

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER****Mathematics M.C.Q's**

No. of Questions: 40 (from 1 to 40)

Time allowed: 80 Minutes

Questions on Page Numbers: 1 To 9

Negative markings: **Yes**

Q1 On a 5 day mountain trip, 9 persons consumed food costing R9450. For the same food costs per person per day, what would be the cost of food consumed by 11 persons during a 7 day mountain trip?

- A) R66150
- B) R13170
- C) R16170
- D) None of these

Q2 If a copier makes 7 copies every 5 seconds, then continues at this rate, how many minutes will it take to make 4200 copies?

- A) 50
- B) 60
- C) 70
- D) 80

Q3 Which of the following equations has a root in common with $x^2 + 21x + 110 = 0$?

I $x^2 + 19x + 90 = 0$ II $x^2 + 19x + 88 = 0$ III $x^2 + 19x + 84 = 0$

- A) Only I
- B) Only III
- C) Only I and II
- D) I, II and III

Q4 Sixty applicants for a job were given scores from 2 to 6 on their interview performance. Their scores are shown in the table:

Score	2	3	4	5	6
Number of Applicants	2	5	30	19	4

What was the average score for the group?

- A) 2.3
- B) 3.3
- C) 4.3
- D) 5.3

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Q5 If the diameter of a circle is 20, then the circumference of the circle is

- A) 20π
- B) 10π
- C) 100π
- D) 400π

Q6 If the sum of all interior angles of a polygon is 1080° , then the polygon must be

- A) pentagon
- B) hexagon
- C) heptagon
- D) octagon

Q7 If a triangle has a base B and the altitude of the triangle is three times the base, then the area of the triangle is

- A) $3B^2$
- B) $6B^2$
- C) $1.5B^2$
- D) B^2

Q8 The operations \otimes and \odot are defined as follows:

$$x \otimes y = 2x - 3y$$

$$x \odot y = 3x + 2y$$

Find values of u satisfying $u \otimes (3u) = (3u) \odot (-8u)$.

I 0 II 10 III 100 IV 1000

- A) Only I
- B) Only II and III
- C) Only IV
- D) u can assume any real value

Q9 The number of rooms at Hotel A is 30 more than twice the number of rooms at Hotel B. If the total number of rooms at Hotel A and Hotel B is 915, what is the number of rooms at Hotel A?

- A) 295
- B) 620
- C) 885
- D) None of these

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Q10 Which of the following inequalities is equivalent to $-3 < x < 11$?

- A) $|x - 7| < 4$
- B) $|x - 4| < 7$
- C) $|x + 7| < 4$
- D) $|x + 4| < 7$

Q11 Which of the following inequalities is a possible solution to the inequality $|x - 9| > 6$?

I $x > 15$

II $x < 3$

III $x > 0$

- A) Only I
- B) Only III
- C) Only I and II
- D) I, II and III

Q12 Asghar is 27 years younger than Junaid. In 10 years Junaid will be twice as old as Asghar. How old will Junaid be in 7 years?

- A) 17
- B) 44
- C) 24
- D) 51

Directions: In each of the problems 13 to 19, a question is followed by two statements containing certain data. You are to determine whether the data provided by the statements is sufficient to answer the question.

Answer Choices - applicable for questions 13 to 19

- A) if statement (1) by itself is sufficient to answer the question, but statement (2) by itself is not;
- B) if statement (2) by itself is sufficient to answer the question, but statement (1) by itself is not;
- C) if statements (1) and (2) taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- D) if either statement by itself is sufficient to answer the question;

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Question 13

If R is an integer, is R evenly divisible by 5?

- (1) R is a prime number
- (2) R is evenly divisible by 10

Question 14

Do we have two distinct real roots of the quadratic equations $x^2 + \alpha x - 2\alpha^2 = 0$?

- (1) $\alpha > 0$
- (2) $\alpha < 0$

Question 15

Can we find the sum of first 10 terms of an arithmetic series?

- (1) The value of the fifth term is 10
- (2) The value of the sixth term is 20

Question 16

Is x divisible by 12?

- (1) 4 is a factor of x
- (2) x divided by 3 yields the remainder of 0

Question 17

What is the mode of the set consisting of the following numbers 2, 4, 3, α , 8, β , 3?

