

NMAT - Mock - 1

INSTRUCTIONS

1. This Test contains 21 pages and 120 questions.
2. The test contains questions from three different areas - **QUANTITATIVE LOGIC & DATA INTERPRETATION and VERBAL**. You need to demonstrate your competence in all the three areas.

You will be given **120 minutes** to complete the test.

3. All questions carry 1 mark each. There is no negative marking.



Section – I

Directions for questions 1 to 4: Read the passage given below and answer the questions that follow.

The central argument in favour of caste enumeration has a plausible ring to it. Given the strong, if complex, correlation between caste and socio-economic status, the exercise seems to offer the promise of yielding relevant data so that social and economic disparities can be more accurately targeted by policy. On closer analysis, the advantage turns out to be largely illusory. In fact, the political demand for reviving the colonial practice of caste enumeration — given up by independent India except for the Scheduled Castes and the Scheduled Tribes — has been driven less by ameliorative ideals than by expediency and self-serving, divisive political agendas. At best, fresh caste enumeration can provide only marginal benefits because, as sociologist Nandini Sundar points out, it holds out only an “illusory promise of formal employment.” The long-term societal benefits of reservation — in terms of making a constitutionally sanctioned statement against social inequality and actually providing educational and economic opportunity to historically and socially disadvantaged or oppressed communities — are there for everyone to see. But with the majority of India’s workforce languishing in the informal sector and the state’s role in providing jobs declining over the past two decades, it is clear that reservation is becoming less and less potent as a countervailing force. But the objections to the Cabinet’s nod for a “focussed,” standalone house-to-house caste headcount between June and September 2011 are not only political-ideological. They are also practical. As any modern sociologist knows, answers to the question, ‘What is your caste?’ can be notoriously variable, subjective, and influenced by contingent factors. Caste has an elusive arithmetic in a country that is home to a staggering number of sub-castes, where caste names vary depending on context (for marriage or for religious rituals), and where the social implications of a caste tag vary from region to region. Any 21st century caste enumeration that relies on self-certification will face the same problem encountered by the colonial censuses — what legal scholar Marc Galanter describes as the “unseemly scramble to use census listings to...inflate numbers for political advantage.” But there is yet another objection, pressed in fact by progressive advocates of caste enumeration in the main census exercise: a standalone headcount of caste will be a “futile” exercise because it will be impossible to integrate it with “the socio-economic, educational and demographic data” gathered during the census headcount. If such integration is ruled out by the subsequent standalone headcount, then why do it?

1. What is the tone of the passage?
(A) analytical (B) objective (C) emotive (D) sarcastic (E) None of these
2. What is the main idea of the passage?
(A) Caste enumeration is mandatory to obtain benefits like social and economic parity.
(B) Caste enumeration may offer only a few illusory benefits to common people and is basically driven by the self serving divisive agendas of politicians.
(C) Cast enumeration holds an illusory promise of employment and will not be able to give the relevant socio-economic, educational and demographic data.
(D) Caste has an elusive arithmetic in a country that is home to a staggering number of sum-castes, where caste names vary depending on context.
(E) None of these

3. What can be inferred about the motive of the politicians behind the cast enumeration exercise?
(A) Politicians have empathy towards the disadvantaged or oppressed communities.
(B) Politicians want to do some philanthropy.
(C) Politicians are covetous.
(D) Politicians are ardent to help their countrymen.
(E) None of these
4. What is the synonym of the word 'staggering' (used in the passage)?
(A) astonishing (B) bantam (C) infinitesimal (D) rational (E) None of these

DirectionS for questions 5 to 9: The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences among the given choices to construct a coherent paragraph.

5. (A) Although new religions and sects emerge out of non-conformism and as a critique of the present, the established religions mostly see their interest to be linked with the status quo.
(B) The reason is that the charge against him involves meddling with religious sentiments.
(C) It appears that there is ambiguity in the public mind about Mr. Joseph's own role.
(D) That was perhaps why the Catholic Church was not moved by appeals to their humanitarian and philanthropic credentials.
- (A) CDBA (B) ADCB (C) ADBC (D) ACBD (E) CBAD
6. (A) Disagreements with coworkers can be uncomfortable, and if handled poorly, result in unproductive and even harmful conflict.
(B) Differences of opinion at work are inevitable and often integral to innovation, problem-solving, and performance improvement.
(C) The good news is that, with a little planning, you can avoid a fight and find an answer that everyone agrees on.
(D) But knowing that most clashes have benefits does not make them any easier to manage.
- (A) BACD (B) CDAB (C) ADCB (D) ABCD (E) BDAC
7. (A) The government will have more time to gauge the revenue implications of the changes in tax laws and procedures.
(B) The decision to defer the implementation of the Direct Taxes Code (DTC) by a year to April 1, 2012 is based on pragmatic considerations.
(C) That would clearly be unacceptable, given the large fiscal and budgetary deficits the government is trying to rein in.
(D) Initial reports suggest that if the DTC bill is implemented without substantial modifications, the Central government may have to forgo over Rs.50,000 crore in the first year.
- (A) ACDB (B) BADC (C) DCAB (D) ABCD (E) BCDA

8. (A) As publisher Malcolm Forbes put it, "Too many people overvalue what they are not and undervalue what they are."
(B) Yet we often overlook our best skills — our innate talents — simply because we perform them without even thinking.
(C) A tendency to obfuscate our strengths should not be surprising.
(D) If we've really applied ourselves to achieving competency, we are justifiably proud.
- (A) ABCD (B) CADB (C) DBAC (D) CDBA (E) BDCA
9. (A) Suspicions aroused, local governments sent out teams to check on their elderly residents.
(B) His 81-year-old daughter had hidden his death and pocketed more than 9m yen (\$106,000; £68,000) in pension payments, police said.
(C) It was a hot summer's day in late July that police in Japan found the mummified corpse of Sogen Kato - still lying in the bed where he had died 30 years earlier.
(D) At 111 years old he was believed to be Japan's oldest man.
- (A) CBDA (B) ACBD (C) CDBA (D) ABCD (E) DACB

Directions for questions 10 to 14: In each of the following questions a sentence is written in four different ways. From the given options, identify the sentence that is grammatically and syntactically correct.

10. (A) The Securities and Exchange Board of India must be commended for making mandatory for media companies disclosing their stake where such exists, in companies they write about.
(B) The Securities and Exchange Board of India must be commended for making it mandatory for media companies to disclose their stake, where such exists, in companies they write about.
(C) The Securities and Exchange Board of India must be condemned for making mandatory for media companies to disclose there stake, where such exists, in companies they write about.
(D) The Securities and Exchange Board of India must be commented for making it mandatory with media companies to disclose their stake, where such exists, in companies they write about.
(E) None of these
11. (A) A collection of letters sent by Ted Hughes and Sylvia Plath to the former Poet Laureate's sister have been acquired by British Library.
(B) A collection of letters sent by Ted Hughes and Sylvia Plath to the former Poet Laureate's sister have been acquired by the British Library.
(C) A collection of letters sent by Ted Hughes and Sylvia Plath to the former Poet Laureate's sister has been acquired by the British Library.
(D) A collection of letters sent by Ted Hughes and sylvia plath to the former Poet Laureate's sister has been acquired by the British Library.
(E) None of these

12. (A) The battle with inflation is hardly over and the government will have to naturally remain vigilant.
(B) The battle for inflation is hardly over and the government will naturally have to remain vigilant.
(C) The battle with inflation is over hardly and the government will naturally have to remain vigilant.
(D) The battle with inflation is hard over and the government will have to remain naturally vigilant.
(E) None of these
13. (A) The modern economy creates and spreads unprecedented prosperity by drawing out the resourcefulness and enterprise of many, not by blindly following the dictates of few.
(B) The modern economy creates and spreads unprecedented prosperous by drawing on the resourcefulness and enterprise of many, not by blindly following the dictates of a few.
(C) The modern economy creates and spread unprecedented prosperity by drawing through the resource and enterprise of many, not by blindly following the dictates of few.
(D) The modern economy creates and spreads unprecedented prosperity by drawing on the resourcefulness and enterprise of many, not by blindly following the dictates of a few.
(E) None of these
14. (A) But trade with countries that are run by abusiveness and corrupt governments does not necessarily benefit the people of those countries.
(B) But trade with countries which are run by abusive and corrupt governments do not necessarily benefit the people of those countries.
(C) But trade with countries which are run by abusive and corrupt governments does not necessarily benefit the people of these countries.
(D) But trade with countries that are run by abusive and corrupt governments does not necessarily benefit the people of those countries.
(E) None of these

Directions for question 15 to 22: Read the passage given below and answer the questions that follow.

Acts of idiocy by the powerful come rather frequently these days, but few in recent times have matched the vulgarity of the flight-suited swagger down the deck of the aircraft carrier, *USS Abraham Lincoln*, by a smirking George W Bush on 1 May 2003. Few indeed can remotely approach the foolhardiness of the banner that provided the backdrop to his announcement that day, of a "Mission Accomplished" in Iraq.

If that was farce, Bush's successor in the job, once regarded as the most powerful in the world, was condemned to re-enact it as tragedy. Seven years and four months from "Mission Accomplished", Barack Obama announced in a nationwide address that the US military was pulling out of Iraq, after "fulfilling its responsibilities". Obama said "Thousands of Americans gave their lives; tens of thousands have been wounded. Our relations abroad were strained. Our unity at home was tested."

Missing in this narration is any remorse over the hundred thousand Iraqis killed – a conservative estimate – or the destruction of the civic infrastructure that the people of Iraq had built up through years of arduous effort. Omitted entirely is the unsettled, potentially explosive, political mix that the US has bequeathed.

