

SECTION I  
ENGLISH LANGUAGE

Questions 1-7.

Passage I

Though the last twenty-five years have seen China dazzle the world with its excellent economic performance it has shielded away from playing the kind of active role in international affairs that would seem commensurate with its economic weight. This is because traditionally, China's politics have been defined by the need for economic development above all else. In the past China's authorities have tended to downplay the country's international clout, choosing to stress instead its development country status and limited military capabilities. Such modest rhetoric was intended to **allay** the fears that China's rise was causing across its immediate neighbourhood. That Beijing is finally acknowledging its status as a major player in the international system is evidenced by the fact that the President has formally developed a theory of international relations: the concept of harmonious world. The concept, encompassing broad notions of multilateralism, prosperity for all through common development and tolerance for diversity has left world opinion perplexed. These are commendable objectives but the theory is short on specifics regarding the means to achieve them.

China's recent willingness to be a more active player internationally stems from complex factors. The country's economic strength—having acquired the largest foreign exchange reserves in the world—is undeniable and reports favour it to be the largest economy in the next quarter of a century. For sustained double digit economic growth China thus has no choice but to become more active internationally. Moreover as a major proportion of the oil and other natural resources that China needs to feed its growing economy are imported Beijing has to aggressively woo the countries rich in energy resources, which also represent emerging markets for Chinese products. To ensure a stable security environment within the region and thus facilitate economic growth China played an active role in facilitating negotiations with North Korea. Destabilization of a potential flashpoint like the Korean peninsula would lead to a flood of refugees crossing the border, interrupting careful plans economic rejuvenation of China's North-East. China's growing influence has caused a shift in the geopolitical status quo and its influence is beginning to replace that of the United States and European powers in Africa. China's new diplomacy though has had its share of critics who have expressed their unease at China's military modernization programme and its willingness to deal with regimes widely condemned as corrupt and oppressive. Despite this when the Africa was in need of aid and infrastructure or the US needed help in negotiating with Korea they turned to China. By taking a lead in a variety of international and regional forums, initiating bilateral and

military exchange and dispensing aid and technical assistance in parts of the world where traditional powers are cautious to tread China has signalled that its days of sitting on the sidelines, content to let other shape world affairs are emphatically over.

**1.** Which has been the fallout of China's increased participation in world affairs?

- (1) International scrutiny of its economic policies
- (2) Its influence and prestige grow substantially
- (3) None of these
- (4) Growth of corruption among its politicians
- (5) Its growth rate has stabilized

**2.** Why has China traditionally been a passive spectator in global affairs?

- (1) To safeguard its oil resources
- (2) To conceal its economic predicament
- (3) Economic dominance of the US
- (4) To maintain security in its vicinity
- (5) To focus on domestic economic growth

**3.** Which of the following best describes China's international status?

- (1) Cause of insecurity among developing nations
- (2) Largest economy in the world
- (3) Largest donor of aid to developing countries
- (4) Pioneer of implementing a "harmonious world" philosophy
- (5) None of these

**4.** The main purpose behind Beijing's intervention in North Korea is to:

- (1) Ensure that the US acknowledges China's growing military influence
- (2) Prevent any hindrances to its domestic economic development programmes
- (3) Protect its financial investment in neighbouring countries
- (4) Provide humanitarian assistance to one of its strongest allies Korea.
- (5) None of these

**5.** Which of the following CANNOT be said about China's international relations theory?

- (1) The theory is ambiguous in nature
- (2) The theory reflects China's realization that it occupies a vital place in global affairs
- (3) It promotes the concept of common development for all nations
- (4) It is a theory which explains China's sustained growth rate
- (5) It emphasizes achieving prosperity through universal development.

**6.** Which of the following is TRUE in the context of the passage?

- (1) China's current political standing internationally is disproportionate to its financial strength

- (2) China is a reluctant participant in military dialogues
- (3) The harmonious world theory is the only utilitarian remedy to the current challenges facing the world
- (4) The US has recognized and acknowledged China's growing international reputation
- (5) China has stopped dealing with corrupt countries because of international pressure.

7. Which of the following is an outcome of Beijing's role in Africa?

- (1) America's influence in the region has reduced
- (2) Instability in the region
- (3) The amount of aid from Europe and other countries has doubled
- (4) The balance of power in Africa has shifted in favour of Europe over the US
- (5) None of these

#### Questions 8-20.

##### Passage II

In the debates following the International Day for the Elimination of Violence Against Women observed a few days ago, some critical issues have come to the fore. Is it time to advocate for a completely separate **apparatus** of courts, law enforcement mechanisms and laws for women? What are the strengths and limits of such a proposal?

The issue of separate courts for women or family disputes has been a subject of debate for many years. A number of States have already set up special courts for women, including Maharashtra, with proposals pending in Karnataka and Delhi. These courts have taken on different incarnations at the State level with the Maharashtra courts designated as family courts to deal with family disputes and matrimonial matters; the Delhi courts are intended to deal exclusively with rape cases. However, the idea behind the special courts is to deal speedily with atrocities against women.

In 2006, a Bill to set up special courts for women was introduced in the Lok Sabha. The courts are intended to deal primarily with offences of rape, criminal assault, mental injury and sexual harassment against women. The courts are to be presided over by a chief judge, with additional judges appointed depending on the requirement in specific cases, and at least half of the judges' posts are to be reserved for women.

The idea behind these special courts is that they will provide speedy justice to women and be women-friendly as well. These courts are also intended to provide a more private space for women, especially to rape victims who are frequently traumatized by the trial process that currently exists.

The idea of separate women police cells has also been mooted from time to time. The Centre has been advising State governments regarding the steps that need to be taken, especially at the level of law enforcement, to afford greater protection to women and in particular to prevent crimes against them. These advisories include gender sensitization of the police, adopting appropriate measures for swift and effective punishment to public servants found guilty of custodial violence against women, minimizing delays in investigations of murder, rape and torture of women and setting up 'crimes against women cells' in districts where they do not exist.

The National Commission for Women has also undertaken visits to various States to review the status of women and conduct its own investigations in certain cases of serious incidents of crime against women. The Commission's findings

indicate that the level of sensitivity and care with which crimes against women are handled is **woefully** inadequate. It has also observed that the filing of FIRs even in **acutely** abusive or violent cases continues to be a problem. The setting up of women police cells is one of the ways in which to alleviate these problems.

While proposals for separate courts, police cells and specific laws for women are demands that women themselves are making, there is a need to be attentive to the ways in which such initiatives might actually **boomerang**. Addressing women's issues of violence in a separate court structure could **sequester** women's issues into a dark corner, where reports of violence and abuse become **muted**. The role of the media in bringing the spotlight to bear on issues of violence has been crucial.

8. Which of the following was/were the points of debate that followed the celebration of International Day for Elimination of Violence against Women?

- (A) Propriety of setting up separate courts for dealing with matters related to atrocities against women
  - (B) Whether there should be a separate women police cell
  - (C) Whether there should be a separate set of laws devised exclusively to deal with problems related to women
- (1) A and B only                      (2) B and C only  
 (3) A and C only                      (4) All the three  
 (5) None of these

9. Which of the following is definitely **TRUE** about the courts for women?

- (A) Family courts in Maharashtra and special courts for women in the other States have a common ideological base.
  - (B) Special courts for women in Delhi have been dealing exclusively with rape cases since 2006.
  - (C) Karnataka State is not in favour of special courts for women.
- (1) Only B                              (2) Only C  
 (3) Only A                              (4) A and B only  
 (5) None of these

10. Which of the following is/are the objective(s) of setting up special courts for women?

- (A) Hastily disposing of the cases involving women so that the time so saved could be better utilized for settling other disputes
  - (B) Providing privacy for hearing so that probable embarrassment of women, particularly rape victims, is avoided.
  - (C) Frequently traumatizing the accused of rape victims so that they are duly penalized for their misdeed.
- (1) Only A                              (2) Only B  
 (3) Only C                              (4) A and C only  
 (5) None of these

11. Which of the following is **NOT similar** in meaning to the word "**Boomerang**" as used in the passage?

- (1) Pull back                            (2) Bounce back
- (3) Rebound                            (4) Ricochet
- (5) Come back

