Management Aptitude Test (MAT)

Question Paper
Held on 8-12-2012
Conducted By all India Management Association

Language Comprehension

Directions (Qs. 1 – 3): A sentence has been divided into four parts. Choose the part that has an error.

1. (1) In the past, behind the immediate popularity

(2) of the phonograph is the entire electric

(3) implosion that gave such new stress and

(4) importance to actual speech rhythms in music, poetry, and dance alike

2. (1) Science really begins when general principles

(2) have to be put to the test of fact

(3) and when practical problems and theoretical relations

(4) of relevant factors is used to manipulate reality in human action

3. (1) If all cells are conceived primarily as a receptacles

(2) of the same genetic formula - not only all

(3) the individuals, but all the cells of

(4) the same individuals - what are they but the cancerous extension of this base formula?

Directions (Qs. 4 – 6): Rearrange the following letters and make a meaningful word which is opposite to the answers.

4. **TSTHNAIE**

(1) dential (2) decorte (3) careful (4) willing

5. **NIETEMARG**

(1) conscience (2) terminate (3) confrontation (4) considerate

6. **TENALSGERI**

(1) comfortable (2) combustible (3) confess (4) specialist

Directions (Qs. 7 – 26): Study the passages below and answer the questions that follow each passage.

PASSAGE - I

For decades, the Government has grappled with India's health care shortcomings by introducing various programmes. Despite some measure of success, the problem of universal health care access continues to fester like a recalcitrant sore. While there are several reasons for the lack of complete success in improving health care access, the overall problem may lie in the pursuit of improper priorities. To address access issued headon, radically improving primary health care in India should be top priority. A steep shortage in primary health care centres (PHCs) across India is the prime reason why villagers are forced to trek almost 20 km to reach the nearest PHC. This may still be of little use, because most PHCs are perpetually plagued by a supply and staff shortage, making matters worse for sick patients who expend time, energy and resources to reach the PHC. For people from towns and semi-urban areas seeking modern medical care the situation is no different since they need to travel to the nearest city. Despite 7,50,000 doctors registered with the Medical Council of India, the ground reality is that about 2,00,000 aren't active anymore. This means India has only one doctor to treat 2,000 people, instead of one doctor for every 1,000. Improving those figures will take time because the number of medical and nursing colleges cannot be hiked overnight to boost the output of medical graduates. The time has come to firmly recognise that health and health care issues cannot be left solely to the Government or public sector entities if India is to meet its health care targets including Millennium Development Goals for 2015. Such immense investments and specialised skills could best be tapped if public-private partnerships were promoted and Private companies encouraged to establish health care infrastructure in all geographies - urban, semi-urban and rural - particularly where primary health care is concerned. Estimated indicate that only 320 million people or 26 percent of India's population are covered under some form of medical insurance - public or private. In other words, large uncovered sections of the populace are forced to meet medical costs via out-of-pocket spends, causing immense financial burden and pushing many families into poverty.

7. What is/ are the primary reason(s) for the lack of complete success in improving health care in India?

A. Total government apathy in this area.

B. Policy makers' inability to properly priorities the measures required.

C. Shortage of PHCs across the country.

(1) A only (2) B only (3) A & C (4) A, B & C

8. It is implied in the passage that

(1) when it comes to primary health care facilities, people from villages and towns are equally at a disadvantage

(2) PHCs established in the country actually become ineffective due to shortage of doctors and medical supplies

(3) the best way to ensure better health care facilities in the country is to privatise them completely

(4) with the will to work, government can improve health care facilities in the country within a short period

9. Which of the following statements is/ are true in the context of the passage?

(1) A country's monetary health is directly affected by the physical health of its citizens

(2) India has lesser number of doctors and nurses than most other countries in the world

(3) Only about one-fourth of India's population has access to health insurance

(4) All these

10. Which of the following statements is/ are not true in the context of the passage?

A. The Government has failed to correctly assess the requirement of medical colleges in India.

B. Over 25% of the doctors who register with the Medical Council of India never get into the medical profession.

C. Private participation in the primary health sector is a must to ensure its success we go forward towards Millennium Development Goals for 2015.

(1) A only (2) B only (3) A & B (4) A, B & C

PASSAGE - II

With will and vision, India's energy prospects can be changed from grim to green, and the world will benefit as a result, At 571 kWh per capita, India's electricity consumption is one-fifth of China's (2,631 kWh) and less than one - twentieth of the USA's (12,914 kWh). India's electricity demand will only grow. Solar electricity today at Rs.7.50 a kWh is economical compared with subsidised diesel generated power at roughly Rs.15 a unit, but more expensive than coal - based electricity at about Rs.6 And, in any case, India has ash - rich coal. What is the true cost of

coal - based power? Prices are distorted by subsidies, State boundaries, vote - bank politics, and uncharged carbon - emission costs. Can India leapfrog into a clean - energy future rather than extend the conventional grid with fossil fuels at its core? In a nation blessed with abundant sunlight, to what extent should electricity be a networking service at all? Could India tap ambient solar energy for most of its needs? India's single - minded focus should be massive and rapid solar deployment, not only through utility - scale solar plants, but also through distributed generation, household - by - household, nationwide. Electricity in Indian homes should be roof top - to - room and solar based with energy self - sufficiency as the goal; the grid can complement and serve as back - up where available. Anchored with solar, the solutions may include combinations with bio - diesel, batteries, wind, biogas, micro - hydro, etc. At night or when the sun is behind clouds, alternative yet local sources can assure electricity. Once solar energy takes root, India will need less of the colossal and wasteful transmission, distribution and generation infrastructure except for industrial operations such as running factories and trains.

