

Joint Management Entrance Test (JMET), December, 2005

VERBAL COMMUNICATION

Directions. Q1 – 4 : Read the following passage to answer questions. Choose the correct option in each of the questions.

We define the entrepreneur as an individual who identifies opportunities, and on the basis of his/her ability, desire and confidence, makes judgments and decisions pertaining to the coordination of resources in order to exploit those opportunities for personal gain. Personal gain in this contest could be financial, fame, prestige or satisfaction from helping other people. This definition extends the concept beyond the narrow limits of profit maximization. It is important to note that entrepreneurial decision making is distinct from routine managerial / administrative decision making by corporate executives. However, this definition does include innovative venture decisions by executive and others in an already existing organization as legitimate entrepreneurial function. The entrepreneurial function consists of three main elements : recognition of opportunities, judgmental decision and coordination of resources. In terms of organization, the entrepreneur will be involved in risk bearing, autonomous decision making and residual claims.

Every person is potentially an entrepreneur. However, the extent of its manifestation in actual entrepreneurial activities, business or otherwise, is matter of political, social, economic, cultural and ideological influences. Put differently, every human being has an innate ability to become an entrepreneur even though this ability is not always translated into action because of variety of limiting factors. This observation allows us to propose that there are more than 5 billion entrepreneurs in this world, even though this conjecture may not have been fully manifested in the practical world of business.

If there are more than 5 billion entrepreneurs in this world, how is it that there is such a dearth of entrepreneurs in the world of business? This is an important question in view of the fact that business communities, academic and policy makers in the public realm have begun to talk about possibilities for fostering entrepreneurial growth in the global economy.

1. As per the passage, an entrepreneur is one who :
 - (A) takes commercial venture decision.
 - (B) exploits opportunities for personal gain.
 - (C) invites participation in decision making.
 - (D) focuses on maximizing cash profits.

2. Which of the following statements is NOT correct according to the passage?
 - (A) There are more than 4 billion potential entrepreneurs in this world.
 - (B) Not everybody can become an entrepreneur.
 - (C) Entrepreneurial decision making is different from managerial decision making
 - (D) Executives in organization can be either managers or entrepreneurs, but not both.

3. The passage mentions the following functions of an entrepreneur :
 - (A) Risk-taming, decision-making, encouraging creativity.
 - (B) Coordinating resources, recognizing opportunities and leading from the front.
 - (C) Independent decision-making, exploiting opportunities and maximizing profits.
 - (D) Making judgments, innovating and claiming responsibility.

4. The passage implies that it is important to understand :
 - (A) why there are so few entrepreneurs in business.
 - (B) the main functions of an entrepreneur.
 - (C) the factors which inhibit entrepreneurship.
 - (D) the meaning of personal gain for an entrepreneur.

Directions. Q5 – 6 : Relate to the following paragraphs :

At the peak of the battle of Britain, Winston Churchill said in the Common on Aug. 20, 1940, that “never in the field of human conflict was so much owed by so many to so few”. Little did he then know how a majority of Indians would echo his sentiments, fifty years on, about 1.2 million of their compatriots. The later have catapulted India into the international hi-tech orbit, lifting the contribution of the services sector in Gross Domestic Product (GDP) to 52 percent – leaving industry and agriculture jostling for space in the rear. The latest is that software and Information Technology (IT) services are expected to account for 7.7 percent of GDP by 2008, with software exports of around \$87 billion. That, in turn, should generate a demand for IT hardware of \$50 billion. The software industry employs more than 800,000 professionals with around 260,000 in software exports, 28,000 in captive software user organizations, and 245,000 in the ITES-BPO sector. In fact, it has been planned to reach a teledensity of 9 per hundred by 2007 for New Delhi, to attain which 90 million direct exchange lines would be needed! That compares with just 20 million lines in 2000. Even India’s cellular phone market is growing and investments exceeding Rs. 25000 crore are expected in the next three years, with a subscriber base of 120 million by 2008.

5. The underlined sentence in the first paragraph implies that
 (A) a large nation was indebted to a small army.
 (B) the small hi-tech sector in India has helped us go global.
 (C) quality mass education must be sacrificed at the altar of hi-tech education.
 (D) the majority should be indebted to the minority.
6. According to the author :
 (A) 1.2 million Indians are significantly influencing the economy of India.
 (B) industry and agriculture have contributed to 48 percent of our GDP.
 (C) New Delhi will need Rs. 25,000 crore to invest 90 million direct exchange lines.
 (D) 800,000 software professionals are expected to account for 7.7 percent of GDP by 2008.

Directions. Q7 – 10: Select the pair of words that best expresses a relationship *similar* to the pair in capitals :

7. FLIMSY : STURDY
 (A) prognosis : diagnosis (B) gauche : eloquent
 (C) flippant : earnest (D) drizzle : downpour
8. GREGARIOUS : OUTGOING
 (A) groggy : lucid (B) grouchy : irritable
 (C) aggressive : extrovert (D) gritty : sociable
9. GUEST : INVITATION
 (A) visitor : letter (B) applicant : application
 (C) petitioner : plea (D) witness : subpoena
10. SCHOOL : FISH
 (A) group : deer (B) badge : honour
 (C) leaf : book (D) mischief : monkeys

Directions. Q.11 – 16 : *The following questions are based on the given passage:*

The guy sifting grimly alone in the corner of the office may not be anti-social. He may, in fact, even be working. That could be one of the inferences drawn from a recent survey conducted by America Online and Salary.com. Socializing with co-workers, spacing out and surfing the Web could, says the survey, cost Us companies as much as \$759 billion in salary. The survey of 10,044 employees debunks some popular myths. Men and women were found to have wasted an equal amount of time at work. Older workers were significantly more attentive. As compared to the overall average of two hours a day being wasted, lunch-time not counted, workers over 55 were found to have wasted just 30 minutes.

While 33 percent of the respondents said they wasted time because they didn't have enough work, 25 percent said they did so because they were underpaid. However, not all time-wasting activities are detrimental to the organization. Salary.com senior vice-president Bill Colemean felt that personal use of the Internet could even be positive since it could generate new business ideas if not contribute to a happier work environment. "There is such a thing as creative waste. Not all wasted time is bad," Coleman was quoted by Reuters as saying.