Obama does express regret at the economic vicissitudes that have beset the US since the Iraq misadventure, though without drawing a direct linkage between the two. He laments that over the "last decade", the US has failed to do what is necessary to "shore up the foundation of (its) own prosperity". The "grit and energy and common purpose" that went into the war effort, he says, now need to be brought home to tackle the

woes of the US economy. This famous retreat from the imperial ambition of reconfiguring the entire region has, fortuitously, coincided with the release of the political memoir of Bush's principal partner in crime, the former British Prime Minister Tony Blair.

Saddam Hussein, the deposed president of Iraq, since executed in a ghoulish ritual of revenge, is, in Blair's narration, a scourge the Iraqi people had to be rid of. The US and the UK launched their war on a mistaken premise – that he possessed weapons of mass destruction – but succeeded nevertheless in achieving the laudable goal of toppling a detestable regime. Blair concedes that Saddam had no known links with the Al Qaida terrorists who rained death and destruction on the US one September morning in 2001, but insists that he could have teamed up with his worst enemies in common antagonism towards western values.

Astonishingly then, Blair offers the alibi that the enterprise in Iraq would have been a glorious success, but for Al Qaida and Iran moving into the power vacuum created by the overthrow of Saddam. This is an exercise in dissimulation so characteristic of the war cabal, that it needs to be unpackaged.

15. What is the tone of the passage?
- (A) Laudatory
 - (B) Reverential
 - (C) Sanguine
 - (D) Critical
 - (E) None of the above
16. The author is most likely to agree to which of the following?
- (A) Though at pains to avoid deprecatory references to the misadventures of his predecessor, Obama spelt out the consequences of Iraq with a certain, though selective, attention to detail.
 - (B) Obama expressed guilt over the hundred thousand Iraqis killed – and the destruction of the civic infrastructure that the people of Iraq had built up through years of arduous effort.
 - (C) Obama explicitly stated the unsettled, potentially explosive, political mix that the US has bequeathed.
 - (D) Bush fulfilled his responsibilities towards the world by sending American soldiers in Iraq.
 - (E) None of these
17. What can be inferred by Obama's narration on the Iraq issue ?
- (A) It is entirely the job of the people of Iraq to rebuild what they have lost during the war.
 - (B) US feels guilty about what the Iraqi people had to undergo.
 - (C) US economy is growing and will continue to do so.
 - (D) Obama senses the loss the US and Iraq have faced due to the war.
 - (E) None of these
18. What is the paradox in the plea given by Tony Blair for conducting the war against Iraq and the cause of its failure?
- (A) Saddam had no links with the Al Qaida terrorists.
 - (B) Saddam kept Al Qaida and Iran out of Iraq.
 - (C) The war was conducted to avoid the teaming of Saddam with Al Qaida and Iran but the war itself led to the rise in power of Al Qaida and Iran and affected the success of the war.
 - (D) Saddam possessed weapons of mass destruction and was a scourge the Iraqi people had to be rid of.
 - (E) None of these

19. Identify the most appropriate antonym of the word **DISSIMULATION** used in the passage.
(A) equivocation (B) ingenuousness
(C) mendacity (D) chicanery
(E) None of these
20. Identify the most appropriate antonym of the word **VICISSITUDE** used in the passage.
(A) innovation (B) transmutation
(C) stagnation (D) blessing
(E) none of these
21. Identify the most appropriate synonym of the word **SMIRKING** used in the passage.
(A) simpering (B) bawling
(C) whimpering (D) moaning
(E) None of these
22. Identify the most appropriate synonym of the word **ARDUOUS** used in the passage.
(A) facile (B) trivial
(C) magnificent (D) onerous
(E) None of these

Directions for questions 23 to 27: The following questions consist of two words each that have a certain relationship with each other followed by alternatives. Select the alternative that has the same relationship as depicted in the original pair of words.

23. HIVE : HONEYBEE
(A) stallion: horse (B) trunk : monkey
(C) aerie: eagle (D) gander: goose
(E) den: buffalo
24. HARANGUE : DIATRIBE
(A) proficiency: excerpt (B) irony: passage
(C) confidence: cowardice (D) abnegation : denial
(E) pride: prejudice
25. PROFOUND: DEEP
(A) heinous : abominable (B) genteel : provincial
(C) urbane: boorish (D) philistine : informed
(E) loquacious: laconic
26. IMPECCABLE: INDEFECTIBLE
(A) controversial : nonviable (B) obsolete : archaic
(C) imaginary: reticent (D) abusive: lucrative
(E) adjunct: therapeutic
27. FROG: AMPHIBIAN
(A) turtle : reptile (B) bird: tithonian
(C) fish : non-vertebrate (D) dog : ubiquitous
(E) donkey : bray

Directions for question 28 to 32: In each of the following questions, one word is missing. Fill the blank with the most appropriate word to make the sentence complete and meaningful.

28. It is important to scrupulously maintain the _____ of the whistle-blowers in order to protect them against retaliatory actions.
(A) notoriety (B) silence
(C) unanimity (D) anonymity
(E) None of these
29. Food clings to the surface of dishcloths, even when they are _____, making them the ideal breeding ground for all sorts of bacteria.
(A) slushed (B) rinsed
(C) mired (D) thrown
(E) None of these
30. The brutality of the fundamentalists on the one hand, and the irresponsibility of educational entrepreneurs on the other, have already _____ the academic atmosphere.
(A) enshrined (B) lacerated
(C) vitiated (D) ratified
(E) None of these
31. It might seem easier _____ through the complex passageways of a labyrinth than tracking the political processes that have entertained the nation by producing a procession of governments — eight in ten years in Jharkhand.
(A) wobbling (B) waltzing
(C) throttling (D) chuckling
(E) None of these
32. My basic observation concerned the ways in which the Kashmir problem was obfuscated, if not simplified, by that issue with images that stoked barely-subliminal fears of an atavistic, resurgent Islam.
(A) distinguishing (B) confiding
(C) conflating (D) transmuting
(E) None of these

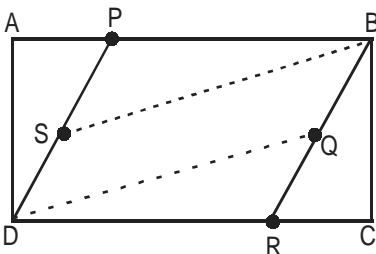
Section – II

Directions for questions 33 to 38: Compare the quantities, taking into consideration any other information, and the answer as:

- (A) if the quantity in column I is greater than the quantity in column II.
(B) if the quantity in column II is greater than the quantity in column I.
(C) if the quantity in column I is greater than or equal to the quantity in column II.
(D) if both quantities are equal.
(E) if the comparison cannot be established.

	Column – I	Column – II
33.	15% of 20% of 300	20% of 10% of 400
34.	Selling price of a shirt at 20% discount, if its marked price is Rs.1,650.	Rs.1,380.
35.	Area of a square whose side is 12.2 cm.	Area of a rectangle whose perimeter is 50 cm and the sides are in the ratio 3 : 2.
36.	HCF of 64, 112 and 192.	Prime numbers between 2 and 61.
37.	Simple interest on Rs.4,000 at the rate of 8% per annum for 3 years.	Compound interest on Rs.6,000 at the rate of 8% per annum for 2 years.
38.	$2.42 \div 1.1 \times 2.2 - 0.91$ of 4	Square root of 1.44.
39.	If the sum of the squares of two numbers is 481 and the difference of their squares is 31, then what could be the possible sum of the two numbers? (A) 1 (B) 41 (C) 35 (D) – 41 (E) – 2	
40.	Two three digit numbers when added have a sum divisible by 504. One of the two numbers is 6 times the other. What is the difference between the two numbers? (A) 360 (B) 720 (C) 420 (D) 640 (E) None of these	
41.	When the digits of a two digit number is reversed, then the number obtained is increased by original number by 27. If the sum of the digits of the number is 7, then the number is (A) 52 (B) 16 (C) 34 (D) 25 (E) None of these	
42.	If α and β are the roots of the equation $x^2 + x + 1 = 0$ and, $\frac{\alpha}{\beta}$ and $\frac{\beta}{\alpha}$ are the roots of the equation $x^2 + ax + b = 0$, then the value of 'a' is (A) 1 (B) –1 (C) 2 (D) – 2 (E) None of these	

43. Sohan's age is twice the sum of the ages of his two sons. After 5 years his age will be 20 years more than the sum of his sons' age. What is his present age?
 (A) 25 years (B) 55 years (C) 50 years (D) 35 years (E) None of these
44. The incomes of A and B are in the ratio 5 : 7 and their expenditures are in the ratio 2 : 3 respectively. If each saves Rs. 3,000, then what is the income of A?
 (A) Rs.21,000 (B) Rs.15,000 (C) Rs.9,000 (D) Rs.12,000 (E) Rs.18,000
45. If Sameer's salary is $\frac{5}{6}$ of Vinod's salary and Vinod's salary is 25% less than Pradeep's salary. If Vinod's salary is Rs.24,000, then what is the salary of Pradeep?
 (A) Rs.30,000 (B) Rs.36,000 (C) Rs.32,000 (D) Rs.28,000 (E) None of these
46. If half of a journey is completed by 20 km/hr and other half by 15km/hr, then what is the average speed in the entire journey?
 (A) 17.5 km/hr (B) 18 km/hr (C) 17.14 km/hr (D) 16.5 km/hr (E) 18.5 km/hr
47. A square field of size 72×72 is to be covered by rectangular tiles (with integral edges) with length to breadth ratio is 3 : 2. What is the difference between minimum and maximum number of tiles used?
 (A) 864 (B) 210 (C) 426 (D) 860 (E) None of these
48. Out of 460 employees of an organization, 240 employees are MBA, 160 are B.Tec and 45 are both MBA and B.Tec. How many employees are neither MBA nor B. Tec.
 (A) 15 (B) 105 (C) 115 (D) 60 (E) None of these
49. In rectangle ABCD, $\frac{AP}{PB} = \frac{CR}{RD} = \frac{1}{3}$. If 'Q' and 'S' are the mid points of BR and DP respectively, then what is the ratio of the area of quadrilateral SBQD and the rectangle ABCD?