- (1) $\alpha = 2$
- (2) $\beta = 3$

Question 18

What is the median of the set consisting of the following numbers: 13, 14, 16, 12, 7, 13, 16, x ?

- (1) $x < 12$,
- (2) $x = 12$

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Question 19

What is the value of $4x^2 + \frac{1}{9x^2}$?

- (1) $2x - \frac{1}{3x} = 5$
(2) $2x + \frac{1}{3x} = 5$

Q20 The price of a Candy bar is R80. The price of a box containing same 12 Candy bars is R720. The box of 12 Candy bars is what percentage cheaper than purchasing 12 Candy bars individually?

- A) 25%
B) 30%
C) 40%
D) 50%

Q21 A sink contains exactly 32 liters of water. If water is drained from the sink until it holds exactly 8 liters of water less than the quantity drained away, how many liters of water it holds now?

- A) 8
B) 12
C) 20
D) None of these

Q22 The domain of function f defined by, $f(x) = \frac{\sqrt{x^2 - 4x}}{\sqrt{x(x-1)}}$ is the set of all values of x in the interval

- A) $(-\infty, 0) \cup [4, \infty)$
B) $(-\infty, -1) \cup [1, \infty)$
C) $(-\infty, -1) \cup [4, \infty)$
D) $(-\infty, 0) \cup (4, \infty)$

Q23 How many integers between 7 and 700 inclusive cannot be evenly divided by 7 nor 11?

- A) 154
B) 163
C) 540
D) None of these

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Q24 The range of function f defined by, $f(x) = x^2 - 2x + 1$ is the set of

- A) all nonnegative real numbers
- B) all negative real numbers
- C) all positive real numbers
- D) None of these

Q25 Which expression is equivalent to $\frac{\sqrt{7}-1}{1+\sqrt{7}}$?

A) $\frac{4-\sqrt{7}}{3}$

B) $\frac{4-\sqrt{7}}{24}$

C) $\frac{25-\sqrt{7}}{24}$

- D) None of these

Q26 If the product of two integers is 196 and the sum of the same integers is -100 , then the smaller of the two integers is

- A) -196
- B) -100
- C) -98
- D) -2

Q27 In a certain departmental store, which has four sizes of a specific shirt, there are $\frac{1}{4}$ as many x-large shirts as small shirts, and $\frac{1}{3}$ as many large shirts as medium shirts. If there are as many small shirts as medium shirts, what is the probability that a shirt picked at random will be of medium size?

A) $\frac{4}{31}$

B) $\frac{3}{31}$

C) $\frac{12}{31}$

- D) None of these

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Q28 In 3-or-7 game, each player scores either 3 points or 7 points. If α players score 3 points and β players score 7 points, and the total number of points scored is 81, what is the least possible value of $|\alpha - \beta|$.

- A) 27
- B) 17
- C) 7
- D) 3

Q29 The arithmetic mean of the 9 consecutive integers starting with m is 24. What is the arithmetic mean of 7 consecutive integers that also start with m ?

- A) m
- B) $m + 1$
- C) $m + 2$
- D) $m + 3$

Q30 There are three marbles: 1 red, 1 yellow and 1 white. In how many ways is it possible to arrange marbles in a row if yellow marble have to be right to red marble?

- A) 3
- B) 4
- C) 5
- D) 6

Q31 The scores obtained by students who have appeared in a standard test follow normal distribution with mean 100 and standard deviation 15. The percentage of students who have scored less than 70 marks is

- A) 2.5
- B) 5
- C) 32
- D) 16

Q32 If m and n are both positive integers such that $\frac{m}{4} + \frac{n}{5}$ is also an integer, then which one of the following integers could m equal?

I 2 II 4 III 8

- A) Only I
- B) Only II
- C) Only II and III
- D) m can assume any positive integer value

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Q33 Tuna Melt, Italian Beef, Chicken Salad, and Italian Hero sandwiches were made for a picnic in a ratio of 9 to 11 to 13 to 17. If a total of 250 sandwiches were made, how many Italian Beef sandwiches were made?

- A) 45
- B) 55
- C) 65
- D) 85

Q34 If m is any integer that has a remainder of 30 when divided by 31, what is the remainder when $22m - 21$ is divided by 62?

- A) 19
- B) 20
- C) 21
- D) 22

Q35 The sum of 10 consecutive integers is 135. How many of these 10 consecutive integers are prime numbers?