11. Which of the following factors is/ are favouring India's transition to a clean energy future?

A) India has abundant sunlight.

B) India's electricity consumption is less than China's or the USA's?

C) India has ash - rich coal

(1) A only (2) A & B (3) A & C (4) C only

12. It is implied in the passage that

(1) 'electricity - for - all' should be the Government's motto

(2) traditional electric power should be replaced by solar electric power in India

(3) if India transforms itself into a clearn energy country, the rest of the world would benefit due to additional electricity available to them

(4) All these

13. It is not implied in the passage that

A) India should switch over completely to solar power by installing solar power kits in every household.

B) by installing solar panels on every roof top, India could make power grids redundant.

C) per capita energy consumption in China is higher than that in India

(1) A & B (2) B & C (3) A & C (4) A, B & C

14. It can be inferred from the passage that

(1) India is the third - largest producer of electricity in the world

(2) solar electricity is not necessarily more expensive than coal - based electricity

(3) as of today India, as a country, has energy self - sufficiency

(4) All these

Passage - III

The change in the Government's focus, from coveting the cash balances of public sector undertaking (PSUs) to examining how these can be put to better use by them, is a welcome development. In the current investment - starved environment, there is certainly a strong macro - economic imperative for inducing PSUs to deploy funds in capex programmes. But, from a shareholder's perspective- and that applies to the Government as well - it is also important that funds in excess of their immediate investment needs, estimated at over Rs. 1 lakh crore, earn a reasonable return. This is made difficult by rigid and archaic investment norms. So, it is a double whammy, wherein idle money of state - owned firms neither gets invested in projects nor generates sufficient portfolio returns. The current guidelines on deployment of surplus cash by PSUs decree that 60 percent of these should be parked with public sector banks. The 'public sector' mutual funds requirement is outdated, when many of them promoted by the likes of UTI, SBI and LIC have roped in foreign partners, making these ventures little different from pure private sector fund houses. Now that the investment guidelines are to be reviewed by a Government committee, it may be best for the Government to just stipulate general prudential norms to be followed by PSUs. These norms could emphasise safety liquidity of investments, their diversification across asset classes and securities, and provisions against taking speculative bets, that expose shareholder funds to capital loss risks.

15. The objective of the author in writing this article appears to be to

(1) advise the government in financial management of the surplus funds of PSUs

(2) analyse the possible ways in which PSUs could invest their surplus funds to make the same more productive.

(3) ensure better returns for private shareholders.

(4) criticise the government for its archaic fiscal and investment policies.

16. What are the twin benefits that the author suggests would accure, if PSUs invest their surplus funds more prudently?

(1) Public sector and private sector banks would both get more - money into their coffers.

(2) Both the Government and private shareholders would earn more returns on their investments in PSU shares.

(3) Projects meant for general public good would get funds more readily; while the funds themselves earn good returns instead of being idly parked.

(4) None of these

17. It is implied in the passage that the Government.

A) had hitherto been unjustly siphoning off the surplus funds of PSUs.

B) is bereft of ideas when it comes to deciding where to park the surplus funds of PSUs

C) had always favoured channelising the surplus funds of PSUs into public sector banks.

(1) A only (2) B only (3) C only (4) A & B

18. Which of the following statements about mutual funds is not true in the context of the passage?

(1) 'Public Sector' mutual fund company is a misnomer now, as most of these companies have got 'foreign', private partners.

(2) Mutual funds of private sector banks alone give good returns

(3) Every PSU has to invest at least 30% of its cash surplus in public sector mutual funds

(4) All these

PASSAGE - IV

The first requirement to ensure nuclear safety is technical expertise which India has. No questions have been raised so far about the expertise in Department of Atomic Energy (DAE). The first reactors were imported. Soon after commissioning the original suppliers left leaving us to fend for ourselves. The reactors have been running for decades without any serious environmental issues. More reactors have since been built indigenously with enhanced safety features, and increased power rating. Continuous monitoring of these shows negligible environmental impact compared to

that arising from natural background radiation. All of this as possible because of the expertise available in DAE institutions. In the early years, there was self-regulation of safety. It had to be so because there was no other group working in this field. It worked very well. As the programme expanded, a full-time regulatory body was needed and, so, the Atomic Energy Regulatory Board (AERB) came into being. Continuing absence of education and research a nuclear technology in academic institutions meant the AERB had to be staffed with experts transferred to it from DAE units. AERB also had to rely on expertise in DAE for various kinds of analyses. This was facilitated by the AERB being under the Atomic Energy Commission (AEC). Information that ought to have been disseminated in the first place was not available to the public. This has naturally tended to imputed motives on attitude of AERB and DAE to safety. An independent regulator is being demanded as the answer. Steps have to be initiated in the direction now. Meanwhile, reliance on expertise in DAE institutions is inevitable. If total independence now is impractical and expertise outside DAE is unavailable, only total transparency on the part of AERB and DAE can redeem the situation. This had not yet come about. If a larger contribution from nuclear energy is required, more effort is needed to effectively answer public questions on plant safety and to dispel needless fear of radiation. A brand new independent agency to be set up now to regulate nuclear safety may please some people, but would find it difficult to cope with the demands of an expanding programme with new designs.

19. Which of the following statements about India's nuclear capability building is/ are true?

(1) India has depended on foreign countries to set up the first nuclear reactors in India

(2) To this day India continues to be dependent on foreign countries for maintenance of its nuclear installations.

(3) India has never faced any issues related to environment at its nuclear installations.