- (A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{3}{8}$ (D) $\frac{3}{7}$ (E) None of these
50. A solid cylinder of height 7 cm fits completely into a cubical tank. What is the volume of the water that can be filled in the remaining space of the tank?
 (A) 73.5 cm^3 (B) 208.25 cm^3 (C) 171.5 cm^3 (D) 104.125 cm^3 (E) 147 cm^3

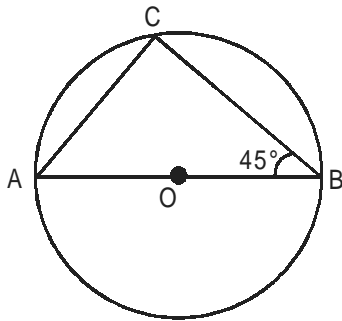
51. A mixture contains liquid A and B in the ratio 3 : 7. If 40 liters of the mixture is taken out and replaced with another liquid C, concentration of the liquid 'A' in the final mixture becomes 20%. What is the quantity of liquid 'B' in the final mixture?
 (A) 24 liters (B) 72 liters (C) 42 liters (D) 70 liters (E) 56 liters
52. Cost of production of article 'a' is 66.67% of the list price, which is 120% of the selling price, after giving a discount of 20%. What is the profit/loss percentage?
 (A) 20% profit (B) 20% loss (C) 25% profit (D) 25% loss (E) None of these
53. Annual income of 'A' is Rs. 2,00,000 and he saves Rs.40,000 annually. Savings upto 15% of the income is exempted from the tax and rest of the savings is charged at the rate of 5% tax. On the remaining income, tax is calculated 10% upto Rs. 1,00,000 and 20% for the rest of the income. What is the annual tax paid by 'A'?
 (A) Rs. 30,500 (B) Rs. 22,500 (C) Rs. 27,000 (D) Rs. 22,000 (E) Rs. 30,000
54. Number of students in school 'A' are 75% of the students in school 'B'. Number of girls in school 'A' are 87.5% of the girls in school 'B'. In school 'A', if girls forms 35% of the total number of students, then what percent of the total students in school 'B' are boys?
 (A) 30% (B) 60% (C) 50% (D) 70% (E) 40%

Directions for questions 55 to 60: Each question is followed by two statements I and II.

Mark the answer as:

- (A) if the question can be answered by statement I alone.
 (B) if the question can be answered by statement II alone.
 (C) if the question can be answered by both the statements together, but cannot be answered by either statement alone.
 (D) if the question can be answered by either statement I or statement II alone.
 (E) if the question cannot be answered even by using both the statements together.
55. The ratio of the ages of two persons A and B is 3 : 5 respectively, then the ratio of their ages after 6 years?
 I. Sum of their ages is 48 years.
 II. Age of B is 25 years.
56. In a $\triangle ABC$, $AB = AC$, then $\angle B = ?$
 I. $\angle A = 80^\circ$.
 II. $160^\circ - (\angle B + \angle C) = \angle A - 20^\circ$
57. The sum of two numbers A and B is 10, then what is the value of B?
 I. Numbers are prime.
 II. The product of A and B is 21.
58. What is the ratio of the volume of two spheres?
 I. The radius of one sphere is 3 cm.
 II. The difference between the radii of two spheres is 2 cm.

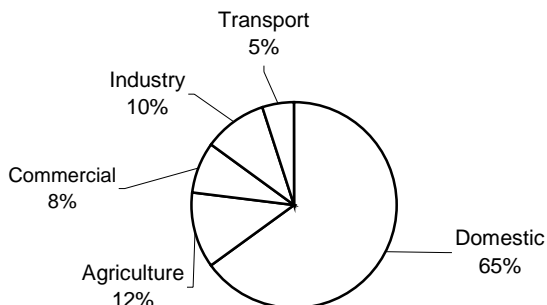
59. If O is the center of the circle, then what is the length of AC?



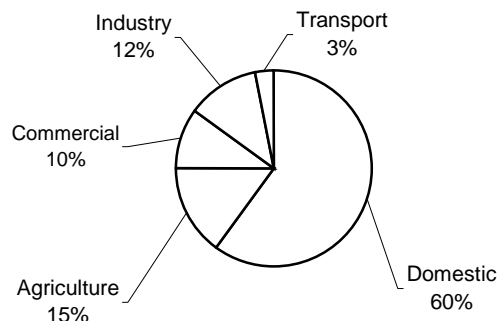
- I. $\angle ACB = 90^\circ$
 II. Diameter $AB = 20$ cm
60. What is a two digit number?
 I. Sum of the digits of the number is 8.
 II. Difference of the digits of the number is 2.

Directions for questions 61 to 64: Answer the following questions based on the given information. The given pie charts represent the percentage distribution of electricity consumption in five different areas agriculture, industry, domestic, commercial and transport in two years 06-07 and 08-09.

**Electricity Consumption 35400 MW
(Year 06-07)**



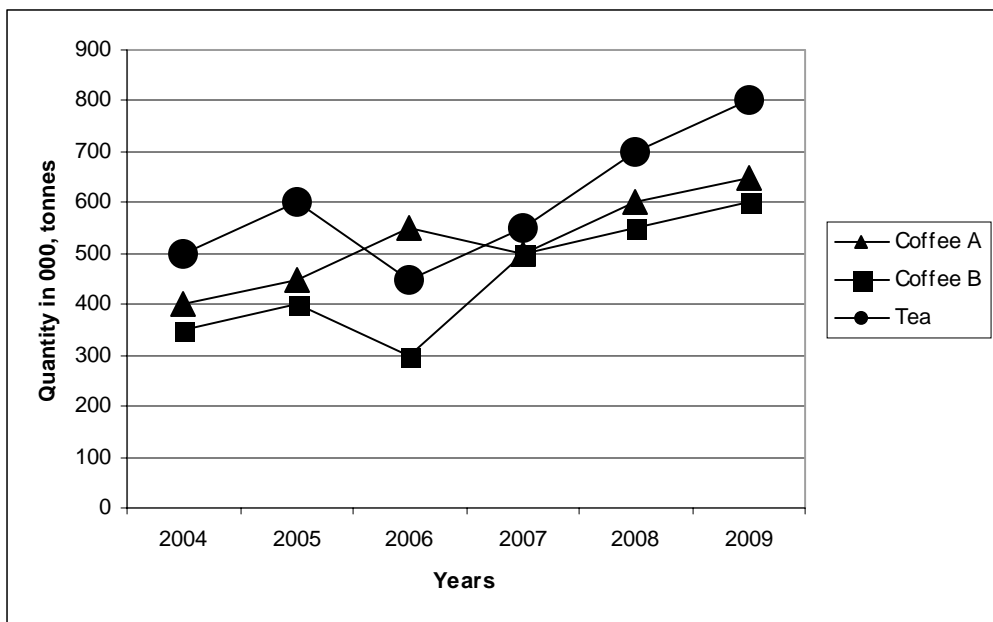
**Electricity Consumption 42500 MW
(Year 08-09)**



61. What is the percentage increase of electricity consumption in agriculture area from year 06-07 to year 08-09?
 (A) 45.05% (B) 50.07% (C) 54.06% (D) 40.8% (E) 60.04%

62. What is the total of electricity consumption in commercial & transport area in year 08-09?
 (A) 5950 MW (B) 6375 MW (C) 5100 MW (D) 5525 MW (E) None of these
63. What is the difference between electricity consumption in domestic area in year 06-07 and 08-09?
 (A) 2490 MW (B) 2280 MW (C) 6385 MW (D) 2690 MW (E) 2860 MW
64. What is the respective ratio of electricity consumption in industry area in year 06-07 to electricity consumption in industry area in year 08-09?
 (A) 5 : 6 (B) 57 : 83 (C) 59 : 85 (D) 7 : 10 (E) None of these

Directions for questions 65 to 68: Answer the following questions based on the given information. The given line graph represents the production(in 000, tonnes) of two types of coffee A & B and tea in six different years.



65. What is the respective ratio of the production of tea in year 2005 to the production of coffee B in year 2008?
 (A) 1 : 1 (B) 12 : 11 (C) 5 : 6 (D) 11 : 10 (E) 11 : 12
66. The production of tea in year 2006 is approximately what percent the total production of two types of coffee A & B in year 2004?
 (A) 40% (B) 56.25% (C) 73.33% (D) 60% (E) None of these
67. What is the difference between the average production of two types of coffee A and B during the given period?
 (A) 75000 tonnes (B) 65000 tonnes (C) 70000 tonnes (D) 85000 tonnes (E) 55000 tonnes

68. The production of tea in year 2009 is approximately what percent the total production of tea during the given period?
 (A) 33.33% (B) 19.44% (C) 22.22% (D) 26.66% (E) 21.05%

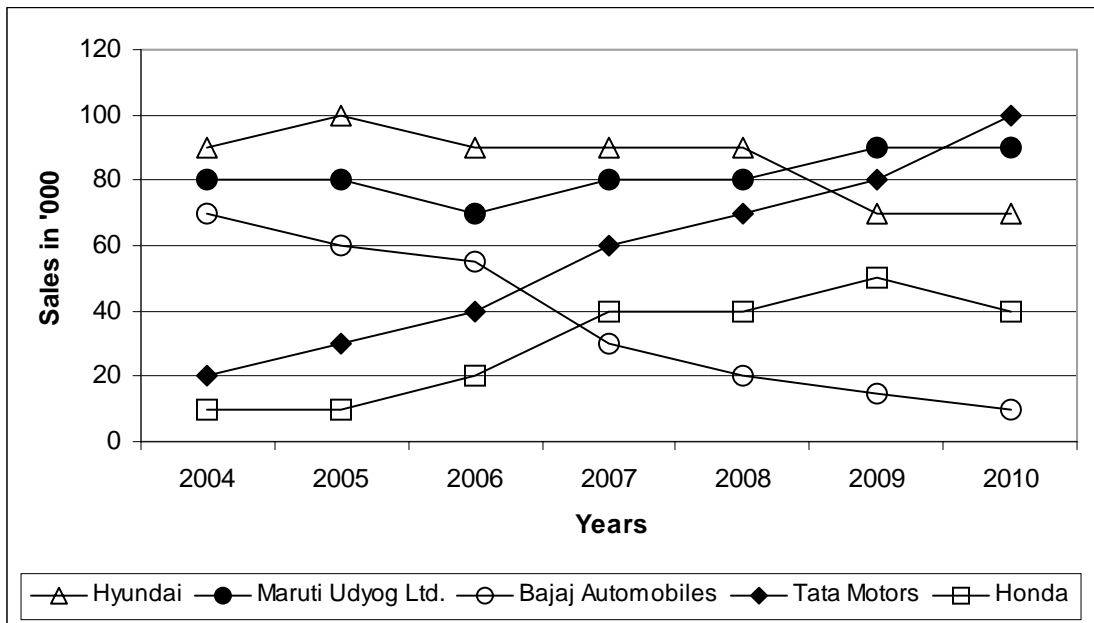
Directions for questions 69 to 72: Study the table and line graph given below to answer the questions that follow.

