelling of "Amelioration" is 'amelioration'. All the other spellings are correct.
84. (a) The correct spelling of "Gazette" is 'gazette'. All the other spellings are correct.
85. (a) "Apocryphal" means 'of doubtful authenticity, although widely circulated as being true' which is antonymous to "authentic" which means 'of undisputed origin and not a copy genuine'.  
"Audacious" meaning 'showing a willingness to take surprisingly bold risks' and "blasphemous" meaning 'sacrilegious against God or sacred things; profane' are not opposite in meaning to "apocryphal". Eliminate options (b) and (c).
86. (d) "Capricious" means 'given to sudden and unaccountable changes of mood or behaviour' which is dissimilar to "consistent" meaning 'acting or done in the same way over time, especially so as to be fair or accurate'.  
"Erratic" means 'not even or regular in pattern or movement; unpredictable', "crafty" means 'clever at achieving one's aims by indirect or deceitful methods' and "obvious" means 'easily perceived or understood; clear, self-evident, or apparent'. All the other options are not suitable antonyms of "capricious". Eliminate options (a), (b) and (c).
87. (b) Options (a) and (d) are ruled out as the word "out" is missing from both the options.  
Option (b) is parallel in tense with the active voice which is past continuous.  
Option (c) is incorrect as the statement is past perfect. Hence, the correct answer is option (b).
88. (d) The passage speculates on why Bernie Madoff's wife and sons did not flee the country but does not come to a definite conclusion. Option (a) can be ruled out from the lines "... the public outcry against Ruth Madoff and her sons began almost from the instant of Madoff's arrest and did not cease. By the time he pleaded guilty, it was deafening." We can thus, infer from the passage that Madoff's family could have fled between the time he was arrested and before he pleaded guilty. This eliminates option (a).  
Option (b) can be eliminated from "... his two sons, if they were guilty, had the opportunity, the means and the motive to flee."  
Option (c) can be ruled out from "... they could turn him in and deflect ... if the sons were actually guilty." Thus, none of the options is suitable.  
Hence, the correct answer is option (d).
89. (c) Option (c) is vindicated from the lines "All that fierce, smug certainty about their guilt—unsupported by any cited facts—effectively drove Madoff's immediate family into exile."  
Options (a), (b) and (d) have not been mentioned in the passage.
90. (b) Though the use of hypermedia is mentioned in the passage, Bernie Madoff's arrest has not been attributed to it. This eliminates option (a).  
The media's treatment of Madoff's family has been spoken of in the passage but this is not sufficient reason to infer that the media runs parallel trials. This eliminates option (c).  
The passage reiterates the fact that Madoff's family has not been proven guilty. This eliminates option (d).  
Option (b) is supported by "The treatment over the years of organized-crime defendants is instructive."
91. (b) Option (a) can be eliminated from the lines "...his wife and sons were guilty too..."  
Option (c) can be ruled out from "Despite the widespread fascination...crime-family "capos"..."  
Option (d) can be inferred from "...attacks on the Madoff family were a sharp departure from the typical public reactions to cases of white collar crime..."  
Option (b) is incorrect, according to the passage, "... the public outcry against Ruth Madoff and her sons began almost from the instant of Madoff's arrest and