12. The word "**they**" in the last line of the fifth paragraph refers to:

- (1) women                              (2) crimes
- (3) districts                              (4) rape and torture
- (5) None of these

13. The assumption underlying the proposal for reservation of at least fifty per cent posts of judges for women is that:

- (1) women have better capability to judge criminal cases
- (2) male judges cannot be impartial in their judgement
- (3) male judges are likely to tilt their judgement unduly in favour of women victims
- (4) women judges can easily become duly women friendly and still remain impartial
- (5) male judges cannot be gender-sensitized easily

**14.** By establishing separate women police cells, all of the following are likely to be realized EXCEPT—

- (1) greater protection to women
- (2) prevention of crimes against women
- (3) quicker and effective punishment to the guilty of crime against women
- (4) punitive action against media unduly highlighting the crimes
- (5) None of these

**15.** The author of the passage seems to be:

- (1) apprehensive about the effectiveness of special courts, laws and separate cells for women
- (2) in favour of status quo regarding measures to deal with cases against women
- (3) a strong opponent of the idea of having separate laws and courts for women
- (4) unduly and irrationally against the male members
- (5) treating women folk too much vulnerable to crimes

*Questions 16-18. Choose the word which is most nearly the SAME in meaning as the word given in bold as used in the passage.*

**16. apparatus**

- (1) premises
- (2) machinery
- (3) stationery
- (4) functions
- (5) regulations

**17. acutely**

- (1) highly
- (2) intentionally
- (3) primarily
- (4) mechanically
- (5) legally

**18. muted**

- (1) negligible
- (2) nullified
- (3) subdued
- (4) neutralized
- (5) empathetic

*Questions 19-20. Choose the word which is most OPPOSITE in meaning of the word given in bold as used in the passage:*

**19. sequester**

- (1) confiscate
- (2) hide
- (3) capture
- (4) impound
- (5) restore

**20. woefully**

- (1) dolefully
- (2) rudely
- (3) significantly
- (4) cheerfully
- (5) mercilessly

*Questions 21-30. In each question below, a sentence is given with a part of it printed in bold type. That part may contain a grammatical error. Each sentence is followed by phrases (1), (2), (3) and (4). Find out which phrase should replace the phrase given in bold to correct the error; if there is any, and to make the sentence grammatically meaningful and correct. If the sentence is correct as it is and no correction is required, mark (5) as the answer.*

**21.** Many public servants can become **untrustworthy and corruption.**

- (1) untrustful and corruption
- (2) untrusting and corruption
- (3) untrusting and corruptive
- (4) untrustworthy and corrupt
- (5) No correction required

**22.** **Systematic and carefully** analysis of spoken languages must be done by scholars.

- (1) Systematic and careful
- (2) Systematically and careful
- (3) Systematically and carefully
- (4) System of carefully
- (5) No correction required

**23.** The descriptions of the plight of the miserables were **very touching.**

- (1) was very touching
- (2) were very touchy
- (3) had very touching
- (4) had been very touchy
- (5) No correction required

**24.** **Mere being equipped** by mora programming does not mean we practice moral behaviour.

- (1) Mere being equipped with
- (2) Merely being equipped with
- (3) Mere equipping by
- (4) Merely being equipped for
- (5) No correction required

**25.** His works of art **rank high in the appraisal** for competent critics:

- (1) are high rank in the appraisal for
- (2) are ranking high with the appraisal of
- (3) rank high in the appraisal of
- (4) rank high by the appraisal of
- (5) No correction required

**26.** **As years rolled by,** his name and fame spread all through the country.

- (1) When years rolled by
- (2) When years rolled through
- (3) As years rolled upon
- (4) After years rolled by
- (5) No correction required

**27.** Blessed with much intelligence, he **saw very few meanings** in religious rites that are performed as mere rituals.

- (1) observes very few meanings
- (2) saw quite a few meanings
- (3) looked for very few meanings
- (4) saw little meaning
- (5) No correction required

**28.** He **was devoted his time meticulously** for the good of his people.

- (1) was meticulous to be devoted his time
- (2) devoted his time meticulously
- (3) was meticulous in his time to devote
- (4) had been devoted his time meticulously
- (5) No correction required

**29.** Many problems that India **faces today are wrought with** the potential for destroying her very integrity as a nation.

- (1) has faced everyday are wrought with
- (2) faces today are wrought by
- (3) faced these days have wrought with
- (4) faces today have wrought with
- (5) No correction required

**30.** Newton states that he could not have made his discoveries **his predecessors had not shown** him the right path.

- (1) if his predecessors were not shown
- (2) had his predecessors not been shown
- (3) had his predecessors not shown
- (4) if his predecessors had not been shown

(5) No correction required

**Questions 31-40.** In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

The warning against carbon emissions, which is (31) the Earth, just got more urgent. The UN Human Development Report said on Tuesday that (32) the global community agreed to (33) emissions by half by 2050, the world would face huge economic setbacks and also ecological (34). "We are on the (35) of seeing human development (36) for the first time in 30 years", Kevin Watkins, the author of the report was (37) as saying. The report said the poor nations would be hit the (38) as they are the least (39) to face nature's (40), manifest in devastating storms and droughts.

- 31.** (1) depriving (2) entangling  
(3) warming (4) blackening  
(5) harassing
- 32.** (1) if (2) because  
(3) notwithstanding (4) without  
(5) unless
- 33.** (1) cut (2) aggravate  
(3) enhance (4) diminish  
(5) eradicate
- 34.** (1) balances (2) atmosphere  
(3) concerns (4) catastrophes  
(5) anxieties
- 35.** (1) step (2) verge  
(3) top (4) extreme  
(5) enshrinement
- 36.** (1) shaping (2) nurturing  
(3) extent (4) reverse  
(5) annihilation
- 37.** (1) quoted (2) observed  
(3) found (4) interrogated  
(5) defined
- 38.** (1) best (2) largest  
(3) hardest (4) least  
(5) strongest
- 39.** (1) worried (2) engaged  
(3) willful (4) struggled  
(5) equipped
- 40.** (1) boon (2) fury  
(3) blessing (4) deadline  
(5) encroachment

SECTION II  
QUANTITATIVE SKILLS, DATA ANALYSIS  
AND SUFFICIENCY

**Questions 41-55.** What should come in place of question mark (?) in the following questions?

- 41.**  $(193 - 87) \div (1.25 \times 2) = ?$   
(1) 67.8 (2) 56.9  
(3) 42.4 (4) 38.6  
(5) None of these
- 42.**  $3870 \div ? = 516$   
(1) 7.5 (2) 12.25  
(3) 5.85 (4) 15.65  
(5) None of these
- 43.**  $5389 + 4172 - 3868 - ? = 2456 + 1130$   
(1) 2007 (2) 1897