Table given below shows the production of cars by five different companies.

Companies / Years	Hyundai	Maruti Udyog Ltd.	Bajaj Automobiles	Tata Motors	Honda
2004	90	90	76	20	15
2005	100	85	65	32	15
2006	100	80	60	56	24
2007	95	80	35	60	40
2008	90	95	24	72	45
2009	75	100	20	80	51
2010	70	100	20	100	60

Production in '000

Line graph given below shows the sale of cars by five different companies.



69. How many of the following companies shows the consistent increase or decrease in the sale of the cars during the given years?
 (A) 0 (B) 1 (C) 2 (D) 3 (E) 4

70. If the selling price of one unit of car sold by Bajaj Automobiles is Rs. 3 lakhs and the cost of production of one unit of car by Bajaj Automobiles is Rs. 2.5 lakhs, then what is the total profit/loss incurred by Bajaj Automobiles during the given years?
 (A) Rs. 300 crores profit (B) Rs. 300 crores loss
 (C) Rs. 250 crores profit (D) Rs. 250 crores loss
 (E) None of these
71. Sales as a percentage of production is maximum for which of the following companies in the year 2006?
 (A) Maruti Udyog Ltd. (B) Bajaj Automobiles (C) Tata Motors
 (D) Hyundai (E) Honda
72. Which of the following companies shows the maximum percentage increase in the production of cars in the year 2009 as compared to the previous year?
 (A) Tata Motors (B) Hyundai (C) Bajaj Automobiles
 (D) Honda (E) Maruti Udyog Ltd.

Directions for questions 73 to 76: Study the table given below to answer the questions that follow.
 Table given below shows the number of parts of six different products produced during given seven days.

Products/ Days	A	B	C	D	E	F
Day 1	50	70	60	30	80	70
Day 2	60	40	50	40	60	80
Day 3	50	40	90	20	70	50
Day 4	40	60	70	30	50	30
Day 5	90	30	50	20	40	70
Day 6	30	40	80	60	50	40
Day 7	50	70	60	80	40	60

73. What is the difference between the average of the number of parts of product B produced during the given days and the number of parts of product D produced during the given days?
 (A) 70 (B) 20 (C) 10 (D) 60 (E) 40
74. Percentage increase or decrease in the number of parts produced during day 7 over day 6 is maximum for which of the following product?
 (A) A (B) B (C) D (D) F (E) None of these
75. The respective ratio of the number of parts of product 'A' produced and the number of parts of product 'F' produced is minimum during which of the following day?
 (A) Day 1 (B) Day 2 (C) Day 3 (D) Day 6 (E) Day 7
76. It takes 2 hours, 3 hours, 4 hours, 5 hours, 6 hours and 7 hours to produce one unit of product A, B, C, D, E and F respectively. If one worker works for exactly 8 hours, then what is the number of workers required during day 4? (Assume that the efficiency of each of the worker is same and they all work together).
 (A) 100 (B) 120 (C) 80 (D) 150 (E) 160

Direction for questions 77 to 80: Answer the following questions based on the given information.

As per the budget 2007-08, proposals for personal income tax: From the total salary income, $\frac{1}{3}$ rd of the income or Rs. 25,000, whichever is lower, may be deducted. From the dividend income, the total of dividend income or Rs. 20,000, whichever is lower, may be deducted. Up to Rs. 1,00,000, the investment is free from the tax. The balance after these deductions is taxable income. The first Rs. 1,10,000 is tax free. Up to Rs. 1,50,000, the tax is 10% of the income above Rs. 1,10,000. Above Rs. 1,50,000 to Rs. 2,50,000, it is 20% of the income above Rs. 1,50,000. Above Rs. 2,50,000, it is 30% of the income above Rs. 2,50,000. From the tax so calculated, $\frac{1}{5}$ th of the tax or subject to maximum of Rs. 10,000, may be deducted as rebate. For an individual above the age of 65 years, $\frac{1}{5}$ th of the tax or subject to maximum of Rs. 15,000 may be deducted as rebate from the tax so calculated.

77. If a 45 year-old person has a salary income of Rs. 3,50,000, dividend income of Rs. 75,000 and has made an investment of Rs. 40,000, then what is the amount due on him as income tax for the financial year 2007-2008?
(A) Rs.41,000 (B) Rs.38,500 (C) Rs. 33,000 (D) Rs. 19,000 (E) None of these
78. If a 35-year-old person has a salary income of Rs. 2,75,000, and has received no dividend income, then what could be the minimum amount of tax due on him for the financial year 2007-2008?
(A) Rs.24,000 (B) Rs.20,000 (C) Rs.12,000 (D) Rs.4,000 (E) Rs. 3,200
79. For the financial year 2007-2008, what could be the maximum income for a 40-year-old person who has no dividend income, has made the maximum tax-free investment and his total income tax for the financial year is zero?
(A) Rs. 2,10,000 (B) Rs. 2,35,000 (C) Rs. 2,55,000 (D) Rs. 2,40,000 (E) None of these
80. For the financial year 2007-2008, what could be the minimum income of a 70-year-old man who has no dividend income, has made the maximum tax-free investment and enjoys a rebate of Rs. 15,000?
(A) Rs. 3,75,000 (B) Rs. 3,80,000 (C) Rs.3,85,000 (D) Rs. 4,00,000 (E) None of these

Section – III

81. If sky is called milk, milk is called honey, honey is called fruit, fruit is called tree and tree is called water. Then leaves are found on?
(A) Tree (B) Sky (C) Honey (D) Water (E) Milk
82. In a certain code language, STRAIGHT is coded as SIFJZSST, then how CIRCULAR will be coded in the same code language?
(A) QHKBVSBD (B) QBKVBSHD (C) QBKBVSHD (D) DHSBVKBQ (E) None of these
83. If 'horse is black' is coded as %@\$, 'horse in field' is coded as #%& and 'black board field' is coded as \$&*, then what is the code for 'board is black'?
(A) *@\$ (B) \$*% (C) &@\$ (D) #%& (E) None of these

Directions for questions 84 to 88: Answer the following questions based on the given information. Six movies A, B, C, D, E and F were shown on 6 consecutive days with no two movie shown on the same day and only one distinct movie on each day.

1. A was the third.
2. B was the sixth.
3. C was immediately followed by D.
4. E was immediately before F.
84. Which movie was fifth if E was the first?
(A) C (B) D (C) F (D) C or D (E) D or C or F
85. Which movie was fourth if D was the second?
(A) F (B) C (C) A (D) E (E) Cannot be determined
86. If F was immediately before B, then which movie was immediately followed by A?
(A) D (B) F (C) E (D) C (E) None of these
87. How many arrangement/s is/are possible?
(A) 1 (B) 2 (C) 3 (D) 4 (E) None of these
88. Which of the following combinations can be possible?
A) C-Day-6 (B) D-Day-4 (C) F-Day-1 (D) E-Day-2 (E) None of these
89. Amit said to a woman, "The sister of your son is the daughter of my wife". How is Amit related to the woman?
(A) Son (B) Brother (C) Husband (D) Father (E) Nephew
90. If A's father is B's mother's only son, then how is B related to A's father?
(A) Sister (B) Aunt (C) Mother (D) Brother (E) Daughter

91. Pointing to a woman, a man said, "She is the sister of the father of my father's son". How is the woman related to the man?
 (A) Niece (B) Aunt (C) Mother (D) Sister (E) Cousin
92. A man goes 7 km in north direction, then he turns his right and moves 3 km and then he again turns his right and moves 7 km. How far is he from the starting point?
 (A) 7 km (B) 17 km (C) 20 km (D) 3 km (E) None of these
93. How many pair of letters in the word AMERICA have exactly the same number of letters as in the English alphabets?
 (A) Zero (B) One (C) Two (D) Three (E) None of these
94. Find the term in place of question mark?

3C	7B	5A
8A	?	1B
4B	2A	9C

- (A) 8C (B) 6B (C) 6C (D) 8A (E) None of these
95. Four of the five numbers given below all alike in a certain way so form a group. Which is one that does not belong to group?
 (A) 47 (B) 73 (C) 89 (D) 151 (E) 209
96. KN : QH :: SX : ?
 (A) ZR (B) YR (C) YQ (D) ZS (E) None of these

Directions for questions 97 and 98: Study the following information to answer the given questions. A word arrangement machine, when given an input line of words of rearranges them following a particular rule in each step. The following is an illustration of input and the steps of rearrangement.

Input: successful people do things differently.

Step I: differently successful people do things.

Step II: differently do successful people things.

Step III: differently do people successful things.

And step III is the output for the given input.