- did not cease. By the time he pleaded guilty, it was deafening.” We can thus, infer from the passage that Madoff was arrested and he pleaded guilty only later.
- 92. (c)** Option (c) can be inferred from “Then one day...discovered something remarkable...only about one in a hundred has that kind of conversion rate. Greyu Poupon was magic”.
- While options (a), (b) and (d) are facts about Grey Poupon, they do not provide sufficient reasoning for why the author termed Grey Poupon as magic.
- 93. (c)** Option (c) can be determined from the following statement in paragraph 1 - “In the early seventies, Grey Poupon was no more than a hundred-thousand-dollar-a-year business” and the following statement in paragraph 3 - “By the end of the 1980’s Grey Poupon was the most powerful brand in mustard”. On the basis of these statements, one can calculate that it took more than 10 and less than 20 years for Grey Poupon “to grow from a hundred-thousand-dollar-a-year brand to the most powerful brand in mustard”. This eliminates options (a), (b) and (d).
- 94. (d)** According to paragraph 2, Grey Poupon “ran tasteful print ads in upscale food magazines”. The television commercial showcased owners of Rolls Royce consuming the product. From the data given in paragraphs 2 and 3, it can be inferred that Grey Poupon was reaching out to “rich and sophisticated customers”. Although the passage mentions Grey Poupon being distributed in flights, it does not mention “frequent fliers”. Eliminate option (a). There is no data in the passage to support options (b) and (c).
- 95. (c)** Option (c) can be inferred from, “The ratio of tomato solids to liquid in World’s Best is much higher than in Heinz...”
- Option (a) is ruled out as according to the passage, “He pours his ketchup ... and sells it for three times the price of Heinz”.
- Option (b) is ruled out as “you’re doomed to eat Heinz for the rest of your life” is not at all similar to being “doomed if they tried Heinz Ketchup”.
- The passage mentions the people who looked perplexed as walking away and not picking up the jar. Eliminate option (d).
- 96. (b)** Option (a) includes “ahimsa” which is contrary to data provided in the passage. Option (c) states “pro-market” instead of “pro-capitalism”. Option (b) has been implied in the opening lines of the passage.
- 97. (a)** The meaning of the word “conundrum” is “confusion” or ‘enigma’.
- 98. (b)** Option (b) has been stated verbatim in the concluding lines of paragraph 7.
- Option (a) and (c) are contrary to the data provided in the passage.
- 99. (b)** If the government’s policies are pro-market, then it would entail reducing or removing “Crony capitalism”. This is contrary to option (b). All the other options find an affirmation in the passage.
- 100. (a)** Last sentence of second-last paragraph makes option (a) true. Last sentence of second-last paragraph makes option (b) true. Last sentence of paragraph four makes option (c) true.
- 101. (a)** Paragraph six directly supports option (a).
- 102. (d)** Paragraph 6 supports option (a) as true. Paragraph 1 supports option (b) as true. The last paragraph supports option (c) as true. Paragraph 7 directly supports option (d) as false.
- 103. (c)** Options (a) and (d) are mentioned in last line of second last paragraph. Option (b) is mentioned in the first paragraph.
- 104. (d)** Each bag has  $a^2 - 6a + 10$  balls. Bags 1, 2, 3 and 4 contain 1, 3, 5 and 7 black balls respectively. Probability of selecting a black ball from a specific bag is  $\frac{n}{a^2 - 6a + 10}$ , where n is the number of black balls in that bag. A bag is selected at random.
- $\therefore$  Probability of selecting a particular bag =  $\frac{1}{4}$
- $\therefore$  Probability that the ball selected from that randomly chosen bag is black
- $$= \frac{1}{4} \left( \frac{1}{a^2 - 6a + 10} \right) + \frac{1}{4} \left( \frac{3}{a^2 - 6a + 10} \right) + \frac{1}{4} \left( \frac{5}{a^2 - 6a + 10} \right) + \frac{1}{4} \left( \frac{7}{a^2 - 6a + 10} \right)$$
- $$= \frac{1}{4} \left( \frac{16}{a^2 - 6a + 10} \right) = \frac{4}{a^2 - 6a + 10}$$
- 105. (b)**  $3094 = 2 \times 7 \times 13 \times 17 = a \times b \times c \times d$   
As  $1 < a < b < c < d$   
 $\therefore a = 2, b = 7, c = 13, d = 17$   
 $\Rightarrow b \times c = 7 \times 13 = 91$
- 106. (b)** Let the number of strawberry and chocolate flavoured candies be a and b respectively.  
 $\therefore 3.3a + 2.9b = 249$  ... (i)  
Since, there is only one equation with two unknowns, substitute the given options into the equations. a = 57 and b = 21 satisfy the equation (i).
- 107. (d)** BC = 397  
Let AB =  $a^3$ , AC =  $3^n$  and the perimeter be equal to p.  
Now AC =  $3 \times AB$

$$\therefore 3^n = 3 \times a^3$$

$$\therefore 3^{(n-1)} = a^3$$

$$\text{Now, } p = BC + AC + AB$$

$$= 397 + 3^n + 3^{(n-1)}$$

$$= [p - 397] = 3^{(n-1)} \times (3 + 1)$$

$$= 3^{(n-1)} \times 4$$

Thus the LHS of the above equation should be a multiple of 3 and 4. Substitute the value of perimeter given in the options and verify this. Among the options, only  $(3313 - 397)$  is divisible by 3 and 4.

**108. (c)** Out of 8 consonants, 4 consonants can be selected in  ${}^8C_4 = 70$  ways.

Out of 5 vowels, 3 vowels can be selected in  ${}^5C_3 = 10$  ways.