(4) All these

20. How is the safety of nuclear reactors in India ensured?

(1) By keeping usage of radio-active-material to the minimum

(2) By locating the reactors in distant places, far from human habitation.

(3) By ensuring regular inspections by experts available in India

(4) None of these

21. The author is of the view that

(1) there is severe lack of educational programmes in the field of nuclear technology in India.

(2) the Government agencies have failed to suitably assure the public that the nuclear reactors installed in India pose no threat in general.

(3) nuclear energy can play a bigger role than present in India.

(4) All these

22. All of the following statements are implied in the passage except

(1) the foreign suppliers of India's first nuclear reactors abandoned them right after installation.

(2) indigenous technical expertise is enough to ensure the safety of Indian nuclear power installations

(3) nuclear radiation is not a factor to be feared by the people of India.

(4) no new regulatory body is required to ensure nuclear safety in India.

PASSAGE - V

Apprehensive that pharma companies may stop or reduce production of essential drugs after they come under price control, the Government is mulling steps to ensure that companies maintain present levels of output of these critical drugs. Sources said the recent decision to put a price cap 348 drugs was accompanied by a concern that the manufactures could lose interest in these medicines owing to reduced margins of profit. It was based on the past experience when the drug price control was first enacted. The Group of Ministers (GoM) that took the landmark decision directed the Department of Pharmaceutical to ensure that present production levels were maintained after the price control. As a follow-up, sources said, the Government could fix mandatory level of production in these drugs for each company in business. The fear over companies retaliating with decrease production revolves around the fact the price control would check profit margins. Once the essential medicines are brought under the Drug Price Control Order, they cannot be sold at a price highter than that fixed by the Government. A senior official said, "We will ensure that accessibility and availability of essential drugs does not go down". The GoM has also decided that the prices of medicines, which are part of the price control order of 1995 but not in the National

List of Essential Medicines 2011, would be frozen for a year and thereafter a maximum increase of 10% per annum would be permitted. Out of the 348 medicines, the prices of 37 drugs are controlled by the National Pharmaceutical Pricing Authority (NPPA). The Government, through the NPPA, controls prices of 74 bulk drugs and their formulations.

23. Which of the following is not outlined in the passage as a possible retaliatory measure of the pharma companies?

A. Altogether stopping production of the 348 essential drugs put under price control.

B. Reducing production of non essential drugs.

C. Strive to get the 348 drugs out of the list of essential drugs.

(1) A & B (2) B & C (3) A & C (4) A, B & C

24. It is implied in the passage that

(1) mandatory levels of production of essential drugs had hitherto never been in existence India

(2) Government control on drugs prices would directly affect their profit margins

(3) Both (1) and (2)

(4) Neither (1) nor (2)

25. Which of the following is/ are the outcome(s) of the enactment of Drugs Price Control Order?

(1) The Government has also decided to take up widespread distribution of essential drugs.

(2) There is widespread resentment against this law; chiefly by the drug manufacturers

(3) The Department of Pharmaceutical has been formed to ensure proper implementation of the price control mechanism

(4) None of these

26. In India the government fixes the prices of

(1) all medicines (2) essential drugs only

(3) bulk drugs only (4) None of these

Directions (Qs. 27 – 29): Fill in the blanks.

27. Jayashree was habitually so docile and ..... that her friends could not understand her sudden ..... her employers.

(1) accommodating, outburst against (2) calm, anger for

(3) truculent, virulence toward (4) quiet, annoyance toward

28. Carried away by the ..... effect of the experimental medication, the patient ..... his desire to continue as a subject for as long as he could.

(1) supplementary, announced (2) smoothening, proclaimed

(3) satisfying, repeated (4) salutary, reiterated

29. As several shops have ..... across the street, the old directory is .....

(1) relocated, obsolete (2) moved, wasteful

(3) transferred, useless (4) travelled, redundant

Directions (Qs. 30 – 33): Choose the order of the sentences marked A, B, C, D and E to form a logical paragraph.

30. A) Easy or not, etiquette is important

B) There's a reason for doing things the way we do them -- we just have no idea what it is.

C. I had to interrupt my cell phone call to tell him off.

D. I was trying to explain this the other night to my children -- Matt, 15, and Becky, 11 --- who, I'm ashamed to say, have been allowed to develop less than perfect manners, especially at the table.

E. At this particular family dinner, I caught Matt buttering his backed potato with his finger.

(1) ABCDE (2) ABDEC (3) BCDAE (4) BDACE

31. A. "Are you all right?" I asked, as I helped her to her seat. "That turbulence was as bad as it gets."

B. Flying in the summer means one thing: turbulence.

C. I was working as a flight attendant when we hit a patch of very rough air just after a young teenager, obviously on her first flight, had entered the bathroom.

D. After the bumps had subsided, she exited the bathroom, a look of sheer terror etched on her face.

E. "So that's what it was," she said, "I thought I'd pushed the wrong button."

(1) DAEBC (2) BCDAE (3) AEBDC (4) CADBE

32. A. But, transportation is difficult and the Pantanal is little known outside of Brazil.

B. The people who live here have their fingers crossed.

C. Because if ecotourism doesn't work, there is no alternative waiting.

D. There are now some 60-odd tourist facilities here, most of them small and locally owned.

E. Worldwide, the jury is still out on the idea of ecotourism and the Pantanal has become a testing ground.

(1) EDABC (2) DAEBC

(3) ECBAD (4) EDCBA

33. A. And then suppose you pushed the 'Reverse' button and took a trip in the opposite direction journeying into the dim recesses of the past.