97. Which of the following will be the output for the given input?
Input: necessity is the mother of invention.
 (A) invention is necessity the mother of.
 (B) invention is mother necessity of the.
 (C) invention necessity is the mother of.
 (D) invention is mother necessity the of.
 (E) None of these

98. Which of the following step will be the output for the given input?
Input: necessity of literacy among farmers.
 (A) I (B) II (C) III (D) IV (E) V
99. Find the wrong term in the following series.
 4 27 16 125 36 243 64 729
 (A) 27 (B) 729 (C) 4 (D) 243 (E) 36
100. Complete the following series.
 23 36 47 54 59 ?
 (A) 61 (B) 62 (C) 63 (D) 65 (E) None of these
101. In the following arrangement, how many letters are there which are preceded by a number and followed by a symbol?
 n % 4 b 7 \$ # 2 h 9 f & j + k 6 d @ * s p 5 ? 3 y 1 t !
 (A) 1 (B) 2 (C) 3 (D) 4 (E) None of these
102. In the following arrangement, if second half is reversed, then which letter/symbol/number is 7th from right end?
 \$ g h 5 t # b 7 c & k 3 o ? p 2 e w s ! j 9 a m
 (A) w (B) ! (C) e (D) s (E) 9

Directions for questions 103 to 105: Answer the following questions based on the given information.
 Six members R, S, T, U, V and W are standing in two rows with equal number of members in each row. Members of one row are facing East and those in the other are facing West. Each member in one row is standing exactly opposite a member in the other row and facing each other. U stands in a row facing East, to the immediate left of S who is exactly opposite to V. T is to the left of V.

103. Which of the following members stands at the same row?
 (A) SRU (B) VWS (C) USW (D) SRU or USW (E) TVR or VTS
104. Who stands opposite to T?
 (A) R (B) W (C) U (D) W or U (E) Cannot be determined
105. If W stands right of S, then who stands right of V?
 (A) T (B) R (C) W (D) U (E) None of these

Directions for questions 106 to 110: Study the following statements and conclusions and then mark your answer as:

- (A) If only conclusion I follows.
- (B) If only conclusion II follows.
- (C) If both conclusion I and II follow.
- (D) If either conclusion I or II follows.
- (E) If neither conclusion I nor II follows.

106. **Statements:**

All doctors are honest. No honest is poor.

Conclusion:

- I. Some honest are doctors.
- II. No doctor is poor.

107. **Statements:**

Some trunks are chairs. All chairs are books.

Conclusion:

- I. Some books are trunks.
- II. All books are chairs.

108. **Statements:**

All suns are planets. All planets are stars.

Conclusion:

- I. Some planets are not suns.
- II. Some stars are suns.

109. **Statements:**

Some beautiful are smart. Some smart are not intelligent.

Conclusion:

- I. All smart are not intelligent.
- II. Some beautiful are not smart.

110. **Statements:**

Some biologists are mad. Some mad persons are intelligent.

Conclusion:

- I. Some biologists are intelligent.
- II. All intelligent persons are mad.

Directions for questions 111 to 115: Study the following information carefully and answer the questions that follow.

Following are the criteria for recruiting Managers in an organization:

The candidate must

1. be a graduate with at least 60% marks or a post graduate with 60% marks either at graduation or post graduation.
2. not less than 26 years and not more than 32 years in age as on 27. 09.2010.
3. should have secured at least 55% marks in the aptitude test and at least 50% marks in the group discussion and interview.
4. have at least 2 years work experience after completing graduation and/or post graduation. In case of a candidate who satisfies all the above criteria except
1 mentioned above, but has obtained a PhD degree, his/her case should be referred to the Regional Manager.
2 mentioned above but has a work experience of more than five years , his case should be referred to the Chairman.

Based on the criteria and the waivers given above and the information provided in each of the following questions, decide a proper course of action regarding the selection or rejection of the candidate. Do not assume anything from your side. The cases are given to you as on 27.09.2010. You are expected to decide wisely and select:

Mark the answer: (A) If the candidate is not to be recruited.

Mark the answer: (B) If the candidate is to be referred to the Chairman.

Mark the answer: (C) If the candidate is to be referred to the Regional Manager.

Mark the answer: (D) If the candidate is to be recruited.

Mark the answer: (E) If data is insufficient

111. Ankit Gupta has scored 65% marks in post graduation. He was born on 2 October 1985. He has secured 55% marks in aptitude test and 50% marks in GD. He has been working for 3 years after completing his post graduation.
112. Aakansha Yadav secured 65% marks in post graduation at the age of 26 and is working since then. She has topped the aptitude test by scoring 70% marks. She has scored 50% marks in GDPI.
113. Varun Pandit was 20 years old on 1st Jan 2003. He completed his graduation from Delhi University scoring 63% marks. He has been working in a bank since 6 then. He has a total work experience of 6 years . He obtained 56% marks in the aptitude test and 51 % marks in GDPI.
114. Ankita Khanijo was a university topper in graduation and scored 80% marks. She was born on 30 September 1984. She started working on 19 September 2008. She is doing well in her job. She has scored 55% and 53% in aptitude test and GDPI respectively.
115. Raman Pathak scored 79% marks in both graduation and post graduation. He was born on 2 October 1978. He has scored 55% and 50 % in aptitude test and GDPI respectively. He has A total work experience of 7 years (after completing his post-graduation).

Directions for questions 116 to 120: In each of the following questions a statement followed by two courses of action is given. Assume everything in the statement to be true and decide which of the suggested courses/course of action logically follow/follows and mark:

- (A) if only course of action I follows.
- (B) if only course of action II follows.
- (C) if either course of action I or II follows.
- (D) if neither course of action I nor II follows.
- (E) if both the courses of action I and II follow.

116. **Statement:**

The water supply in the city will be cut from 9.00 am to 8.00 pm in order to complete the pending repair work – A notice from city water department.

Arguments:

- I. People should take notice of this information and finish off their water related tasks before 9 am and co-operate with the authorities.
- II. People should go to the water department and complain about it.

117. **Statement:**

Due to increased pressure of studies on the students, there is a significant rise in the cases of suicide among the students- a newspaper report.

Arguments:

- I. The schools should try to reduce the burden of studies by making the classes more fun filled and interesting.
- II. It must be mandatory for every school to keep a Psychologist to guide and counsel the students.

118. **Statement:**

In a tragic incident, a terrorist entered the Jama Masjid and sprayed bullets on the devotees. 55 people were killed and 20 people were injured in the incident.

Arguments:

- I. The injured people should be immediately taken to the nearest hospital .
- II. An enquiry commission should be immediately set up and it must be asked to submit its report within a stipulated period of time.

119. **Statement:**

Many deserving students don't get into a good B-school as they don't know English well.

Arguments:

- I. Students should Practice hard to improve their English.
- II. The government should setup new B-schools which use Hindi and other regional languages as their medium of instruction.

120. **Statement:**

Despite our claim of being modern and liberal in thinking, the awareness regarding the spread of AIDS and other sexually transmitted diseases is abysmally low among the youth.

Arguments:

- I. The government should re-launch its AIDS awareness programme in an aggressive mode.
- II. The print and the electronic media should educate the youth about the various sexually transmitted diseases and methods of preventing them.

NMAT Mock - I

Answers and Explanations

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

1. A The tone of the passage is analytical as the author analyzes the motive and utility of caste enumeration and thoughtfully justifies his disapproval of the caste enumeration exercise.
2. B The main idea of the passage is that caste enumeration will be a futile exercise meant to serve the selfish desires of the politicians. Hence, option (B) is the correct option.
3. C As mentioned in the passage, the politicians want to fulfill their own selfish desires by the caste enumeration exercise and are not supporting it to help the oppressed people. Hence, option (C) is the correct option and all the other options are wrong.
4. A Staggering means astonishing or overwhelming. 'Bantam' means small and 'infinitesimal' means immeasurably small.
5. E 'CBAD' The word "him" in B refers to Mr. Joseph. B tells about the reason for ambiguity. Hence, CB form a mandatory pair. So option (A) and (C) are negated. Sentence A tells that most established religions are content with the status quo and D tells that this is the reason behind the current behavior of the Catholic Church in Mr. Joseph's case. So AD form another mandatory pair which is present in options (B) and (E). C should be the opening sentence of the paragraph as it introduces the case of Mr. Joseph and the various issues related to it are discussed in the following sentences. Hence, option (E) is the correct option.
6. E 'BDAC' Sentence B talks about the benefits of difference of opinion at the work place. D continues the idea of benefits but mentions that managing these benefits is not an easy task. Thus, BD form a mandatory pair. A explains the difficulties in managing these differences and tells us the repercussions. Hence, DA form another mandatory pair. C gives the solution to the problem as is best suited in the end. Hence, BDAC is the correct order of these sentences.
7. B 'BADC' B talks about the pragmatic considerations behind deferral of the implementation of DTC and A mentions one of those pragmatic considerations. So BA form a mandatory pair. D mentions that government may have to forgo 50,000 crores which relates with the unacceptability mentioned in C. So DC form another mandatory pair. Both the mandatory pairs are present only in option (B). Hence, (B) is the correct option.
8. D 'CDBA' DB form a mandatory pair (the word 'yet' is used to show contrast between feeling pride on being competent and the tendency to overlook our best skills). DB is present in options (B), (C) and (D). A summarizes what is mentioned in DB and C. So A should be placed in the end. Hence, the correct order is CDBA.
9. C 'CDBA' Sogen Kato is the man being talked about. So C should be the opening sentence and options (B), (D) and (E) get negated. B tells that the police says that Sogen's daughter had hidden his death and made money illegally which explains the reason for the suspicion mentioned in A. Hence, BA form a mandatory pair. So option (C) is the correct option.
10. B The correct sentence is "The Securities and Exchange Board of India must be commended for making it mandatory for media companies to disclose their stake, where such exists, in companies they write about." Disclosing their stake in companies about which they write will increase transparency and hence such a move by SEBI should be commended (praised) and not condemned or commented. In option (A) 'disclosing' is incorrect. In option (C) 'there' is incorrect and 'it' is missing. In option (D), 'with' is used incorrectly.
11. C 'A collection' is singular and should take a singular verb 'has'. Sylvia Path is a proper noun and should begin with a capital letter.
12. E The correct sentence should be "The battle with inflation is hardly over and the government will naturally have to remain vigilant." In option (A), the modifier 'naturally' is used incorrectly. 'Battle for inflation' means that we are fighting to attain inflation and is logically incorrect. In option (C), the modifier 'hardly' is used incorrectly. In option (D), 'hard over' is incorrect.
13. D 'Draw on' means to approach. 'Draw out' means to prolong something. The correct sentence is "The modern economy creates and spreads unprecedented prosperity by drawing on the resourcefulness and enterprise of many, not by blindly following the dictates of a few". Option (A) is incorrect due to incorrect phrasal verb. Option (B) is incorrect because of the usage of prosperous(adjective) instead of prosperity(noun). Option (C) has error of subject – verb agreement, the singular subject 'economy' should be used with a singular verb 'spreads'. Moreover 'few' means nothing, so option (C) is incorrect.
14. D Option (D) is the correct option: "But trade with countries that are run by abusive and corrupt governments does not necessarily benefit the people of those countries". Option (A) has errors of subject-verb agreement and parallelism. In (B), the subject is singular (trade) so the verb should also be singular. In (C), 'these' is incorrect.
15. D The tone is critical as the author criticizes and disapproves the acts of America and Britain.
16. A Obama mentioned the loss and problems felt by the Americans due to the war with Iraq but completely neglected the suffering of the Iraqis. Hence, option (A) is the correct option.

