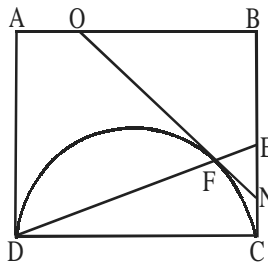


Unproctored Mock-24 2011

SECTION - I

- Given that $f(x) = Ax^2 + Bx + C$ ($A > 0$). If $f(x) = 0$ has integral roots α and β such that $-4 \leq \alpha \leq 2$ and $-3 \leq \beta \leq 3$, then for how many distinct pairs (α, β) , $f(0) < 0$?
a. 18 b. 12 c. 21 d. 49
- In the figure given below, ABCD is a square and a semicircle is drawn having DC as the diameter. ON is a tangent to the semicircle at the point F and the line DF is extended to meet BC at E. If the measure of $\angle FDC = 30^\circ$, then what is the measure of $\angle FNE$?



- a. 75° b. 45° c. 60° d. 30°
- A sequence of numbers is written in the following fashion: 1, 7, 1, 1, 7, 7, 1, 1, 1, 7, 7, 7, ... till 'n' terms. The sum of first 5001 terms of the given sequence is
a. 5001 b. 20478 c. 19911 d. 39822

DIRECTIONS for Questions 4 and 5: Answer the questions on the basis of the information given below.

There are three liquids X, Y and Z. Cost price of 100 ml of liquid X and selling price of 100 ml of liquid Y are the same, which is Rs. 500. Liquid X, when sold, yields a loss of 10% and Liquid Y, when sold, yields a profit of 10%. Z's cost price and selling price are the same, which is Rs. 500 for 100 ml.

Three types of products (P1, P2 and P3) are prepared in the following manner :

- P1 contains X and Y in the ratio 3 : 2 by volume
- P2 contains X and Y in the ratio 2 : 3 by volume
- P3 contains only Z

The selling price of each of the products is the aggregate sum of the selling price of the individual components.

- A new mixture is formed by mixing 100 ml of each of the three products P1, P2 and P3. What will be the profit/loss, if this new mixture is sold?
a. Loss of Rs. 4.54 b. Profit of Rs. 4.86 c. Profit of Rs. 3.53 d. Loss of Rs. 3.53
- If 341 ml of P1 was sold, then the profit/loss (approximately) would be
a. 1% loss b. 2.5% loss c. 1% profit d. 2.5% profit

DIRECTIONS for Question 6 to 8: Answer the questions on the basis of the information given below.

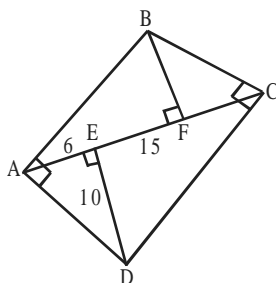
Each of the students Zoya, Kate, Frida and Latika appeared in an exam consisting of 4 subjects namely Optics, Life Sciences, Public Service and Finance. The following table indicates the marks obtained by them in the different subjects

	Optics	Life Sciences	Public Service	Finance
Zoya	7 or 8	5 or 6	3 or 4	5 or 6
Kate	3 or 4	5 or 6	5 or 6	7 or 8
Frida	6	3 or 4	7 or 8	3 or 4
Latika	3 or 4	7 or 8	5 or 6	5 or 6

Further, it is known that

- No student obtained the same marks in any two subjects.
 - No two students obtained the same marks in any subject.
 - The aggregate of the marks in the four subjects, obtained by each student was different.
 - The aggregate of the marks obtained by the four students was different across the four subjects.
-
- What is the aggregate of the marks obtained by the four students in Optics ?
a. 21 b. 19 c. 20 d. Cannot be determined
 - In which of the following subjects the aggregate marks obtained by all the four mentioned students can never be the maximum?
I. Life Sciences
II. Public Services
III. Finance
a. I only b. II only c. III only d. II and III
 - The aggregate marks secured by Zoya, when Kate gets 7 marks in finance, is
a. 24 b. 23 c. 21 d. 22
 - There are three natural numbers X, Y, and Z such that the LCM of (X, 120) is 1320, LCM of (Y, 120) is 1680 and LCM of (Z, 120) is 1800. Which of the following statements is true?
a. X, Y, and Z all three can be perfect squares.
b. Only Y and Z can be perfect squares.
c. Z can be a perfect square.
d. Z is definitely a perfect square.