- A) 1
- B) 2
- C) 3
- D) 4

Q36 Let a be the larger root and b be the smaller root of the quadratic equation $2x^2 + 2x - 12 = 0$,

then the value of $\frac{a^{-2} + b^{-3}}{a^{-4}} - \frac{a^{-2} - b^{-3}}{b^{-4}}$ is

- A) a positive number
- B) zero
- C) a negative number
- D) an irrational number

Q37 A car averages 80 KM / h for the first 3 hours of a trip and averages 110 KM / h for each additional hour. The average speed for the entire trip was 100 KM / h. How many KM long is the trip?

- A) 450
- B) 570
- C) 680
- D) 900

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Q38 A six sided die is biased in such a way that even numbers are three times as likely as odd numbers. What is the probability of observing a prime number on one roll of this die?

- A) $\frac{1}{2}$
- B) $\frac{3}{4}$
- C) $\frac{5}{6}$
- D) $\frac{5}{12}$

Q39 If a cube has a volume of $24\sqrt{3} \text{ cm}^3$, what is its total surface area?

- A) 18 cm^2
- B) 36 cm^2
- C) 72 cm^2
- D) None of these

Q40 $(180)^2 - (170)^2 =$

- A) 100
- B) 350
- C) 3500
- D) None of these

(Stop. Do not turn over this page until you are told to do so.)

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER****English M.C.Q's**

No. of Questions: 45 (from 41 to 85)

Time allowed: 50 Minutes

Questions on Page Numbers: 10 To 22

Negative markings: **Yes**

For questions 41-48, decide which answer (**A, B, C** or **D**) best fits each blank.

41 _____ the advent of the Industrial Revolution, pollution was virtually unheard of.

- A Prior to
- B Previously
- C Formerly
- D By the time

42 There currently seems to be a large _____ between the number of people employed in service industries, and those employed in the primary sector.

- A disparate
- B discrimination
- C differential
- D discrepancy

43 The halcyon days of the new administration belied the president's _____ journey to the White House.

- A facile
- B tortuous
- C imperial
- D dexterous

44 Although typically quite lucid in his explanations of his theories, Professor Hamid used words that were so _____ that the students asked him to review yesterday's lecture in its entirety.

- A realistic
- B obvious
- C obscure
- D benevolent

45 The theater critic made an appeal in his most recent review for playwrights to avoid _____ characters and situations, for he could not sit through one more trite play.

- A judicious
- B banal
- C rapturous
- D expedient

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46 After months of research, the degree candidate was confident in the validity of her thesis, but certain key errors in methodology left the review committee _____.

- A persuaded
- B mollified
- C dubious
- D irked

47 The young employee of the firm was more _____ by his new assignment than he seemed to be, for his confusion was disguised by his confident smile.

- A perturbed
- B placated
- C vilified
- D conciliated

48 The bill pushed through by the foreign government was touted as increasing transparency, professional integrity, and independence for the media; in reality, though, the bill was simply a way for the officials to protect their cronyism from the newspapers that had been _____ in their attempts to expose government corruption.

- A assiduous
- B perfunctory
- C eschewed
- D lackadaisical

For questions **49-61**, read the text below and then decide which answer (**A**, **B**, **C** or **D**) best fits each blank.

U.S. Moves to Thwart Use of Foreign Acquisitions to Dodge Taxes

By Leslie Picker and Michael J. de la Merced

April 4, 2016

The New York Times

The Treasury Department took new steps on Monday to further curtail a popular type of merger in which an American company buys a foreign counterpart, then moves abroad to lower its tax bill. The new rules, announced (**49**) _____ the Internal Revenue Service, take particular aim at foreign companies that have completed multiple deals with American companies in a short period, what the regulator calls “serial inverters.”

In (**50**) _____ the new rules, its third effort in recent years, the Obama administration appears to have raised concern about the fate of the biggest inversion, Pfizer’s \$150 billion takeover of Allergan, a Dublin-based drug maker. The rules would apply to that inversion and any (**51**) _____ that close after Monday.

Shares in Allergan (**52**) _____ 21 percent in after-hours trading following the Treasury announcement. “We are conducting a review of the U.S. Department of Treasury’s actions announced

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today,” Pfizer and Allergan said in a joint statement on Monday. “Prior to completing the review, we won’t speculate (53) _____ any potential impact.”