These 7 selected letters can be arranged among themselves in  $7!$  ways.

Hence, total number of required words =  $70 \times 10 \times 7! = 3528000$

**109. (c)**  $x^2 + 3x - 10 = (x - 2)(x + 5)$

$$\therefore x^2 + 3x - 10 \text{ is a factor of } 3x^4 + 2x^3 - ax^2 + bx - a + b - 4$$

$$\Rightarrow 48 + 16 - 4a + 2b - a + b - 4 = 0$$

$$\therefore 5a - 3b = 60 \quad \dots(i)$$

$$\text{Also } f(-5) = 0$$

$$\Rightarrow 1875 - 250 - 25a - 5b - a + b - 4 = 0$$

$$\therefore 26a + 4b = 1621 \quad \dots(ii)$$

Solving (i) and (ii)

$$a = 52 \text{ and } b = 67 \quad (\text{approx}).$$

**110. (d)** As all the numbers are positive integers their sum cannot be negative. Thus option (a) is not possible.

Sum of  $n$  positive integers cannot be equal to  $n$ . Hence option (b) is not possible.

Also, as all the numbers are positive integers their sum cannot be a fraction. Thus option (c) is not possible.

**111. (c)** Initial distance travelled = 180 m

Distance travelled after 1st rebound but before second rebound:

$$\text{Upward} = \frac{3}{5} \times 180 = 108 \text{ m}$$

$$\text{Downward} = 108 \text{ m}$$

$$\text{Total} = 108 + 108 = 216 \text{ m}$$

Distance travelled after 2<sup>nd</sup> rebound (upward and downward) but before third rebound.

$$= \frac{3}{5} \times 108 \times 2 = \frac{3}{5} \times 216 \text{ m}$$

This gives an infinite G.P. with

$$a = 216 \text{ and } r = \frac{3}{5}.$$

Since  $r < 1$

Hence total distance travelled after first rebound,

$$S_{\infty} = \frac{a}{1-r} = \frac{216}{1-\frac{3}{5}} = 540 \text{ m}$$

Since initial distance i.e. distance travelled before first rebound was 180 m, therefore

$$\text{Total distance travelled} = (180 + 540) \text{ m} = 720 \text{ m}$$

**112. (a)** Two men can be selected in  ${}^9C_2$  ways.

After selecting two men, two women can be selected in  ${}^7C_2$  ways from  $(9 - 2 = 7)$  women, so that no husband and wife play in the same set.

Also, these selected 4 people can be grouped in 2 ways.

$\therefore$  The total number of mixed double teams

$$= {}^9C_2 \times {}^7C_2 \times 2 = 1512$$

**113. (b)** Let E be the event that train P is late and F be the event that train Q is late.

$$\therefore P(E) = \frac{7}{9} \text{ and } P(F) = \frac{11}{27}$$

$$\text{Now, } P(F/E) = \frac{P(E \cap F)}{P(E)}$$

$$\therefore P(E \cap F) = P(F/E) \times P(E)$$

$$\therefore P(E \cap F) = \frac{8}{9} \times \frac{7}{9} = \frac{56}{81}$$

$$\text{Now } P(E \cup F) = P(E) + P(F) - P(E \cap F)$$

$$\Rightarrow P(E \cup F) = \frac{7}{9} + \frac{11}{27} - \frac{56}{81} = \frac{40}{81}$$

Probability that neither train will be late

$$= 1 - P(E \cup F) = 1 - \frac{40}{81} = \frac{41}{81}$$

**114. (b)** Suppose 100 MBA applicants were surveyed.

80 of them are good in logical reasoning and 20 are good in quantitative aptitude.

$0.87 \times 20 \approx 17$  are good in quantitative aptitude and in data interpretation as well.

$0.15 \times 80 = 12$  are good in logical reasoning and in data interpretation as well.