10. In the quadrilateral ABCD, $\angle BAD = \angle BCD = 90^\circ$. If $AE = 6$ cm, $CE = 15$ cm and $DE = 10$ cm, find the length of BF.



- a. 9 cm b. 8 cm c. 10 cm d. 15 cm
11. The co-ordinates of two points P and Q are $(-3, 5)$ and $(6, -5)$ respectively. A point R lies on the line $9y + 10x = 7$. What is the area of $\triangle RPQ$?
- a. 4 sq. units b. 16 sq. units c. $\frac{15}{3}$ sq. units d. Cannot be determined

DIRECTIONS for Questions 12 and 13: Answer the questions on the basis of the information given below.

A long thin strip of paper is 256 units in length, 1 unit in width, and is divided into 256 unit squares. The strip of paper is kept in such a manner that the longer side is in the left-right orientation. The squares are numbered 1 through 256 starting from the left most square. The paper is folded into half repeatedly. For the first fold, the right end of the paper is folded over to coincide with and lie on top of the left end. Then the paper is cut at the fold. There are now two strips of paper 1×128 in dimensions. Next, the right end of these two strips together is folded over to coincide with and lie on top of the left end, resulting in 4 strips of paper 1×64 in dimensions. The strip is again cut at the folds. This process is repeated till it becomes a stack of 256 unit squares.

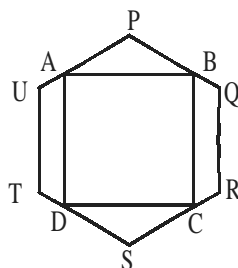
12. What is the number written on the square that is at the 128th position from the bottom?
- a. 3 b. 4 c. 128 d. 129
13. How many of these squares lie below the square numbered 202 in the final stack?
- a. 182 b. 217 c. 128 d. 142
14. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** A wire is in the shape of an isosceles triangle LMN such that lengths of the line segments LM and LN are 8 cm and 5 cm respectively. Find the circumradius of the triangle LMN.
- A.** If the wire is bent in the form of a square, then the area of the square formed is less than 28 square cm.
- B.** The circumradius of the triangle LMN is greater than 4 cm.

15. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.

Q. What is the remainder when a natural number $(m - 2n)$ is divided by 2?

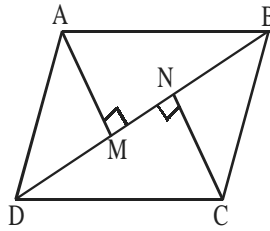
- A.** A natural number $(2m^2 + 3nm)$ is divisible by 2.
B. A natural number $(2n^2 - 3m)$ is not divisible by 2.

16. A sheet of paper 'PQRSTU' is in the form of a regular hexagon having sides of length 2 cm as shown in the figure given below. What is the length of the side of the largest square sheet 'ABCD' that can be cut out from the given hexagonal sheet of paper?



- a. $2 + \sqrt{3}$ cms b. $2\sqrt{3}$ cms c. $2\sqrt{3}(\sqrt{3}-1)$ cms d. $2(\sqrt{3}-1)$ cms
17. M is a set of distinct positive integers whose average is 55. If a number 68 is added to this set, the average increases by 1. What is the largest number that can occur in this set?
 a. 660 b. 649 c. 68 d. None of these
18. For a particular sequence of positive terms the n^{th} term of a series is given by $T_n = \frac{(n+4)!}{[n^2 - (n-1)^2]^!}$ for $n > 1$ and $T_1 = 1$. Find the least value of 'n' such that product of the first 'n' terms of the series is less than 1. [n! is the product of the first 'n' natural numbers.]
 a. 7 b. 8 c. 9 d. 10
19. A wooden rod AB is 1 meter long. Raju makes a mark every 3 cm along the rod starting from the end A. Vikram makes a mark every 7 cm and Aditya every 9 cm both starting from the end B. If the rod is cut at each of the points where there is a mark, then how many pieces would it be cut into?
 a. 44 b. 52 c. 53 d. 54

20. ABCD is a quadrilateral in which AM and CN are perpendiculars drawn on to BD such that $DM : MB = 1 : 2$ and $BN : ND = 1 : 2$. If $AD = 4$ cm, $BC = 5$ cm and $MN = 2\sqrt{3}$ cm, find the area of ABCD.