A survey on time-wasting in Indian organizations could throw up interesting results. The most irritating waste of time is when those working inside the office are asked for direction by visitors. With receptionists and security staff also doing duty at the switchboard for telephone calls, it is usually the employee nearest the entrance who has to field queries ranging from "Where is so and so?" to "Where is the toilet?" However, the most formally sanctioned was of wasting time in the Indian organization remains the office-meeting. Organisations are known to hold meetings at the drop of a hat. Even a decision to cut down on meetings would be taken at a meeting! The conference hall is bigger than the canteen which serves a more useful purpose!

11. The central idea of the passage relates to :
 - (A) common ways of wasting time in Indian organizations
 - (B) time wasting in organizations
 - (C) why time is wasted in organizations.
 - (D) Ill-effects of time wasting activities.

12. Out of the following four options, which is the odd one out?
 - (A) Men and women waste an equal amount of time.
 - (B) Meetings are one of the most common way to waste time.
 - (C) Younger workers waste less time.
 - (D) Some time wasting activities are good for organizations.

13. The passage does NOT deal with :
 - (A) efficient time management in organizations
 - (B) US workers' Survey.
 - (C) Time wasting in Indian organizations.
 - (D) creative waste.

14. The phrase "creative waste" refers to
 - (A) wastage of time that is unproductive.
 - (B) wastage of time that is productive.
 - (C) time wasted during meetings.
 - (D) Answering queries of visitors.

15. From the passage, it may be inferred that
 - (A) more than 5000 respondents admitted to having wasted time at work.
 - (B) the conference hall is a more useful place than the meal canteen.
 - (C) men waste more time than women at work.
 - (D) on an average, more than two hours of a work day are wasted.

16. One of the most common time-wasting activities in Indian organizations is
 - (A) answering telephone calls.
 - (B) sitting alone in corner.
 - (C) holding official meeting.
 - (D) surfing the Web.

Directions. Q.17 – 21 : Choose the option that is nearly similar in meaning to the capitalized word.

17. CONSISTENCY
 - (A) Congruity
 - (B) Constancy
 - (C) Compatibility
 - (D) Conformity

18. DYSPEPIC
 (A) Dynamic (B) Dwarfish
 (C) Crotchety (D) Crafty
19. INVALIDATE
 (A) Invariable (B) Nullify
 (C) Naught (D) Intractable
20. MISBEGOTTEN
 (A) Misapprehension (B) Misconception
 (C) Purloined (D) Delusion
21. STUMPED
 (A) Bamboozled (B) Subdued
 (C) Subjugated (D) Terrorized

Directions. Q22 – 25 : The following question consist of groups of jumbled phrases. Only one of the four options, when unscrambled, can be a grammatically correct sentence. Disregarding punctuation errors, identify the correct option.

22.
 (A) and the environment authority / several type of complaints / by area residents / has been lodged with the plant
 (B) protagonist's who defeated / great stories portrays / enemy of / there community
 (C) how to be / the good manager / and a fox / both a hedgehog
 (D) own priorities / involves sorting / it always / out your
23.
 (A) communication skills as among / business students rank / the most important they have to master
 (B) as my replacement is / I cannot leave my desk / being late to come
 (C) still the not issue's / this is why / celebrity endorsement are
 (D) are expected / will attend the summit / MD's and CEO's of top companies
24.
 (A) a hear-on-hear / I decided to have / talk with him
 (B) duped by a / I was / fly-in-the-night operator
 (C) throw my / I decided to / hat in the ring
 (D) came like / the announcement / a bolt from the heavens
25.
 (A) to the station / I haled a taxi / to take me
 (B) spend his last few / he preferred to / days in relative anonymity
 (C) reached to me today / about my appointment / the officious communication
 (D) get the / pronunciation correct / your can't never

Directions. Q 26 – 30 : In statements only one of the four options in grammatically correct. Identify that correct option.

26.
 (A) Seating arrangements influenced the kind of interaction that takes place.
 (B) Seating arrangement's influence the kind of interaction that takes place.
 (C) Seating arrangements influence the kind of interactions that take place.
 (D) Seating arrangements influence the kind of interaction that take place.

- 27.
- (A) Any organization, large or small, trades with many different people and companies.
 - (B) Any organizations, large or small trade with many different peoples and companies.
 - (C) Any organization, large or small, trade with many different people and company.
 - (D) Any organizations, large or small, trades with many different people and companies.
- 28.
- (A) Using too much jargons during communication might obliterate main issue
 - (B) Using too much jargon during communication might obfuscate the main issue.
 - (C) Using too many jargon during the communication might obdurate a main issue.
 - (D) Using too much jargon's during communication might obfuscate the main issues.
- 29.
- (A) In the course of there journey, they were able to absolve a lot of local cultures.
 - (B) In the coarse of their journey, they were able to absorb a lot of local culture.
 - (C) In the course of their journey, they were able to observe a lot of local culture's.
 - (D) In the course of their journey, they were able to observe a lot of the local culture.
- 30.
- (A) Your advise does not seem to have had any affect.
 - (B) Your advise does not seem to have had any effect.
 - (C) Your advice do not seems to have had any effect.
 - (D) Your advise does not seem to have had any affects.

Directions. Q.31 – 35 : Choose the word which is *OPPOSITE* in meaning to each of the **bold** words.

31. His description of the event was rather **per jorative**.
- (A) laudatory
 - (B) derogatory
 - (C) predictive
 - (D) abusive
32. Observing his agitation, we tried to **propitiate** the speaker.
- (A) provoke
 - (B) placate
 - (C) prohibit
 - (D) facilitate
33. Muskan's **ubiquitous** smile helped to cheer us up in times of misery.
- (A) small
 - (B) rare
 - (C) common
 - (D) frequent
34. Evidence of his moral **turpitude** influenced the committee's decision about his promotion.
- (A) courage
 - (B) baseness
 - (C) timidity
 - (D) honorableness
35. Efforts at managing differences have, till date, been more **episodic** than otherwise.
- (A) intermittent
 - (B) eventful
 - (C) continuous
 - (D) half-hearted

Directions. Q36 – 40 : Consist of four phrases each. One of the phrases (a) (b) (c) or (d) is grammatically incorrect. Identify that incorrect phrase.