- (3) 1987 (4) 2117  
(5) None of these
- 44.**  $88.8 + 8.08 + 0.08 + 88.08 + 0.80 + 888 = ?$   
(1) 1037.14 (2) 1073.84  
(3) 1370.24 (4) 1703.54  
(5) None of these
- 45.**  $(88)^2 + (73)^2 = (?)^2 - (38)^2 - 859$   
(1) 15876 (2) 15376  
(3) 126 (4) 124  
(5) None of these
- 46.**  $312 \times ? \times 14 = 157843 + 56189$   
(1) 48 (2) 50  
(3) 52 (4) 54  
(5) None of these
- 47.**  $[(56)^2 \div 8 \times 36] \div ? = 117 \times 24$   
(1) 37 (2) 39  
(3) 41 (4) 43  
(5) None of these
- 48.**  $(8.83\% \text{ of } 228) - (2.65\% \text{ of } 104) = ?$   
(1) 17.3764 (2) 13.3467  
(3) 17.3746 (4) 13.7746  
(5) None of these
- 49.**  $(23)^{10} \times (23)^{-10} = ?$   
(1) 529 (2) 23  
(3)  $\sqrt{12167}$  (4)  $(529)^2$   
(5) None of these
- 50.**  $8.496 - 1.384 + 3.462 + 2.801 = ?$   
(1) 11.876 (2) 17.775  
(3) 13.375 (4) 21.545  
(5) None of these
- 51.**  $(25)^2 + \sqrt{7} - (19)^2 = 385$   
(1) 121 (2) 1331  
(3) 14641 (4) 11  
(5) None of these
- 52.**  $4\frac{4}{13} \times 9\frac{1}{6} \div \frac{7}{78} = ?$   
(1) 520 (2) 230  
(3) 340 (4) 450  
(5) None of these
- 53.**  $(78.34 + 96.68 - 14.44) \div 4 = ?$   
(1) 40.145 (2) 43.875  
(3) 48.965 (4) 15.235  
(5) None of these
- 54.**  $22.4\% \text{ of } 668 + 15.75\% \text{ of } 194 = ?$   
(1) 198.187 (2) 180.187  
(3) 173.187 (4) 165.187  
(5) None of these
- 55.**  $1728 \div 48 \times 5 + 12 = \sqrt{?}$   
(1) 36846 (2) 36486  
(3) 36468 (4) 36864  
(5) None of these
- 56.** The ratio of ages of a husband and his wife is 3 : 2 and the sum of their ages is 60 years. The age of wife is: (in years)  
(1) 30 (2) 36  
(3) 20 (4) 24  
(5) 28
- 57.** How many bricks, each measuring 25 cm  $\times$  11.25 cm  $\times$  6 cm are required to construct a wall 8m  $\times$  6m  $\times$  22.5 cm? (Neglect volume of cement used).  
(1) 7200 (2) 6400  
(3) 4500 (4) 6000  
(5) 5600

**58.** Find the ratio in which water and wine are to be mixed, so that there is 20% profit, even on selling the mixture at the cost price.

- (1) 2 : 8  
(2) 4 : 1  
(3) 2 : 5  
(4) 1 : 4  
(5) 1 : 5

**59.** A tank can be filled by pipes A and B in 10 minutes and 12 minutes respectively. Another pipe can drain out a full tank in 20 minutes. How much time will it take to fill the whole tank if all the taps are open?

- (1) 15 minutes  
(2) 8 minutes  
(3) 5 minutes  
(4)  $\frac{30}{7}$  minutes  
(5) None of these

**60.** A man goes to his office from home, on cycle, at 20 km/hr and returns on motorcycle with his friend, at 40 km/hr. His average speed (km/hr) is: (approx.)

- (1) 25  
(2) 27  
(3) 30  
(4) 33  
(5) 35

**61.** A boy is trying to ascend a slippery pole, 14 m high. He ascends 2 m in the 1st minute and slips down 1 m in the next minute. If this process continues, how much time will it take him to go to the top (in minutes)?

- (1) 13  
(2) 12  
(3) 24  
(4) 25  
(5) 26

**62.** Two equal glasses are  $\frac{1}{2}$  and  $\frac{1}{3}$  full of milk. They are filled with water and mixed in a jar. What is the ratio of milk to water now?

- (1) 2 : 3  
(2) 3 : 4  
(3) 4 : 5  
(4) 6 : 5  
(5) 5 : 7

**63.** A train, 100m long, can cross a 200m long platform in 20 seconds. What is the speed of the train in km/hr?

- (1) 15  
(2) 10  
(3) 36  
(4) 54  
(5) 108

**64.** A speaks truth in 60% cases and B in 40% cases. An event occurs. Both give their own statements. What are the chances that they will give contradictory statements?

- (1) 50%  
(2) 52%  
(3) 45%  
(4) 58%  
(5) 100%

**65.** The price of a new brand of motorcycle is increased by 10% before budget and 20% after the budget. What is the net % increase?

- (1) 32  
(2) 30  
(3) 28  
(4) 25  
(5) 22

**66.** 22% gain on SP is how much gain?

- (1) 20%  
(2) 25%  
(3) 15%  
(4) Can't be said  
(5) None of these

**67.** In a mixed collection of peacocks and deer, if legs are counted they are 40 but if heads are counted, they are just 15. How many peacocks are there?

- (1) 5  
(2) 7  
(3) 8  
(4) 10  
(5) 12

**68.** 3 iron cubes of edges 10cm, 6cm and 8cm are melted and new, larger, single cube is formed. The edge of the new cube is:

- (1) 9 cm  
(2) 11 cm  
(3) 12 cm  
(4) 24 cm  
(5) 48 cm

**69.** X can finish a job in 40 days. Y is 60% more efficient than X. How much time will Y take?

- (1) 25 days  
(2) 24 days  
(3) 16 days  
(4) 20 days  
(5) 64 days

**70.** Which number should replace both the question marks in the following equation?

$$\frac{?}{1083} = \frac{75}{?}$$

(1) 255  
(2) 295  
(3) 285  
(4) 235  
(5) None of these

**71.** One-eighth of a number is 41.5. What will 69% of that number be?

- (1) 229.08  
(2) 225.76  
(3) 219.12  
(4) 232.4  
(5) None of these

**72.** By how much is  $\frac{2}{9}$ th of 279 lesser than  $\frac{7}{8}$ th of 216?

- (1) 131  
(2) 139  
(3) 119  
(4) 127  
(5) None of these

**73.** Samarth started a business investing Rs 55,000. After 4 months Vishal joined him with a capital of Rs 40,000. At the end of the year the total profit was Rs 33,957. What is the difference between the share of profits of Samarth and Vishal?

- (1) Rs 11,088  
(2) Rs 22,781  
(3) Rs 11,781  
(4) Rs 22,869  
(5) None of these

**74.** The compound interest accrued on an amount of Rs 16,800 at the end of two years is Rs 5,418. What would be the simple interest accrued on the same amount at the same rate in the same period?

- (1) Rs 5,070  
(2) Rs 5,140  
(3) Rs 5,210  
(4) Rs 5,280  
(5) None of these

**75.** The ages of Chinmay and Maulik are in the ratio of 5 : 2 respectively. After 7 years the ratio of their ages will be 4 : 3. What is age of Chinmay?

- (1) 10 years  
(2) 5 years  
(3) 6 years  
(4) 12 years  
(5) None of these

*Questions 76-80: Study the table carefully to answer the questions that follow :*

**Year and Streamwise number of Students enrolled in Engineering Colleges**

| Streams →<br>Years ↓ | Electrical | Electronics | Mechanical | Civil | Information<br>Technology |
|----------------------|------------|-------------|------------|-------|---------------------------|
| 2001                 | 252        | 447         | 343        | 506   | 264                       |
| 2002                 | 260        | 470         | 369        | 590   | 241                       |
| 2003                 | 286        | 514         | 398        | 600   | 310                       |
| 2004                 | 332        | 545         | 447        | 678   | 340                       |
| 2005                 | 355        | 620         | 500        | 623   | 397                       |
| 2006                 | 421        | 646         | 485        | 640   | 416                       |
| 2007                 | 467        | 580         | 510        | 710   | 475                       |

**76.** What is the difference between the average number of Students enrolled in Mechanical Stream over the given years and the average number of Students enrolled in Civil Stream

over the given years?

- (1) 282 (2) 185  
 (3) 272 (4) 75  
 (5) None of these

**77.** What is the difference between the total number of Students enrolled in Electrical Stream over the given years and the total number of Students enrolled in Information Technology Stream over the given years?

- (1) 70 (2) 225  
 (3) 770 (4) 1379  
 (5) None of these

**78.** What is the respective ratio of number of Students enrolled in Civil Stream to the number of Students enrolled in Mechanical Stream in the year 2006?

- (1) 4 : 3 (2) 127 : 98  
 (3) 37 : 43 (4) 128 : 97  
 (5) 97 : 128

**79.** Over the years, which stream has witnessed the maximum % increase?

- (1) Electrical (2) Electronics  
 (3) Mechanical (4) Civil  
 (5) Information Tech.

**80.** In which year did mechanical stream witness the maximum increase?

- (1) 2007 (2) 2006  
 (3) 2005 (4) 2004  
 (5) None of these

*Questions 81-85: These questions are based on the following information:*

Seven persons A, B, C, D, E, F and G attended workshops on electronics in 7 different schools P, Q, R, S, T, U and V, on different days of the week from Monday to Sunday. B attends workshop in school S on Wednesday. D does not attend P or R and attends on the next day to E, who attends U, on Friday. G attends on Monday but not in R and V. C attends school P but not on Tuesday.

