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TANCET MBA Sample Paper 2027

Tamil Nadu Common Entrance Test (Anna University) · MBA Paper · Practice Paper 1

Questions	Marks	Time	Negative marking
100 MCQs	**100 (1 each)**	**2 hours**	**–1/4 per wrong answer**

Part	Section	Questions	Q. No.
Section I (Questions 1–20)	Analysis of Business Situations	20	1 to 20
Section II (Questions 21–40)	Reading Comprehension	20	21 to 40
Section III (Questions 41–60)	Mathematics	20	41 to 60
Section IV (Questions 61–80)	Data Sufficiency	20	61 to 80
Section V (Questions 81–100)	Written English	20	81 to 100

Instructions

1. This MBA paper has 100 multiple-choice questions in five sections of 20 each: Analysis of Business Situations, Reading Comprehension, Mathematics, Data Sufficiency and Written English.
2. Each question has four options. Choose the one correct answer and mark it on a separate sheet, as you would shade the OMR answer sheet in the real test.
3. Each correct answer carries 1 mark. A quarter mark (1/4) is deducted for every wrong answer, and an answer with more than one option marked counts as wrong. Unanswered questions get zero.
4. You have 2 hours for the whole paper. Calculators, tables and mobile phones are not allowed, so do all rough work on paper.
5. The answer key and short solutions are at the end. Check them only after you finish.

This is an AglaSem practice paper with original questions written on the official TANCET MBA syllabus (business situations, comprehension, mathematics, data sufficiency, written English) and the section layout of recent Anna University MBA question books. It is not an official Anna University paper.

Section I (Questions 1–20)

Analysis of Business Situations

Directions (Questions 1–10): Read the passage and classify each item that follows it.
Classify each item as:
Major Objective: one of the goals sought by the decision maker.
Major Factor: an aspect of the problem, specifically mentioned in the passage, that fundamentally affects or determines the decision.
Minor Factor: a less important element that bears on a Major Factor, rather than on a Major Objective directly.
Major Assumption: a projection or supposition made by the decision maker before considering the factors and alternatives.

Kovai Pumps Ltd is a family-run company in Coimbatore that has made electric monoblock pump sets for farms for more than forty years. Its pumps have a strong reputation for reliability, and they are sold through about 600 dealers in Tamil Nadu and Karnataka. For the past five years, however, the company's sales have not grown. Its dealers report that many farmers are turning to solar-powered pump sets, which let them irrigate in the daytime without depending on an irregular three-phase power supply, and which are partly paid for by a government subsidy scheme.
Revathi Sundaram, the managing director, called a meeting of her senior managers. She said the company had two aims: to get back to steady growth in sales, and to protect the reputation for reliable pumps that it had built over four decades. She was convinced that demand for solar pump sets among farmers would keep rising for at least the next ten years, and she asked the team to examine whether Kovai Pumps should launch its own solar range.
The production head said the existing motor lines could make the pump and motor with only small changes. The real gap was the electronic controller that runs a pump directly from solar panels, a technology in which the company had no expertise. It could develop the controller itself, which would take about eighteen months and require hiring four electronics engineers at salaries well above the company's usual scale, or buy controllers from an established supplier in Pune, which would allow a launch within six months but at a lower margin.
The finance manager pointed out that only pump sets empanelled with the state energy agency could be sold under the subsidy scheme. Empanelment required each model to pass tests at an approved laboratory. The testing fees were modest, but without empanelment the range would have almost no buyers.
The marketing manager warned that the dealers were used to selling electric pumps, while solar sets also need panels and mounting structures to be installed and serviced on the farm. Dealers' mechanics would have to be trained, at a cost the company would share. Two national brands already led the solar pump market. Revathi, however, believed that farmers would pay a slightly higher price for a trusted local name.
After the discussion, the company decided to buy controllers from the Pune supplier for the first two years and launch quickly, while building its own controller in parallel.

1. Getting the company back to steady growth in sales.

(A) Minor Factor
(B) Major Objective
(C) Major Assumption
(D) Major Factor

2. Demand for solar pump sets among farmers will keep rising for at least ten years.

(A) Major Factor
(B) Minor Factor
(C) Major Assumption
(D) Major Objective

3. The company's lack of expertise in solar pump controllers.

(A) Minor Factor (B) Major Assumption

(C) Major Factor (D) Major Objective

4. Salaries of the four electronics engineers needed for in-house development.

(A) Major Assumption (B) Major Factor

(C) Major Objective (D) Minor Factor

5. Empanelment of the pump sets with the state energy agency.

(A) Major Objective (B) Minor Factor

(C) Major Assumption (D) Major Factor

6. Fees charged by the approved testing laboratory.

(A) Major Factor (B) Major Objective

(C) Minor Factor (D) Major Assumption

7. Farmers will pay a slightly higher price for a trusted local name.

(A) Major Assumption (B) Minor Factor

(C) Major Objective (D) Major Factor

8. Protecting the company's reputation for reliable pumps.

(A) Major Assumption (B) Minor Factor

(C) Major Objective (D) Major Factor

9. Ability of the dealer network to install and service solar pump sets.

(A) Major Objective (B) Major Factor

(C) Major Assumption (D) Minor Factor

10. Cost of training the dealers' mechanics.

(A) Minor Factor (B) Major Factor

(C) Major Objective (D) Major Assumption

Directions (Questions 11–20): Read the passage and classify each item in the same way as above.