B. Just suppose you could clamber aboard a Time Machine and press the 'Forward' button.

C. You might just land right into your favourite period of history.

D. Zap... would you hurtle forward through a blinding flash of days and nights, months and years-- even long centuries--- perhaps, to land into an alien world of the future....?

E. A world that will be a marvel of technology.

(1) CDABE (2) CBADE (3) BDEAC (4) BDECA

Directions (Qs. 34 – 36): Rearrange the jumbled alphabets in the following four options and find the odd word among them.

34. (1) OTLLABFO (2) NDPGOYLUAR

(3) AOHCC (4) IONSNTCTOTIC

35. (1) SSSROCIS (2) BELDA

(3) FIENK (4) DIDLCNKOR

36. (1) YOJ (2) SNAPIHSPE

(3) TEIHGTEDMNL (4) RHICA

Directions (Qs. 37 - 40): Each of these questions has a text portion followed by four alternative summaries. Choose the option that best captures the essence of the text.

37. An employee who is given the financial support and resources to create new products or systems is called an intrapreneur. Some of the greatest business leaders of the past made their early mark in business as intrapreneurs. Most progressive organisations view intrapreneurship as a way to develop and retain the best manpower and provide an entrepreneurial atmosphere within the organisation. It also adds to the potential of an otherwise static organisation.

(1) An entrepreneur works independently to setup a business venture while an intrapreneur does the same thing for the company he works for.

(2) Intrapreneurship helps organisations to nurture and retain the best of talent for mutual benefit.

(3) Big companies encourage intrapreneurship which, in turn, throws up future entrepreneurs.

(4) While entrepreneurship is a well known concept, intrapreneurship is an emerging concept.

38. Health these days is being threatened by a growing phenomenon. Bacteria that cause common life threatening infections are becoming increasingly resistant to antibiotics. This is due to the widespread use and misuse of such antibiotics. Antimicrobial resistance needs immediate attention. Self-medication should be discouraged. Asepsis should be the gospel for the prevention of infection.

(1) Reckless use of antibiotics, the main cause of drug resistant bacteria, has led to a serious health challenge.

(2) Over the counter availability of antibiotics encourages self - medication.

(3) Keeping our surroundings germ - free can curb the need of antibiotics.

(4) Mutated drug resistant bacteria are a serious threat to our life.

39. Satyagraha, a philosophy and practice of non-violent resistance, has the power to shame the powerful because it makes a moral statement before the society. But it is only effective when the practitioner acquires the moral right to undertake the action. Only a principled person can carry Satyagraha to its logical end. Any regime, liberal or illiberal, finds it tough to suppress this movement. This weapon of truth and non-violence rarely fails provided it is used selflessly in public interest. Satyagraha become Duragraha if it is used as blackmail.

(1) Satyagraha has time and again proved a powerful tool to fight for a just cause.

(2) Satyagraha is a battle which is sure to win over the opponents.

(3) Unfail demands through Satyagraha amount to blackmailing and are anti to the spirit of Satyagraha.

(4) The success of Satyagraha depends on the integrity, morality and uprightness of the person as well as the fairness of the cause.

40. For long, sociologists have warned of the dire consequences of an increasingly skewed sex ratio. A falling sex ratio is a cumulative process which could lead to more crimes and violence against women. Without enough brides, men would be forced to purchase wives leading to human trafficking. This, in turn, would lead to insecure parents resorting to even more female foeticide and keeping girls indoors out of fear of their protection. In the long run all the gains made in pushing for greater female literacy and empowerment could be undone.

(1) The indiscriminate female foeticide has a potential to create an imbalance in our society and can push women empowerment backwards.

(2) The imbalance in male and female ratio can give rise to more crimes against women.

(3) Deficit in female population can lead to defunct family system.

(4) Skewed male female sex ratio has a potential to reduce women's statue in society.

Intelligence & Critical Reasoning

Directions (Qs. 41 – 43): Each of these questions has a statement followed by two conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark answers as -

(1) if conclusion I follows

(2) if conclusion II follows

(3) if neither conclusion follows

(4) if both conclusions follow

41. Statement:

India has great potential for consumer products.

Conclusions:

I. Inflation is curbing demand for consumer products.

II. A very large population of the country has a great appetite for consumer products.

42. Statement:

Introduction of computers and networking revolutionised banking services.

Conclusions:

1. Computers have reduced paperwork to a very large extent

II. All banking functions can be operated and viewed easily on computers.

43. Statement:

Productivity of Indian agriculture is very low.

Conclusions:

I. Indian agriculture is largely dependent on timely rains

II. Indian farmers have not introduced latest technology into the system

Directions (Qs. 44 – 46): Read the following information to answer these questions.

I. P, Q, R, S, T and U are the six members of a family

II. There is one Doctor, one Advocate, one Engineer, one Teacher, one Student and one Housewife among them.

III. There are two married couples in the family.

IV. U, who is an Advocate, is father of P.

V. Q is a Teacher and is mother of R.

VI. S is grandmother of R and is a Housewife.

VII. T is the father of U and is a Doctor

VIII. R is the brother of P.

44. Which of the following statements is definitely true?

(1) U is father of the Engineer (2) P is the Engineer

(3) T is father of the Teacher (4) R is brother of the Student

45. How many female members are there in the family?

(1) Three only (2) Two or three

(3) Two only (4) Three or four

46. How is P related to S?

(1) Either grand daughter or grand son (2) Grand mother

(3) Grand son (4) Grand daughter

Directions (Qs. 47 – 49): Read the following information to answer these questions.