36. However, the disadvantages of team work can be minimized (a) / and the benefits increased (b) / if members (particularly those who lead them) is aware of the methods for improving performance and making decision. (d)
37. When assertion is used with the win-win approach, (a) / and with others who also uses the win-win approach (b) / each party can consider the needs of the other and (c) / move towards a solution that satisfies as many needs as possible. (d)

38. It is always (a) / been hard to change (b) / the Indian car buyer's perception (c) / when it comes to design. (d)
39. In a conflict, speak in a pleasant way, (a) / send appropriate non-verbal messages to the other person (b) and match yours non-verbal behaviour (d) / to the spoken message. (d)
40. To live, to love (a) / to serve, and (b) / also admiration are what (c) / I aspire for (d)

QUANTITATIVE ABILITY

41. Point P has coordinates (3, 2) with reference to a rectangular frame in two dimensional space. This coordinate frame is rotated in the clockwise direction through an angle of $30^\circ \left(\frac{\pi}{6}\right)$. The coordinates of P with reference to the rotated frame are
- (A) $\left(\frac{3\sqrt{3}}{2}-1, \frac{3}{2}+\sqrt{3}\right)$ (B) $\left(\frac{3\sqrt{3}}{2}+1, \frac{3}{2}-\sqrt{3}\right)$
- (C) $\left(-\frac{3\sqrt{3}}{2}-1, -\frac{3}{2}-\sqrt{3}\right)$ (D) $\left(\frac{3\sqrt{3}}{2}+1, \frac{3}{2}+\sqrt{3}\right)$
42. If $5\log_{27}(y) + 2\log_3(81y) = 20$, then y is equal to
- (A) 81 (B) 2187
(C) 729 (D) 59049
43. An employee joined a company on 1.4.2004 in the salary grade of Rs. 8000-500-9500-750-12500 with a basic salary of Rs. 9000. He is due to retire on 31.3.2007. He contributes 10% of his basic salary to an EPF scheme. His employer contributes an equal amount. If, on retirement, he gets full amount of his share of EPG and 50 per cent of the employer's share, the amount of EPF received by him, ignoring any interest earned on the deposits, will be
- (A) 34500 (B) 17250
(C) 43500 (D) 51750
44. $\lim_{n \rightarrow \infty} (2^n + 7^n)^{\frac{1}{n}}$ is equal to
- (A) 7e (B) 7
(C) 2e (D) 2
45. A complex number z lies on the curve $|z+6|=3$. The largest magnitude of $|z+3|$ will be
- (A) 6 (B) 3
(C) 36 (D) 12
46. $\sum_{k=1}^{l-1} \left[\sin\left(\frac{2k\pi}{l}\right) - i \cos\left(\frac{2k\pi}{l}\right) \right]$ is equal to (where $i = \sqrt{-1}$)
- (A) 1 (B) -1
(C) -i (D) i
- 47) An equilateral triangle is inscribed in a circle such that its vertices lie on the circumference of the circle. A point is selected at random from within the circle. The probability of finding the point inside the triangle is

- (A) $\frac{\sqrt{3}}{2\pi}$ (B) $\frac{3\sqrt{3}}{4\pi}$
 (C) $\frac{2\pi}{\sqrt{3}}$ (D) $\frac{4}{3\sqrt{3}\pi}$

48. Set A consists of n elements. A sub set $x_1 \subseteq A$ is constituted. Elements of x_1 are replaced in A and a second subset $x_2 \subseteq A$ is constituted. The process is repeated to form m subsets x_1, x_2, \dots, x_m of A. The number of ways in which we can form x_1, x_2, \dots, x_m such that $\bigcup_{i=1}^m X_i = A$ is

- (A) $(2^n - 1)^m$ (B) $2^{mn} - 1$
 (C) $(2^m - 1)^n$ (D) $n! m! - 1$

49. If A, B, and C are the angles of a triangle and e^{iA}, e^{iB}, e^{iC} are in Arithmetic Progression, then the triangle is

- (A) right angled but not isosceles.
 (B) isosceles but not right angled.
 (C) equilateral.
 (D) right angled isosceles.

50. Let (x) and $[x]$ represent the fractional and integral components of We define $f: \mathbb{R} \rightarrow \mathbb{R}; g: \mathbb{R} \rightarrow \mathbb{R}$ by $f(x) = (x); g(x) = \sin [x] \pi$. The range of $g \circ f$ is

- (A) $(-1, 1)$ (B) $\{0\}$
 (C) $[-1, 1]$ (D) ϕ

51. If $z \in \mathbb{C}$ lies on the circle whose equation is $|z - 3i| = 3\sqrt{2}$, then the argument of $\frac{(z-3)}{(z+3)}$ is

- (A) $\frac{\pi}{4}$ (B) $\tan^{-1} 3$
 (C) $\tan^{-1} 3\sqrt{2}$ (D) $\frac{\pi}{2}$

52. $\int_0^{\pi} |\sin x + \cos x| dx$ is equal to

- (A) 0 (B) $\sqrt{2}$
 (C) $2\sqrt{2}$ (D) $\frac{1}{\sqrt{2}}$

53. For $0 < \phi < \frac{\pi}{2}$, let $\alpha = \sum_{n=0}^{\infty} \sin^{2n} \phi; \beta = \sum_{n=0}^{\infty} \sin^{2n} \phi$, then the value of $\alpha^{-1} + \beta^{-1}$ will be

- (A) 1 (B) i
 (C) -1 (D) 0

54. Define $\phi(x) = \prod_{i=1}^n (x - x_i)$, then the value of $\sum_{i=1}^n \frac{x_i}{x - x_i}$ is

- (A) $\frac{n\phi'(x) - x\phi(x)}{\phi(x)}$ (B) $\frac{n\phi(x) - x\phi'(x)}{\phi(x)}$
 (C) $\frac{n\phi(x) - n\phi'(x)}{\phi(x)}$ (D) $\frac{x\phi'(x) - n\phi(x)}{\phi(x)}$

55. $\lim_{n \rightarrow \infty} \frac{1}{n} \begin{pmatrix} 1 & a/n \\ -a/n & \ell \end{pmatrix}$ is equal to

- (A) $\begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix}$ (B) $\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$
 (C) $\begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$ (D) $\begin{pmatrix} 1 & 1 \\ -0 & 0 \end{pmatrix}$

56. A toy consists of a base that is the section of a sphere and a conical top. The volume of the conical top of 30π cu units and its height is 10 units. The total height of the toy is 19 units. The volume of the sphere (in cubic units) from which the base has been extracted is