Marina Bakes runs fourteen bakery-cafés across Chennai. Home delivery has grown to almost a third of its sales, and nearly all delivery orders come through two food-delivery apps, which charge the bakery a commission on every order. Arvind Prakash, the owner, wants to increase the share of sales that comes from home delivery, but he also wants to protect the company's profit margins, which the commissions have squeezed.

Arvind is considering a plan to launch Marina Bakes' own ordering app and to deliver orders with the company's own riders. He takes it for granted that most delivery orders will continue to come from homes and offices within five kilometres of a store, so that a small team of riders could cover each area. He also believes that the bakery's regular customers will switch to ordering directly if they are offered a small discount on the app.

The operations manager estimated the cost of building and running a delivery fleet: riders' salaries, two-wheelers, insulated delivery bags and a fuel allowance for each rider. The bags and the fuel allowance were small items, but salaries and vehicles made the fleet a major expense. An IT firm quoted a price for developing the app, and the payment gateway would charge a small fee on every app order.

The marketing manager studied the bakery's order data. It showed that most first-time customers found Marina Bakes through the delivery apps, where it appeared alongside many competitors. If the bakery left the apps, it would lose this flow of new customers.

After weighing the commission saved against the cost of the fleet, Arvind chose a mixed approach: the company would launch its own app for regular customers in three neighbourhoods as a trial, while staying on the delivery apps to reach new customers.

11. Increasing the share of sales that comes from home delivery.

(A) Major Factor (B) Major Objective
(C) Major Assumption (D) Minor Factor

12. Commission charged by the delivery apps on each order.

(A) Major Factor (B) Major Objective
(C) Major Assumption (D) Minor Factor

13. Regular customers will switch to ordering directly if offered a small discount.

(A) Major Objective (B) Minor Factor
(C) Major Factor (D) Major Assumption

14. Fee charged by the payment gateway on each app order.

(A) Minor Factor (B) Major Factor
(C) Major Assumption (D) Major Objective

15. Cost of riders' salaries and two-wheelers for the delivery fleet.

(A) Minor Factor (B) Major Assumption
(C) Major Factor (D) Major Objective

16. Protecting the company's profit margins.

(A) Major Factor (B) Major Objective
(C) Major Assumption (D) Minor Factor

17. Fuel allowance paid to the delivery riders.

(A) Minor Factor (B) Major Objective
(C) Major Factor (D) Major Assumption

18. Most first-time customers find Marina Bakes through the delivery apps.

(A) Major Factor (B) Minor Factor
(C) Major Assumption (D) Major Objective

19. Cost of insulated delivery bags.

(A) Major Factor (B) Major Objective

(C) Major Assumption (D) Minor Factor

20. Most delivery orders will keep coming from within five kilometres of a store.

(A) Major Factor (B) Major Objective

(C) Major Assumption (D) Minor Factor

Section II (Questions 21–40)

Reading Comprehension

Directions (Questions 21–25): Read the passage and answer the questions that follow.

Until the middle of the twentieth century, loading a cargo ship was slow and costly work. Goods arrived at the docks in sacks, barrels and crates of every size, and gangs of dock workers lifted them into the hold one piece at a time. A ship could spend almost as long in port as at sea, and theft and breakage were common. In 1956 an American trucking businessman, Malcolm McLean, sent a converted tanker from New Jersey to Texas carrying fifty-eight metal boxes that could be lifted straight from a truck chassis onto the deck. The idea of a box was not new; what was new was McLean's insistence on treating the ship, the port and the truck as parts of a single transport system.

The real breakthrough came only when the boxes were standardised. As long as each shipping line used containers of its own design, a box could not move easily from one company's ship to another company's train. After years of negotiation, international standards fixed a few common sizes and the design of the corner fittings by which cranes lift and lock the boxes. From then on, a container packed in a factory could travel by truck, rail and sea without being opened.

The consequences went far beyond shipping. Cheaper and more predictable transport made it practical for firms to spread production across several countries, sending parts to wherever they could be made most efficiently. Port cities changed too: old docks in the centres of cities fell idle, while new container terminals were built on open land beside deep water. Far fewer dock workers were needed, which led to bitter disputes in many ports. The story of the container is a reminder that a technology often matters less for its own sake than for the standards and systems that grow around it.

21. Which of the following best expresses the main idea of the passage?

(A) Standard container sizes mattered less than the speed of the new cargo ships

(B) Containers mainly helped dock workers by making their work safer and better paid

(C) Malcolm McLean invented the first metal shipping box in 1956 and so created modern world trade

(D) The container changed trade because it became part of a standard, linked transport system

22. According to the passage, before containers were standardised:

(A) a box could not move easily from one company's ship to another company's train

(B) converted tankers were the only ships able to carry containers

(C) goods could not be packed into boxes at the factory

(D) cranes at most ports were unable to lift loaded metal boxes onto the decks of cargo ships

23. It can be inferred from the passage that old docks in city centres fell idle mainly because:

(A) container terminals needed open land and deep water that these docks lacked

(B) dock workers refused to handle containers in city ports

(C) theft and breakage of goods at these crowded city-centre docks had become far too common

(D) shipping lines moved their offices away from the cities

24. As used in the passage, the word 'idle' most nearly means:

(A) lazy
(B) not in use
(C) crowded
(D) slow-moving

25. The author's concluding point is that:

(A) transport costs no longer influence where firms locate production
(B) a technology's effects often come mostly from the standards and systems around it
(C) new technologies nearly always lead to bitter and lasting disputes with the workers they replace
(D) standards usually slow down the spread of a new technology

Directions (Questions 26–30): Read the passage and answer the questions that follow.