In a family, there are 10 members, G and N are a married couple while K is the husband of X. In this family, there are four housewives and four working husbands while other members are non - working. The husband in the last generation is a doctor and the husband of S is a teacher. L is a married woman but her husband is not P. Q and K are associated with the profession of engineer and accountant but K is not and accountant. P is the brother of T and both have a sister O. N is the daughter of L and X is the mother of P.

47. The family consists of how many generations?

(1) 6 (2) 1 (3) 4 (4) 2

48. Who is the husband of S?

(1) T (2) K (3) L (4) P

49. Which of the following statements is not true?

(1) Husband of X is an engineer.

(2) Second generation members are S, P, T and O.

(3) The number of female members in the family is 5.

(4) The accountant and his wife belong to the 4^{th} generation.

Directions (Qs. 50 – 52): Read the following information to answer these questions.

I. P Ψ Q means P is mother of Q.

II. P ε Q means P is sister of Q.

III. P $ Q means P is father of Q.

IV. P # Q means P is brother of Q.

50. Which of the following means D is definitely daughter of A?

(1) A $ B # C # D (2) C Ψ A $ D ε B

(3) A Ψ C $ B ε D (4) B Ψ A $ C # D

51. Which of the following means R is brother of T?

(1) R Ψ S # U $ T (2) U Ψ R # S # T

(3) U Ψ R ε S # T (4) K # R $ S ε T

52. Which of the following means A is nephew of C?

(1) D # C $ B # A ε E (2) A # B $ D ε E $ C

(3) C # D $ B # A $ E (4) B Ψ E # C $ E ε A

Directions (Qs. 53 – 55): Read the following information to answer these questions.

Six members of a family G, H, I, J, K and L are Accountant, Clerk, Lawyer, Jeweller, Doctor and Engineer, but not in the same order.

I. Doctor is the grandfather of L who is an Accountant.

II. Clerk J is married to G.

III. I, who is a Jeweller, is married to the Lawyer.

IV. H is the mother of L and K.

V. There are two married couples in the family.

53. What is the profession of K?

(1) Doctor (2) Clerk (3) Engineer (4) Accountant

54. How many male members are there in the family?

(1) Two (2) Three

(3) Four (4) Cannot be determined

55. How is G related to K?

(1) Wife (2) Father

(3) Grandmother (4) Grandfather

Directions (Qs. 56 – 58): Read the following information to answer these questions.

There are six children playing football namely G, H, I, J, K and L. G and K are brothers. L is the only sister of K. I is the only son of G's uncle. H and J are the daughters of the brother of I's father.

56. How is J related to G?

(1) Sister (2) Niece (3) Cousin (4) Uncle

57. How is I related to L?

(1) Cousin (2) Son (3) Uncle (4) Brother

58. How many male players are there?

(1) One (2) Three (3) Four (4) Five

Direction (Qs. 59 – 61): In each of these questions, two statements I and II are given. These may have a cause and effect relationship or may have independent causes or be the effects of independent causes. Read the statement and mark answer as-

(1) if statement I is the cause and statement II is its effect.

(2) if statement II is the cause and statement I is its effect.

(3) if both the statements I and II are effects of independent causes.

(4) if both the statements I and II are effects of some common cause.

59. **Statement I:**

Drinking tea has a number of health benefits. A cup of the beverage can help slash the risk of developing cancer by shrinking tumours.

Statement II:

The new research has shown that black tea could help prevent cancer. The compound Theaflavin-2 which has antioxidant properties reduces the risk of some cancers as well as heart disease.

60. Statement I:

India has lost a staggering $ 462 billion in illicit financial flows due to tax evasion, crime and corruption post - Independence according to a report released by Washington-based Global Financial Integrity.

Statement II:

More than 40% of the FDIs to India originate from Mauritius. Mauritius has now agreed to negotiate and revise the existing Double Taxation Avoidance Agreement (DTAA) with India, as capital gains is exempted from tax in Mauritius and a Mauritian company cannot be taxed in India.

61. Statement I:

Not a single Indian University, including the IITs, has fared well in an all-Asian varsity ranking for the year 2011. IIT - Bombay is the only one to figure in the world top 200 at 187, lower than the previous year's rank of 163.

Statement II:

A university founded merely two decades ago- the Hong Kong University of Science and Technology- has topped the charts. The university of Cambridge got a perfect 100. All the seven old IITs have made it to the Asian University ranking, but their ranks have slid.

Directions (Qs. 62 – 65): Each of these question consists of a pair of words bearing a certain relationship. From amongst the given alternatives, pick up the pair that best illustrates a similar relationship.

62. Presumption: Certainty

(1) Falsehood : Truth
(2) Hearsay : Authenticity
(3) Theorem : Proof
(4) Hunch : Guess

63. Coal : Thermal

(1) Power : Energy
(2) Bulb : Light
(3) Air : Atmosphere
(4) Water : Hydel

64. Court : Justice

(1) Police : Crime
(2) Teacher : Study
(3) Doctor : Sickness
(4) Auditor : Accuracy

65. Relaxation : Work

(1) Play : Cheat
(2) Lunch : Dinner
(3) Smile : Laugh
(4) Fresh : Stale

Direction (Qs. 66 – 70): Complete the series by replacing the **'?'**

66. B0R, E3U, G9Y, J18D, ?

(1) E30P (2) H27N (3) L30J (4) G33U

67. A729, G343, ?, S9, Y1

(1) L64 (2) M75 (3) Q100 (4) M125

68. Q331T, U442X, Y553A, ?

(1) Z665D (2) C664C (3) B666D (4) B664F

69. RL12, TQ20, WU32, AX48, ?

(1) EZ68 (2) FZ68 (3) GZ68 (4) HZ68

70. V2R, Y8T, B15V, E76X, ?

(1) F350Z (2) G452Z (3) H355B (4) H355Z

71. How is the son-in-law of my wife's only sister related to my wife's brother?

(1) Cousin (2) Nephew

(3) Uncle (4) Brother-in-law

72. 'B', the son of 'A', was wedded to 'C' whose sister 'D' was married to 'E'. If E is the brother of 'B', how is 'D' related to 'A'?