The Treasury Department also took aim at another feature of these so-called corporate inversion transactions: complicated internal loans that effectively (54) _____ profits of United States-based businesses overseas. This tactic, known as earnings stripping, involves the American subsidiary borrowing from the parent company and using the interest payments on the loans to offset earnings — a cost that is not (55) _____ on financial statements but lowers the tax bill.

Monday’s rules classify this intra-company transaction as if it were stock-based instead of debt, (56) _____ the interest deduction for the American subsidiary. This change applies not just to inversions but to any foreign company that has (57) _____ an American entity and used this technique to achieve lower taxes.

(58) _____ even by the Treasury Department’s own admission, the latest rules will not be enough to completely (59) _____ the flow of companies seeking to renounce their American citizenship, just as the two previous rule changes did not. Such a move would be possible only with an (60) _____ of the tax rules by Congress, which few believe will happen soon.

“These actions took away some of the economic benefits of inverting and helped slow the pace of these transactions, but we know companies will continue to seek new and creative ways to (61) _____ their tax residence to avoid paying taxes here at home,” Jacob J. Lew, the Treasury secretary, said in a statement.

49

- A against
- B in union with
- C in conjunction with
- D from

50

- A pushing
- B creating
- C establishing
- D subjugating

51

- A agreements
- B trades
- C contracts
- D transactions

52

- A soared
- B climbed
- C tumbled
- D descended

(go on to the next page)

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53

- A in
- B on
- C at
- D towards

54

- A move
- B reduce
- C destroy
- D generate

55

- A added
- B excluded
- C reflected
- D portrayed

56

- A increasing
- B terminating
- C preserving
- D eliminating

57

- A acquired
- B gotten
- C borrowed
- D wangled

58

- A Yet
- B Since
- C Although
- D As a result

59

- A facilitate
- B halt
- C regulate
- D maintain

(go on to the next page)

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60

- A application
- B imposition
- C overhaul
- D adherence

61

- A remove
- B change
- C transpose
- D relocate

For questions **62-72**, read the article below and insert the best headings (**A, B, C, or D**) for the paragraphs in the blanks.

Lately, there's been some debate about whether workplace health promotion programs work. To tackle this question, we prepared a report, "From Evidence to Practice: Workplace Wellness that Works." One of the biggest lessons we learned in the process of creating the report is one-time events masquerading as health promotion programs – that is, activities not integrated into a comprehensive workplace health promotion strategy – are likely to fail. And there are five common ways these solitary initiatives tend to pop up in companies.

(62) _____ Health assessments typically involve asking employees questions about modifiable risks, such as smoking behavior, physical inactivity, poor diet, and high stress levels. Oftentimes, these surveys are coupled with biometric screenings of blood pressure, cholesterol, height/weight, and blood glucose levels. But providing feedback reports that remind employees that smoking, not exercising, or being overweight is unhealthy does not motivate change unless workers are given the tools and resources to actually change and track their behaviors. Undoing decades of poor health habits won't be achieved by asking employees to complete a 15-minute questionnaire. And for otherwise healthy employees, frequent biometric screening is often unnecessary, and from a clinical standpoint may do more harm than good because follow-up treatments can be unnecessary and costly.

(63) _____ While financial incentive programs are popular, they may not achieve long-term behavior change; instead, they may lead to resentment and even rebellion among workers. This is because many traditional incentive programs are grounded on the assumption that people will behave in certain rational ways if paid to do so. Behavioral economics tells us otherwise: Sometimes people do things that are irrational and even counter to their best interests. Individuals may not focus on long-term benefits of a given action when a short-term reward (for example smoking a cigarette, consuming a large pizza, or spending hours watching television) is more appealing. While there is some evidence that incentives work in specific instances for a small subset of workers, there is little research on the use of financial incentives in achieving long-term lifestyle changes like losing weight and not regaining it.

(64) _____ Surprisingly, many employers think they've offered a wellness program if they direct their employees to a website made available by their insurer. These under-the-radar programs do not improve population health unless they are part of a broader comprehensive health promotion program that offers many ways to become engaged.

