Number of Questions: 100
Maximum Marks: 100 **Duration: 2 Hrs. 30 Minutes**

Instructions: Mark the most appropriate option. All questions carry equal (1) marks. There is a 0.25 negative marking for every wrong answer.

Sample Questions

Verbal Ability & Reading Comprehension

Q 1-2: Instructions- Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose the option as your answer.

1.

A. A particularly interesting example of inference occurs in many single-panel comics.
B. It's the creator's participation and imagination that makes the single-panel comic so engaging and so rewarding.
C. Often, the humor requires you to imagine what happened in the instant immediately before or immediately after the panel you're being shown.
D. To get the joke, you actually have to figure out what some of these missing panels must be.
E. It is as though the cartoonist devised a series of panels to tell the story and has chosen to show you only one – and typically not even the funniest.

2.

A. Ocean plastic is problematic for a number of reasons, but primarily because marine animals eat it.
B. The largest numerical proportion of ocean plastic falls in small size fractions.
C. Aside from clogging up the digestive tracts of marine life, plastic also tends to adsorb pollutants from the water column.
D. Plastic in the oceans is arguably one of the most important and pervasive environmental problems today.
E. Eating plastic has a number of negative consequences such as the retention of plastic particles in the gut for longer periods than normal food particles.

Q 3-5: Read the Paragraph and Answer the Questions:

More and more companies, government agencies, educational institutions and philanthropic organizations are today in the grip of a new phenomenon: 'metric fixation'. The key components of metric fixation are the belief that it is possible – and desirable – to replace professional judgment (acquired through personal experience and talent) with numerical indicators of comparative performance based upon standardized data (metrics); and that the best way to motivate people within these organizations is by attaching rewards and penalties to their measured performance.

The rewards can be monetary, in the form of pay for performance, say, or reputational, in the form of college rankings, hospital ratings, surgical report cards and so on. But the most dramatic negative effect of metric fixation is its propensity to incentivize gaming: that is, encouraging professionals to maximize the metrics in ways that are at odds with the larger purpose of the organization. If the rate of major crimes in a district becomes the metric according to which police officers are promoted, then some officers will respond by simply not recording crimes or downgrading them from major offences to misdemeanors. Or take the case of surgeons. When the metrics of success and failure are made public – affecting their reputation and income – some surgeons will improve their metric scores by refusing to operate on patients with more complex problems, whose surgical outcomes are more likely to be negative. Who suffers? The patients who don't get operated upon.

When reward is tied to measured performance, metric fixation invites just this sort of gaming. But metric fixation also leads to a variety of more subtle unintended negative consequences. These include goal displacement, which comes in many varieties: when performance is judged by a few measures, and the stakes are high (keeping one's job, getting a pay rise or raising the stock price at the time that stock options are vested), people focus on satisfying those measures – often at the expense of other, more important organizational goals that are not measured. The best-known example is 'teaching to the test', a widespread phenomenon that has distorted primary and secondary education in the United States since the adoption of the No Child Left Behind Act of 2001.

Short-termism is another negative. Measured performance encourages what the US sociologist Robert K Merton in 1936 called 'the imperious immediacy of interests where the actor's paramount concern with the foreseen immediate consequences excludes consideration of further or other consequences. In short, advancing short-term goals at the expense of long-range considerations. This problem is endemic to publicly traded corporations that sacrifice long-term research and development, and the development of their staff, to the perceived imperatives of the quarterly report.

3. Of the following, which would have added the least depth to the author's argument?

A. An analysis of the reasons why metrics fixation is becoming popular despite its drawbacks.
B. A comparative case study of metrics- and non-metrics-based evaluation, and its impact on the main goals of an organization.
C. More real-life illustrations of the consequences of employees and professionals gaming metrics-based performance measurement systems.
D. Assessment of the pros and cons of a professional judgment-based evaluation system.

4. Which of the following is NOT a consequence of the 'metric fixation' phenomenon mentioned in the passage?

A. Short-term orientation induced by frequent measurement of performance.
B. Finding a way to show better results without actually improving performance.
C. Improving cooperation among employees leading to increased organizational effectiveness in the long run.
D. Deviating from organizationally important objectives to measurable yet less important objectives.