- (A) $\frac{256}{3}\pi$ (B) $\frac{64}{3}\pi$
 (C) $\frac{108}{3}\pi$ (D) $\frac{500}{3}\pi$

57. Two vessel A and B of equal capacities contain mixtures of milk and water in the ratios 4 : 1 and 3 : 1, respectively. 25 per cent of the mixture from A is taken out and added to B. After mixing it thoroughly, an equal amount is taken out from B and added back to A. The ratio of milk to water is vessel A after the second operation is

- (A) 79 : 21 (B) 83 : 17
 (C) 77 : 23 (D) 81 : 19

58. MTNL has a waiting list of 5005 applicants for its recently launched mobile phone scheme. The list shows that there are at least 5 males between any two females. The largest possible number of females in the waiting list is

- (A) 920 (B) 835
 (C) 721 (D) 1005

59. If you have 3 tickets to a lottery for which 10 tickets were sold and 5 prizes are to be given, the probability that you will win at least one prize is

- (A) $\frac{7}{12}$ (B) $\frac{9}{12}$
 (C) $\frac{1}{12}$ (D) $\frac{11}{12}$

60) We define the modulus of an $m \times n$ matrix by $|A| = \max \left(\sum_{i=1}^n |a_{ij}|, j = 1, 2, \dots, n \right)$. The angle,

$\theta, (0 < \theta \leq \pi/2)$, for which the matrix $\begin{pmatrix} \cos \theta & \sin \theta & 0 \\ -\sin \theta & \cos \theta & 0 \\ 0 & 0 & 1 \end{pmatrix}$ will have the maximum possible

modulus is

- (A) $\frac{\pi}{6}$ (B) $\frac{\pi}{3}$
 (C) $\frac{\pi}{2}$ (D) None of these

61. The adjacent sides AB, BC of a square ABCD of side 'a' units are tangent to a circle. The vertex D of the square lies on the circumference of the circle. The radius of the circle could be
 (A) $a(2-\sqrt{2})$ (B) $a(\sqrt{2}-1)$
 (C) $a\left(\frac{3}{2}+\sqrt{2}\right)$ (D) $a(\sqrt{2}+1)$

62. Operator A has the matrix representation $A = \begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$ in conventional $\begin{pmatrix} 1 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 1 \end{pmatrix}$ basis. Its representation in the basis of its eigenvectors (eigenbasis) $\begin{pmatrix} 1 \\ i \end{pmatrix}, \begin{pmatrix} 0 \\ -i \end{pmatrix}$ is

- (A) $\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$ (B) $\begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$
 (C) $\begin{pmatrix} i & 0 \\ 0 & -i \end{pmatrix}$ (D) $\begin{pmatrix} i & 0 \\ 0 & i \end{pmatrix}$

63. $\lim_{n \rightarrow \infty} \sum_{r=1}^n \tan^{-1}\left(\frac{1}{2r^2}\right)$ is equal to

- (A) $\frac{\pi}{4}$ (B) $\tan^{-1}\frac{1}{2}$
 (C) π (D) $\frac{\pi}{2}$

Directions. Q64-65: These questions are based on the following information. A 300 room motel can rent all its rooms at Rs. 150 per room per day. For every one rupee increase in tariff, the occupancy fall by 2 rooms. Normal maintenance, independent of occupancy is Rs. 120 per room per day. Occupancy entails additional costs of Rs. 16 per room per day on the units occupied.

64. The optimal tariff (in Rupees) to maximize annual profits is
 (A) 150 (B) 162
 (C) 158 (D) 160
65. Now, suppose that rooms of the motel can be permanently shut down in blocks of 5, if desired, resulting in saving of normal maintenance of Rs. 120 per room per day. The optimal tariff (in Rupees) to maximize annual profits in this case would be
 (A) 158 (B) 160
 (C) 162 (D) 156
66. An investor desires to invest a certain sum of money in two securities A and B. The risk and return of A and B are
- | | A | B |
|-----------------|------|-------|
| Risk (b) | 3.00 | 6.00 |
| Return in % (R) | 9.00 | 12.00 |

Measures of both risk and return are additive. i.e., $\beta_1 = x_A \beta_A + X_B \beta_B$, $R_1 = x_A R_A + X_B R_B$, where X_A, X_B are the proportions of the money invested in the securities A and B in the portfolio P. The investor has a maximum risk tolerance of 4.00. The return that he can earn (in per cent) is

- (A) 9 (B) 12
(C) 10 (D) 16

67. The position vector of the mirror image of the point of the point represented by the position vector $\vec{r} = 2\hat{i} + 3\hat{j} + 4\hat{k}$ across the plane mirror $x + y = 0$ is

- (A) $-3\hat{i} - 2\hat{j} + 4\hat{k}$ (B) $2\hat{i} + 3\hat{j} - 4\hat{k}$
(C) $-2\hat{i} - 3\hat{j} + 4\hat{k}$ (D) $3\hat{i} + 2\hat{j} - 4\hat{k}$

68. A man 6 feet tall standing 50 feet away from the base of a tower observes that the angle subtended by the tower at his eye level is $\tan^{-1} 2$. A flagstaff atop the tower subtends an angle of $\tan^{-1} 0.1$ at the same point. The height (in feet) of the flagstaff is closest to

- (A) 18 (B) 20
(C) 25 (D) 22

69. A, B and C are assigned a piece of work which they can complete by working together in 15 days. Their efficiencies (measured in terms of rate of doing work) are in the ratio 1 : 2 : 3. After $1/3$ of the work is completed, one of them has to be withdrawn due to budget constraint. Their wages per day are in the ratio 3 : 5 : 6. the number of days in which the remaining two persons can complete the work (at optimal cost) is

- (A) 18 (B) 20
(C) 15 (D) 12

70. A polynomial $f(x)$ with real coefficients satisfies the functional equation $f(x) \cdot f\left(\frac{1}{x}\right) = f(x) + f\left(\frac{1}{x}\right)$. If $f(2) = 9$, then $f(4)$

- (A) 82 (B) 17
(C) 65 (D) None of these

71. Let $[x]$, are present the greatest integer $\leq x$. Define $f : \mathbb{R} \rightarrow \mathbb{R}$ by $f(x) = [x] + [-x]$. At any integral value of x , the function $f(x)$ is

- (A) continuous
(B) discontinuous but has a unique limit.
(C) Does not have a limit
(D) Has only left hand limit.

