

CAT 2009 Question Paper

Time Allowed :2 Hours	Maximum Marks :180	Total Questions :60
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General Instructions

Read the following instructions very carefully:

1. The total duration of the test is **2 hours**, with **40 minutes** allotted per section.
2. The question paper is divided into **three sections**:
 - **Section 1:** Verbal Ability and Reading Comprehension (VARC) – 20 questions
 - **Section 2:** Data Interpretation and Logical Reasoning (DILR) – 20 questions
 - **Section 3:** Quantitative Aptitude (QA) – 20 questions
3. Each correct answer carries **+3 marks**.
4. For multiple-choice questions (MCQs), **–1 mark** will be deducted for each wrong answer.
5. There is **no negative marking** for Type-in-the-Answer (TITA) questions.
6. Once the allotted time for a section ends, you will automatically move to the next section. You cannot go back to a previous section.
7. All answers must be entered on the computer screen using the mouse and keyboard. Rough sheets will be provided.
8. The use of calculators, mobile phones, or any other electronic device is strictly prohibited. An on-screen basic calculator will be provided.

1. If $mx^m - nx^n = 0$, then what is the value of $\frac{1}{x^m + x^n} + \frac{1}{x^m - x^n}$ in terms of x^n ?

- (A) $\frac{2mn}{x^n(n^2 - m^2)}$
(B) $\frac{2mn}{x^n(n^2 + m^2)}$
(C) $\frac{2mn}{x^n(m^2 - n^2)}$
(D) $\frac{2mn}{x^n(m^2 + n^2)}$
(E) None of these

2. If $\log(0.57) = \bar{1}.756$, then find the value of $\log 57 + \log(0.57)^3 + \log \sqrt{0.57}$:

- (A) 0.902
 - (B) $\bar{2}.146$
 - (C) 1.902
 - (D) $\bar{1}.146$
-

3. In a certain zoo, there are 42 animals in one sector, 34 in the second sector and 20 in the third sector. Out of this, 24 graze in sector one and also in sector two, 10 graze in sector two and sector three, 12 graze in sector one and sector three. These figures also include four animals grazing in all the three sectors. If all the animals are transported to another zoo, find the total number of animals.

- (A) 38
 - (B) 56
 - (C) 54
 - (D) None of the above
-

4. The ratio of the roots of $bx^2 + nx + \ell = 0$ is $p : q$. Then which relation holds?

- (A) $\sqrt{\frac{q}{p}} + \sqrt{\frac{p}{q}} + \sqrt{\frac{\ell}{n}} = 0$
 - (B) $\sqrt{\frac{p}{q}} + \sqrt{\frac{q}{p}} + \sqrt{\frac{n}{\ell}} = 0$
 - (C) $\sqrt{\frac{q}{p}} + \sqrt{\frac{p}{q}} + \sqrt{\frac{\ell}{n}} = 0$
 - (D) $\sqrt{\frac{p}{q}} + \sqrt{\frac{q}{p}} + \sqrt{\frac{n}{\ell}} = 0$
-

5. The average age of a couple is 25 years. The average age of the family just after the birth of the first child was 18 years. The average age of the family just after the second child was born was 15 years. The average age of the family after the third and the fourth children (who are twins) were born was 12 years. If the present average age of the family of six persons is 16 years, how old is the eldest child?

- (A) 6 years
 - (B) 7 years
 - (C) 8 years
 - (D) 9 years
-

6. 10% of the voters did not cast their vote in an election between two candidates. 10% of the votes polled were found invalid. The successful candidate got 54% of

the valid votes and won by a majority of 1620 votes. The number of voters enrolled on the voters list was:

- (A) 25000
 - (B) 33000
 - (C) 35000
 - (D) 40000
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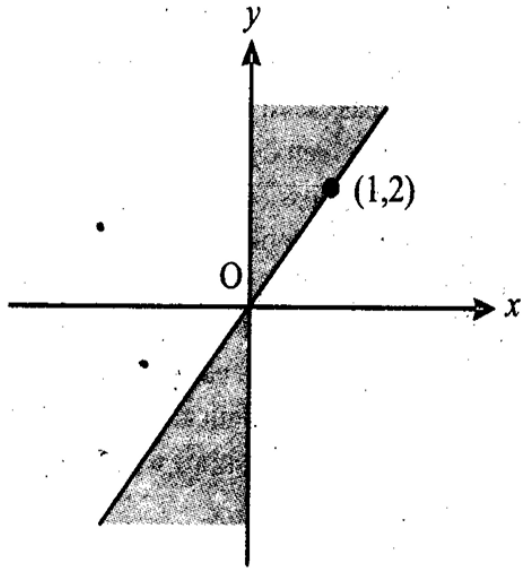
7. The resistance of a wire is proportional to its length and inversely proportional to the square of its radius. Two wires of the same material have the same resistance and their radii are in the ratio 9 : 8. If the length of the first wire is 162 cm, find the length of the other.

- (A) 64 cm
 - (B) 120 cm
 - (C) 128 cm
 - (D) 132 cm
-

8. A 20 litre vessel is filled with alcohol. Some of the alcohol is poured out into another vessel of equal capacity, which is then completely filled by adding water. The mixture thus obtained is then poured into the first vessel to capacity. Then $6\frac{2}{3}$ litres is poured from the first vessel into the second. Both vessels now contain an equal amount of alcohol. How much alcohol was originally poured from the first vessel into the second?

- (A) 9 litres
 - (B) 10 litres
 - (C) 12 litres
 - (D) 12.5 litres
-

9. The shaded portion of figure shows the graph of which of the following?



- (A) $x(y - 2x) \geq 0$
 (B) $x(y - 2x) \leq 0$
 (C) $x\left(y + \frac{1}{2}x\right) \geq 0$
 (D) $x\left(y - \frac{1}{2}x\right) \leq 0$

10. If $f\left(x + \frac{y}{8}, x - \frac{y}{8}\right) = xy$, then $f(m, n) + f(n, m) = 0$

- (A) only when $m = n$
 (B) only when $m \neq n$
 (C) only when $m = -n$
 (D) for all m and n

11. A person closes his account in an investment scheme by withdrawing 10,000. One year ago he had withdrawn 6,000. Two years ago he had withdrawn 5,000. Three years ago he had not withdrawn any money. How much money had he deposited approximately at the time of opening the account 4 years ago, if the annual simple interest is 10%?

- (A) 15600
 (B) 16500
 (C) 17280
 (D) None of these

12. It takes 6 technicians a total of 10 hours to build a new server from direct computer, with each working at the same rate. If six technicians start to build the server at 11:00 am, and one technician per hour is added beginning at 5:00 pm, at

what time will the server be completed?

- (A) 6:40 pm
 - (B) 7:00 pm
 - (C) 7:20 pm
 - (D) 8:00 pm
-

13. A ship 55 kms from the shore springs a leak which admits 2 tonnes of water in 6 min; 80 tonnes would suffice to sink her, but the pumps can throw out 12 tonnes an hour. Find the average rate of sailing that she may just reach the shore as she begins to sink.

- (A) 5.5 km/h
 - (B) 6.5 km/h
 - (C) 7.5 km/h
 - (D) 8.5 km/h
-

14. In a 400 meter race around a circular stadium having a circumference of 1000 meters, the fastest runner and the slowest runner reach the same point at the end of the 5th minute, for the first time after the start of the race. All runners start at the same point and each maintains a uniform speed throughout the race. If the fastest runner runs at twice the speed of the slowest runner, what is the time taken by the fastest runner to finish the race?