In many family-owned firms, the hardest decision is not about products or markets but about who will run the business next. Founders often build their companies around their own judgement and their personal relationships with suppliers, bankers and key customers. Much of what makes the firm work is never written down. When the founder steps back, this knowledge can leave with him or her, and the firm may stumble even if its products are sound.

Studies of family businesses suggest that succession goes best when it is treated as a process rather than an event. Successors who join the firm early, work in several departments and earn the respect of long-serving employees tend to do better than those who arrive at the top straight from outside. Some families insist that the next generation first work in another company, so that they learn how a business is run without the protection of the family name. Others prepare a written 'family constitution' that sets out who may join the firm, how they will be paid and how disputes among relatives will be settled.

None of this guarantees success. A founder who announces a successor but continues to take every major decision leaves the new leader with responsibility but no authority. Equally, a firm that promotes a family member who lacks the ability or the interest to lead may lose its best professional managers, who see no path to the top. For this reason a growing number of family firms separate ownership from management: the family keeps its shares and sits on the board, while the day-to-day running of the business is handed to professionals chosen on merit. Whether this suits a particular firm depends less on any general rule than on the talents and wishes of the family itself.

26. The passage is mainly concerned with:

(A) the legal rules that govern shareholding in family companies
(B) why family-run businesses usually earn higher profits than professionally managed firms
(C) the reasons founders refuse to retire from their firms
(D) how family firms can hand over leadership without harming the business

27. According to the passage, a 'family constitution' is used to:

(A) register the family company, its shares and its board of directors under company law
(B) set rules on who may join the firm, how they are paid and how disputes are settled
(C) decide which new products and markets the firm should enter
(D) fix the salaries of the professional managers alone

28. The author mentions a founder who names a successor but still takes every major decision in order to show that:

(A) successors should always work in another company first
(B) family members should not be allowed to sit on the board
(C) naming a successor is not enough unless real authority is also handed over
(D) founders are usually better leaders than their own sons and daughters can ever be

29. With which of the following statements would the author most probably agree?

(A) A founder's knowledge of the business is easy to write down

(B) Family firms should always hand management to outside professionals

(C) Successors do best when they are appointed straight to the top

(D) No single succession model is right for every family firm

30. As used in the passage, the word 'stumble' most nearly means:

(A) fall to the ground

(B) grow very quickly

(C) change its owners

(D) face difficulties

Directions (Questions 31–35): Read the passage and answer the questions that follow.

For a long time sleep was seen as a period of rest in which the brain simply switched off. Research over the past few decades has overturned this view. During sleep, and especially during the deep, slow-wave stage that dominates the early part of the night, the brain appears to replay patterns of activity from the day. Experiments with rats learning to find their way through a maze have shown that the same groups of nerve cells that fired while the animal explored the maze fire again, in the same order, while it sleeps.

This replay is thought to help move new memories from short-term storage in a region called the hippocampus to longer-term storage in the outer layers of the brain. In human studies, people who learn a list of word pairs or a new motor skill and then sleep usually remember more the next day than people who stay awake for the same number of hours. Sleep seems to do more than protect memories from interference; it may also help the brain pick out the general rule hidden in a set of examples. In some experiments, people who had slept were more likely to notice a shortcut in a problem they had practised the day before.

These findings have practical consequences. Students who cut sleep to study late into the night may be undermining the very learning they are trying to secure. Shift workers and people whose sleep is often disturbed may find it harder to absorb new skills. At the same time, researchers caution against simple slogans. The effect of sleep varies with the kind of material and the person, and a short nap is no substitute for regular, sufficient sleep.

31. According to the passage, the older view of sleep held that:

(A) the hippocampus stored all long-term memories

(B) dreams were the main way in which people learned

(C) sleep weakened the memories formed during the day

(D) the brain was largely inactive during sleep

32. The maze experiments described in the passage show that:

(A) animals that sleep less learn new routes more quickly

(B) the hippocampus stops working during deep, slow-wave sleep

(C) rats learn their way through a maze faster at night than they do during the daytime

(D) nerve cells active during learning fire again in the same order during sleep

33. Which of the following is stated about slow-wave sleep?

(A) It is the stage in which the brain switches off

(B) It dominates the early part of the night

(C) It occurs mainly during short daytime naps

(D) It stops memories reaching the outer brain

34. What does the author suggest about students who study late into the night?

(A) Cutting sleep may weaken the very learning they are trying to secure

(B) They should replace their night-time sleep with several short naps during the day

(C) They remember word pairs better than new motor skills

(D) They are more likely than others to notice shortcuts in problems

35. The tone of the passage is best described as:

(A) alarmist and urgent
(B) informative and measured
(C) sarcastic and dismissive
(D) nostalgic and personal

Directions (Questions 36–40): Read the passage and answer the questions that follow.