Thus, there are  $17 + 12 = 29$  MBA applicants which are strong in data interpretation.

i.e., out of these 29 MBA applicants, which are strong in data interpretation, 17 are strong in quantitative aptitude.

$$\text{The required probability} = \frac{17}{29} = 0.58$$

**115. (d)** Let the base radius, height, slant height be  $r$ ,  $h$  and  $l$  respectively.

$$r = 14 \text{ cm}$$

$$h = 26.5 \text{ cm}$$

$$\therefore l = \sqrt{r^2 + h^2}$$

$$\therefore l = 29.97 \text{ cm} \approx 30 \text{ cm}$$

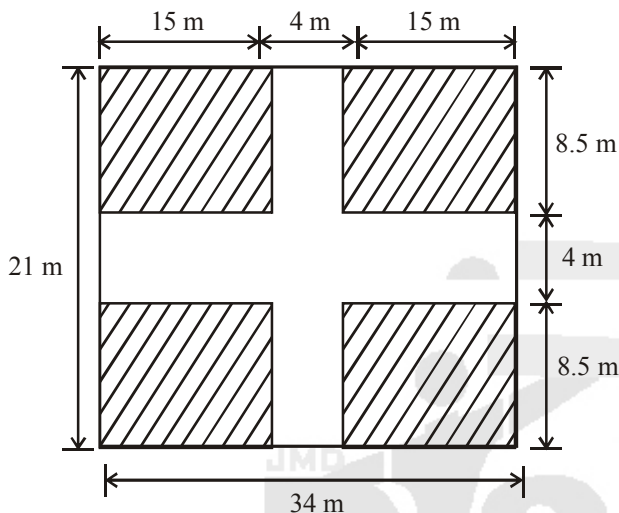
$$\text{Curved surface area} = \pi \times r \times l$$

Area of the sheet required to make 7 caps =  $7 \times$  curved surface area of a cap

$$= 7 \times \pi \times r \times l = 7 \times \frac{22}{7} \times 14 \times 30$$

$$= 9240 \text{ sq. cm}$$

116. (c) The following diagram displays the garden along with the paths,



The shaded area represents the flower beds.

For each rectangular flower bed,

$$\text{Breadth} = \frac{21 - 4}{2} = 8.5 \text{ m}$$

$$\text{Length} = \frac{34 - 4}{2} = 15 \text{ m}$$

There are 4 such flower beds.

Therefore, total area of 4 flower beds =  $4 \times 15 \times 8.5 = 510 \text{ m}^2$

117. (a)  $70 - \frac{x}{100} \times 70 = 60 + \frac{x}{100} \times 60$

$$\therefore 10 = \frac{70x}{100} + \frac{60x}{100} \Rightarrow x = \frac{100}{13}$$

$$x\% \text{ of } 50 = \frac{100}{13} \times \frac{1}{100} \times 50 = 3.84$$

118. (b) As each of the three equal parts of the rod further cut into 12, 18 and 32 equal parts, therefore, length of each of the three equal part of the rod will be equal to LCM of 12, 18 and 32.

LCM of 12, 18 and 32 = 288.

Total length =  $288 \times 3 = 864$

119. (d)  $\log_{10} x - \log_{10} \sqrt[3]{x} = \frac{6}{\log_{10} x}$

$$\therefore \log_{10} x - \frac{1}{3} \log_{10} x = \frac{6}{\log_{10} x}$$

$$(\log_{10} x)^2 = 9, \Rightarrow \log_{10} x = \pm 3$$

As value of  $\log_{10} x$ , log cannot be negative.

$$\therefore \log_{10} x = 3$$

$$\therefore x = 1000$$

120. (b) Let the number of days required to complete the work by mother, elder son and younger son be  $m$ ,  $e$  and  $y$  hours respectively.

Therefore, work done by mother; elder son and younger son in one hour is  $1/m$ ,  $1/e$  and  $1/y$  respectively.

Also  $m = e - 1$  [ $\because$  Mother take one hour less than the elder son)

According to the conditions given, conditions

$$\frac{1}{m} + \frac{1}{e} + \frac{1}{y} = 1 \quad \dots(1)$$

$$\text{and } \frac{1}{e} + \frac{1}{y} + \frac{3}{y} = 1 \quad \dots(2)$$

$$\Rightarrow \frac{1}{y} = \frac{e-1}{4e}$$

Also  $m = e - 1$

Substituting the values of  $(1/m)$  and  $(1/y)$  in (1)

$$\frac{1}{e-1} + \frac{1}{e} + \frac{e-1}{4e} = 1 \Rightarrow e = 3$$

$\therefore m = 2$  and work done by mother in 1 hour = 50%

121. (c) Let the distance between the doctor's chamber and Rohit's house be  $x$  km.

Total time spent = 5 hours

Time spent at the doctor's chamber

$$= \frac{48}{60} = \frac{4}{5} \text{ hours}$$

From the given conditions,

$$\frac{x}{30} + \frac{x}{12} + \frac{4}{5} = 5$$

$$\therefore x = 36$$

Hence distance of the doctors chamber from Rohit's house = 36 km.