- (A) 20 mins
 - (B) 15 mins
 - (C) 10 mins
 - (D) 5 mins
-

15. A train crosses a platform 100 metres long in 60 seconds at a speed of 45 km per hour. The time taken by the train to cross an electric pole, is

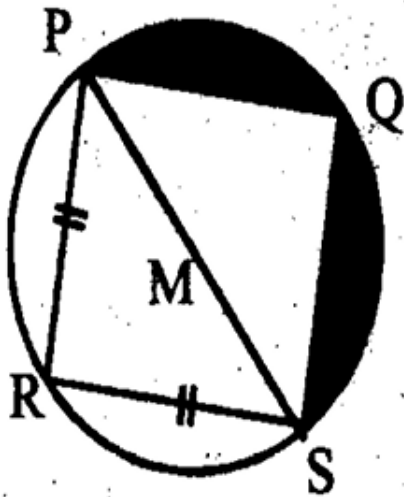
- (A) 8 seconds
 - (B) 1 minute
 - (C) 52 seconds
 - (D) Data inadequate
-

16. If $x = 1 + 2a + 3a^2 + 4a^3 + \dots$ ($-1 < a < 1$) and $y = 1 + 3b + 6b^2 + 10b^3 + \dots$ ($-1 < b < 1$), then find $1 + ab + (ab)^2 + (ab)^3 + \dots$ in terms of x and y .

- (A) $\frac{x^{1/2}y^{1/3}}{x^{1/2} + y^{1/3} - 1}$
 (B) $\frac{xy}{x + y - 1}$
 (C) $\frac{x^{1/3}y^{2/3}}{x^{1/3} + y^{1/2} - 1}$
 (D) None of these

17. Two vertical lamp-posts of equal height stand on either side of a road 50m wide. At a point P on the road between them, the elevation of the tops of the lamp-posts are 60° and 30° . Find the distance of P from the lamp post which makes angle of 60° .
- (a) 25m
 (b) 12.5m
 (c) 16.5m
 (d) 20.5m

18. M is the centre of the circle. $\ell(QS) = 10\sqrt{2}$, $\ell(PR) = \ell(RS)$ and $PR \parallel QS$. Find the area of the shaded region. (use $\pi = 3$)



- (a) 100 sq. units
 (b) 114 sq. units
 (c) 50 sq. units
 (d) 200 sq. units

19. There are three coplanar parallel lines. If any p points are taken on each of the

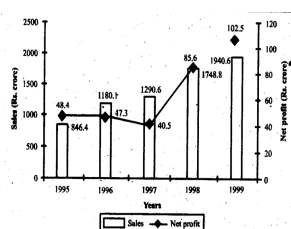
lines, then find the maximum number of triangles with the vertices of these points.

- (a) $p^2(4p - 3)$
- (b) $p^3(4p - 3)$
- (c) $p(4p - 3)$
- (d) p^3

20. A and B throw with one die for a stake of Rs. 11 which is to be won by the player who first throws 6. If A has the first throw, what are their respective expectations

- (a) Rs 7, Rs 4
- (b) Rs 6, Rs 5
- (c) Rs 4, Rs 7
- (d) Rs 5, Rs 6

DIRECTIONS (Qs. 21 – 25): These are based on the following Line Chart: The sales and net profit of XPL Electronics in Rs. crores is given below.



Note : Net profit = Gross Profit – Tax. Gross profit = Sales – Expenses. The figures for sales is given at the bottom of the bar chart and the figures for net profit is given on top of the line chart.

21. What is the net profit percentage of XPL in 1998?

- (a) 4.6%
- (b) 4.8%
- (c) 5.1%
- (d) 6.2%

22. Which year showed the maximum percentage increase in sales?

- (a) 1999
- (b) 1998
- (c) 1997
- (d) 1996

23. By how much percentage has the net profit dropped in 1996?

- (a) 1.1%
 - (b) 2.27%
 - (c) 2.53%
 - (d) Cannot be determined
-

24. If XPL sold 20,000 units in both 1998 and 1999, by what percentage has the price per unit changed?

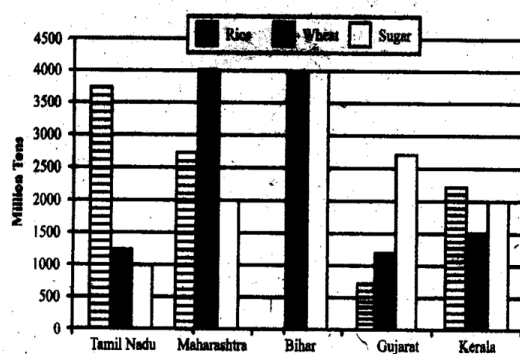
- (a) 8.7%
 - (b) 10.96%
 - (c) 9.86%
 - (d) Cannot be determined
-

25. The year in which the expenses of XPL Electronic are highest is

- (a) 1999
 - (b) 1998
 - (c) 1997
 - (d) Cannot be determined
-

DIRECTIONS (Qs. 26 to 30): These are based on the following data.