17. A The lines from the passage "Missing in this narration is any remorse over the hundred thousand Iraqis killed – a conservative estimate – or the destruction of the civic infrastructure that the people of Iraq had built up through years of arduous effort. Omitted entirely is the unsettled, potentially explosive, political mix that the US has bequeathed" help us to infer option (A). Option (B) and (C) cannot be inferred from the Obama's narration as they are contrary to the facts mentioned in the passage. Option (D) is incorrect as Obama never expressed remorse over the loss suffered by Iraq due to the war.
18. C Blair agrees that Saddam Had not played any role in the September 2001 attack but justifies his war against Saddam on the plea that Saddam could team up with the Al Qaida and Iran and rise against the western powers. Now, he gives the alibi that the success of the war got affected by the defeat of Saddam which created a power vacuum and indirectly led to the rise in power of Al Qaida and Iran in Iraq.
19. B 'Dissimulate' means to hide under a false appearance. 'Ingenuousness' means child-like simplicity or candidness. Hence, option (B) is the correct option.
20. C 'Vicissitude' means change or variation. Hence, stagnation is the most appropriate antonym.
21. A Smirk' means to smile in an affected or smug manner and 'simper' is its synonym. 'Bawl' means to cry loudly and 'whimper' means to cry with low, plaintive and broken sounds.
22. D 'Arduous' means difficult or onerous.
23. C Hive refers to the shelter of honey bees. Aerie refers to shelter (nest) of the eagle. Hence, option (C) is the correct option.
24. D Harangue is a scolding or a long or intense verbal attack and diatribe is its synonym. Similarly, abnegation and denial are synonyms.
25. A Profound and deep are synonyms. Similarly, heinous and abominable are synonyms ('heinous' means hatefully or shockingly evil).
26. B 'Impeccable' means flawless or perfect and indefectible is its synonym. Similarly obsolete and archaic are synonyms.
27. A Just as frog is an amphibian similarly turtle is a reptile.
28. D A whistle blower is a person who informs on another or makes public disclosure of corruption or wrongdoing. The sentence means that in order to protect the whistle blowers, we need to keep their name and identity hidden. So 'anonymity' is the apt word.
29. B A dishcloth is a cloth used for washing dishes. The sentence implies that dishcloths remain dirty even after they are rinsed. 'Slush' which means partly melted or watery snow and 'mired' which means to cover or soil with mire can be easily negated.
30. C In the given sentence, it is implied that there has been some negative effect on the academic atmosphere. The tone of the sentence is negative, as suggested by the words 'brutality' and 'irresponsibility'. So 'enshrine' which means 'to preserve or cherish as sacred' and 'ratify' which means 'to approve and sanction' are negated. 'Lacerate' which means to tear or rend roughly is not suitable in the given context. 'Vitiated' which means to debase in moral or aesthetic status or to make ineffective is the apt choice for the given sentence.
31. B Labyrinth means a place constructed of or full of intricate passageways and blind alleys. The tone of the sentence is sarcastic. The sentence means that running through the intricate passages of a labyrinth is easier than tracking the political processes in Jharkhand. 'Wobbling' which means to move clumsily and unsteadily does not match with the tone of the sentence. 'Throttling' which means to choke or suppress and 'chuckling' which means to laugh quietly are unsuitable in the given context. 'Waltzing' which means to advance easily and successfully matches well with the meaning and tone of the sentence.
32. C 'Obfuscate' means to make obscure or unclear. The sentence means that the Kashmir issue is further complicated by merging it with images that stoke fears of a resurgent Islam. 'Conflating' which means to fuse into one entity is the apt choice for this sentence. We distinguish something 'from' something and not 'with' something. 'Confiding' which means to show confidence by imparting secrets and 'transmuting' which means to change or alter in form, appearance, or nature and especially to a higher form are unsuitable for this sentence and are negated.
33. A Column I: $15\% \text{ of } 20\% \text{ of } 300 = 0.15 \times 0.2 \times 300 = 9$.
Column II: $20\% \text{ of } 10\% \text{ of } 400 = 0.2 \times 0.1 \times 400 = 8$.
Hence, the quantity in column I is greater than the quantity in column II.
34. B Column I: Selling price = $\text{Rs.}1650 \times 0.8 = \text{Rs.}1,320$.
Column II: $\text{Rs.}1,380$.
Hence, the quantity in column II is greater than the quantity in column I.
35. B Column I: Area of square = $12.2 \times 12.2 = 148.84 \text{ cm}^2$.
Column II: Sum of two sides = $\frac{50}{2} = 25 \text{ cm}$.
Sides of rectangles are $25 \times \frac{3}{5} = 15 \text{ cm}$ and 10 cm .

Area of the rectangle = $15 \times 10 = 150 \text{ cm}^2$.
Hence, the quantity in column II is greater than the quantity in column I.

- 36.D Column I: HCF of 64, 112 and 192 = HCF of 16×4 , 16×7 and $16 \times 12 = 16$.
Column II: Prime numbers between 2 and 61 = 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53 and 59 i.e. 16. Hence, the quantity in column I is equal to the quantity in column II.

- 37.B Column I: Simple interest = Rs. $\frac{4000 \times 8 \times 3}{100} = \text{Rs.} 960$.
Column II: Compound interest = Rs. $6,000 \times 1.08 \times 1.08 - \text{Rs.} 6,000 = \text{Rs.} 6,000 \times 1.08 \times 1.08 - \text{Rs.} 6,000 = \text{Rs.} 6998.40 - \text{Rs.} 6,000 = \text{Rs.} 998.40$.
Hence, the quantity in column II is greater than the quantity in column I.

- 38.D Column I: $2.42 \div 1.1 \times 2.2 - 0.91$ of 4
= $2.42 \div 1.1 \times 2.2 - 3.64$
= $2.2 \times 2.2 - 3.64$
= $4.84 - 3.64 = 1.2$.
Column II: Square root of 1.44 = 1.2.
Hence, the quantity in column I is equal to the quantity in column II.

39. A Let x and y be two numbers. Then,
 $x^2 + y^2 = 481$... (i)
 $x^2 - y^2 = 31$... (ii)
Adding (i) and (ii), we get
 $2x^2 = 512 \Rightarrow x^2 = 256 \Rightarrow x = \pm 16$
Therefore, $y = \pm 15$
Hence, the sum of the two numbers = 31 or 1 or -1 or -31.

- 40 .B Let x and y be two numbers. Then,
 $x + y = q \times 504$, where $q \in \mathbb{N}$.
 $x = 6y$
 $\therefore 6y + y = q \times 504$
 $\Rightarrow 7y = q \times 504$
 $\Rightarrow y = q \times 72$
 $\therefore x - y = 6y - y = 5y = 5 \times q \times 72 = 360 \times q$
Putting $q = 1, 2$
 $x - y = 360$ or 720.
Since, when difference = 360, then one number is two digit.
Hence, the required difference = 720.

41. D Let x and y be the unit's digit and the ten's digit respectively.
Then, number = $10y + x$ and when digits are reversed, then number = $10x + y$.
According to problem,
 $10x + y - (10y + x) = 27$
 $\Rightarrow x - y = 3$... (i)
and $x + y = 7$... (ii)

Solving (i) and (ii), we get
 $x = 5$ and $y = 2$
Hence, the required number is 25.

42. A α and β are the roots of the equation $x^2 + x + 1 = 0$.
 $\alpha + \beta = -1$
 $\alpha \times \beta = 1$
 $\therefore \frac{\alpha}{\beta} + \frac{\beta}{\alpha} = -a$
 $\Rightarrow \frac{\alpha^2 + \beta^2}{\alpha \times \beta} = -a$
 $\Rightarrow \frac{(\alpha + \beta)^2 - 2\alpha \times \beta}{\alpha \times \beta} = -a$
 $\Rightarrow \frac{(-1)^2 - 2 \times 1}{1} = -a$
 $\Rightarrow a = 1$.

43. C Let x and y be the age of Sohan and his two sons respectively. Then,
 $x = 2y$... (i)
 $x + 5 = y + 10 + 20$
 $\Rightarrow x = y + 25$... (ii)
Solving (i) and (ii), we get
 $y = 25$ years and $x = 50$ years.
Hence, Sohan's age is 50 years.