72. Statistics show that 20 percent of smokers get lung cancer and 80 percent of lung cancer patients are smokers. If 30 percent of the population smokes, then the percentage of population having lung cancer is

- (A) 4 (B) 3
(C) 8 (D) 7.5

73. If $a = 3^{150} \cdot 5^{76} \cdot 7^{140}$, $b = 3^{148} \cdot 5^{76} \cdot 7^{141}$, $c = 3^{148} \cdot 5^{80} \cdot 7^{139}$, $d = 3^{151} \cdot 5^{80} \cdot 7^{142}$, then the order of a, b, c, d from largest to smallest is

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

74. If each permutation of the digits 1, 2, 3, 4, 5, 6 is listed in increasing order of magnitude, the 289th term will be

- (A) 326541 (B) 341256

- (C) 356241 (D) 314256
75. We define $f: \mathbb{R} \rightarrow \mathbb{R}$ by $f(x) = \frac{1}{1-x}$. Then the function $f(f(f(x)))$ is discontinuous as
 (A) 0 and -1 (B) -1 and 1
 (C) -1 (D) None of these
76. The relationship between the price of gasoline y (in Rupees) and its weekly supply, x (in hundreds of gallons) is $y = 0.73 + \frac{0.45}{x}$. If the weekly supply decreases at a rate of 50 gallons per week when the supply is 600 gallons, the price of gasoline will be changing at the rate of
 (A) Rs. $0.625 \cdot 10^{-4}$ (B) Rs. $0.625 \cdot 10^{-3}$
 (C) Rs. $0.625 \cdot 10^{-2}$ (D) Rs. $0.625 \cdot 10^{-1}$
77. A mixture comprises two chemicals A and B. The price of A is Rs. 100/- per liter and that of B is Rs. 200/- per litre. We can spend a maximum of Rs. 600/- for making the mixture. The densities of A and B are 10 kgs/litre and 12 kgs/litre respectively. The mixture must contain each of the chemicals to the extent of at least 25 percent by weight. The maximum weight of the mixture that can be made is closest to
 (A) 60 kg (B) 51 kg
 (C) 54 kg (D) 48 kg
78. Two circles C_1 and C_2 having the same radius of 2 cm and the centers at P and Q respectively intersect each other such that the line of centers PQ intersects C_1 and C_2 at F and E respectively. $EF = 1$ cm. The whole assembly is enclosed in a rectangle of minimum area. The perimeter of rectangle is
 (A) 20 units (B) 22 units
 (C) 24 units (D) 26 units
79. Semicircle C_1 is drawn with a line segment PQ as its diameter with center at R. Semicircles C_2 and C_3 are drawn with PR and QR as diameters respectively, both C_2 and C_3 lying inside C_1 . A full circle C_4 is drawn in such a way that it is tangent to all the three semicircles C_1 , C_2 and C_3 , C_4 lies inside C_1 and outside C_2 and C_3 . the radius of C_4 is
 (A) $\frac{1}{3}PQ$ (B) $\frac{1}{6}PQ$
 (C) $\frac{1}{\sqrt{2}}PQ$ (D) $\frac{1}{4}PQ$
80. A line makes equal intercepts of length 'a' on the coordinate axes, intersecting the x -axis and y -axis at A and B respectively. A circle is circumscribed about the triangle OAB, where O is the origin of the coordinate system. A tangent is drawn to this circle at the point O. The sum of the perpendicular distances of the vertices A, B and O from this tangent is
 (A) $2a$ (B) $\frac{a}{\sqrt{2}}$
 (C) $\frac{a}{2}$ (D) $a\sqrt{2}$

Directions (Qs. 81 to 87) : Each of these problems has two Statements I and II and a Question. Use the information provided in both the Statements I and II together to decide whether they are sufficient to answer the given Question. For each problem, select one of the options (A), (B), (C) or (D), based on the following criteria :

- (A) Choose option A, if the Question can be answered using the information given in just one of the Statements but not in the other, i.e. choose this option if one of the following conditions is met :
- Statement I alone is sufficient to answer the given Question but Statement II alone is not sufficient.
- OR
- Statement II alone is sufficient to answer the given Question but Statement I alone is not sufficient.
- (B) Choose option B if the Question can be answered using the information given in either one of them, i.e. choose this option if Statement I alone is sufficient to answer the given Question AND Statement II alone is also sufficient to answer the given Question.
- (C) Choose option C if the Question can be answered using the information given in both the Statements I and II together, but cannot be answered individually from Statement I or II.
- (D) Choose option D if the Question cannot be answered even after using the information given in both the Statements I and II.
81. X and Y start walking towards each other in a straight line at 9:00 AM. What is the ratio of the distance traveled by X to Y from their respective starting points to the point where they meet each other?
- (A) X walks twice as fast as Y.
- (B) The distance between the starting points of X and Y is 5 km.
82. What is the remainder when $3m+1$ is divided by 6?
- (A) m is even.
- (B) m is odd.
83. A spherical iron ball is dropped into a cylindrical tumbler containing such an amount of water that the ball gets completely immersed but water does not overflow out of the tumbler. By how many centimeters does the water level rise in the tumbler?
- (A) The radius of the ball is half that of the tumbler.
- (B) The tumbler contained 100 cc of water.
84. What is the exact time?
- (A) The time is between 3 PM and 4 PM.
- (B) The hour hand and the minute hand are in a straight line.
85. Will Q take more than 8 hours to complete job X alone?
- (A) P works faster than Q.
- (B) P and Q can together finish the job in 5 hours.
86. The monthly salary of a Boss is Rs. 40,000. What is the salary of his only subordinate?
- (A) The subordinate gets Rs. 10,000 less than the average salary of the Boss and his own salary.
- (B) The average salary of the Boss and the subordinate is Rs. 37,000.
87. In a written test, Sita, Geeta, Reena, and Asha have got their ranks. Who are the first and the last rank holders?
- (A) Sita has scored more than Asha but less than Geeta.
- (B) Asha has scored more than Reena but less than Geeta and Sita.

Directions (Qs. 88 to 92) : Four students – Promila, Quardir, Rita and Sridhar, each working under the supervision of one of the four Professors – Anand, Bose, Chandrashekharan and Deshpande, made their final year MBA Project Presentations one by one, one each in the areas of Finance, Marketing, Systems

and Human Resource Management (HRM). Each Professor is an expert in only one of the above areas and supervised exactly one of the above students in his own area. The following clues are provided :

- i. First presentation was made by Rita.
- ii. Professor Bose works in Finance.
- iii. Professor Deshpande was Promila's supervisor.
- iv. The last presentation was in the System area.
- v. Shiridhar's project was in the HRM area.
- vi. Professor Bose's student's presentation followed that of Professor Chandrashekharan's student.