**81.** Who attends workshop on Saturday?

- (1) C (2) D  
 (3) E (4) D or E  
 (5) None of these

**82.** C attends workshop on which of these days?

- (1) Saturday (2) Sunday  
 (3) Tuesday (4) Thursday  
 (5) Friday

**83.** Who attends school R and on which day?

- (1) A, Thursday (2) A, Tuesday  
 (3) D, Saturday (4) D, Sunday  
 (5) E, Monday

**84.** On which day does D attend the school?

- (1) Sunday (2) Saturday  
 (3) Tuesday (4) Can't be said  
 (5) None of these

**85.** Which of these group is correct?

- (1) G—Q—Wednesday (2) A—Q—Monday  
 (3) G—R—Monday (4) G—V—Sunday  
 (5) None of these

*Questions 86-90: Study the following table for the number of pass and fail students in various classes and schools and answer the Qs 86-90.*

| Class→  | VI         | VII        | VIII       | IX         | X          |
|---------|------------|------------|------------|------------|------------|
| School↓ | Pass, Fail | Pass, Fail | Pass, Fail | Pass, Fail | Pass, Fail |
| A       | 20, 4      | 30, 3      | 36, 6      | 70, 5      | 80, 4      |
| B       | 25, 5      | 20, 4      | 40, 5      | 60, 5      | 100, 1     |
| C       | 30, 3      | 25, 5      | 46, 4      | 50, 6      | 120, 2     |
| D       | 15, 1      | 25, 2      | 48, 5      | 40, 4      | 150, 3     |
| E       | 60, 2      | 30, 1      | 50, 0      | 80, 10     | 100, 0     |

**86.** What is the overall fail % (approx)?

- (1) 10 (2) 8 (3) 6 (4) 5 (5) 4

**87.** What is the respective ratio of the total number of Pass Students of Class VI to that of Class VIII from all the Schools together?

- (1) 9 : 11 (2) 181 : 221  
 (3) 81 : 123 (4) 21 : 32  
 (5) None of these

**88.** Which Class has maximum number of Pass Students from all the Schools together?

- (1) VIII (2) VII  
 (3) IX (4) X  
 (5) None of these

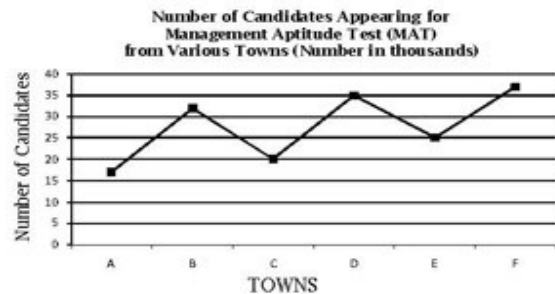
**89.** What is the average number of Pass students of all the classes together of School E?

- (1) 80 (2) 74 (3) 71  
 (4) 64 (5) 60

**90.** What is the respective ratio of the total number of Fail students of Class IX to the total number of Fail students of Class X from all the Schools together?

- (1) 2 : 1 (2) 3 : 4 (3) 4 : 5 (4) 6 : 7  
 (5) None of these

*Questions 91-95: Study the following graph carefully to answer the questions:*



**91.** What is the respective ratio of the number of candidates appearing for the MAT from Town B to Town E?

- (1) 11 : 8 (2) 13 : 10  
 (3) 6 : 5 (4) 23 : 27  
 (5) None of these

**92.** What is the approximate average number of candidates appearing for MAT from all the Towns together?

- (1) 29950 (2) 28900  
 (3) 27920 (4) 26940  
 (5) 30930

**93.** The number of candidates appearing for MAT from Town A is approximately what per cent of the number of candidates appearing for MAT from Town F?

- (1) 53 (2) 67  
 (3) 39 (4) 71  
 (5) 47

**94.** What is the respective ratio of the number of students

appearing for the MAT from Town A, B and C together to the number of students appearing for the MAT from Town D, E and F together?

- (1) 28 : 39 (2) 3 : 2  
 (3) 9 : 10 (4) 14 : 13  
 (5) None of these

**95.** The number of candidates appearing for MAT from Town C is approximately what per cent of the total number of candidates appearing for MAT from all the Towns together?

- (1) 13 (2) 17  
 (3) 21 (4) 12  
 (5) None of these

**Questions 96-100:** Each question below is followed by two statements A and B. You are to determine whether the data given in the statement is sufficient for answering the question. You should use the data and your knowledge of Mathematics to choose between the possible answers.

Give answer:

- (1) if the statement A alone is sufficient to answer the question, but the statement B alone is not sufficient.  
 (2) if the statement B alone is sufficient to answer the question, but the statement A alone is not sufficient  
 (3) if both statements A and B together are needed to answer the question.  
 (4) if either the statement A alone or statement B alone is sufficient to answer the question.  
 (5) if you cannot get the answer from the statement A and B together, but need even more data.

**96.** What is the rate p.c.p.a. on an amount of Rs 15,000 deposited in a Bank?

- (A) The simple interest for two years is Rs 3,600.  
 (B) The difference between the simple interest and compound interest is Rs 216.

**97.** What is the value of the two digit number?

- (A) The product of the digits is 28 and the difference between the digits is 3.  
 (B) The digit at the unit place is smaller than the other.

**98.** The ages of Neera and Shalu are in the ratio of 2 : 1. What is the age of Shalu?

- (A) The ages of Shalu and Sugandha are in the ratio of 2 : 1.  
 (B) After 4 years the ratio of Neera's and Shalu's ages will be 3 : 2.

**99.** What is the profit earned by selling a chair for Rs 250?

- (A) A cost price of 10 such chairs is equal to selling price of 8 such chairs.  
 (B) 25% profit is earned by selling 4 such chairs.

**100.** What is the salary of A, in a group of A, C, E, G, H and J, whose average salary is Rs 25,000?

- (A) Total of the salary of C and E is Rs 54,000.  
 (B) Total of the salary of G and H is Rs 58,000.

### SECTION III

#### INTELLIGENCE & LOGICAL REASONING

**101.** Four of the following five are alike in a certain way and so form a group. Which is the one that **does not** belong to the group

- (1) Tin (2) Gold  
 (3) Brass (4) Copper  
 (5) Silver

**102.** In a certain code LOAD is written as 3#%5 and VIDE

is written as @5\$6. How is DOVE written in that code?

- (1) 5#@6 (2) 5#\$6  
 (3) 5\$@6 (4) 5#@6  
 (5) None of these

**103.** How many such pairs of letters are there in the word DONATIVE; each of which have as many letters between them in the word, as they have in English alphabet?

- (1) None (2) One  
 (3) Two (4) Three  
 (5) More than three

**104.** If it is possible to make only one meaningful word from the first, the third, the fourth, the seventh and the eighth letters of the word DIAMETERICAL, second letter of that word is your answer. If more than one such word can be formed, your answer is P and if no such word can be formed your answer is N.?

- (1) R (2) M  
 (3) E (4) N  
 (5) P

**105.** AE : DH in the same way as JN : ?

- (1) MQ (2) LQ  
 (3) LP (4) MR  
 (5) None of these

**Questions 106-110:** In these questions the symbols @, #, \$, \* and % are used with different meanings as follows:

- 'A @ B' means 'A is neither smaller than nor equal to B'.  
 'A # B' means 'A is not greater than B'.  
 'A \$ B' means 'A is neither greater than nor equal to B'.  
 'A \* B' means 'A is neither greater than nor smaller than B'.  
 'A % B' means 'A is not smaller than B'.