The following chart gives the production of three major crops (in million tons) across five Indian states in the year 1998.



26. If Tamil Nadu registers an annual increase of 22 per cent in rice production, what was the rice production in Tamil Nadu in 1998?

- (a) 1900 million tons
- (b) 2300 million tons

- (c) 2180 million tons
 - (d) 2520 million tons
-

27. What is the ratio of total wheat production in the five states to total sugar production?

- (a) 0.6
 - (b) 1.4
 - (c) 1.0
 - (d) 0.75
-

28. If sugar costs Rs. 700 per ton and wheat costs Rs. 400 per ton, what was the total worth of sugar and wheat production in India?

- (a) 42 million
 - (b) 21 million
 - (c) 10.5 million
 - (d) Data insufficient
-

29. If the yield per hectare of sugar is 3.86 tons, what is the ratio of area employed to produce sugar in Bihar to Gujarat?

- (a) 1.15
 - (b) 1.45
 - (c) 1.35
 - (d) Data insufficient
-

30. If these five states constitute 77 per cent of the country's wheat production and 23 per cent of country's wheat consumption is imported, what is the amount of wheat imported in 1998?

- (a) 4700 million tons
 - (b) 3900 million tons
 - (c) 3500 million tons
 - (d) Data insufficient
-

DIRECTIONS (Qs. 31 to 35): Read the following information and answer the questions that follow:

The cars at a dealership come with a choice of the following options: air-conditioning, a cassette deck, leather seats, power windows, a sunroof and tinted glass. None of the cars has any other optional equipment. The following conditions apply:

If a car has leather seats, it also has a cassette deck. If a car has a cassette deck, it also has power windows. If a car has power windows, it also has a cassette deck.

Cars with tinted glass have a sunroof, but no air-conditioning. Cars that have air-conditioning have, at most, two other options.

31. If a car has both tinted glass and leather seats, what is the greatest number of additional options that the car could have?

- (a) 1
 - (b) 2
 - (c) 3
 - (d) 4
-

32. Which one of the following could be a complete and accurate list of options on a car?

- (a) air-conditioning, cassette deck, leather seats, power windows
 - (b) air-conditioning, cassette deck, leather seats, sunroof
 - (c) cassette deck, leather seats, sunroof, tinted glass
 - (d) cassette deck, power windows, sunroof, tinted glass
-

33. If a car has power windows and a sunroof, how many different sets of options, at most, can the car have?

- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5
-

34. If a car has exactly two options, which one of the following could they be?

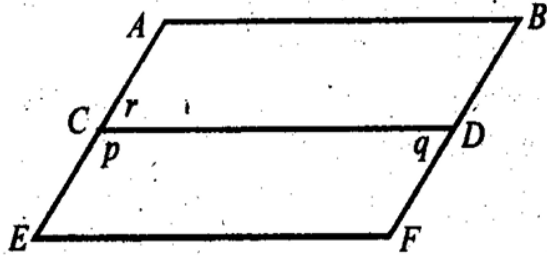
- (a) air-conditioning and cassette deck
 - (b) tinted glass and sunroof
 - (c) cassette deck and leather seats
 - (d) power windows and sunroof
-

35. If a car has tinted glass, which one of the following CANNOT be true?

- (a) The car has 3 options.
- (b) The car has 4 options.
- (c) The car has power windows and a sunroof.
- (d) The car does not have both leather seats and a cassette deck.

36. If both $ABDC$ and $CDFE$ are parallelograms, what is $q + r$?

- (1) $r = 70^\circ$ (2) $p = 110^\circ$



- (A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- (B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- (C) BOTH statements TOGETHER are sufficient, but NEITHER statement alone is sufficient.
- (D) EACH statement ALONE is sufficient.