44. B Let the incomes of A and B be $5x$ and $7x$ respectively. Then,
 $\frac{5x - 3000}{7x - 3000} = \frac{2}{3}$
 $\Rightarrow 15x - 9000 = 14x - 6000$
 $\Rightarrow x = 3000$
Hence, the income of A = Rs. $3000 \times 5 = \text{Rs.} 15,000$.

45. C Pradeep's salary = Rs. $24,000 \times \frac{100}{75} = \text{Rs.} 32,000$.

46. C Let x be the total journey.
Then, average speed
 $= \frac{\frac{x}{\frac{x}{20}} + \frac{x}{\frac{x}{15}}}{2} = \frac{30 \times 40}{40 + 30} = 17.14 \text{ km/hr.}$

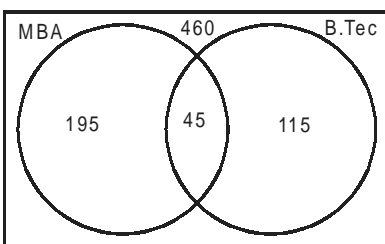
47. E Minimum size of tiles = 3×2
Therefore, maximum number of tiles
 $= \frac{72 \times 72}{3 \times 2} = 864$
Maximum size of tiles = 36×24

Therefore, minimum number of tiles

$$= \frac{72 \times 72}{36 \times 24} = 6$$

Hence, the required difference = $864 - 6 = 858$.

48. B

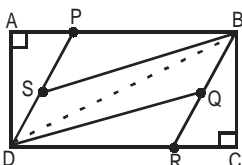


Required number of employees

$$= 460 - (195 + 45 + 115)$$

$$= 460 - 355 = 105.$$

49. C



$$\triangle APD \cong \triangle CRB \quad (\text{SAS congruency})$$

\Rightarrow PBRD is a parallelogram

Similarly, SBQD is a parallelogram

Now, in $\triangle PBD$, $PS = SD$

$$\therefore \text{Area } \triangle PBS = \text{Area } \triangle SBD = 'a'$$

$$\text{Now, in } \triangle ADB, \frac{AP}{PB} = \frac{1}{3}$$

$$\therefore 3 (\text{Area } \triangle APD) = \text{Area } \triangle PBD$$

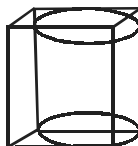
$$\therefore \text{Area } \triangle APD = \frac{2a}{3}$$

$$\therefore \text{Area of parallelogram SBQD} = 2a$$

$$\text{and area of rectangle ABCD} = \frac{16a}{3}$$

$$\therefore \text{Required ratio} = \frac{3}{8}$$

50. A



As cylinder completely fits into cubical tank

\therefore Cylinder's height = cylinder's diameter = side of tank

$$\therefore \text{Volume of cylinder} = \pi r^2 h = \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 7$$

$$= 269.5 \text{ cm}^3$$

$$\therefore \text{Volume of cubical tank} = (\text{side})^3 = 7^3 = 343 \text{ cm}^3.$$

$$\therefore \text{Required volume of water} = 343 - 269.5 = 73.5 \text{ cm}^3.$$

51. E

Let quantity of A = $3x$ Lts

and quantity of B = $7x$ Lts

\therefore 40 Lts of mixture contains,

$$\frac{3}{10} \times 40 \text{ Lts of A} = 12 \text{ Lts}$$

$$\text{and } \frac{7}{10} \times 40 \text{ Lts of B} = 28 \text{ Lts}$$

$$\therefore \frac{3x - 12}{10x} = \frac{20}{100} \Rightarrow x = 12 \text{ Lts}$$

$$\therefore \text{Quantity of 'B' in final mixture} = 7x - 28 \text{ Lts} = 56 \text{ Lts}.$$

52. E

Let list price = $3x$

$$\therefore CP = 2x$$

Now, after 20% discount on list price, it is equal to 120% SP

$$\therefore \frac{80}{100} \text{ List price} = \frac{120}{100} \text{ S.P.}$$

$$\Rightarrow 2(3x) = 3 \text{ SP}$$

$$\Rightarrow SP = 2x$$

As $CP = SP$

\therefore There is no profit, no loss.

53. B

As 15% of income = Rs. 30,000

\therefore Taxable savings = Rs. 10,000

$$\therefore \text{Tax incurred} = \text{Rs. } \frac{5}{100} \times 10000 = \text{Rs. } 500$$

Now, of the remaining income

\Rightarrow 10% charged first on Rs. 1,00,000

\therefore Tax = Rs. 10,000

and 20% charged on remaining Rs. 60,000

\therefore Tax = Rs. 12,000

$$\therefore \text{Total tax paid} = \text{Rs. } 500 + \text{Rs. } 10,000 + \text{Rs. } 12,000 = \text{Rs. } 22,500$$

54. D Let, number of students in school 'B' = $10x$
 \therefore Number of students in school 'A' = $7.5x$
 Let number of girls in school 'B' = $10y$
 \therefore Number of girls in school 'A' = $8.75y$
- $$\therefore \frac{8.75y}{7.5x} = \frac{35}{100}$$
- $$\Rightarrow \frac{y}{x} = \frac{3}{10} \Rightarrow y = \frac{3x}{10}$$
- \therefore Percentage of boys in school 'B' = $\frac{10x - 10y}{10x} \times 100$
- $$= \frac{10x - 3x}{10x} \times 100 = 70\%.$$
55. D From statement I, age of A = $\frac{3}{8} \times 48 = 18$ years and B = 30 years. Now we can find the ratio of the ages of A and B after 6 years. From statement II, age of A = $\frac{3}{5} \times 25 = 15$ years. Now we can find the ratio of the ages of A and B after 6 years. Hence, either using statement I or statement II alone we can answer the question.
56. A From statement I, $\angle B = \angle C$
- $$= \frac{180^\circ - 80^\circ}{2} = 50^\circ \quad [\text{Since, in } \triangle ABC, AB = AC]$$
- From statement II, $\angle A + \angle B + \angle C = 180^\circ$ [Property of triangle]
 Hence, using statement I alone we can answer the question.
57. E From statement I, the two numbers A and B can be (3, 7) or (5, 5). From statement II, the two numbers A and B are 3, 7 or 7, 3. Hence, using statement II alone we cannot answer the question.
 Also using both the statements, we cannot answer the question.
58. E Combining both statements I and II, we get radius of other sphere is 1 cm or 5 cm. Hence, using both the statements together we cannot answer the question.
59. B From statement II, $\angle ACB = 90^\circ$.
- $\therefore \angle CAB = \angle ABC = 45^\circ$. Therefore, $AC = BC$.
- In right angled $\triangle ABC$, $AC^2 + BC^2 = 20^2 \Rightarrow AC = 10\sqrt{2}$ cm. Statement I gives the property of semi circle. Hence, using statement II alone we can answer the question.
60. E From statement I, $x + y = 8$
 From statement II, $x - y = \pm 2$
 Combining both the statements, we get $(x, y) = (5, 3)$ or $(3, 5)$.
 Hence, using both the statements together, we cannot answer the question.
61. B Electricity consumption in agriculture in year 06-07 = $35400 \times 0.12 = 4248$ MW
 Electricity consumption in agriculture in year 08-09 = $42500 \times 0.15 = 6375$ MW
 Percentage increase
- $$= \frac{6375 - 4248}{4248} \times 100 = 50.07\%.$$
62. D Required electricity consumption = $42500 \times 0.13 = 5525$ MW.
63. A Required difference = $42500 \times 0.60 - 35400 \times 0.65 = 2490$ MW.
64. C Required ratio = $\frac{35400 \times 0.10}{42500 \times 0.12} = 59 : 85$.
65. B Required ratio = $\frac{6,00,000}{5,50,000} = 12 : 11$.
66. D Required percentage = $\frac{450}{400 + 350} \times 100 = 60\%$.
67. A Average production of coffee A
- $$= \frac{(400 + 450 + 550 + 500 + 600 + 650) \times 1000}{6}$$
- = 525000 tonnes.
- Average production of coffee B
- $$= \frac{(350 + 400 + 300 + 500 + 550 + 600) \times 1000}{6}$$
- = 450000 tonnes.
 Required difference = $525000 - 450000 = 75000$ tonnes.
68. C Production of tea = $(500 + 600 + 450 + 550 + 700 + 800) \times 1000 = 3600 \times 1000$ tonnes.
 Required percentage
- $$= \frac{800 \times 1000}{3600 \times 1000} \times 100 \approx 22.22\%.$$
69. C Tata Motors shows the consistent increase and Bajaj Automobiles shows the consistent decrease.

70. A Total number of cars produced by Bajaj Automobiles during the given years = 3,00,000.
Total number of cars sold by Baja Automobiles during the given years = 2,60,000
 \therefore Net profit/loss
 $= 2.6 \times 10^5 \times 3 \times 10^5 - 3 \times 10^5 \times 2.5 \times 10^5$
 $= (7.8 - 7.5)10^{10}$
 $= \text{Rs. } 300 \text{ crores profit.}$

71. B Sales as a percentage of production for

$$\text{Hyundai} = \frac{90}{100} = 0.9$$

$$\text{Maruti Udyog Ltd.} = \frac{70}{80} = 0.875$$

$$\text{Bajaj Automobiles} = \frac{55}{60} = 0.917$$

$$\text{Tata Motors} = \frac{40}{56} = 0.714$$

$$\text{Honda} = \frac{20}{24} = 0.833$$

\therefore It is maximum for Bajaj Automobiles.

72. D Percentage change in production of cars in 2009 over 2008 for

$$\text{Hyundai} = -\frac{15}{90} = -0.167$$

$$\text{Maruti Udyog Ltd.} = \frac{5}{95} = 0.052$$

$$\text{Bajaj Automobiles} = -\frac{4}{24} = -0.167$$

$$\text{Tata Motors} = \frac{8}{72} = 0.111$$

$$\text{Honda} = \frac{6}{45} = 0.133$$

\therefore Percentage increase is maximum for Honda.