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(65) _____ *Biggest Loser*-themed events or pedometer challenges are random acts of wellness and are not very effective. In fact, they may even do more harm than good by promoting quick fixes as opposed to long-term progress.

(66) _____ Employers sometimes hire outsiders and call it a day. Worse yet, they'll sometimes hire different vendors to address different issues – lifestyle coaches, employee assistance counselors, case and disease management vendors, nurse lines, occupational health and safety experts, workers' compensation specialists, disability managers, organizational development consultants, you name it. When hired independently, these vendors often work in silos, which can result in overlapping or duplicated work. In addition, relying on outside entities to attend to organizational needs may not get at the root of a systematic problem.

So what does? We've identified five approaches that, while comparatively difficult, can actually change the health and lives of employees for the better.

(67) _____ A successful health promotion program starts with a commitment from company leaders, and its continued success depends on ongoing support at all levels of the organization. In particular, leaders at companies with successful programs establish a healthy work environment by integrating health into the organization's overall vision and purpose. At Lincoln Industries, a manufacturer and distributor of trucking accessories, promoting workers' health and well-being is embedded in the company's core mission and values. Senior leaders not only speak of its importance to the organization's success, they lead by example.

(68) _____ A healthy company culture is built intentionally. It is first and foremost about creating a way of life in the workplace that integrates a total health model into every aspect of business practice, from company policies to everyday work activities. By "total health" we mean a culture that's supportive of career, emotional, financial, physical and social well-being – not just an occasional road race. Examples include offering flexible work schedules, giving workers latitude in decision-making, setting reasonable health goals, providing social support, enforcing health-promoting policies and establishing a healthy physical environment (healthy food offerings, staircases instead of elevators, walking trails in and outside buildings and treadmill workstations). This, of course, takes time and support. A company like Dow Chemical is a success story in this way. The company has promoted a culture of health for more than 30 years, with countless peer-reviewed studies showing that employees' health has improved and company costs have been contained.

(69) _____ A workplace health promotion program cannot be imposed on workers as yet another management cost-containment initiative. Boosting engagement in wellness can only be achieved when workers own the program, understand how they and the company benefit, and are given a meaningful voice in its ongoing operation. There are a few simple ways to start doing this. The most common approach is to conduct regular surveys or focus groups to determine which aspects of health and wellness are important to employees, and which initiatives are not a good use of time. Honest Tea discovered that employees were not interested in yoga sessions offered by the company and instead began a series of vigorous workouts that many of its younger workers wanted. Now participation exceeds 50% since this change and has helped workers become more actively engaged in the company's wellness program. Another approach is creating and supporting wellness committees. These groups of employees can be given a budget to come up with initiatives supported by their co-workers. Lastly, it may also be worth involving spouses or other family members who can help build a broader web of social support.

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ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

(70) _____ Strategic communication leads to greater engagement in employee wellness programs. This boils down to getting clear messages out to workers: this is what the program entails, here is how it works, here's what's in it for you, and here are ways to get involved. This can help overcome some of the top barriers to program participation and success: lack of awareness, lack of interest and suspicions about employers' motivations. These communications must be frequent, varied in content, multi-channel, and tailored to the target audience so that it doesn't fade into background noise. For example, USAA describes its communications with workers as relentless and surround sound. Wherever employees turn, they are reminded that the company cares about their health and wants to support their efforts. The messages are clear – this program is there to serve you, your family and our customers, whom rely on you to be positive, healthy and performing at a high level.

(71) _____ As we've already noted, simply paying people to change life-long habits may not work. However, there is strong evidence that proper incentives drive participation rates, keep employees engaged and motivated to begin efforts to achieve self-determined health goals. The challenge is to migrate employees from simply participating for a reward (external incentive) to a place where the new behavior or habit is sufficiently satisfying and worth maintaining (internal incentive), such as taking a walk daily while listening to music or a favorite podcast. At Next Jump, teams participate in a weekly Fitness Challenge where virtual cash rewards for the winning teams are coupled with bragging rights, creating camaraderie and social cohesion among workers. The company has found that motivating employees to fit in a workout during the workday gives them more productive energy and is helping drive better performance. Employees feel good, are happier, establish close partnerships with their office mates, and at the end of the day find work fun and personally rewarding.