37. A certain stadium is currently full to $\frac{13}{16}$ of its maximum seating capacity. What is the maximum seating capacity of the stadium?

- (1) If 1,250 people were to enter the stadium, the stadium would be full to $\frac{15}{16}$ of its maximum seating capacity.
- (2) If 2,500 people were to leave the stadium, the stadium would be full to $\frac{9}{16}$ of its maximum seating capacity.

- (A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- (B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- (C) BOTH statements TOGETHER are sufficient, but NEITHER statement alone is sufficient.
- (D) EACH statement ALONE is sufficient.

38. If n is an integer, is n even?

- (1) $2n$ is an even integer.
- (2) $n - 1$ is an odd integer.

- (A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- (B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.

- (C) BOTH statements TOGETHER are sufficient, but NEITHER statement alone is sufficient.
(D) EACH statement ALONE is sufficient.
-

39. What is the value of x ?

- (1) $x^2 - 5x + 4 = 0$
(2) x is not prime.

- (A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
(C) BOTH statements TOGETHER are sufficient, but NEITHER statement alone is sufficient.
(D) Statements (1) and (2) TOGETHER are NOT sufficient.
-

40. A fish tank contains a number of fish, including 5 Fantails. If two fish are selected from the tank at random, what is the probability that both will be Fantails?

- (1) The probability that the first fish chosen will be a Fantail is $\frac{1}{2}$.
(2) The probability that the second fish chosen will be a Fantail is $\frac{4}{9}$.
(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
(C) BOTH statements TOGETHER are sufficient, but NEITHER statement alone is sufficient.
(D) EACH statement ALONE is sufficient.
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DIRECTIONS (Qs. 41 to 50): Read the following passages—I, II and III and give answer based on it.

PASSAGE—I

History has shaped academic medical centers (AMCs) to perform 3 functions: patient care, research, and teaching. These 3 missions are now fraught with problems because the attempt to combine them has led to such inefficiencies as duplication of activities and personnel, inpatient procedures that could and should have been out-patient procedures, and unwieldy administrative bureaucracies.

One source of inefficiency derives from mixed lines of authority. Clinical chiefs and practitioners in AMCs are typically responsible to the hospital for practice issues but to the medical school for promotion, marketing, membership in a faculty practice plan, and educational accreditation. Community physicians with privileges at a university hospital add more complications. They have no official affiliation with the AMC's medical school connected, but their cooperation with faculty members is essential for proper patient treatment. The fragmented accountability is heightened by the fact that 3 different groups often vie for the loyalty of physicians who receive research. The medical school may wish to capitalize on the research for its educational value to students; the hospital may desire the state-of-the-art treatment methods resulting from the research; and the grant administrators may focus on the researchers' humanitarian motives. Communication among these groups is rarely coordinated, and the physicians may

serve whichever group promises the best perks and ignore the rest – which inevitably strains relationships.

Another source of inefficiency is the fact that physicians have obligations to many different groups: patients, students, faculty members, referring physicians, third-party payers, and staff members, all of whom have varied expectations. Satisfying the interests of one group may alienate others. Patient care provides a common example. For the benefit of medical students, physicians may order too many tests, prolong patient visits, or encourage experimental studies of a patient. If AMC faculty physicians were more aware of how much treatments of specific illnesses cost, and of how other institutions treat patient conditions, they would be better practitioners, and the educational and clinical care missions of AMCs would both be better served.

A bias toward specialization adds yet more inefficiency. AMCs are viewed as institutions serving the gravest cases in need of the most advanced treatments. The high number of specialty residents and the presence of burn units, blood banks, and transplant centers validate this belief. Also present at AMCs, though less conspicuous, are facilities for ordinary primary care patients. In fact, many patients choose to visit an AMC for primary care because they realize that any necessary follow-up can occur almost instantaneously. While AMCs have emphasized cutting-edge specialty medicine, their more routine medical services need development and enhancement.

A final contribution to inefficiency is organizational complacency. Until recently, most academic medical centers drew the public merely by existing. The rising presence, however, of tertiary hospitals with patient care as their only goal has immersed AMCs in a very competitive market. It is only in the past several years that AMCs have started to recognize and develop strategies to address competition.