122. (c) Let weight of the cut-off piece =  $X$  kg

Let percentage of aluminium in 8 kg and 16 kg alloy be  $a$  and  $b$  respectively.

$$\therefore \frac{(8-X)a + Xb}{8 \times 100} = \frac{(16-X)b + Xa}{16 \times 100}$$

$$\Rightarrow 16a - 2Xa + 2Xb = 16b - Xb + Xa$$

On comparing the coefficient of a and b on both sides, we get

$$16 - 2X = X \text{ and } 2X = 16 - X$$

$$\therefore X = \frac{16}{3} = 5.33$$

Hence weight of each cut-off piece = 5.33 kg

123. (c) Principal put in bank deposit  
 = 1,00,00,000 - 40,00,000 - 20,00,000 - 10,00,000  
 = ₹ 30,00,000

Amount after three years  
 = 3000000 × (1.12)<sup>3</sup> = ₹ 42,14,784

Total gain after 3 years is 5%.

Total value = 10000000 × 1.05 = ₹ 1,05,00,000

10500000 - 4214784 = 6285216

Let x be the percentage at which he sold off the three items.

$$\therefore \frac{x \times 7000000}{100} = 6285216 \Rightarrow x = 90 \text{ (approx)}$$

124. (d)  $\log_{13} \log_{21} \{\sqrt{x+21} + \sqrt{x}\} = 0$

$$\therefore \log_{21} \{\sqrt{x+21} + \sqrt{x}\} = 13^0 = 1$$

$$\therefore \{\sqrt{x+21} + \sqrt{x}\} = 21^1 = 21$$

$$\therefore \sqrt{x+21} = 21 - \sqrt{x}$$

Squaring both sides,

$$x + 21 = 441 + x - 42\sqrt{x}$$

$$\Rightarrow 42\sqrt{x} = 420$$

125. (d) On comparing  $3x^2 - 4x + 7$  with  $ax^2 + bx + c$ , we get  
 $a = 3, b = -4, c = 7$

Since  $a > 0$ , therefore the value of  $ax^2 + bx + c$  is

$$\text{minimum when } x = -\frac{b}{2a} = -\frac{-4}{2 \times 3} = \frac{2}{3}$$

Thus minimum value of  $3x^2 - 4x + 7$

$$= 3 \times \left(\frac{2}{3}\right)^2 - 4 \times \frac{2}{3} + 7$$

$$= \frac{4}{3} - \frac{8}{3} + 7 = \frac{17}{3}$$

126. (c) Since the question mention 7 consecutive natural numbers, the first 7 natural numbers can also be considered.

The first 7 natural numbers are (1, 2, 3, 4, 5, 6, 7) and their average is 4.

When the next 3 numbers i.e., 8, 9 and 10 are added, the new average is 5.5.

$$\therefore \text{Increases in average} = 5.5 - 4 = 1.5$$

127. (b)  $T = \frac{K \times D \times C}{\sqrt{A}}$

If T is the time taken, D is the distance, C is the number of carriages, and A is the diesel used per km, then where K is the proportionality constant.

Based on the data given:

$$45 = \frac{K \times 70 \times 15}{\sqrt{\frac{1}{7}}}$$

$$T \propto \frac{D}{V}, V \propto \frac{\sqrt{A}}{C}$$

$$\therefore T \propto \frac{DC}{\sqrt{A}}$$

$$K = \frac{3}{70\sqrt{7}}$$

$$T' = \frac{3 \times D' \times C'}{70\sqrt{7} \times \sqrt{A'}}$$

$$30 = \frac{3 \times 50 \times 18}{70\sqrt{7} \times \sqrt{A'}}$$

$$\Rightarrow A' = \frac{81}{343}$$

$$\text{Fuel for 50 km} = \frac{50 \times 81^2}{343} = 11.8 \text{ litres}$$

128. (b) Tap X does x units of work in 1 hour.

$\therefore$  Tap Y does 1.6 units of work in 1 hour.

$\therefore$  In 1 hour Tap X and Y together do  $2.6x$  units of work.

$\therefore$  Work done by Tap X and Y in 40 hours =  $2.6x \times 40$

$\therefore$  Time taken by Tap Y alone to do this work

$$= \frac{2.6x \times 40}{1.6x} = 65 \text{ hours}$$