88. In which area was Rita's project?
 (A) Marketing (B) Finance
 (B) Systems (C) Cannot be determined
89. What is Professor Deshpande's area of expertise?
 (A) Marketing (B) HRM
 (C) Systems (D) Cannot be determined
90. In which area was the second presentation?
 (A) Finance (B) Marketing
 (C) HRM (D) Cannot be uniquely determined
91. Which student's project did Professor Bose supervise?
 (A) Quadir (B) Rita
 (C) Sridhar (D) Cannot be determined
92. What is Professor Anand's area of expertise?
 I. HRM II. Systems
 III. Marketing
 (A) Either I or II (B) Either I or III
 (C) Either II or III (D) Neither I, nor II, nor III

Directions (Qs. 93 to 95) : Each of these questions consists of a set of numbered Statements. Assume that each one of these Statements is individually true. Each of the four choices consists of a subset of these Statements. Choose that subset as your answer where the Statements therein are logically inconsistent among themselves :

93. (i) If the monsoon comes in time, it rains aplenty in the peninsula. (ii) If it rains aplenty in the peninsula, there is no crop failure. (iii) If the fertilizers are not available in the market, then there is a crop failure. (iv) If the fertilizers are available in the market, then the shipping line is working smoothly. (v) If there is no crop failure, then fertilizers are not available in the market. (vi) If the shipping line is working smoothly, then the monsoon does not come in time. (vii) If the fertilizers are not available in the market, then it rains aplenty in the peninsula.
 (A) (i), (ii), (iii), (iv) & (vi) (B) (i), (ii), (iv), (vi) & (vii)
 (C) (i), (iii), (iv), (vi) & (vii) (D) (ii), (iv), (v), (vi) & (vii)
94. (i) All mammals have hairs. (ii) Anything which does not have feathers cannot fly. (iii) Anything which has feathers is not a mammal. (iv) anything which can fly does not have hair. (v) Anything which has hair does not have feathers. (vii) X is a mammal. (viii) X can fly.
 (A) (ii), (iv), (vi), (vii) & (viii) (B) (ii), (v), (vi), (vii) & (viii)
 (C) (iii), (iv), (vi), (vii) & (viii) (D) (i), (ii), (vi), (vii) & (viii)
95. (i) Ram always drinks orange juice while watching cricket. (ii) If ram is with his friends, he is not at home. (iii) Ram does not drink orange juice on weekdays. (vi) During weekends, Ram

is always with his friends. (v) Ram drinks orange juice only at home. (vi) Ram watches cricket only at home. (vii) Ram is watching cricket.

- (A) (i),(iii), (iv), (v), (vi) & (vii) (B) (i), (ii), (iv), (v), (vi) & (vii)
(C) (i), (ii), (iii), (iv), (v) & (vii) (D) (i), (ii), (iii), (v), (vi) & (vii)

Directions (Qs. 96 to 98) : Each of these questions consists of a set of numbered Statements. Among them there is only one Statement which logically follows from the rest. Choose this “conclusion” Statement from the given option :

Example : With the four statements :

- (A) None of the papersettors can do log.
(B) Insane people are not fit do serve in a jury.
(C) None of the papersettors are fit to de in a jury
(D) Anyone who is sane can do logic ; the correct answer is (iii), which is a logical consequence of the rest.

96. (i) No soup, that is cold, has Croutons in it. (ii) The soup in the cup is hot. (iii) No soup that does not have Croutons in it is fit for drinking. (iv) The soup in the cup is fit for drinking.

- (A) (i) (B) (ii)
(C) (iii) (D) (iv)

97. (i) All the papers presented in the conference that fail to get a prize, are rejected for journal publication. (ii) All the paper, which are rejected for journal publication, are to appear in the proceedings. (iii) None of the papers, appearing in the proceedings, has any real data set. (iv) All the papers without any real data set have an extensive simulation study. (v) My paper has an extensive simulation study. (vi) My paper did not get a prize in the conference.

- (A) (iii) (B) (iv)
(C) (v) (D) (vi)

98. (i) Rainy days are always cloudy. (ii) Everybody carries an umbrella when it is raining. (iii) When people carry umbrellas, the day never turns our fine. (iv) The only day when I have a fight with my wife are cloudy days. (v) I call no day unlucky when I do not have a fight with my wife. (vi) My lucky days always turns out fine.

- (A) (i) (B) (iii)
(C) (iv) (D) (vi)

Directions (Qs. 99 to 105) : Read each of the short passages given in these questions and select the right option for the question relating to that passage :

99. Along with the increasing use of Electronic Refrigerators, the demand for ice in the market decline. Formerly, we were buying ice to keep our ice boxes cool and the food stored in the ice box fresh. Now the ice boxes cool themselves. Similarly, the introduction of we-based e-Learning teaching, to be offered simultaneously in different cities, will Which of the following best completes the argument left incomplete?

- (A) Increase the course enrolment. (B) Increase the spread of the course.
(C) Reduce the need for class room. (D) Reduce the ineffectiveness in teaching.

100. Prosperity will eventually drive out divisive polities. In a prosperous society, there would neither be time nor need for divisive politics. The underlying driver of all forms of divisions is economic. Therefore, economic policies favouring rising prosperity would do less harm to society than the “redistribution of poverty” policies. In drawing the above conclusion, the author assumes

- (i) Divisive policy is harmful to the society.
(ii) “Redistribution of poverty” policies lead to divisive politics.
(A) I only (B) II only
(C) Both I and II (D) Neither I nor II