5. What main point does the author want to convey through the examples of the police officer and the surgeon?

A. Some professionals are likely to be significantly influenced by the design of performance measurement systems.
B. Metrics-linked rewards may encourage unethical behaviour among some professionals.
C. The actions of police officers and surgeons have a significantly impact on society.
D. Critical public roles should not be evaluated on metrics-based performance measures

Quantitative Aptitude

1. A basket of 2 apples, 4 oranges and 6 mangoes cost the same as a basket of 1 apple, 4 oranges and 8 mangoes, or a basket of 8 oranges and 7 mangoes. Then the number of mangoes in a basket of mangoes that has the same cost as the other baskets is

A. 12
B. 13
C. 11
D. 10

2. Two trains cross each other in 14 seconds when running in opposite directions along parallel tracks. The faster train is 160 m long and crosses a lamp post in 12 seconds. If the speed of the other train is 6 km/hr less than the faster one, its length, in m, is

A. 184
B. 180
C. 190
D. 192

3. If Suresh borrows Rs. 36000 from Mahesh at rate of interest 6% S.I, at the end of four years how much interest Suresh has to pay along with principal amount? Rs. 12560 Rs. 12960 Rs. 13500 Rs. 14500

A. INR 12560
B. INR 12960
C. INR 13500
D. INR 14500

4. What is the area of a triangle with base 5 meters and height 10 meters?

A. 20 square meters
B. 35 square meters
C. 25 square meters
D. 40 square meters

Data interpretation and Logical Reasoning

Q 1-3: Instructions- The Humanities department of a college is planning to organize eight seminars, one for each of the eight doctoral students - A, B, C, D, E, F, G and H. Four of them are from Economics, three from Sociology, and one from the Anthropology department. Each student is guided by one among P, Q, R, S, and T. Two students are guided by each of P, R and T, while one student is guided by each of Q and S. Each student is guided by a guide belonging to their department.

Each seminar is to be scheduled in one of four consecutive 30-minute slots starting at 9:00 am, 9:30 am, 10:00 am, and 10:30 am on the same day. More than one seminar can be scheduled in a slot, provided the guide is free. Only three rooms are available and hence at the most three seminars can be scheduled in a slot. Students who are guided by the same guide must be scheduled in consecutive slots.

The following additional facts are also known.

1. Seminars by students from Economics are scheduled in each of the four slots.
2. A's is the only seminar that is scheduled at 10:00 am. A is guided by R.
3. F is an Anthropology student whose seminar is scheduled at 10:30 am.
4. The seminar of a Sociology student is scheduled at 9:00 am.
5. B and G are both Sociology students, whose seminars are scheduled in the same slot. The seminar of an Economics student, who is guided by T, is also scheduled in the same slot.
6. P, who is guiding both B and C, has students scheduled in the first two slots.
7. A and G are scheduled in two consecutive slots.

1. Which one of the following statements is true?

A. Only one seminar is scheduled in the second slot.
B. Three seminars are scheduled in the last slot.
C. Three seminars are scheduled in the first slot.
D. Two seminars are scheduled in the first slot.

2. Who all are NOT guiding any Economics students?

A. P, R and S
B. P, Q and R
C. P, Q and S
D. Q, R and S

3. Which of the following statements is necessarily true?

A. Q is guiding G.
B. H is an Economics student.
C. B is scheduled in the first slot.
D. S is guiding F

Teaching and Research Aptitutde

1. Which type of sampling is appropriate when the population consists of well-defined groups such that the elements within each group are homogeneous and between each group they are heterogeneous?

A. Cluster Sampling
B. Simple Random Sampling
C. Stratified Sampling
D. Judgement Sampling

2. Which of the following is not a type of internet connection?

A. ISDN
B. Dial-up
C. Leased-Line
D. ISP

3. A store manager is trying to explore the relationship between percentage fat content (Y) and price (X) of various dairy products. He finds that the coefficient of determination is 0.4624 and the estimated regression line is Y = 0.5 – 0.02 X. The coefficient of correlation would be

A. 0.68
B. – 0.68
C. – 0.02
D. 0.4624

4. Y = a + bX refers to

A. Y = independent variable, a = slope of the line, b = Y intercept and X = dependent variable
B. Y = dependent variable, a = slope of the line, b = Y intercept and X = independent variable
C. Y = independent variable, a = dependent variable, b = Y intercept and X = slope of the line
D. Y = dependent variable, a = Y intercept, b = slope of the line and X = independent variable