41. The author's attitude toward the inefficiencies at academic medical centers is one of

- (A) reluctant acquiescence
- (B) strident opposition
- (C) agonized indecision
- (D) reasoned criticism

42. The author of the passage would most likely agree with which of the following statements about primary care at AMCs?

- (A) AMCs would make more money if they focused mainly on primary care.
- (B) Burn and transplant patients need specialty care more than primary care.
- (C) AMCs offer the best primary care for most patients.
- (D) Inefficiencies at AMCs would be reduced if better primary care were offered.

43. The author's primary purpose in this passage is to

- (A) discuss the rise and fall of academic medical centers

- (B) explain that multiple lines of authority in a medical centre create inefficiencies
 - (C) delineate conflicts occurring in academic medical facilities
 - (D) examine the differences between academic and other health care entities
-

44. The author implies which of the following about faculty physicians at AMCs?

- (A) Most of them lack good business sense.
 - (B) They put patients' physical health above their hospitals' monetary concerns.
 - (C) They sometimes focus on education at the expense of patient care.
 - (D) They lack official affiliation with the medical schools connected to AMCs.
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PASSAGE—II

Founded at the dawn of the modern industrial era, the nearly forgotten Women's Trade Union League (WTUL) played an instrumental line role in advancing the cause of working women throughout the early part of the twentieth century. In the face of considerable adversity, the WTUL made a contribution far greater than did most historical footnotes.

The organization's successes did not come easily; conflict beset the WTUL in many forms.

During those early days of American unions, organized labour was aggressively opposed by both industry and government. The WTUL, which represented a largely unskilled labour force, had little leverage against these powerful opponents. Also, because of the skill level of its workers as well as inherent societal gender bias, the WTUL had great difficulty finding allies among other unions. Even the large and powerful American Federation of Labour (AFL), which nominally took the WTUL under its wing, kept it at a distance. Because the AFL's power stemmed from its highly skilled labour force, the organization saw little economic benefit in working with the WTUL. The affiliation provided the AFL with political cover, allowing it to claim support for women workers; in return, the WTUL gained a potent but largely absent ally.

The WTUL also had to overcome internal discord. While the majority of the group's members were working women, a sizeable and powerful minority consisted of middle- and upper-class social reformers whose goals extended beyond labour reform. While workers argued that the WTUL should focus its efforts on collective bargaining and working conditions, the reformers looked beyond the workplace, seeking state and national legislation aimed at education reform and urban poverty relief as well as workplace issues.

Despite these obstacles, the WTUL accomplished a great deal. The organization was instrumental in the passage of state laws mandating an eight-hour workday, a minimum wage for women, and a ban on child labour. It provided seed money to women who organized workers in specific plants and industries, and also established strike funds and soup kitchens to support striking unionists. After the tragic Triangle Shirtwaist Company fire of 1911, the WTUL launched a four-year investigation whose conclusions formed the basis of much subsequent workplace safety legislation. The organization also offered a political base for all reform-minded women, and thus helped develop the next generation of American leaders. Eleanor Roosevelt was one of many prominent figures to emerge from the WTUL.

The organization began a slow death in the late 1920s, when the Great Depression choked off its funding. The organization limped through the 1940s; the death knell eventually rang in 1950, at the onset of the McCarthy era. A turn-of-the-century labour organization dedicated

to social reform, one that during its heyday was regarded by many as "radical," stood little chance of weathering that storm. This humble ending, however, does nothing to diminish the accomplishments of an organization that is yet to receive its historical due.

45. The primary purpose of this passage is to describe the barriers confronting women in the contemporary workplace.

- (A) describe the barriers confronting women in the contemporary workplace
- (B) call readers' attention to an overlooked contributor to American history
- (C) critique the methods employed by an important labour union
- (D) rebuke historians for failing to cover the women's labor movement adequately

46. Which of the following best characterizes the American Federation of Labour's view of the Women's Trade Union League, as it is presented in the passage?