(72) _____ Program evaluation is critical to maintaining accountability for a wellness program. To do this well, develop an evaluation plan at the start of a program so that useful baseline data collection can occur and be monitored over time. So what should you measure? There are generally two answers: return on investment (ROI) and value of investment (VOI). ROI in this context is generally limited to examining the tangible benefits of a program, such as a reduction in medical costs or absenteeism. Fortunately, a robust scientific literature review supports the conclusion that well-designed and well-executed programs can produce a positive ROI along with significant improvements in population health. Johnson & Johnson, for example, has published dozens of studies in academic journals over the past three decades showing its wellness and prevention programs have improved employees' health, saved the company millions of dollars and enhanced workers' productivity – something they could only conclude after the smart collection and analysis of data. In our view, ROI in isolation fails to capture the full benefit of workplace health promotion. VOI calculations, on the other hand, allow employers to examine the broader impact of programs and their impact on core priorities for their organization, which may include improved employee morale, talent attraction and retention, enhanced company loyalty and heightened customer loyalty.

In conclusion, to achieve very real health improvement at the workplace, employers should first understand what the evidence says about what works, and then weave together individual health promotion programs with organizational change interventions that build on and support a healthy company culture. This isn't always easy. But the rewards can be huge, both for your company and for your employees for years to come.

Reference: De La Torre, H. & Goetzl, R. 2016. How to Design a Corporate Wellness Plan That Actually Works. From <https://hbr.org/2016/03/how-to-design-a-corporate-wellness-plan-that-actually-works>

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ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

62

- A Importance of questionnaires
- B Monitoring employees' poor health
- C Administering health risk assessments only
- D Differentiating between healthy and unhealthy employees

63

- A Popularity of incentive programs
- B Paying people to change their habits
- C Giving the right amount of money to people
- D Paucity of research on financial incentives

64

- A Short term goals
- B Unprofitable online resources
- C Employers' poor understanding
- D Sending people to your health plan's website

65

- A Saving time and resources
- B Introducing short-term campaigns
- C Reaping maximum benefits in minimum time
- D Designing long-term wellness programs

66

- A Hiring the "right" vendor
- B Taking a multi-pronged approach
- C Hiring a vendor to "fix" unhealthy employees
- D Ways of addressing a systematic problem

67

- A Prioritizing health
- B Providing ongoing support
- C Role of healthy leaders
- D Leadership commitment and support

68

- A Benefits of flexible work schedules
- B Building a culture of health
- C Minimizing company costs
- D Dow Chemical's example

69

- A Asking for help
- B Giving employees their voice
- C Creating networks of social support
- D Increasing participation

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ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

70

- A Spreading the word
- B Effective communication channels
- C Improving communication skills
- D Benefits of effective communication

71

- A Making employees feel good
- B Creating office camaraderie
- C Offering smart incentives
- D Increasing extrinsic motivation

72

- A Calculating VOI
- B Reducing company costs
- C Measuring the right things
- D Designing well-executed programs

For questions **73-79**, fill in the gap with the best sentences (**A, B, C** or **D**).

There is a dangerous and destructive idea fomenting in American society today, and it permeates almost every aspect of modern life. From politics to business, our society is increasingly mistaking aggression for strength, and bullying for leadership. One need only look at the nature of Donald Trump's bombastic, aggressive, and wildly popular Presidential campaign for proof of this disturbing trend. In times of difficulty, the allure of bully is seductive yet ultimately disappointing. **(73)** _____

The core principles of good leadership transcend boundaries and definition. It's up to leaders and followers alike to recognize bullies when they rear their ugly heads and instead put their faith in those who lead by strength, sincerity, and example.

(74) _____ The blame lies in our evolutionary history. Throughout our time on this earth, the most aggressive, loudest member of the group became leader. As a result, our brains have evolved to associate aggression with high status. That's why even normally rational people often sympathize with Trump, despite the fact that his proclamations are frequently nonsensical.

The real problem here is that people mistake aggression for strength. In reality, strength of character has virtually nothing to do with aggression. We as a species simply fall victim to our evolutionary biases. Real strength comes from a quiet determination to do what is right, make the difficult decisions, and serve the interests of the team. **(75)** _____ Instead, their quiet confidence speaks louder than any blustering.