(1) Sister (2) Daughter

(3) Daughter-in-law (4) Cousin

73. Krishna is the mother - in - law of Bindu who is the sister - in - law of Ahsaan. Dharmender is the father of Sandeep, the only brother of Ahsaan. How is Krishna related to Ahsaan?

(1) Wife (2) Aunt

(3) Mother - in - law (4) Mother

74. A clock is place in such a manner that at 12 o' clock, its minute-hand points towards north-east. In which direction does its hour-hand point at 1 : 30 pm?

(1) West (2) South (3) North (4) East

75. Ram starts from his house on cycle and goes 10 km towards North - East. He turns to the left and cycles 8 km, then he turns towards South - East and cycles for another 10 km. Finally, he turns towards his house. In which direction is he going now?

(1) South (2) South - East

(3) West (4) North - West

76. Mahender walked 30 metres towards east, took a right turn and walked another 40 metres. He again took a left turn and moved 30 metres. In which direction is he now from the starting point?

(1) North - East (2) East (3) South - East (4) South

Directions (Qs. 77 – 80): Each of these questions has an assertion (A) and a reason (R). Mark answer as-

(1) if both 'A' and 'R' are true and 'R' is the correct explanation of 'A'.

(2) if both 'A' and 'R' are true but 'R' is not the correct explanation of 'A'.

(3) if 'A' is true but 'R' is false.

(4) if 'A' is false but 'R' is true.

77. **Assertion (A):** It has now been proved that eating high fat diets, having decreased level of exercise and leading a stressful life lead to heart problems.

Reason (R): Fatty diets clot the blood in our arteries and hence sufficient amount of blood can't reach the heart vessels.

78. **Assertion (A):** The screening of film 'ABC' has been stopped due to a High Court order.

Reason (R): People abide by the decisions of the High Court.

79. **Assertion (A):** Residents of 'XYZ' colony in Delhi are agitating against the irregular and inadequate water supply in their colony.

Reason (R): Agitation is a basic right of people to get the water supply for their survival.

80. **Assertion (A):** A student who is indisciplined brings a bad name to himself, his parents, his teachers and also to his institute.

Reason (R): We must find out the grievances of our students and try to resolve them to a reasonable level so that it generates self-discipline in them.

MATHEMATICAL SKILLS

81. A and B can separately do a piece of work in 20 and 15 days, respectively. They worked together for 6 days, after which B was replaced by C. If the work was finished in the next 4 days, then the number of days in which C alone could do the work will be

(1) 60 days (2) 40 days (3) 35 days (4) 30 days

82. B can do a piece of work in 6 hours, B and C together can do it in 4 hours, and A, B and C together in $2\frac{2}{3}$ hours. In how many hours can A and B together do the same piece of work?

(1) 11 hours
(2) $6\frac{1}{7}$ hours
(3) $2\frac{3}{7}$ hours
(4) $3\frac{3}{7}$ hours

83. X can do $\frac{1}{4}$ of a work in 10 days, Y can do 40% of the work in 4 days and Z can do $\frac{1}{3}$ of the work in 13 days. Who will complete of work first?

(1) X (2) Y (3) Z (4) X & Z both

84. A can do a piece of work in 7 days of 9 hours each where as B can do the same work in 6 days of 7 hours each. How long will they take to do the work together, working $8\frac{2}{5}$ hours a day?

(1) 2 days (2) 3 days (3) $3\frac{1}{7}$ days (4) $4\frac{2}{5}$ days

85. When 5 percent is lost in grinding wheat, a country has to import 20 million bags to make up of the loss. But when only 2 percent is lost, it has to import 15 million bags. What is the quantity of wheat which grows in the country in million bags?

(1) $133\frac{1}{3}$ (2) 150 (3) $106\frac{2}{3}$ (4) $166\frac{2}{3}$

86. In a consumer preferences survey, 20% respondents opted for product A whereas 60% opted for product B. The remaining individuals were undecided. If the difference between those who opted for product B and those who were undecided is 720, how many individuals had been interviewed for the survey?

(1) 1440
(2) 1800
(3) 3600
(4) Data inadequate

87. Gauri went to the stationers and bought items worth Rs.25, out of which 30 paise went on sales tax on taxable purchases. If the tax rate was 6%, then what was the cost of the tax-free items?

(1) Rs.15 (2) Rs.15.70 (3) Rs.19.70 (4) Rs.20

88. Shyam had three note books X, Y and Z. Of these, X had 120 pages, Y had 10% more and Z had 10% less. If he tore out 5%, 10% and 15% of pages in X, Y and Z respectively, then what percent of total pages did he tear out?

(1) 8% (2) 15% (3) 7% (4) None of these

89. A bag contains 4 five rupee coins, 3 two rupee coins and 3 one rupee coins. If 6 coins are drawn from the bag at random, what are the odds in favour of the draw yielding maximum amount?

(1) 1 : 70 (2) 1 : 69 (3) 69 : 70 (4) 70 : 1

90. Varun throw two unbiased dice together and gets a sum of 7. If his friend Tarun then throws the same two dice, what is the probability that the sum is less than 7?