- (A) The WTUL was an important component of the AFL's multifront assault on industry and its treatment of workers.
- (B) Because of Eleanor Roosevelt's affiliation with the organization, the WTUL was a vehicle through which the AFL could gain access to the White House.
- (C) The WTUL was to be avoided because the radical element within it attracted unwanted government scrutiny.
- (D) The WTUL offered the AFL some political capital but little that would assist it in labour negotiations.

47. Each of the following is cited in the passage as an accomplishment of the Women's Trade Union League EXCEPT

- (A) It organized a highly skilled workforce to increase its bargaining power.
- (B) It contributed to the development of a group of leaders in America.
- (C) It provided essential support to striking women.
- (D) It helped fund start-up unions for women.

PASSAGE—III

The function of strategic planning is to position a company for long-term growth and expansion in a variety of markets by analyzing its strengths and weaknesses and examining current and potential opportunities. Based on this information, the company develops strategy for itself. That strategy then becomes the basis for supporting strategies for its various departments. This is where all too many strategic plans go astray-at implementation. Recent business management surveys show that most CEOs who have a strategic plan are concerned with the potential breakdown in the implementation of the plan. Unlike 1980s corporations that blindly

followed their 5-year plans, even when they were misguided, today's corporations tend to second-guess.

Outsiders can help facilitate the process, but in the final analysis, if the company doesn't make the plan, the company won't follow the plan. This was one of the problems with strategic planning in the 1980s. In that era, it was an abstract, top-down process involving only a few top corporate officers and hired guns. Number crunching experts came into a company and generated tome-like volumes filled with a mixture of abstruse facts and grand theories which had little to do with the day-to-day realities of the company. Key middle managers were left out of planning sessions, resulting in lost opportunities and ruffled feelings.

However, more hands-on strategic planning can produce startling results. A recent survey queried more than a thousand small-to-medium sized businesses to compare companies with a strategic plan to companies without one. The survey found that companies with strategic plans had annual revenue growth of 6.2 percent as opposed to 3.8 percent for the other companies. Perhaps most important, a strategic plan helps companies anticipate and survive change. New technology and the mobility of capital mean that markets can shift faster than ever before. Some financial analysts wonder why they should bother planning two years ahead when market dynamics might be transformed by next quarter. The fact is that it's the very pace of change that makes planning so crucial. Now, more than ever, companies have to stay alert to the marketplace. In an environment of continual and rapid change, long-range planning expands options and organizational flexibility.

48.

The primary purpose of this passage is to refute the idea that change is bad for a corporation's long-term health.

- (A) refute the idea that change is bad for a corporation's long-term health
- (B) describe how long-term planning, despite some potential pitfalls, can help a corporation to grow
- (C) compare and contrast two styles of corporate planning
- (D) evaluate the strategic planning goals of corporate America today

49. It can be inferred from the passage that, in general, strategic planning during the 1980s had all of the following shortcomings EXCEPT

- (A) a reliance on outside consultants who did not necessarily understand the nuts and bolts of the business
- (B) a dependence on theoretical models that did not always perfectly describe the workings of the company
- (C) an inherent weakness in the company's own ability to implement the strategic plan
- (D) an excess of information and data that made it difficult to get to key concepts

50.

The author most likely mentions the results of the survey of 1,000 companies in order to

- (A) put forth an opposing view on strategic plans so that she can then refute it
- (B) illustrate that when strategic planning is "hands-on," it produces uninspiring results
- (C) give a concrete example of why strategic planning did not work during the 1980s
- (D) support her contention that strategic planning when done correctly can be very successful

51. Over the last 20 years, the rate of increase in total production in Workland has been second to none in the world. However, the growth is more modest when calculated per capita of total population. Over the last ten years, progress has been much slower. If the information above is accurate, which of the following must be true?

- (A) Workland has a very large population.
- (B) Productivity per capita has not grown as fast during the past ten years.
- (C) Total production has increased faster than population growth.
- (D) The birth rate has declined.

52. Between 1979 and 1983, the number of unincorporated business self-employed women increased five times faster than the number of self-employed men and more than three times faster than women wage-and-salary workers. Part-time self-employment among women increased more than full-time self-employment. Each of the following, if true, could help to account for this trend except

- (A) Owning a business affords flexibility to combine work and family responsibilities.
- (B) The proportion of women studying business administration courses has grown considerable.
- (C) There are more self-employed women than men.
- (D) Unincorporated service industries have grown by 300 percent over the period; the ratio of women to men in this industry is three to one.