For several decades, manufacturers around the world tried to cut the stocks of parts and materials they held. The approach, often called 'just-in-time', was made popular by Japanese car makers. Instead of filling warehouses with components in case they were needed, a factory arranged for suppliers to deliver small quantities often, just before they were used. Lower stocks freed cash that would otherwise be tied up in inventory, reduced waste and made problems visible: if a faulty batch arrived, the line soon stopped and the cause had to be fixed rather than hidden behind a pile of spare parts.

The weakness of the system lies in its dependence on everything going to plan. A fire at a single supplier's plant, a flood that closes a port or a sudden jump in demand can halt production when there is no buffer to draw on. Several industries have learned this lesson the hard way, as a shortage of one small part has left otherwise finished products waiting in yards.

Some commentators have concluded that just-in-time is finished and that firms should go back to holding large stocks. This is too simple. Stocks cost money, take up space and can become obsolete, especially for products whose designs change quickly. The more sensible response is to ask which items are truly critical and hard to replace, and to hold extra stock or develop a second supplier for those alone. Many firms are also mapping their supply chains beyond their direct suppliers, since a disruption often begins two or three steps further back. In practice, the choice is not between efficiency and resilience but about how much of each a firm is willing to pay for.

36. According to the passage, just-in-time made production problems visible because:

(A) workers were paid a bonus for reporting faulty parts
(B) a faulty batch soon stopped the line, so the cause had to be fixed
(C) suppliers were required to inspect every part twice before each delivery to the factory
(D) warehouses kept detailed records of every defect found

37. The main weakness of just-in-time, as described in the passage, is that it:

(A) can be used only by car makers and their suppliers
(B) leaves little buffer when supply or demand is disrupted
(C) needs very large warehouses to be built close to every single factory
(D) ties up more cash in stock than the older method

38. The author regards the idea that firms should go back to holding large stocks as:

(A) the only sensible way to protect production
(B) suitable mainly for products whose designs change quickly
(C) too simple, because holding stock has real costs
(D) already adopted by most Japanese car makers

39. Why, according to the passage, are many firms mapping their supply chains beyond their direct suppliers?

(A) Governments now require all firms to publish such maps
(B) Disruptions often begin two or three steps further back in the chain
(C) Mapping the chain lowers the price that they pay for parts
(D) Direct suppliers usually refuse to share any information about their own suppliers

40. Which of the following is the most suitable title for the passage?

(A) Efficiency and Resilience: Striking a Balance

(B) How Japanese Car Makers Built Their Global Brands

(C) The End of Just-in-Time Manufacturing

(D) Why Big Warehouses Are Coming Back

Section III (Questions 41–60)

Mathematics

41. A trader marks his goods 40% above cost price and allows a discount of 15% on the marked price. His profit percentage is:

(A) 19% (B) 25%

(C) 17% (D) 21%

42. The difference between the compound interest (compounded annually) and the simple interest on ₹20,000 for 2 years at 10% per annum is:

(A) ₹100 (B) ₹200

(C) ₹210 (D) ₹400

43. The incomes of A and B are in the ratio 5 : 4 and their expenses are in the ratio 3 : 2. If each saves ₹4,000 a month, A's monthly income is:

(A) ₹15,000 (B) ₹12,000

(C) ₹10,000 (D) ₹8,000

44. A can finish a job in 12 days and B in 18 days. They work together for 4 days, after which A leaves and B finishes the rest. In how many days in all is the job completed?

(A) 14 (B) 10

(C) 11 (D) 12

45. A train 240 m long passes a platform 360 m long in 30 seconds. The speed of the train is:

(A) 60 km/h (B) 72 km/h

(C) 80 km/h (D) 54 km/h

46. A 60-litre mixture contains milk and water in the ratio 7 : 3. How much water must be added to make the ratio 3 : 2?

(A) 10 litres (B) 6 litres

(C) 12 litres (D) 8 litres

47. The average of 11 numbers is 50. The average of the first six is 49 and the average of the last six is 52. The sixth number is:

(A) 58 (B) 50

(C) 56 (D) 52

48. In how many different ways can the letters of the word BANANA be arranged?

(A) 120 (B) 720

(C) 30 (D) 60

49. Two fair dice are thrown together. The probability that the sum of the numbers shown is 8 is:

(A) 7/36 (B) 5/36

(C) 1/9 (D) 1/6

50. A bag has 5 red and 3 blue balls. Two balls are drawn at random without replacement. The probability that both are of the same colour is:

(A) 13/28 (B) 15/28

(C) 1/2 (D) 5/14

51. The sum of the first 20 terms of the arithmetic progression 3, 7, 11, 15, … is:

(A) 840 (B) 780

(C) 800 (D) 820

52. The sum to infinity of the series $6 + 2 + 2/3 + 2/9 + \ldots$ is:

(A) 18 (B) 9

(C) 8 (D) 12

53. If $\log_2 x + \log_4 x = 6$, then x equals:

(A) 64 (B) 8

(C) 32 (D) 16

54. If α and β are the roots of $x^2 - 5x + 3 = 0$, the value of $\alpha^2 + \beta^2$ is:

(A) 19 (B) 13

(C) 22 (D) 25

55. The value of the determinant

$$\begin{vmatrix} 2 & 1 & 3 \\ 0 & 4 & 1 \\ 1 & 0 & 2 \end{vmatrix}$$

is:

(A) −5 (B) 3

(C) 7 (D) 5

56. A firm's profit (in ₹ thousand) from selling x hundred units is $P(x) = -2x^2 + 120x - 1000$. The maximum profit the firm can earn is:

(A) ₹6,00,000 (B) ₹9,00,000

(C) ₹8,00,000 (D) ₹10,00,000

57. A closed cylindrical tank has radius 7 m and height 10 m. Its capacity (take $\pi = 22/7$) is:

(A) 770 kilolitres (B) 3,080 kilolitres

(C) 1,450 kilolitres (D) 1,540 kilolitres

58. A invests ₹60,000 for 12 months and B invests ₹80,000 for 6 months in a business. Out of a profit of ₹50,000, B's share is:

(A) ₹25,000 (B) ₹30,000

(C) ₹20,000 (D) ₹24,000

59. The price of sugar rises by 25%. By what percentage must a family reduce its consumption so that its spending on sugar does not change?

(A) 15% (B) 22.5%

(C) 25% (D) 20%

60. A boat goes 18 km/h downstream and 12 km/h upstream. How long will it take to go 30 km upstream and come back?

(A) 4 h (B) 4 h 10 min

(C) 5 h (D) 3 h 50 min

Section IV (Questions 61–80)

Data Sufficiency

Directions (Questions 61–80): Each question is followed by two statements, I and II.
Decide whether the data in the statements are sufficient to answer the question, using the data given plus your knowledge of mathematics and everyday facts. Choose:
- Statement I alone is sufficient (but II alone is not);
- Statement II alone is sufficient (but I alone is not);
- Both statements together are needed (neither alone is sufficient); or
- Both together are still not sufficient.

61. What is the value of x?
I. $3x + 2y = 12$
II. $x - y = -1$
(A) Both together are still not sufficient
(B) Statement I alone is sufficient
(C) Statement II alone is sufficient
(D) Both statements together are needed

62. Is the integer n even?
I. $n^2 + n$ is even.
II. n^2 is divisible by 4.
(A) Both statements together are needed
(B) Statement I alone is sufficient
(C) Both together are still not sufficient
(D) Statement II alone is sufficient

63. What is the price of one pen?
I. 5 pens cost ₹60.
II. 3 pens and 2 pencils cost ₹50.
(A) Statement II alone is sufficient
(B) Statement I alone is sufficient
(C) Both together are still not sufficient
(D) Both statements together are needed

64. What is the area of rectangle ABCD?
I. Its perimeter is 34 cm.
II. Its diagonal is 13 cm.
(A) Both together are still not sufficient
(B) Statement I alone is sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

65. What is the profit percentage on an article?
I. Its selling price is ₹1,200.
II. Its cost price is 80% of its selling price.
(A) Statement II alone is sufficient
(B) Statement I alone is sufficient
(C) Both together are still not sufficient
(D) Both statements together are needed

66. Is $x > y$? (x and y are real numbers.)
I. $x - y = 3$
II. $x^2 > y^2$
(A) Both together are still not sufficient
(B) Statement I alone is sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

67. How old is Ravi now?
I. Ravi is 4 years older than Sita.
II. Five years ago, Sita's age was three-fourths of Ravi's age.
(A) Both statements together are needed
(B) Statement II alone is sufficient
(C) Both together are still not sufficient
(D) Statement I alone is sufficient

68. In which direction is Mohan facing?
I. He walked 10 m and then turned left.
II. Just after sunrise, his shadow fell exactly to his right.
(A) Statement I alone is sufficient
(B) Statement II alone is sufficient
(C) Both statements together are needed
(D) Both together are still not sufficient

69. Who is the tallest among P, Q, R and S?
I. P is taller than Q, R and S.
II. Q is taller than R but shorter than S.
(A) Both statements together are needed
(B) Statement II alone is sufficient
(C) Statement I alone is sufficient
(D) Both together are still not sufficient

70. What was the population of town X in 2025?
I. Its population grew by 10% from 2024 to 2025.
II. Its population increased by 4,000 from 2024 to 2025.
(A) Both together are still not sufficient
(B) Statement II alone is sufficient
(C) Both statements together are needed
(D) Statement I alone is sufficient

71. What is Meena's monthly salary?
I. Meena earns ₹5,000 more than Kavya.
II. Kavya's salary is 80% of Leela's salary.
(A) Both statements together are needed
(B) Statement I alone is sufficient
(C) Both together are still not sufficient
(D) Statement II alone is sufficient

72. What day of the week was 1 March of a certain year?
I. 22 March of that year was a Monday.
II. 1 February of that year was a Sunday.
(A) Statement I alone is sufficient
(B) Both statements together are needed
(C) Both together are still not sufficient
(D) Statement II alone is sufficient

73. How is A related to B?
I. A is the son of C.
II. B's father has only two children, A and B, and A is a boy.
(A) Both together are still not sufficient
(B) Statement I alone is sufficient
(C) Statement II alone is sufficient
(D) Both statements together are needed

74. Is $x > y$? (x and y are real numbers.)
I. $x^2 > y^2$
II. $xy > 0$
(A) Statement II alone is sufficient
(B) Statement I alone is sufficient
(C) Both statements together are needed
(D) Both together are still not sufficient