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

**Statements:**

**106.** H @ L, L \* J, J \$ K, K % F

**Conclusions:**

- I L \* F  
 II K @ L  
 III H @ K  
 (1) Only I is true  
 (2) Only II is true  
 (3) Only I and II are true  
 (4) All are true  
 (5) None of these

**Statements:**

**107.** R % M, M @ V, V # W, W @ T

**Conclusions:**

- I R @ V  
 II M # W  
 III R @ W  
 (1) Only I is true  
 (2) Either only I or II is true  
 (3) Only II and III are true  
 (4) None is true  
 (5) None of these

**Statements:**

**108.** D @ J, J \* K, K % M, M \$ N

**Conclusions:**

- I D @ M  
 II M # J  
 III N \* D

- (1) Only I is true
- (2) Only II is true
- (3) Only I and II are true
- (4) Either I or III and II are true
- (5) None of these

Statements:

**109.** F # R, R S T, T S V, W % V

Conclusions:

- I. R S W
  - II. W @ T
  - III. V @ F
- (1) None is true
  - (2) Only I and II are true
  - (3) Only I and III are true
  - (4) Only II and III are true
  - (5) All are true

Statements:

**110.** X @ Y, Y # T, T S V, V @ R

Conclusions:

- I. X @ V
  - II. X # V
  - III. V @ Y
- (1) Only I and II are true
  - (2) Only Either I or II is true
  - (3) Only III is true
  - (4) Only Either I or II and III are true
  - (5) None of these

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

Statements:

- 111.**
1. Some books are novels.
  2. All novels are stories.
  3. All stories are fictions.
  4. No fiction is poem.

Conclusions:

- I. No story is poem.
  - II. No novels are fictions.
  - III. Some books are fictions.
- (1) Only I and II follow
  - (2) Only II and III follow
  - (3) Only I and III follow
  - (4) Only I and either II or III follow
  - (5) All follow

Statements:

- 112.**
1. Some flowers are buds.
  2. All buds are petals.
  3. No petal is pollen.
  4. All pollen is fragrance.

Conclusions:

- I. No bud is pollen.
  - II. No flower is fragrance.
  - III. No petal is fragrance.
- (1) Only I follows
  - (2) Only I and III follow
  - (3) Only II and III follow
  - (4) None follows
  - (5) None of these

Statements:

- 113.**
1. Some gems are pearls.
  2. Some pearls are rings.
  3. All rings are bangles.
  4. All bangles are pendants.

Conclusions:

- I. Some pears are bangles.
  - II. Some pendants are pearls.
  - III. No pendant is pearl.
- (1) Only either II or III follows
  - (2) Only either I or III follows
  - (3) Only I and II follow
  - (4) Only I and III follow
  - (5) None of these

Statements:

- 114.**
1. All cells are batteries.
  2. All batteries are curtains.
  3. Some curtains are clothes.
  4. All clothes are shirts.

Conclusions:

- I. All cells are curtains.
  - II. Some batteries are shirts.
  - III. Some curtains are shirts.
- (1) Only I and II follow
  - (2) Only I and III follow
  - (3) Only I follows
  - (4) None follows
  - (5) None of these

Statements:

- 115.**
1. Some bottles are idols.
  2. Some idols are temples.
  3. No temple is room.
  4. All rooms are flats.

Conclusions:

- I. Some temples are flats.
  - II. No idol is room.
  - III. No temple is flat.
- (1) Only I follows
  - (2) Only I and II follow
  - (3) All I, II and III follow
  - (4) Only either I or III follows
  - (5) None of these

**Questions 116-120:** Given an input line the machine arranges the words and numbers step by step in a systematic manner as illustrated below:

Input : subsidy 76 48 follow 35 next 63 must

Step I : 35 subsidy 76 48 follow next 63 must

Step II : 35 subsidy 48 76 follow next 63 must

Step III : 35 subsidy 48 next 76 follow 63 must

Step IV : 35 subsidy 48 next 63 76 follow must

Step V : 35 subsidy 48 next 63 must 76 follow

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

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

**116.** If the second step of an input is "21 white direct 72 status front 37 69", how many more steps are required to complete the arrangement?

- (1) Three
- (2) Four
- (3) Five
- (4) Six
- (5) None of these

**117.** What will be the third step for the input "17 85



pearls garland 67 93 restriction judgement”?

- (1) 17 restriction 67 pearls garland 85 93 judgement
- (2) 17 restriction 67 pearls 93 garland 85 judgement
- (3) 17 restriction 85 pearls 67 garland 93 judgement
- (4) 17 restriction 67 pearls 85 garland 93 judgement
- (5) None of these

**118.** If the fourth step of an input is “35 wealth 52 task 72 57 jogging playground” what will definitely be the first step?

- (1) task wealth 35 52 57 jogging 72 playground
- (2) wealth task 35 52 57 jogging 72 playground
- (3) wealth task 35 52 jogging 57 72 playground
- (4) Cannot be determined
- (5) None of these

**119.** If the second step of an input is “26 shop finance 48 game music 63 37”; what will be the fifth step?

- (1) 26 shop 37 music 48 finance game 63
- (2) 26 shop 37 music finance 48 game 63
- (3) 26 shop 37 music 48 game finance 63
- (4) There is no fifth step
- (5) None of these

**120.** How many steps are required to complete the arrangement for the input “56 punish 48 find design 29 lavish 36”?

- (1) Seven
- (2) Five
- (3) Four
- (4) Eight
- (5) None of these

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

**Digit/Symbol :** # 1 5 8 \$ 3 7 2 9 @ % ↑ 6 4 ⊕

**Letter Code :** P I A R J H F W L T Q E D U B

**Conditions :**

- i. If the first element is a symbol and the last element is an odd digit, their codes are to be swapped.
- ii. If the first as well as the last element is a symbol, both are to be coded by the code for the first element.
- iii. If the first element is an even digit and the last one is a symbol both are to be coded by X.

**121.** 57#8\$@

- (1) TFPRJA
- (2) AFPRJT
- (3) AFRPTJ
- (4) TFRPJA
- (5) None of these

**122.** ©84@39

- (1) LRUTHB
- (2) BRUTHL
- (3) BRTUHL
- (4) LRUHTB
- (5) None of these

**123.** ↑8413\$

- (1) JRUIHJ
- (2) JRUIHE
- (3) ERUIHE
- (4) ERUIHJ
- (5) None of these

**124.** 25@7#\$

- (1) WATFPJ
- (2) WATFPW
- (3) JATFPJ
- (4) XATFPJ
- (5) None of these

**125.** %43698

- (1) RUHDLQ
- (2) QUHDLR

- (3) QUHDLQ
- (5) None of these

(4) RUHDLR

**Questions 126-130:** Study the following information carefully to answer these questions.

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

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

**126.** Which of the following group of people represent one complete family?

- (1) GJF
- (2) GKF
- (3) GKH
- (4) AJH
- (5) None of these

**127.** How is J related to F?

- (1) Father
- (2) Brother
- (3) Son
- (4) Cannot be determined
- (5) None of these

**128.** How is H related to K?

- (1) Daughter
- (2) Son
- (3) Mother
- (4) Cannot be determined
- (5) None of these

**129.** Four members travel in which Car

- (1) Car I
- (2) Car II
- (3) Car III
- (4) Car I or II
- (5) Car II or III

**130.** Which of the following combination of family and its members is correct?

- (1) X—A, F, H
- (2) Y—G, K, H
- (3) Z—A, J, F
- (4) X—G, J, H
- (5) Y—C, D, E, B

**Questions 131-135:** In each of the following questions two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the questions below the rows of numbers are to be answered. The operations of numbers progress from left to right.

**Rules:**

- (i) If a two digit even number which is not a perfect square is followed by a prime number they are to be multiplied.
- (ii) If an even number is followed by another even number, the first number is to be divided by the second number.
- (iii) If an composite odd number is followed by another odd number they are to be added.
- (iv) If an even number which is a perfect square is followed by an odd number the second number is to be subtracted from the first number.
- (v) If a prime number is followed by an odd number, they are to be multiplied.
- (vi) If an odd number is followed by an even number the second one is to be subtracted from the first number.

**131.** 28 11 44  
x 25 37

If x is the resultant of the first row. What is the resultant of the second row?

- (1) 212 (2) 138  
(3) 202 (4) 198  
(5) None of these

**132.** 64 15 m  
17 21 76

If m is the resultant of the second row, what is resultant of the first row?

- (1) 303 (2) 330  
(3) 230 (4) 406  
(5) None of these

**133.** 48 16 15  
256 a 60

If 'a' is the resultant of the first row what is the resultant of second row?

- (1) 251 (2) 271  
(3) 171 (4) 151  
(5) None of these

**134.** 23 15 95  
x 10 17

If 'x' is the resultant of first row, what is the resultant of the second row?