(1) $\frac{1}{6}$ (2) $\frac{7}{12}$ (3) $\frac{1}{2}$ (4) $\frac{5}{12}$

91. In a factory where toys are manufactured, machines A, B and C produce 25%, 35% and 40% of the total toys, respectively. Of their output, 5%, 4% and 2% respectively, are defective toys. If a toy drawn at random is found to be defective, what is the probability that it is manufactured on machine B?

(1) $\frac{17}{69}$ (2) $\frac{28}{69}$ (3) $\frac{35}{69}$ (4) None of these

92. A and B alternately throw a pair of dice. A wins if he throws 6 before B throws 7; and B wins if he throws 7 before A throws 6. What are their respective chances of winning, if A throws the dice first?

(1) $\frac{13}{16}, \frac{31}{16}$ (2) $\frac{30}{61}, \frac{31}{61}$

(3) $\frac{31}{61}, \frac{41}{61}$ (4) $\frac{38}{61}, \frac{23}{61}$

93. What will be the ratio of simple interest earned by a certain amount at the same rate of interest for 6 years and 9 years?

(1) 1 : 3 (2) 1 : 4

(3) 2 : 3 (4) Data inadequate

94. An automobile financier claims to be lending money at simple interest but he includes the interest every six months for calculating the principal. If he is charging an interest of 10%, the effective rate of interest becomes

(1) 10% (2) 10.25% (3) 10.5% (4) None of these

95. A sum of money lent at compound interest for 2 years at 20% per annum would fetch Rs.482 more. If the interest was payable half yearly than if it was payable annually, the sum is

(1) Rs.10,000 (2) Rs.20,000 (3) Rs.40,000 (4) Rs.50,000

96. Sultan took a loan from the bank at 8% per annum, and was supposed to pay a sum of Rs.2240 at the end of 4 years. If the same sum is cleared off in four equal annual installments at the same rate, the amount of annual installment will be

(1) Rs.500 (2) Rs.550 (3) Rs.600 (4) Rs.1000

97. A Circus tent is cylindrical to a height of 3 m and conical above it. If the diameter of the base is 140 m and the slant height of the conical portion is 80 m, the length of canvas 2 m wide required to make the tent is

(1) 8960 m (2) 9660 m (3) 9460 m (4) 9860 m

98. The ratio between the length and breadth of a rectangular park is 3 : 2. If a man cycling along the boundary of the park at the speed of 12 km/ h completes one round in 8 minutes, then the area of the park in sq. m is

(1) 15360 (2) 153600 (3) 30720 (4) 307200

99. If the numbers representing volume and surface area of a cube are equal, then the length of the edge of the cube in terms of the unit of measurement will be

(1) 3 (2) 4 (3) 5 (4) 6

100. A metal sheet 27 cm long, 8 cm broad and 1 cm thick is melted into a cube. The difference between the surface area of the two solids, is

(1) 284 cm^2 (2) 296 cm^2 (3) 286 cm^2 (4) 300 cm^2

101. A, B and C have 40, x and y balls, respectively. If B gives 20 balls to A, he is left with half as many balls as C. If together they had 60 more balls, each of them would have had 100 balls on an average. What is the ratio of x to y?

(1) 3 : 2 (2) 2 : 3 (3) 2 : 1 (4) 3 : 4

102. There are a total of 43800 students in 4 schools of a city. Half the number of students of the first school, two-thirds of the second, three-fourth of the third and four-fifths of the fourth are all equal. What is the ratio of the number of students of A to D, if A, B, C and D be the first, second, third and fourth schools, respectively?

(1) 8 : 5 (2) 1 : 3 (3) 2 : 3 (4) 7 : 9

103. Four numbers are in proportion. The sum of the squares of the four numbers is 50 and the sum of the mean is 5. The ratio of first two terms is 1 : 3. What is the average of the four numbers?

(1) 1 (2) 3 (3) 5 (4) 6

104. The concentration of petrol in three different mixtures (of petrol and kerosene) is $\frac{1}{2}$, $\frac{3}{5}$ and $\frac{4}{5}$ respectively. If 2 litres, 3 litres and 1 litre are taken from these three different vessels and mixed, what is the ratio of petrol and kerosene in the new mixture?

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

105. A company CEO invited nine persons for a business meeting, where the host will be seated at a circular table. How many different arrangements are possible if two invitees X and Y be seated on either side of the host CEO?

(1) 10080 (2) 10800 (3) 9200 (4) 4600

106. Find the number of ways in which ten different flowers can be strung together to make a garland in such a way that three particular flowers are always together?

(1) 30240 (2) 30420 (3) 23400 (4) None of these

107. A committee of 3 experts is to be selected out of a panel of 7 persons. Three of them are engineers, Three are managers and, one is both engineer and manager. In how many ways can the committee be selected if it must have atleast one engineer and one manager?

(1) 33 (2) 22 (3) 11 (4) 66

108. A cricket team of 11 players is to be formed from a pool of 16 players that includes 4 bowlers and 2 wicket-keepers. In how many different ways can a team be formed so that the team has at least 3 bowlers and wicketkeeper?