53. There is no clear line between health and illness; it is easy to forget what it feels like to be really well and to get gradually used to often having a headache, feeling irritable, or tired. There is an unrecognized proportion of the population that has been tipped over the brink into ill health by ubiquitous contaminants. Which of the following statements best describes the purpose of the above?

- (A) The public must be encouraged to have regular medical examinations.
- (B) The public must be warned to be aware of various physical and chemical hazards.
- (C) The public must be warned to treat seriously such symptoms as headaches, irritability, and

tiredness.

(D) The medical professional is not always capable of diagnosing illness.

DIRECTIONS (Qs. 54 – 55): In each question, there are five sentences. Each sentence has a pair of words that are italicized and highlighted. From the italicized and highlighted words, select the most appropriate words (A or B) to form correct sentences. The sentences are followed by options that indicate the words, which may be selected to correctly complete the set of sentences. From the options given, choose the most appropriate one.

54. The further [A] / farther [B] he pushed himself, the more disillusioned he grew. For the crowds it was more of a historical [A] / historic [B] event; for their leader, it was just another day.

The old man has a healthy distrust [A] / mistrust [B] for all new technology. This film is based on a real [A] / true [B] story.

One suspects that the compliment [A] / complement [B] was backhanded.

(A) BABAB

(B) ABABA

(C) BAABA

(D) BBAAB

55. Regrettably [A] / Regretfully [B] I have to decline your invitation.

I am drawn to the poetic, sensual [A] / sensuous [B] quality of her paintings.

He was besides [A] / beside [B] himself with age when I told him what I had done.

After brushing against a stationary [A] / stationery [B] truck my car turned turtle.

As the water began to rise over [A] / above [B] the danger mark, the signs of an imminent flood were clear.

(A) BAABA

(B) BBBAB

(C) AAABA

(D) BBAAB

DIRECTIONS (Qs. 56 – 57): In each question, the word at the top is used in four different ways, numbered (a) to (d). Choose the option in which the usage of the word is Incorrect or Inappropriate.

56. SORT (a) Let's sort these boys into four groups

(b) They serve tea of a sort on these trains.

(c) Farmers of all sort attended the rally.

(d) What sort of cheese do you use in pizza?

- (A) (a)
 - (B) (b)
 - (C) (c)
 - (D) (d)
-

57. HOST (a) A virus has infected the host computer.
(b) Ranchi will play the host to the next national film festival.
(c) Kerala's forests are host to a range of snakes.
(d) If you host the party, who will foot the bill?

- (A) (a)
 - (B) (b)
 - (C) (c)
 - (D) (d)
-

58. Football evokes a ----- response in India compared to cricket, the almost ----- the nation

- (A) tepid, boiling
 - (B) lukewarm, electrifies
 - (C) turbid, fascinating
 - (D) apocryphal, genuinely fascinates
-

DIRECTIONS (Qs. 59 – 60): Each question consists of four sentences on a topic. Some sentences are grammatically incorrect or inappropriate. Select the option that indicates the grammatically correct and appropriate sentence(s).

59. A. Last Sunday, Archana had nothing to do.
B. After waking up, she lay on the bed thinking of what to do.
C. At 11 o'clock she took shower and got ready.
D. She spent most of the day shopping.

- (A) B and C
 - (B) C
 - (C) A and B
 - (D) B, C and D
-

60. A. Large reductions in the ozone layer, which sits about 15-30 km above the Earth, take place each winter over the polar regions, especially the Antarctic, as low temperatures allow the formation of stratospheric clouds that assist chemical

reactions breaking down ozone.

B. Industrial chemicals containing chlorine and bromine have been blamed for thinning the layer because they attack the ozone molecules, making them to break apart.

C. Many an offending chemical has now been banned.

D. It will still take several decades before these substances have disappeared from the atmosphere.

(A) D

(B) B & D

(C) A & C

(D) A & C