- (1) 425 (2) 8  
(3) 42 (4) 72  
(5) None of these

**135.** 32 7 14  
57 y 15

If 'y' is the resultant of the first row, what is the resultant of the second row?

- (1) 415 (2) 56  
(3) 52 (4) 325  
(5) None of these

**Questions 136-140:** Below in each question are given two statements (A) and (B). These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choices correctly depicts the relationship between these two statements.

Mark answer:

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

Statements:

- 136.** (A) Rise in petrol prices was announced recently.  
(B) Number of cars on the road is increasing constantly.

Statements:

- 137.** (A) A bandh was called on Monday in protest against land acquisition to set up SEZs.  
(B) Violence and arson totally disrupted normal life on Monday.

Statements:

- 138.** (A) The health department of the government of State 'X' ordered all the hospitals to store sufficient stock of medicines to handle the epidemics generally breaking out at the onset of monsoon.  
(B) The health department of the government of State 'X' campaigned the need for maintaining cleanliness among public particularly those residing in slum areas.

Statements:

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

Statements:

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

**Questions 141-145:** Study the following information carefully to answer these questions.

H, K, L, M, J, D, F, T and W are sitting around a circle facing the center. L is second to the right of T and third to the left of W. H is second to the left of T. J is fourth to the left of M who is not neighbour of L. F is to the immediate left of J. D is not neighbour of W.

- 141.** Who is second to the right of D?  
(1) M (2) F (3) K  
(4) K or F (5) None of these  
**142.** Who is to the immediate left of H?  
(1) F (2) M (3) J  
(4) K (5) None of these

**143.** Which of the following pairs of persons have the first person sitting to the immediate right of second person?

- (1) HT (2) MT (3) FJ  
(4) WF (5) FL

**144.** Which of the following is the correct position of W with respect to L?

- (1) Second to the left (2) Third to the left  
(3) Third to the right (4) Second to the right  
(5) None of these

**145.** Four of the following five are alike in a certain way on the basis of their positions in the above arrangement and so form a group. Which is the one that does not belong to the group?

- (1) MDT (2) KWH  
(3) FLJ (4) DTL  
(5) MHT

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

Mark Answer:

- (1) if the inference is "definitely true" i.e. it properly follows from the statement of facts given.  
(2) if the inference is "probably true" though not "definitely true" in the light of the facts given.

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

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

**146.** About 60% of the fibre, used by developed countries are man-made?

**147.** Strengthening of rupee has helped India to enhance its cotton exports?

**148.** India is the largest cotton exporter in the world.

**149.** Indian government has reduced the taxes on exports of cotton recently.

**150.** India has an edge over other countries in the cotton-made fabrics.

#### ANSWERS AND EXPLANATIONS

1. (5)
2. (5)...defined by the need for economic development above all else.
3. (5)...is beginning to replace that of the US and European powers.
4. (2) ...To ensure a stable ...flood of refugees, interrupting careful plans.
5. (3) ...critics who have expressed their unease at China's military.
6. (4) Despite this, when the Africa ...or the US...
7. (1) China's growing influence has caused a shift.
8. (4) "law enforcement" in 1st para, 2nd sentence → police.
9. (5) Para 2
10. (2) Para 4, A appears correct but is a too-far-reached conclusion.
11. (1)... All others Suggest Automatic returns.
12. (2)
13. (4) Para 4 ....provide speedy justice to women and be women...friendly as well.
14. (4)
15. (1) ....last para...while proposals...need to be attentive.
16. (2)
17. (1)
18. (3)
19. (2)
20. (4)
21. (4)
22. (1)
23. (5)
24. (2)
25. (4)
26. (5)
27. (4)
28. (2)
29. (2)
30. (3)
31. (3)
32. (5)
33. (1)
34. (4)
35. (2)
36. (5)
37. (1)
38. (3)
39. (5)
40. (2)
41. (3)  $(198 - 87) \div (1.25 \times 2)$

$$= \frac{106}{2.5} = 42.4$$

$$42. (1) ? = \frac{3870}{516} = 7.5$$

$$43. (5) ? = 5389 + 4172 - 3868 - 2456 - 1130 = 2107$$

$$44. (2) ? = 88.80 + 8.08 + 0.08 + 88.08 + 0.80 + 888.00 = 1073.84$$

$$45. (2) ?^2 = 88^2 + 73^2 + 38^2 + 859 = 7744 + 5329 + 1449 + 859 = 15376$$

$$46. (5) \text{ Given Expression} = 157843 + \frac{56189 \times 14}{312} = 49. (\text{none})$$

$$47. (2) \text{ The given expression} = \frac{156 \times 156}{8} \times \frac{36}{x} = 117 \times 24 \rightarrow x = 39$$

$$48. (1) \rightarrow \frac{8.83}{100} \times 228 - \frac{2.65}{100} \times 104 \rightarrow 17.3764$$

$$49. (4) \rightarrow 23^{23-19} = 23^4 = (23)^2)^2 = (529)^2$$

$$50. (3) 8.496 - 1.384 + 3.462 + 2.801 = 13.375$$

$$51. (3) \sqrt{7} = 385 + 19^2 - 25^2 = 385 + 361 - 625 \rightarrow ? = 121^2 \rightarrow ? = 14641$$

$$52. (5) 4 \frac{4}{13} \times 9 \frac{1}{6} \div \frac{7}{78} = \frac{56}{13} \times \frac{55}{6} \times \frac{78}{7} = 440$$

$$53. (1) \frac{78.34 + 96.68 - 14.44}{4} = \frac{160.58}{4} = 40.145$$

54. (5) The last digit is 5.

$$55. (4) \frac{1728}{48} \times 5 + 12 = \sqrt{7} \rightarrow 36 \times 5 + 12 = \sqrt{7} \rightarrow 192 = \sqrt{7} \rightarrow \dots ? = 192^2 = 56864$$

$$56. (4) \text{ Let ages} = 3x, 2x, \dots \rightarrow 3x + 2x = 5x = 60 \rightarrow x = 12 \rightarrow 3x = 24$$

$$57. (2) \text{ Volume of wall} = \text{Volume of 'n' bricks} \rightarrow 800 \times 600 \times 22.5 = (25 \times 11.25 \times 6) \times n \rightarrow n = \frac{800 \times 600 \times 22.5}{25 \times 6 \times 11.25} = 32 \times 100 \times 2 = 6400$$

$$58. (5) \text{ If CP} = \text{Rs } 100, \text{ SP} = 100 + 20\% = \text{Rs } 120 \text{ Now, CP of water} = \text{Rs } 0 \therefore \text{Water : Wine} = 20 : 100 = 1 : 5$$

59. (5) Let the no. of mins be  $x$

$$\begin{aligned} \rightarrow \frac{1}{x} &= \frac{1}{10} + \frac{1}{12} - \frac{1}{20} \\ &= \frac{12+10-6}{120} = \frac{8}{120} \\ \rightarrow x &= \frac{60}{8} = 7.5 \text{ mins} \end{aligned}$$

60. (2) Use average speed =  $\frac{\text{Total d}}{\text{Total t}} = \frac{x+x}{\frac{x}{20} + \frac{x}{40}}$   
 $= 26.67 \approx 27$   
 OR, directly, average speed =  $\frac{2 \times 30 \times 40}{20 + 40} = 26.67 \approx 27$

61. (4) He covers, 1m (=2-1) in 2mins  
 $\therefore$  He covers 12 m in  $12 \times 2 = 24$  mins  
 In the 25th minute, he covers another 2m distance i.e.  $12 + 2 = 14$  m

62. (5) Required ratio =  $\frac{\left(\frac{x}{2} + \frac{x}{3}\right)}{\left(\frac{x}{2} + \frac{2x}{3}\right)}$   
 $= \frac{5x}{7x} = 5:7$

63. (4)  $s = \frac{\text{distance}}{\text{time}} = \frac{100+200}{20} = 15 \text{ m/s}$   
 Now,  $15 \frac{\text{m}}{\text{s}} = 15 \times \frac{18}{5} \text{ km/hr} = 54 \text{ km/hr}$