75. In a certain code, 'pit na ro' means 'sell good products'. What is the code for 'good'?
I. 'ro ka' means 'products sale'.
II. 'pit lo' means 'sell now'.
(A) Statement I alone is sufficient
(B) Both together are still not sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

76. On which date in May is Asha's birthday?
I. Her brother remembers that it is after 12 May but before 17 May.
II. Her mother remembers that it is after 13 May but before 18 May.
(A) Both together are still not sufficient
(B) Statement I alone is sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

77. What is the value of the two-digit number N?
I. The sum of its digits is 9.
II. N is a multiple of 27 and is greater than 60.
(A) Statement I alone is sufficient
(B) Both together are still not sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

78. What is the average weight of the students in a class?
I. There are 40 students in the class.
II. The average weight of the boys is 45 kg.
(A) Both together are still not sufficient
(B) Statement II alone is sufficient
(C) Both statements together are needed
(D) Statement I alone is sufficient

79. What is the speed of a train?
I. The train is 240 m long and passes a pole in 12 seconds.
II. The train passes a platform 300 m long in 27 seconds.
(A) Both together are still not sufficient
(B) Both statements together are needed
(C) Statement I alone is sufficient
(D) Statement II alone is sufficient

80. What is the value of k?
I. k is a prime number.
II. k is less than 10.
(A) Statement I alone is sufficient
(B) Both together are still not sufficient
(C) Both statements together are needed
(D) Statement II alone is sufficient

Section V (Questions 81–100)

Written English

Directions (Questions 81–86): Each sentence is split into three parts.
Find the part that contains a grammatical or usage error. If the sentence is correct, choose 'No error'.

81. Neither the manager nor his assistants | was present | at the review meeting yesterday.
(A) Neither the manager nor his assistants
(B) at the review meeting yesterday
(C) was present
(D) No error

82. Each of the new trainees | have been given | a laptop and an identity card.
(A) have been given
(B) a laptop and an identity card
(C) Each of the new trainees
(D) No error

83. She is senior than me | in the accounts department | by two years.
(A) in the accounts department
(B) She is senior than me
(C) by two years
(D) No error

84. If I would have known about the delay, | I would have taken | the earlier flight to Madurai.
(A) If I would have known about the delay
(B) I would have taken
(C) the earlier flight to Madurai
(D) No error

85. The company has been making profits | in every quarter | since the last five years.

(A) since the last five years

(B) in every quarter

(C) The company has been making profits

(D) No error

86. The board approved the proposal | after a long discussion | that lasted nearly three hours.

(A) that lasted nearly three hours

(B) after a long discussion

(C) The board approved the proposal

(D) No error

87. Choose the word that best fills the blank:
The new manager was not averse _____ the idea of flexible working hours.

(A) to (B) with

(C) for (D) from

88. Choose the word that best fills the blank:
The auditors found several _____ in the accounts that the firm could not explain.

(A) delicacies (B) discrepancies

(C) dependencies (D) deliberations

89. Choose the word that best fills the blank:
Mr. Rao has been working in this branch _____ 2019.

(A) by (B) from

(C) for (D) since

90. Choose the word that best fills the blank:
Hardly had the meeting begun _____ the power went off.

(A) then (B) when

(C) as (D) than

91. Choose the correct passive form of: 'The committee will announce the results next week.'

(A) The results will announce by the committee next week.

(B) The results are being announced by the committee next week.

(C) The results will be announced by the committee next week.

(D) The results would be announced by the committee next week.

92. Choose the correct passive form of: 'Who wrote this letter?'

(A) By whom this letter was written?

(B) By whom is this letter written?

(C) Who was this letter wrote by?

(D) By whom was this letter written?

93. Arrange the parts in the correct order to complete the sentence:
When the new manager joined the branch,
(i) she first met every member of the staff
(ii) and then drew up a plan
(iii) to understand their problems
(iv) to deal with the most urgent ones.

(A) (iii) (i) (iv) (ii) (B) (ii) (iv) (i) (iii)

(C) (i) (ii) (iii) (iv) (D) (i) (iii) (ii) (iv)

94. Arrange the sentences P, Q, R and S to form a coherent paragraph:
P. As a result, many small shops now accept payments through mobile phones.
Q. Digital payments have spread quickly across India in the last decade.
R. This has made it easier for customers to pay even small amounts without cash.
S. Part of the reason is that smartphones and mobile data have become cheaper.
(A) SQRP (B) QPSR
(C) QSPR (D) QRSP

95. Choose the word closest in meaning to LUCRATIVE:
(A) fragile (B) ostentatious
(C) profitable (D) tedious

96. Choose the word closest in meaning to METICULOUS:
(A) talkative (B) generous
(C) painstaking (D) cheerful

97. Choose the word opposite in meaning to FRUGAL:
(A) modest (B) extravagant
(C) careful (D) thrifty

98. Choose the word opposite in meaning to TRANSPARENT:
(A) honest (B) clear
(C) opaque (D) visible

99. The idiom 'to cut corners' means:
(A) to take the shortest possible road when travelling to a place
(B) to do something cheaply or quickly by skipping steps
(C) to settle a dispute by compromise
(D) to reduce the size of a document

100. The idiom 'a blessing in disguise' means:
(A) something good that first seemed to be bad
(B) a reward given for a hidden talent
(C) a kind act done by an unknown person
(D) a gift that has been wrapped in plain brown paper

Answer Key

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

Solutions

Analysis of Business Situations

1. (B) Revathi names steady sales growth as one of the company's two aims.