73. C Total number of parts of product B produced = 350

$$\therefore \text{Average} = \frac{350}{7} = 50$$

Total number of parts of product D produced = 280

$$\therefore \text{Average} = \frac{280}{7} = 40$$

\therefore Required difference = $50 - 40 = 10$.

74. B Percentage change for:

$$\text{Product A} = \frac{20}{30} = 0.667$$

$$\text{Product B} = \frac{30}{40} = 0.75$$

$$\text{Product C} = -\frac{20}{80} = -0.25$$

$$\text{Product D} = \frac{20}{60} = 0.333$$

$$\text{Product E} = -\frac{10}{50} = -0.2$$

$$\text{Product F} = \frac{20}{40} = 0.5$$

\therefore It is minimum for product 'B'.

75. A Ratio of the number of parts of product 'A' and the number of parts of product 'F' produced during

$$\text{Day 1} = \frac{50}{70} = 0.714$$

$$\text{Day 2} = \frac{60}{80} = 0.75$$

$$\text{Day 3} = \frac{50}{50} = 1$$

$$\text{Day 4} = \frac{40}{30} = 1.33$$

$$\text{Day 5} = \frac{90}{70} = 1.28$$

$$\text{Day 6} = \frac{30}{40} = 0.75$$

$$\text{Day 7} = \frac{50}{60} = 0.833$$

\therefore It is minimum during day 1.

76. D Number of hours required to produced:

$$\text{Product A} = 40 \times 2 = 80 \text{ hours}$$

$$\text{Product B} = 60 \times 3 = 180 \text{ hours}$$

$$\text{Product C} = 70 \times 4 = 280 \text{ hours}$$

$$\text{Product D} = 30 \times 5 = 150 \text{ hours}$$

$$\text{Product E} = 50 \times 6 = 300 \text{ hours}$$

$$\text{Product F} = 30 \times 7 = 210 \text{ hours}$$

\therefore Total number of hours = 1200

$$\therefore \text{Number of workers required} = \frac{1200}{8} = 150.$$

77. A The taxable income was (Rs.3,50,000 + Rs. 75,000 – Rs. 25,000 – Rs. 20,000 - Rs.1,10,000 – Rs. 40,000) i.e. Rs.2,30,000.

The calculated tax was Rs. 40,000 (0.1) + Rs.1,00,000 (0.2) + Rs.90,000 (0.3) i.e Rs.51,000

Paid Tax after rebate = Rs. 51,000 – Rs.10,000 = Rs. 41,000.

78. E The minimum taxable income was (Rs. 2,75,000 – Rs. 20,000 – 1,10,000 – 1,00,000) i.e. 40,000.

The calculated tax was Rs. 40,000 (0.1) i.e. Rs. 4,000.
Paid Tax after rebate = Rs. 4,000 – 4,000 (0.2) i.e. Rs.3,200.

79. B The maximum income when no income tax was paid = Rs. 110,000 + Rs.1,00,000 + Rs 25,000 = Rs. 2,35,000

80. E Taken exactly rebate of Rs. 15,000 i.e. his minimum calculated income tax was Rs.75,000. So the taxable income was (Rs. 40,000 + Rs. 1,00,000 + Rs. 1,70,000) i.e. Rs. 3,10,000.
So his minimum income was (Rs. 110,000 + Rs. 25,000 + Rs. 100,000 + Rs.310,000) i.e. Rs. 545,000.

81. D Since, leaves are found on tree and tree is called water. Hence, leaves are found on water.

82. B $S(19) + 1 = T(20)$
 $T(20) - 1 = S(19)$
 $R(18) + 1 = S(19)$
 $A(1) - 1 = Z(26)$
 $I(9) + 1 = J(10)$
 $G(7) - 1 = F(6)$
 $H(8) + 1 = I(9)$
 $T(20) - 1 = S(19)$

Now reversing the order of the letters. Hence, the code of the STRAIGHT is SIFJZSST.

Similarly,

- $C(3) + 1 = D(4)$
 $I(9) - 1 = H(8)$
 $R(18) + 1 = S(19)$
 $C(3) - 1 = B(2)$
 $U(21) + 1 = V(22)$
 $L(12) - 1 = K(11)$
 $A(1) + 1 = B(2)$
 $R(18) - 1 = Q(17)$

Hence, the code of CIRCULAR is QBKVBSDH.

83. A From 1st and 2nd statements, code for horse is %, from 2nd and 3rd statements code for field is & and from 1st and 3rd statements code for black is \$. Therefore, board is *. Hence, the code for 'board is black' is *@%.

Solution for 84 to 88:

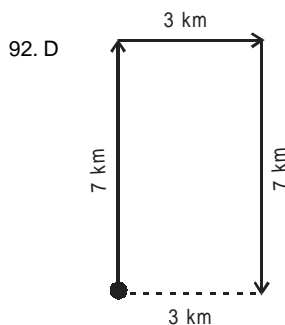
The given information can be tabulated as:

Day	1	2	3	4	5	6
Movie	C	D	A	E	F	B

OR

Day	1	2	3	4	5	6
Movie	E	F	A	C	D	B

84. B 85. D 86. A 87. B 88. E
89. C Woman's son's sister is the daughter of woman. Hence, Amit is the husband of the woman.
90. A Since, A's father is B's mother's only son. Therefore, B is A's father's sister.
91. B Father of my father's son means my father. Sister of my father means my aunt. Hence, woman is the aunt of man.



He is from 3 km from starting point.

93. B There is only one pair EA in the word AMERICA.
94. C The sum of the numbers of each row/column is 15 and in each row/column has one A, one B and one C. Hence, the missing term is 6C.
95. E Except 209 all numbers are prime numbers.
96. B $K(11) + 6 = Q(17)$ and $N(14) - 6 = H(8)$
Therefore, $S(19) + 6 = Y(25)$ and $X(24) - 6 = R(18)$.
Hence, the required term is YR.

For questions 97 and 98: Every step involves the arrangement one word in alphabetical order.

97. B **Input:** necessity is the mother of invention.
Step I: invention necessity is the mother of.
Step II: invention is necessity the mother of.
Step III: invention is mother necessity the of.
Step IV: invention is mother necessity of the.

98. C **Input:** necessity of literacy among farmers.
 Step I: among necessity of literacy farmers.
 Step II: among farmers necessity of literacy.
 Step III: among farmers literacy necessity of.

99. D 4 27 16 125 36 243(343) 64 729
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
 2^2 3^3 4^2 5^3 6^2 7^3 8^2 9^3
 Hence, the wrong term is 243.

100. B 23 36 47 54 59 ?(62)
 ↑ ↑ ↑ ↑ ↑ ↑
 +13 +11 +7 +5 +3

Here, 13, 11, 7, 5 and 3 are prime numbers.

101. C There are three letters f, d and t.

102. D \$ g h 5 t # b 7 c & k 3 o ? p 2 e w s ! j 9 a m
 After reversing second half, we get
 \$ g h 5 t # b 7 c & k 3 m a 9 j ! s w e 2 p ? o
 Hence, seventh from right end is s.

Solution for 103 to 105:

The given information can be tabulated as:

R	V	T	↓ West
U	S	W	↑ East

OR

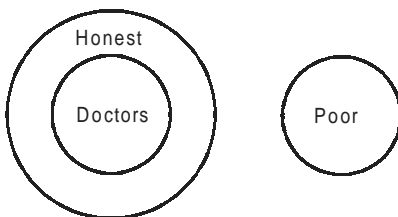
W	V	T
U	S	R

103. D

104. E

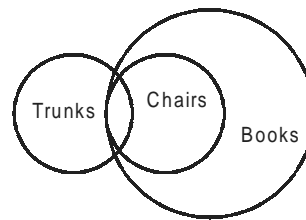
105. B

106. C



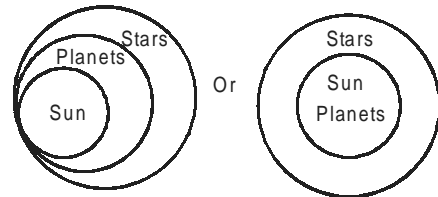
Both the conclusions follow.

107. A



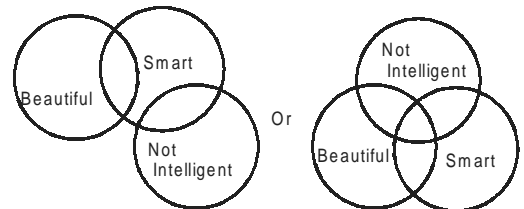
Only conclusion I follows.

108. B



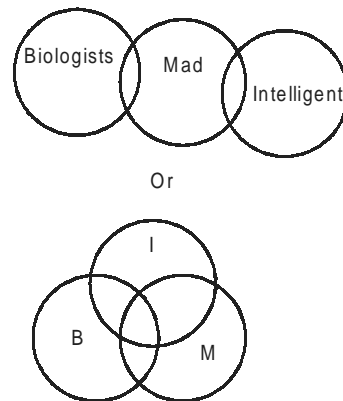
Only conclusion II follows.

109. E



Neither conclusion I nor II follows.

110. E



Neither conclusion I nor II follows.

111. A The candidate is less than 26 years in age and cannot be recruited.	116. A Complaining to the authorities is not a logical step to handle the problem.
112. E The candidate's age and years of working experience have not provided in the date. Hence, the data is inadequate.	117. E Both the steps need to be taken.
113. D Since the candidate satisfies all the eligibility requirements, he should be recruited.	118. E Both the steps need to be taken.
114. A The candidate is less than 26 years in age and cannot be recruited.	119. A Only A follows as it is a logical action. Changing the medium of instruction will not be a wise decision.
115. D Since the candidate satisfies all the eligibility requirements, he should be recruited.	120. E Both the actions need to be taken.