If you think about the demagogues and bullies we see throughout society, you'll quickly realize that they have one thing in common: Pride. Arrogance and pride are the hallmark of the bully, and they fundamentally undermine their ability to lead. **(76)** _____

As leaders, two things are necessary in order to have the confidence to always put others before yourself: trust and humility. The inescapable fact is that you are never as smart, talented or lucky as you think you are. **(77)** _____ Having the humility to recognize your own shortcomings is the path to success.

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ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

This sense of humility, coupled with a team that you trust, respect and admire can make it possible to easily put others before yourself.

Our society needs more servant leaders, both in business, politics, and personal life. (78) _____ In contrast, the servant leader shares power and focuses their attention on making those around them successful and happy. In doing so, servant leaders develop true loyalty and support from those they lead and find long-term success.

This is not a new concept, yet it is put into practice far less frequently than it deserves. It was Lao-Tzu who wrote, "The highest type of ruler is one of whose existence the people are barely aware. Next comes one whom they love and praise. Next comes one whom they fear. Next comes one whom they despise and defy." (79) _____ Instead, we must look to servant leaders who can be successful in the long-term. Whether it's in business or politics, servant leaders succeed where bullies fail.

73

- A It is likely that this appeal stays in the near future.
- B It is difficult to ascertain where their appeal stems from.
- C Bullies might be good at gaining power, but they make for terrible leaders.
- D But bullies have advantages of their own, which can often come in handy in times of adversity.

74

- A So what makes for a good bully?
- B So in what cases bullying works?
- C So how can we identify a bully masquerading as a leader?
- D So why do we think that bullies make for good leaders?

75

- A People often confuse aggression with leadership.
- B The individuals who make the best leaders aren't aggressive.
- C Unfortunately, people who do that are not often appreciated.
- D Great leaders are often those with the highest levels of aggression.

76

- A That is not to say that pride is not a desirable trait in a leader.
- B In contrast, good leaders possess these traits but in low quantities.
- C On the contrary, effective leaders are humble in thought, word, and deeds.
- D However, given the right set of circumstances, these two qualities can be the necessary ingredients for success.

77

- A Trying to prove otherwise is a recipe for disaster.
- B But you should try to work on your shortcomings.
- C As a result, people may try to take advantage of you.
- D But some level of pretense is necessary to win your subordinates' trust.

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ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

78

- A This is easier said than done, given the hold bullies have on us.
- B Servant leadership is one where the leader exercises maximum control with relative ease.
- C Servant leadership recognizes our evolutionary tendencies to search for those who can best control and influence us.
- D Servant leadership inverts the typical evolutionary concepts of power, where one individual at the top of the heap exerts control over those below them.

79

- A We are reaping the fruits of our short-term approach.
- B Unless we learn to reject bullies, our society will never progress.
- C Bullies are best left in the school playground.
- D It's time that we as a people fought back against our primal urges and learned to better reject bullies.

For questions **80-85**, read the text below and choose the best answer (**A**, **B**, **C** or **D**) to the questions that follow.

1. On World Autism Awareness Day tomorrow, the focus should be on some interesting developments. First is the groundbreaking book, *NeuroTribes: The Legacy of Autism and the Future of Neurodiversity* by Steve Silberman that places autism at the heart of the neurodiversity movement, which is based on the premise that atypical neurological development is a normal and natural variation of typical neurological development, and therefore persons with autism should not be perceived as being deficient but valued for their different ways of processing information. Neurodiversity celebrates this 'difference' and suggests "the existence of different computer programs" in these individuals which we do not understand yet.
2. Silberman's book traces the history of autism, when people were diagnosed as schizophrenic, incarcerated in institutions and administered psychotic drugs and electric shocks, to Dr Kanner's explanation in 1943 of infantile autism as a result of cold, unresponsive and 'refrigerated' mothers. During the same period, Dr Asperger identified persons with autistic traits as "worth saving" because many of them were highly intelligent and had the potential to excel in certain fields.
3. This implied, according to Dr Lorna Wing, that autism could manifest itself at different levels in a spectrum — severe, mild and high-functioning, including Asperger's — accommodating within it geniuses like Newton, Einstein, Dirac, Cavendish and many others.
4. The second important development is that there is a staggering increase in the number of persons being diagnosed with the autism spectrum disorders (ASD) throughout the world: the Centers for Disease Control and Prevention estimate the number at one in 68 children, while a US police training documentary quotes the figure of one in 50. Recently, CNN reported that one out of 38 children could be on the spectrum in South Korea.
5. While improved diagnostic facilities are a reason for this increase, other factors, apart from genetics and DNA mutations, are being cited that contradict the neurodiversity argument, such as the increased use of electronics and IT, environmental hazards, and the presence of mercury in vaccines.