2. (C) Revathi is 'convinced' of this before the options are examined; it is a projection, not a fact studied in the meeting.

3. (C) The controller is called 'the real gap'; it shapes the choice between developing and buying, and so the whole decision.

4. (D) The salaries bear on the cost of one way of filling the controller gap (a Major Factor), not on the aims directly.

5. (D) Without empanelment the range 'would have almost no buyers', so it fundamentally affects the decision.

6. (C) The fees are 'modest' and matter only as part of getting empanelment, which is the Major Factor.

7. (A) This is Revathi's belief about customers, not something the team tested.

8. (C) It is the second of the two aims Revathi states at the meeting.

9. (B) Solar sets need installation and service on the farm, and the dealers are not yet equipped for it; this directly affects whether the launch can work.

10. (A) The training cost bears on the dealer network's readiness (a Major Factor) rather than on the objectives directly.

11. (B) Arvind 'wants to increase the share of sales that comes from home delivery': a goal.

12. (A) The commission squeezes margins and is what Arvind weighs against the cost of a fleet; it drives the decision.

13. (D) Arvind 'believes' this; it is a supposition made before the factors are studied.

14. (A) A small fee that adds to the cost of running the app, which is part of a Major Factor.

15. (C) Salaries and vehicles make the fleet 'a major expense', and the fleet cost is weighed directly in the decision.

16. (B) Arvind also 'wants to protect the company's profit margins': his second goal.

17. (A) Described as a small item within the fleet cost (a Major Factor).

18. (A) This finding from order data is why the bakery stays on the apps; it shapes the final mixed approach.

19. (D) Another small item within the fleet cost.

20. (C) Arvind 'takes it for granted'; it is a projection on which his fleet plan rests.

Reading Comprehension

21. (D) The passage stresses standardisation and the 'single transport system', and its last sentence states the general point. It says the box itself was not new.

22. (A) Paragraph 2: with each line using its own design, a box could not move easily from one company's ship to another's train.

23. (A) New terminals were built 'on open land beside deep water', which implies the old central docks could not provide these.

24. (B) Docks that 'fell idle' stopped being used, while new terminals were built elsewhere.

25. (B) The last sentence says a technology often matters less for its own sake than for the standards and systems that grow around it.

26. (D) Every paragraph deals with succession: what is at risk, what helps, and what can go wrong.

27. (B) Paragraph 2 lists exactly these three purposes.

28. (C) Such a successor has 'responsibility but no authority', so the handover fails.

29. (D) The final sentence says the right choice depends 'less on any general rule than on the talents and wishes of the family'.

30. (D) A firm that 'may stumble even if its products are sound' is one that may run into trouble.

31. (D) The first sentence: sleep was seen as a time when the brain 'simply switched off'.

32. (D) The same groups of cells 'fire again, in the same order, while it sleeps'.

33. (B) Paragraph 1 describes 'the deep, slow-wave stage that dominates the early part of the night'.

34. (A) Paragraph 3 says they 'may be undermining the very learning they are trying to secure'; it adds that a nap is no substitute for sleep.

35. (B) It reports research and adds cautions ('researchers caution against simple slogans'), without exaggeration.

36. (B) With no spare stock to hide behind, a faulty batch stopped the line and forced a fix.

37. (B) Paragraph 2: it depends on everything going to plan, and a disruption halts production when there is no buffer.

38. (C) The author calls it 'too simple' and lists the costs of stocks; it is worst for fast-changing designs, not best.

39. (B) The passage gives this reason directly in paragraph 3.

40. (A) The passage weighs the gains of just-in-time against its risks and ends by saying firms must choose how much efficiency and resilience to buy.

Mathematics

41. (A) SP = 1.40 × 0.85 = 1.19 times the cost, so the profit is 19%.

42. (B) For 2 years the difference is $P(r/100)^2 = 20{,}000 \times 0.01 = ₹200$.

43. (C) $5x - 3y = 4{,}000$ and $4x - 2y = 4{,}000$. From the second, $y = 2x - 2{,}000$; then $5x - 6x + 6{,}000 = 4{,}000$, so $x = 2{,}000$ and A's income $= 5x = ₹10{,}000$.

44. (D) Together they do $1/12 + 1/18 = 5/36$ per day, so $20/36 = 5/9$ in 4 days. B does the remaining $4/9$ in $(4/9) \times 18 = 8$ days. Total $4 + 8 = 12$ days.

45. (B) Distance $= 240 + 360 = 600$ m in 30 s $= 20$ m/s $= 20 \times 18/5 = 72$ km/h.

46. (A) Milk = 42 L, water = 18 L. $42/(18 + w) = 3/2$ gives $18 + w = 28$, so $w = 10$ L.

47. (C) The sixth number is counted twice: $6 \times 49 + 6 \times 52 - 11 \times 50 = 294 + 312 - 550 = 56$.

48. (D) $6!/(3! \times 2!) = 720/12 = 60$, since A repeats 3 times and N twice.