101. It is unfortunate for the country, specially for the poor and women, that whenever any kind of disincentive – even of the mildest nature such as debarring a person with more than two children from contesting any local body election- is introduced to promote family planning, there are always some activists and organizations who unnecessarily oppose the measures without realizing that the voluntary family planning programmes are a miserable flop as clearly highlighted by the national family health surveys. Which of the following, if true, would, most strengthen the author’s contention?
- (A) Percentage of rural women voluntarily seeking family planning services in government health center facilities has drastically come down over the last decade.
 - (B) One child policy in China, where employees with more than one child are discriminated against, has been very effective in controlling their population.
 - (C) Activists and organizations which seem to advocate civil rights issued typically have their own vested interests and hidden agendas.
 - (D) Punitive measures are the best deterrents for refraining people from committing deeds which adversely affect the society at large.
102. In a recent study published in “The Journal of Family Practice”, no significant benefit over a placebo was found from sing the antibiotic Amoxicillin among 135patients with typical indications of sinus infection. All the patients complained of sinusitis, with pus in the nasal cavity, facial pressure or nasal discharge lasting longer than seven days. A small subgroup of patients receiving the antibiotic became better faster than the others. But the researches were unable to discern anything about those patients prior to administering Amoxicillin that indicated a bacterial infection, as opposed to viral one.
From the above passage, it may be inferred that :
- (A) Use of an antibiotic is beneficial for sinusitis patients.
 - (B) Antibiotics should be administered to only those sinusitis patients, who have been diagnosed to have a bacterial infection.
 - (C) Antibiotics do not have any effect on sinusitis patients.
 - (D) Use of an antibiotic may be beneficial for a small percentage of sinusitis patients with bacterial infection, but in general, antibiotics are useless for sinusitis patients.
103. It defies common logic and theory that too little sleep can make one fat. If such findings are made public, I’m afraid lazy people will grab the opportunity to sleep more. But I’m sure this is not the only factor responsible for being overweight. There should be more research on the issue before scientists conclude something so dramatic.
Which of the following, if true, would most strengthen the author’s contention?
- (A) Most of the sleep-deprived people participating in the study which concluded that “too little sleep can make one fat”, had an overweight sister.
 - (B) Most lazy people are fat.
 - (C) Most of the people, participating in the study which concluded that “too little sleep can make one fat”, who got proper sleep also exercised regularly.
 - (D) Most of the sleep – deprived people, participating in the study which concluded that “too little sleep can make one fat”, love pizzas.
104. In spite of the economics of direct entry system of recruitment being appreciated and accepted by the merchant navy, our armed forces still seem to be dragging their feet on this issue. If anything, our defence organization appears to be continually augmenting its training establishments by having in its fold professional institutions providing basic university education. There is no dearth of such institutions in our civil educational system. This results in unnecessary duplication at the expense of the defence budget.
From the above paragraph it may be inferred that :
- (A) Merchant navy used to admit only college graduates in its training programmes.
 - (B) Merchant navy no longer provides basic university education in its training programmes.
 - (C) The nature of the work involved in defense organization and merchant navy are similar.
 - (D) A major part of the defense budget is spent on its training establishments.

105. The smallest of fluctuations in the BSE Sensex sees the doomsayers coming out of the woodwork. One of the popular but misguided insights is : since the market is tanking, run with your money before you are done in. I find this amusing. The same people, when they spot a “sale” sign in shopping malls or read about a fall in air-ticket prices to Sydney or Singapore, try and grab the deal. But when it comes to investing, they live a contradiction. Any fall in the market is a reason to buy. If you are an investor in equities or equity funds, you are there for the long term. Thus, if you were considering equities at Sensex 7500, you should be celebrating at Sensex 6500. The same companies are now cheaper by 13%! If they fall further, so much the better – doomsayers be damned!

The author in the above paragraph assume that :

- (A) Most people sell their equity holdings in a falling market.
 (B) Equity markets are similar in nature to the commodity markets like a supermarket or airline tickets.
 (C) One should buy equities when the prices are low.
 (D) Though markets might drop in the short-run, they are bound to rise again in the long-term.

Directions (Qs. 106 to 110) are based on the following paragraph :

A Business School with six Professors L, M, N, O, P and Q, has decided to implement a new scheme of course management. Each Professor has to coordinate one course and support another course. This semester, O’s support course is Finance, while three others have it in coordinator’s role. P and Q have marketing as one of their subject. Q coordinates Operations, which is a support course for both N and P. Finance and IT are L’s subjects. Both L and O have same subjects. Strategy is a support course for only one of the Professors.

106. Who coordinates the Strategy course?
 (A) M (B) N
 (C) O (D) None of these
107. Which course is supported by M?
 (A) Finance (B) Strategy
 (C) IT (D) Operations
108. Who coordinates the IT course?
 (A) L (B) N
 (C) O (D) None of these
109. Who among the following are coordinating the Finance course?
 (A) L, M and N (B) M, N and O
 (C) N and O (D) L and N
110. Which course has only one coordinator and only one support Professor?
 (A) Marketing (B) Operations
 (C) Finance (D) Strategy

Directions (Questions 111 to 115) : Each of these questions has a set of numbered sentences. Each answer option specifies a sequence in which these sentences should appear so that a coherent meaning emerges. Choose that sequence as your answer, which logically yields the most coherent meaning :

111. (i) A company’s market share, revenue and balance sheet are all key elements. (ii) Share prices move up and down according to a bewildering array of factors, only some of which are readily quantifiable or even conventionally discernible by the CPAs and the clients they represent. (iii) Financial markets are neither rational nor efficient, and any investment strategy that ignores this fact is doomed to failure. (iv) But at least equally important are the vagaries of human

psychology and behaviour, the conscious and unconscious wishes, conflicts, fears and fantasies that lure people en masse into bad – sometimes catastrophic – decisions.

- (A) (i) – (iv) – (ii) – (iii) (B) (iii) – (i) – (ii) – (iv)
 (C) (ii) – (iii) – (i) – (iv) (D) (iii) – (ii) – (i) – (iv)

112. (i) In most industries, people costs are much higher than the capital costs. (ii) It is no secret that business success today revolves largely around people, not capital. (iii) Even when a company is not people – intensive overall, a people – based business embedded in the company often drives corporate performance. (iv) Many traditional manufacturers are now essentially service businesses.

- (A) (i) – (ii) – (iii) – (iv) (B) (ii) – (iii) – (i) – (iv)
 (C) (ii) – (iv) – (i) – (iii) (D) (iv) – (ii) – (i) – (iii)

113. (i) I have always found that a systematically planned vacation turns out to be more enjoyable. (ii) I decide on a list of possible destinations by carefully browsing the ITDC web-site. (iii) Availability of decent accommodation and not being a popular tourist attraction are the two most important criteria for choosing the venue for any of my vacations. (iv) Then I cross-check against the availability of good hotels near these destinations.