64. (2) They will contradict if A speak s truth and B tells lies or vice -versa.  
 $A = \frac{60}{100}, A' = \frac{40}{100}, B = \frac{40}{100}, B' = \frac{60}{100}$   
 Required probability =  $\frac{60}{100} \times \frac{60}{100} + \frac{40}{100} \times \frac{40}{100}$   
 $= \frac{52}{100} = 52\%$

65. (1) Net increase =  $\frac{110}{100} \times \frac{120}{100} = \frac{13200}{10000}$   
 Required% =  $132 - 100 = 32$   
 or, directly,  $10 + 20 + \frac{10 \times 20}{100} = 32$

66. (2) Let SP =  $x \rightarrow 20\% x = \text{gain} = \frac{x}{5}$   
 Also, SP = CP + P  $\rightarrow x = \text{CP} + \frac{x}{5} \rightarrow \text{CP} = \frac{4}{5}x$   
 $\therefore \% P = \frac{\frac{x}{5}}{\frac{4x}{5}} \times 100 = 25\%$

67. (4)  $x + y = 15, 2x + 4y = 40$   
 $\rightarrow x = 10, y = 5$

68. (3) New Volume,  $V = V_1 + V_2 + V_3 = 10^3 + 6^3 + 8^3$   
 $= 1000 + 216 + 512$   
 $\rightarrow V = 1728 = a^3, a = \text{edge}$   
 $\rightarrow \text{edge, } a = \sqrt[3]{1728} = 12 \text{ cm}$

69. (1) If X is 100% efficient,  
 $Y = 100 + 60\% = 160\% \text{ efficient}$

Thus, ratio of times = inverse of efficiencies

$$\begin{aligned} &= \frac{160}{100} \\ \rightarrow \text{Time taken} &= \frac{100}{160} \times 40 = 25 \text{ days} \end{aligned}$$

70. (3)  $\frac{?}{1083} = \frac{75}{?}$   
 $\rightarrow ?^2 = 75 \times 1083$   
 $\rightarrow ? = \sqrt{5 \times 5 \times 3 \times 3 \times 19 \times 19}$   
 $= 5 \times 3 \times 19$   
 $= 285$

71. (1) Let the no. =  $x$   
 $\rightarrow \frac{x}{8} = 41.5$   
 $\rightarrow \frac{69}{100}x = ?$  Use unitary method (cross-multiply)  
 Thus,  $? = \frac{69}{100} \times 41.5 \times 8 = 229.08$

72. (4) Required no. =  $\frac{7}{8} \times 216 - \frac{2}{9} \times 279$   
 $= 7 \times 27 - 2 \times 31$   
 $= 189 - 62 = 127$

73. (3) Ratio of profits =  $\frac{55,000 \times 12}{40,000 \times 8} = \frac{33}{16}$   
 Sum of parts =  $33 + 16 = 49$  and difference =  $33 - 16 = 17$   
 $\therefore \frac{17}{49} (33957) = 11781$

74. (5) CI =  $5418 = 16800 \left(\frac{1+R}{100}\right)^2 - 16800$   
 $R = 15\% \text{ SI} = 16800 \times 2 \times \frac{15}{100}$   
 $= 5040$

75. (2) Present ages =  $5x, 2x$   
 and Ages after 7 years =  $5x + 7, 2x + 7$   
 From the given condition,  $\frac{5x+7}{2x+7} = \frac{4}{3}$   
 $\rightarrow 15x + 21 = 8x + 28$   
 $\rightarrow x = 1$   
 $\therefore \text{C's age} = 5x = 5 \times 1 = 5 \text{ years}$

76. (2) Required difference =  $4347 - \frac{3052}{7} = 185$

77. (X) - Delta = 71

78. (4) Required ratio =  $\frac{640}{485} = \frac{128}{97}$

79. (1) It can be easily seen that the maximum increase is either for electrical or I.T.  
 The changes are:  $467 - 252 = 215$   
 and  $475 - 264 = 211$   
 $\% \text{ changes} = \frac{215}{252} \times 100$   
 and  $\frac{211}{264} \times 100$   
 Here,  $\frac{215}{252} > \frac{211}{264}$ . Hence (1)

80. (3) The increase in various years is 26, 19, 49, 53, -15, 25 (from 2001  $\rightarrow$  2007)  
 The max. is 53 in 2005

81. (3) The data can be arranged as:

|   |           |   |
|---|-----------|---|
| A | Tuesday   | R |
| B | Wednesday | S |
| C | Thursday  | P |
| D | Sunday    | V |
| E | Saturday  | U |
| F | Friday    | T |
| G | Monday    | Q |

82. (4)                      83. (2)                      84. (1)                      85. (5)

$$86. (3) \text{ Required \%} = \frac{15+15+20+30+10}{165+145+240+330+560} \times 100$$

$$= \frac{90}{1440} \times 100$$

$$= 6.3\%$$

$$*15 = 4 + 5 + 3 + 1 + 2 \text{ (from column 1)}$$

$$165 = 20 + 4 + 25 + 5 + \dots + 60 + 2$$

(from column 1), etc.

$$87. (5) \text{ Required ratio} = \frac{150}{220} = \frac{15}{22}$$

88. (4) Class X, 550

$$89. (4) \text{ Required average} = \frac{60+30+50+80+100}{5}$$

$$= \frac{320}{5} = 64$$

$$90. (5) \text{ Required ratio} = \frac{30}{10} = 3:1$$

$$91. (5) \text{ Required ratio} = \frac{32}{25} \approx \text{option (3)}$$

$$92. (4) \text{ Required average}$$

$$= \frac{(17+32+20+35+25+37) \times 1000}{6}$$

$$= 26940 \approx 27,000$$

$$93. (5) \text{ Required \%} = \frac{17}{37} \times 100 \approx 47\%$$

$$94. (1) \text{ Ratio} = \frac{17+32+20}{35+25+37} = \frac{69}{97} \approx 70\%, \text{ or (1)}$$

$$95. (4) \frac{20}{166} \times 100 \approx 12$$

$$96. (1) A \rightarrow SI = 3600 = \frac{15,000 \times 2 \times R}{100}$$

$$\rightarrow \frac{3600 \times 100}{15,000 \times 2} = R$$

$$\rightarrow R = 12\%$$

B  $\rightarrow$  No solution

$$97. (3) A \rightarrow xy = 28, x - y = 3$$

$$\rightarrow (x, y) = (7, 4) \text{ or } (4, 7)$$

$$\rightarrow \text{No.} = 74 \text{ or } 47$$

$$\text{and } B \rightarrow x > y \rightarrow \text{No.} = 74$$

Thus, both A and B are needed

$$98. (2) N : S = 2 : 1 \rightarrow N = 2x, S = x \text{ (say)}$$

$$A \rightarrow \text{Shalu} = 2 \times \text{Sugandha (?)} \rightarrow \text{No solution}$$

$$B \rightarrow \frac{2x+4}{x+4} = \frac{3}{2} \rightarrow 4x+8 = 3x+12 \rightarrow x = 4$$

$$\rightarrow \text{Ages} = 8 \text{ and } 4 \text{ years}$$

$$99. (4) A \rightarrow \text{CP of } 10 = \text{SP of } 8 = x \text{ (say)}$$

$$\rightarrow \text{CP} = \frac{x}{10}, \text{ SP} = \frac{x}{8}$$

$$\rightarrow \% P = \frac{\left(\frac{x}{8} - \frac{x}{10}\right)}{\frac{x}{10}} \times 100 = 25\%$$

$$\text{Now, } \frac{\text{CP}}{\text{SP}} = \frac{100}{100 + P\%} \rightarrow \frac{\text{CP}}{250} = \frac{100}{25} \rightarrow \text{CP} = 200$$

$$\therefore P = \text{Rs } 50$$

B  $\rightarrow$  same answer (% already given as 25%)

100. (5) No information about J.

101. (3) It is an alloy (mixture) of metals.

Others are pure metals.

102. (4) L = 5, O = #, etc.