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6. Thirdly, Hewlett-Packard in Australia has recently started employing young adults with autism to develop and run software programs for the company. Due to this emerging autism-compatible environment, a growing number of persons with autism are now finding employment in banks, computer companies and restaurants in many countries.
7. Unfortunately, in Pakistan, autism is not recognized either as a specific disorder or an atypical neurological trajectory, and autistic individuals are categorized as ‘mentally retarded’ as per the last census of 1998. Developmental disorders are not mentioned in the Mental Health Ordinance 2001, nor in the National Trust for the Disabled. On the other hand, the Indian National Trust Act 1999 specifically mentions “Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities”. India is further increasing the number of recognized disabilities from seven to 19, while in Pakistan, there are only four categories in the Disability Acts of 1981, 2012 (Punjab) and 2014 (Sindh) — visual and hearing impairments, physical disabilities and mental retardation.
8. These gaps in nomenclature need to be filled immediately by the center through fresh legislation along with the reinstatement of the National Trust under the Cabinet Division. Secondly, the curricula of universities and medical institutions needs to be modified to include specific developmental disorders as most Pakistani psychologists, special educationists and doctors know little about autism. There are no prevalence rates available, nor are caregivers trained in remedial intervention programs.
9. Persons with ASD are more misdiagnosed, misunderstood and abused than any other group in Pakistan. In a research paper published in the *International Journal of Mental Health Systems* 2014, it was reported that in Mandra, district Rawalpindi, “Behavioral and social problems caused the most stress to parents, particularly challenging behaviors Some behaviors were self-destructive, such as hitting and biting oneself”. These could be signs of an autism diagnosis, but it was reported that doctors were unaware and routinely advised parents to pray.
10. The center and provinces must implement new programs, using the existing infrastructure of doctors, nurses, LHWs and school health and nutrition supervisors to empower local communities through awareness, education, rehabilitation, and social acceptance of persons with disabilities in general and autistic individuals in particular.
11. The government must also enact laws in line with the UN Convention on the Rights of Persons with Disabilities for their inclusion and employment in all spheres of life. However, the political will is missing as the only National Consultative Seminar on Implementation of UNCRPD was held in June 2012.

Source: Dawn, April 1, 2016

80 What does the passage mainly discuss?

- A Ways of celebrating the World Autism Day
- B Recent developments with respect to autism
- C Factors which lead to poor diagnosis of autism
- D The lack of political will in dealing with autism

81 The author begins with the example of a book in the introduction

- A to promote the work of an autistic author
- B to provide a historical background of autism
- C to establish her credibility as an expert on the subject of autism
- D to give an example of the advancements that have been made in the understanding of autism

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82 In paragraph 5, the author mentions each of the following as a reason for increased cases of autism EXCEPT

- A changes in environment
- B better understanding of the disease
- C greater usage of electronic equipment
- D better ways of identifying autistic individuals

83 The primary purpose of paragraph 6 is to

- A indicate how work environments are getting more autism-friendly
- B identify professions which are most suitable for autistic individuals
- C offer a contrast between Pakistan and the developed world with respect to autism
- D argue how autistic individuals are essential to a country's economic progress

84 Which of the sentences below best expresses the information in the underlined statement in paragraph 6? The other choices change the meaning or leave out important information.

- A With this increased acceptance of people with autism, there are now employment opportunities available for them in different service sectors.
- B Various sectors such as banks, IT companies and restaurants are now looking for autistic people as employees.
- C There is a growing demand for autistic people in fields such as banks, IT companies and restaurant business.
- D Fields such as banking, IT and restaurants are more likely to hire autistic individuals than others.

85 Which of the following sentences could be inserted in paragraph 8 as the opening sentence?

- A Still, autism is a growing problem for Pakistan.
- B This is another evidence of how our arch rival is ahead of us.
- C Correct classifications are crucial to the planning, budgeting and provision of services.
- D This is not to say that the problem is specific to third world countries alone.

This is the END of part 2. Please, wait for part 3 (writing two essays).