- (A) (iii) – (ii) – (iv) – (i) (B) (i) – (iv) – (ii) – (iii)
 (C) (iii) – (i) – (ii) – (iv) (D) (i) – (iii) – (ii) – (iv)

114. (i) The aviation sector is booming in India but many small and medium – sized airlines in the US are on the verge of bankruptcy. (ii) However, the US airlines are free to fly any number of flights to India under the latter’s open skies policy with the US. (iii) Currently, the domestic aviation policy stipulates a five – year experience before they are some hot acquisition targets available for the newly floated airlines in India. (v) This model, if successful, will have many takers.

- (A) (i) – (iv) – (v) – (iii) – (ii) (B) (iv) – (i) – (iii) – (ii) – (v)
 (C) (iii) – (ii) – (i) – (iv) – (v) (D) (i) – (ii) – (iii) – (iv) – (v)

115. (i) It is this goodwill that really makes sponsorship different from advertising. (ii) for example, sponsorship operates through different cognitive processes than advertising. (iii) In turn, goodwill feeling comes to the company which influences attitude and behaviour towards the brand. (iv) There are several benefits of sponsorship over mass advertising. (v) While advertising changes the a consumer’s perception of a specific product, sponsorship changes the perception of specific sponsor which will rub off on the brand. (vi) It engages the consumer by bestowing benefit on an activity which the consumer has an intense emotional response to.

- (A) (iv)–(ii)–(vi)–(iii)–(i)–(v) (B) (iv)–(v)–(vi)–(ii)–(i)–(iii)
 (C) (v)–(iv)–(ii)–(vi)–(i)–(iii) (D) (v)–(vi)–(ii)–(i)–(iii)–(iv)

116. Consider the following three pieces of information:

- (I) Geeta and Sita of same age.
 (II) Total age of Geeta, Reena and Sita is 88 years.
 (III) Reena’s age is same as the sum of Geeta and Sita’s age.

Which of the above pieces of information enable you to answer the question, “What is the age of Reena?”

- (A) I and II (B) II and III
 (C) I and III (D) I, II and III are not sufficient

117. In a code, South-East becomes West; North-East becomes South and so on. What will West become?

- (A) South-East (B) North-East
 (C) East (D) North

118. If Ms. Q is appointed as CEO of XYZ corporation, then at least one of the following two things will happen: (i) the stock price of XYZ corporation will appreciate, (ii) the employee union will not call a strike. Then which of the following statements may be deducted?
- (A) If Ms. Q is appointed as the CEO of XYZ corporation AND the stock price of XYZ corporation appreciates, then the employees union will call a strike.
- (B) If Ms. Q is appointed as the CEO of XYZ corporation AND the employees union calls a strike, then the stock price of XYZ corporation will appreciate.
- (C) If Ms. Q is appointed as the CEO of XYZ corporation AND the stock price of XYZ corporation does not appreciate, then the employees union will call a strike.
- (D) If Ms. Q is appointed as the CEO of XYZ corporation AND the employees union does not call strike, then the stock price of XYZ corporation will not appreciate.
119. In a supply chain, P is a critical supplier in the sense that if P defaults, the entire supply chain breaks down, and if the supply chain breaks down, production stops. If the supply chain has broken down, it may be deducted that
- (A) P has defaulted and production has stopped.
- (B) P has defaulted and production might have stopped.
- (C) P might have defaulted and production has stopped.
- (D) P might have defaulted and production might have stopped.
120. In a coding language, the letters of the English alphabet are arranged in such a manner that all the vowels are put in the end and the remaining letters are arranged from the first letter onwards. The rearranged alphabets are used to denote the position occupied by letters in the original alphabets. What is the code of "META"?
- (A) LWPV (B) QGYB
(C) PWLV (D) TEAM

A N S W E R S

VERBAL COMMUNICATION

- | | | | | | |
|--------|---------|---------|---------|---------|---------|
| 1. (B) | 8. (B) | 15. (D) | 22. (D) | 29. (D) | 36. (D) |
| 2. (D) | 9. (D) | 16. (C) | 23. (A) | 30. (B) | 37. (B) |
| 3. (B) | 10. (C) | 17. (B) | 24. (C) | 31. (A) | 38. (A) |
| 4. (A) | 11. (B) | 18. (C) | 25. (B) | 32. (A) | 39. (C) |
| 5. (A) | 12. (C) | 19. (B) | 26. (C) | 33. (B) | 40. (C) |
| 6. (D) | 13. (A) | 20. (A) | 27. (A) | 34. (D) | |
| 7. (C) | 14. (B) | 21. (A) | 28. (B) | 35. (C) | |

QUANTITATIVE ABILITY

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 41. (A) | 48. (A) | 55. (A) | 62. (D) | 69. (D) | 76. (A) |
| 42. (C) | 49. (C) | 56. (D) | 63. (A) | 70. (C) | 77. (C) |
| 43. (D) | 50. (B) | 57. (A) | 64. (C) | 71. (A) | 78. (B) |
| 44. (B) | 51. (A) | 58. (D) | 65. (B) | 72. (D) | 79. (B) |
| 45. (A) | 52. (C) | 59. (C) | 66. (D) | 73. (D) | 80. (D) |
| 46. (D) | 53. (A) | 60. (D) | 67. (C) | 74. (B) | |
| 47. (B) | 54. (B) | 61. (B) | 68. (C) | 75. (D) | |

Axax

- | | | | |
|--------|--------|--------|--------|
| 1. (A) | 2. (B) | 3. (A) | 4. (C) |
|--------|--------|--------|--------|

- | | | | | | | | |
|-----|-----|-----|-------------|-----|-----|-----|-----|
| 5. | (C) | 14. | (A,B,C & D) | 23. | (C) | 32. | (D) |
| 6. | (B) | 15. | (A) | 24. | (B) | 33. | (D) |
| 7. | (C) | 16. | (D) | 25. | (C) | 34. | (B) |
| 8. | (A) | 17. | (C) | 26. | (A) | 35. | (A) |
| 9. | (C) | 18. | (C) | 27. | (B) | 36. | (B) |
| 10. | (D) | 19. | (C) | 28. | (C) | 37. | (B) |
| 11. | (A) | 20. | (B) | 29. | (A) | 38. | (A) |
| 12. | (B) | 21. | (C) | 30. | (A) | 39. | (C) |
| 13. | (A) | 22. | (D) | 31. | (A) | 40. | (B) |