103. (5) 4 pairs, viz., D - - - A, ON, A - - - E, T - V

104. (1) DREAM; i.e. R

105. (1) A + 3 = D, E + 3 = H, J + 3 = M,

$$N + 3 = Q \rightarrow \text{MQ}$$

106. (2) A @ B  $\rightarrow$  A  $\leq$  B  $\rightarrow$  A > B

$$A \$ B \rightarrow A \geq B \rightarrow A < B$$

$$A \# B \rightarrow A \neq B \rightarrow A \leq B$$

$$A * B \rightarrow A = B$$

$$\text{and } A \% B \rightarrow A \neq B \rightarrow A \geq B$$

$$\text{Thus, } H > L, L = J, J < K, J \geq F$$

$$K > J, L \geq F$$

i.e. position of H and K is not clear / not sure

Now, I  $\rightarrow$  L = F not sure / uncertain

II  $\rightarrow$  K > L  $\rightarrow$  certain

III  $\rightarrow$  H > K..uncertain

107. (1) From the statements, R  $\geq$  M, M > V, V  $\leq$  W, W > T,

$$\rightarrow R \geq M > V$$

$$W \geq V$$

$$W > T$$

Thus, I  $\rightarrow$  R > V  $\rightarrow$  true

II  $\rightarrow$  M  $\leq$  W  $\rightarrow$  uncertain

III  $\rightarrow$  R > W  $\rightarrow$  uncertain

108. (3) D > J, J = K, K  $\geq$  M, M < N

i.e. D > (J, K)  $\geq$  M, and N > M

$$I \rightarrow D > M \rightarrow \text{true}$$

$$II \rightarrow M \leq J \rightarrow \text{true}$$

III  $\rightarrow$  N = K  $\rightarrow$  uncertain

109. (5) F  $\leq$  R, R < T, T < V, W  $\geq$  V

i.e. F  $\leq$  R < T < V  $\leq$  W

I, II and III  $\rightarrow$  R < W, W > T, V > F

$\rightarrow$  all are correct.

110. (5) X > Y, Y  $\leq$  T, T < V, V > R

Thus, all are incorrect

111. (5) All stories are fiction + No fiction is poem

$\rightarrow$  No story is poem  $\rightarrow$  (i)

$\rightarrow$  All novels are stories + All stories are fictions

$\rightarrow$  All novels are fictions  $\rightarrow$  (ii)

$\rightarrow$  Some Books are novels + All novels are stories

$\rightarrow$  Some books are stories

$\rightarrow$  and Now, Some books are stories + All stories are fictions

$\rightarrow$  Some books are fictions  $\rightarrow$  (iii)

112. (2) All buds are petals + No petal is pollen

$\rightarrow$  No bud is pollen  $\rightarrow$  (i)

and from all 4 statements  $\rightarrow$  (ii) is wrong

and from statements 3 and 4

$\rightarrow$  No petal is fragrance  $\rightarrow$  (iii)

113. (3) (i) is correct from statements 2 and 3.

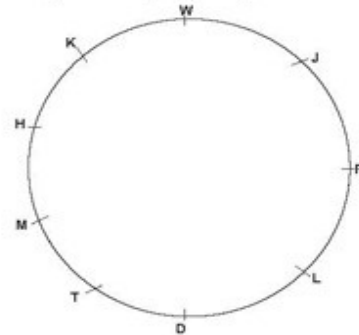
- (ii) is correct from statements 2 + 3 + 4 (reversed).  
 (iii) is wrong as negation cannot follow from affirmatives.
114. (5) (i) follows from 1 + 2.  
 (ii) follows from 1 (reversed)  
 (iii) follows from 3 + 4  
 → All follow, i.e. none of these
115. (3) (i) follows from 3 + 4  
 (ii) follows from 2 + 3.  
 (iii) follows from 3 + 4
116. (2) \*For Qs. 116-120, study the pattern/logic.  
 The digits are arranged in ascending order and the alphabets/words in descending order. First the digits and then the words are arranged in the lines..and so on..  
 Step II → 21 white direct 72 status front 3769.  
 Step III → 21 white 37 direct 72 status front 69.  
 Step IV → 21 white 37 status direct 72 front 69.  
 Step V → 21 white 37 status 69 direct 72 front  
 Step VI → 21 white 37 status 69 front 72 direct.  
 Thus, 4 more steps are required.
117. (4) Input : 17 85 pearls garland 67 93 restriction judgement.  
 1st step : 17 restrictions 85 pearls garland 67 93 judgement  
 Step II : 17 restrictions 67 85 pearls garland 93 judgement.  
 Step III : 17 restrictions 67 pearls 85 garland 93 judgement.
118. (4) ...cannot be determined, as in this case back steps are not possible to determine.
119. (1) Step II: 26 shop finance 48 game music 63 37.  
 Step III: 26 shop 37 finance 48 game music 63.  
 Step IV: 26 shop 37 music finance 48 game 63.  
 Step V : 26 shop 37 music 48 finance game 63.
120. (5) The 1st 5 steps are:  
 29 56 punish 48 find design lavish 36.  
 29 punish 56 48 find design lavish 36.  
 29 punish 36 56 48 find design lavish.  
 29 punish 36 lavish 56 48 find design lavish.  
 29 punish 36 lavish 48 56 find design lavish.  
 Step VI : 29 punish 36 lavish 48 find 56 design.  
 The arrangement gets completed in the VII step.
121. (2) None of the conditions (i, ii, iii) applies, so, we use direct letter codes, i.e. 57#8\$@ = AFPRJT, i.e. (2).
122. (1) condition (i) applies, as the 1st element © is a symbol and the last one, i.e., 9 is an odd digit.  
 \* 'swapped' → exchanged, substituted.  
 Thus, © 8 4 @ 3 9  
 E R U T H L  
 But, on swapping © and 9, we get L and B (interchanged)  
 = L R U T H B
123. (3) condition (ii) applies. → E R U I H E  
 124. (5) From condition (iii), X A T F P X  
 125. (2) No condition applies. So, use direct letter codes, i.e.  
 % 4 3 6 9 8 = Q U H D L R.
126. (3) \* For Qs. 126-130, the data can be arranged as:

| Family↓ | Male | Female | Children—Male/Female |
|---------|------|--------|----------------------|
| X       | J    | A      | F—(?)                |
| Y       | D    | C      | E (female), B—(?)    |
| Z       | G    | K      | H—(?)                |

and Car I = A, K, H; Car II = G, C, B, J; Car III = E, D, F

127. (1)  
 128. (4) ...either son or daughter.  
 129. (2)  
 130. (5)  
 131. (1) 212  
 $28, 11 \Rightarrow 28 * 11 = 308$   
 $308, 44 \Rightarrow \frac{308}{44} = 7 \Rightarrow x = 7$   
 and  $7, 25 \Rightarrow 175$   
 $175, 37 \Rightarrow 175 + 37 = 212$
132. (2) (17, 21) → Rule V →  $17 * 21 \rightarrow 357$   
 and (357, 76) → Rule VI →  $357 - 76 = 281 = m$   
 Thus,  $R_1 = 64, 15, 281$   
 Now, (64, 15) → Rule III →  $64 - 15 = 49$   
 and (49, 281) → Rule III → 330. i.e. option (2)
133. (4) (48, 16) → 48/16 (by II) = 3.  
 and (3, 15) →  $3 * 15$  (by V) = 45  
 Now, (256, 45) =  $256 - 45$  (by IV) = 211  
 and (211, 60) =  $211 - 60$  (by VI) = 151
134. (5) We get 748  
 135. (5)  $32, 7 \Rightarrow 32 * 7 = 224$   
 $224, 14 \Rightarrow \frac{224}{14} = \frac{112}{7} = 16 = y$   
 and  $57, 16 \Rightarrow 57 - 16 = 41$   
 and  $41, 15 \Rightarrow 41 * 15 = 615$
136. (4)      137. (1)      138. (5)      139. (4)  
 140. (2)

\* For Qs. 141-145, the arrangement is given below.



141. (2)      142. (4)      143. (5)      144. (3)  
 145. (1) In others, 1st one is in between the other 2.  
 146. (5)... US and EU markets which are synthetic rich.  
 147. (1) ...Last line.  
 148. (3) No such hint.  
 149. (2) ...consider the terms — traditionally, used to be, had undermined.  
 150. (1) ...further buttressing → (supporting)