(1) 2472 (2) 2274 (3) 2427 (4) 1236

109. Vijay purchased two different kinds of alcohol. In the first mixture the ratio of alcohol to water is 3 : 4 and in the second mixture it is 5 : 6. If he mixes the two given mixtures and makes a third mixture of 18 litres in which the ratio of alcohol to water is 4 : 5, the quantity of the first mixture (whose ratio is 3 : 4) that is required to make 18 litres of the third kind of mixture is

(1) 6 (2) 7 (3) 8 (4) 9

110. The average marks of the students in four sections A, B, C and D of a school is 60%. The average marks of the students of A, B, C and D individually are 45%, 50%, 72% and 80%, respectively. If the average marks of the students of sections A and B together is 48% and that of the students of B and C together is 60%, what is the ratio of the number of students in sections A and D?

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

111. Two casks of 48 litres and 42 litres are filled with mixtures of milk and water; the proportions in the two casks being respectively, 13 : 7 and 18 : 17. If the contents of the two casks be mixed, and 20 litres of water be added to the whole, what will be the proportion of milk and water in the resulting mixture?

(1) 5 : 12 (2) 7 : 13 (3) 12 : 13 (4) 8 : 15

112. Two companies A and B quote for a tender. On the tender opening day, A realises that the two quotes are in the ratio 7 : 4 and hence decreases its price during negotiations to make it Rs.1 lakh lower than B's quoted price. B then realises that the final quotes of the two were in the ratio 3 : 4. By how much did A decrease its price in order to win the bid?

(1) Rs.7 Lakhs (2) Rs.4 lakhs

(3) Rs.9 lakhs (4) None of these

113. To fill a certain tank, pipes A, B and C take 20 minutes, 15 minutes and 12 minutes respectively. If the three pipes are opened every alternate minute, how long will it take to fill the tank?

(1) 5 minutes (2) 10 minutes (3) 12 minutes (4) 15 minutes

114. A bath can be filled by the cold water and hot water pipes in 10 minutes and 15 minutes respectively. A person leaves the bathroom after turning on both pipes simultaneously and returns at the moment when the bath should be full. Finding, however, that the waste pipe has been open, he then closes it. In exactly four minutes more the bath is full. In how much time would the waste pipe empty the full bath, if it alone is opened?

(1) 9 minutes (2) 10 minutes

(3) 12 minutes (4) None of these

115. A, B and C are three pipes attached to a cistern. A and B can fill if in 20 minutes and 30 minutes respectively, while C can empty it in 15 minutes. If A, B and C be kept open successively for 1 minute each, how soon will the cistern be filled?

(1) 180 minutes (2) 60 minutes (3) 157 minutes (4) 155 minutes

116. Two taps can separately full a cistern in 10 minutes and 15 minutes respectively. If these two pipes and a waste pipe are kept open simultaneously, the cistern gets filled in 18 minutes. The waste pipe can empty the full cistern in

(1) 7 minutes (2) 13 minutes

(3) 23 minutes (4) 9 minutes

117. Raghu travelled 1200 km by air which formed $\frac{2}{5}^{th}$ of his trip. One - third of the whole tripe he travelled by car and the rest of the journey he did be train. The distance travelled by train is

(1) 1600 km (2) 800 km (3) 1800 km (4) 480 km

118. A man has to cover a distance of 6 km in 45 minutes. If he covers one-half of the distance in $\frac{2}{3}^{rd}$ time, what should be his speed to cover the remaining distance in the remaining time?

(1) 12 km/h (2) 16 km/h (3) 3 km/h (4) 8 km/h

119. A man starts cycling from A to B and, at the same time, another man starts cycling from B to A along the same path. They completed their journeys in $1\frac{2}{3}$ and $2\frac{2}{5}$ hours, respectively. At what speed has the second man cycled if the first cycles at 16 km/h?

(1) $16\frac{1}{2}$ km/h (2) $18\frac{1}{2}$ kh/h

(3) $11\frac{1}{9}$ km/h (4) $13\frac{1}{3}$ km/h

120. Two men A and B start walking from a place 'X' at $4\frac{1}{2}$ km/h and $5\frac{3}{4}$ km/h, respectively. How many km apart will they be at the end of $3\frac{1}{2}$ hours if they are walking in the same direction?

(1) $4\frac{1}{2}$ km (2) $5\frac{3}{4}$ km (3) $4\frac{3}{8}$ km 4) $35\frac{7}{8}$ km

ANSWERS

1-2; 2-4; 3-1; 4-4; 5-2; 6-4; 7-2; 8-2; 9-4; 10-4; 11-1; 12-2; 13-1; 14-2; 15-2; 16-2; 17-2; 18-3; 19-1; 20-3; 21-2; 22-4; 23-4; 24-3; 25-4; 26-2; 27-1; 28-3; 29-1; 30-2; 31-2; 32-3; 33-4; 34-4; 35-4; 36-4; 37-3; 38-3; 39-4; 40-2; 41-2; 42-1; 43-4; 44-1; 45-2; 46-1; 47-3; 48-4; 49-4; 50-2; 51-2; 52-3; 53-3; 54-4; 55-4; 56-3; 57-1; 58-2; 59-2; 60-3; 61-4; 62-2; 63-4; 64-3; 65-4; 66-3; 67-4; 68-2; 69-2; 70-4; 71-(None): Son-in-law; 72-3; 73-4; 74-4; 75-4; 76-3; 77-1; 78-1; 79-1; 80-2. 81-2; 82-4; 83-3; 84-2; 85-4; 86-2; 87-3; 88-4; 89-2; 90-4; 91-2; 92-2; 93-3; 94-2; 95-2; 96-1; 97-3; 98-2; 99-4; 100-3; 101-2; 102-1; 103-3; 104-2; 105-1; 106-1; 107-1; 108-1; 109-2; 110-2; 111-3; 112-2; 113-4; 114-1; 115-1; 116-4; 117-2; 118-1; 119-3; 120-3.