49. (B) Favourable outcomes: (2,6), (3,5), (4,4), (5,3), (6,2), that is 5 of 36.

50. (A) $[C(5,2) + C(3,2)]/C(8,2) = (10 + 3)/28 = 13/28$.

51. (D) $S = (n/2)[2a + (n - 1)d] = 10 \times (6 + 76) = 820$.

52. (B) A geometric series with $a = 6$ and $r = 1/3$: $S = 6/(1 - 1/3) = 9$.

53. (D) $\log_4 x = ½ \log_2 x$, so $(3/2) \log_2 x = 6$, $\log_2 x = 4$ and $x = 16$.

54. (A) $\alpha + \beta = 5$ and $\alpha\beta = 3$, so $\alpha^2 + \beta^2 = 25 - 6 = 19$.

55. (D) $2(8 - 0) - 1(0 - 1) + 3(0 - 4) = 16 + 1 - 12 = 5$.

56. (C) $P'(x) = -4x + 120 = 0$ at $x = 30$. $P(30) = -1800 + 3600 - 1000 = 800$ thousand $= ₹8{,}00{,}000$.

57. (D) $V = \pi r^2 h = (22/7) \times 49 \times 10 = 1{,}540$ m³, and 1 m³ = 1 kilolitre.

58. (C) Capital-months: 7,20,000 : 4,80,000 = 3 : 2. B gets 2/5 × 50,000 = ₹20,000.

59. (D) Required cut = 25/(100 + 25) × 100 = 20%.

60. (B) 30/12 + 30/18 = 2.5 h + 1 h 40 min = 4 h 10 min.

Data Sufficiency

61. (D) Each equation alone has two unknowns. Together: y = x + 1, so 5x + 2 = 12 and x = 2.

62. (D) $n^2 + n = n(n + 1)$ is always even, so I tells nothing. If n^2 is divisible by 4, n cannot be odd (an odd square is odd), so n is even.

63. (B) I gives ₹12 per pen. II has two unknown prices.

64. (C) Together l + w = 17 and $l^2 + w^2 = 169$, so 2lw = 289 − 169 and the area lw = 60 cm². Neither alone fixes it.

65. (A) II gives profit = 20% of SP on a cost of 80% of SP, i.e. 25%. I gives no cost.

66. (B) I gives x − y > 0. II fails: x = −3, y = 0 gives $x^2 > y^2$ but x < y.

67. (A) With R = S + 4 and S − 5 = ¾(R − 5): S − 5 = ¾(S − 1), so S = 17 and R = 21. Each statement alone has two unknowns.

68. (B) At sunrise the Sun is in the east and shadows point west. If west is on his right, he faces south. I gives no fixed direction.

69. (C) I answers directly: P. II says nothing about P.

70. (C) Together, 10% of the 2024 population is 4,000, so 2024 = 40,000 and 2025 = 44,000. Neither alone is enough.

71. (C) No statement gives any actual salary, so even together the value cannot be found.

72. (A) I: 1 March is 21 days (3 weeks) before 22 March, so also a Monday. II fails because February may have 28 or 29 days.

73. (C) II makes A and B children of the same father with A male, so A is B's brother. I says nothing about B.

74. (D) x = 3, y = 1 and x = −3, y = −1 both satisfy I and II, but give different answers.

75. (C) I gives ro = products; II gives pit = sell. Only together is na = good fixed.

76. (A) Together the date could be 14, 15 or 16 May, so it cannot be fixed.

77. (D) Two-digit multiples of 27 are 27, 54 and 81; only 81 is above 60. I allows 18, 27, …, 90.

78. (A) The number of boys and girls and the girls' average are unknown, so even together the class average cannot be found.

79. (C) I gives 240/12 = 20 m/s. II alone has two unknowns (length and speed).

80. (B) Together k could be 2, 3, 5 or 7.

Written English

81. (C) With 'neither … nor', the verb agrees with the nearer subject, 'assistants': were present.

82. (A) 'Each' is singular, so the verb should be 'has been given'.

83. (B) 'Senior' takes 'to', not 'than': She is senior to me.

84. (A) In a past unreal condition the if-clause takes the past perfect: If I had known.

85. (A) A period of time takes 'for': for the last five years.

86. (D) The sentence is correct.

87. (A) 'Averse' is followed by 'to'.

88. (B) Unexplained differences between figures are discrepancies.

89. (D) A point of time with the present perfect continuous takes 'since'.

90. (B) 'Hardly … when' is the correct pair; 'than' goes with 'no sooner'.

91. (C) Future simple active 'will announce' becomes 'will be announced'.

92. (D) A question in the past simple: By whom was this letter written? The other forms have wrong word order, a wrong verb form or the wrong tense.

93. (D) She met the staff (i) to understand their problems (iii), and then drew up a plan (ii) to deal with the most urgent ones (iv).

94. (C) Q introduces the topic, S gives a reason, P states the result and R adds its effect on customers.

95. (C) A lucrative business earns a lot of money: profitable.

96. (C) Meticulous means showing great care over detail.

97. (B) Frugal means sparing with money; its opposite is extravagant. 'Thrifty' is a synonym.

98. (C) Something that cannot be seen through is opaque.

99. (B) Cutting corners is saving time or money by leaving out what should be done, often lowering quality.

100. (A) It describes an apparent misfortune that turns out to be helpful.