- a. $3\sqrt{39}$ cm² b. 30.76 cm² c. 20.42 cm² d. 29.12 cm²
21. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** What is the area bounded by the two lines L and M and the coordinate axes in the first quadrant?
- A.** The lines L and M intersect at a point that also lies on both the lines, $3x - 4y = 1$ and $7x - 8y = 5$.
B. The lines L and M are perpendicular to each other.
22. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
 Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
 Mark (b) if the question can be answered by using either statement alone.
 Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
 Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** If the two trains started simultaneously, then what is the distance between the two stations X and Y?
- A.** Both the trains were travelling from Y to X. The train travelling at 60 kmph arrived at X 50 min before the train travelling at 50 kmph.
B. The trains were travelling in the opposite direction such that one is travelling from Y to X and the other from X to Y. The difference between speeds is 15 km/hr. They take 20 min and 30 min to reach their respective stations after they cross each other.
23. Given that $y = x \times [x]$ and 'y' is an integer such that $8 \leq y \leq 17$. The number of positive real values of 'x' is ([x] is the greatest integer less than or equal to 'x').
 a. 5 b. 4 c. 3 d. 2
24. A combo pack having a bulb and a tubelight costs Rs. 52. If the cost of the bulb drops by 20% and the cost of the tubelight escalates by 50%, the pack would cost Rs. 50. Find the cost of a tubelight.
 a. Rs.8 b. Rs.15 c. Rs.10 d. Rs.12

25. How many four-digit numbers with distinct digits are there such that the sum of the digits is even?
 a. 2376 b. 2256 c. 2208 d. 2152
26. P is a point inside a rectangle ABCD having dimensions $AB = 12$ cm and $BC = 8$ cm. If $PA:PB = 3:1$, then which of the following can never be the ratio of the lengths of line segments PC and PB?
 a. 2:5 b. 3:5 c. 7:2 d. 4:1
27. Given that $a^5 + b^5 + c^5 = 91849$, where a, b, and c are distinct digits. What is the remainder when a six-digit number $2a5b1c$ is divided by 11?
 a. 0 b. 6 c. 2 d. 1

DIRECTIONS for Questions 28 and 29: Answer the questions on the basis of the information given below.

Four people A, B, C, and D each have certain amount of money which all are integral multiples of a rupee. When A divided his amount among the remaining three (B, C, D) according to the ratio of amount they already had; their total amount was found to be Rs. 45, Rs. 60 and Rs. 75 respectively. At least one of (B, C, D) can also split his amount likewise on the condition that others get only integral multiples of a rupee.

28. Which of the following may be the amount possessed by A initially?
 a. Rs. 36 b. Rs. 72 c. Rs. 108 d. Either (a) or (b)
29. Who would be able to split his money in the same manner as A?
 a. B b. C c. B or D d. B or C
30. Himesh said to Reshamiya “My wife is six years older than your daughter who is one-sixth the age my great-grandfather lived upto, but your eldest son is eight years younger than your second wife.” Reshamiya said to Himesh “My second wife is eight-seventh times the age of your wife. My eldest son is one-sixth the age your great-grand father would have been today, had he not died six years ago.” Had he been still alive, what would have been Himesh’s great-grand father’s age at the time of the conversation?
 a. 84 years b. 90 years c. 96 years d. 102 years

SECTION - II

31. Four alternative summaries are given below the paragraph. Choose the option that best captures the essence of the paragraph.

Counterfeiting is big business, but China needs to protect an even bigger one: Future investment in its economy, both foreign and domestic. Always thinking ahead, Beijing's leaders want state-of-the-art investments from foreign companies to keep the country's economy powering forward. And though China seems to be getting its fair share of Western businesses willing to open research and development centers and build factories producing high-tech goods, rampant piracy rightly gives many potential investors pause. At the same time, a growing number of Chinese concerns are investing heavily in R&D in an effort to become global brands. The last thing they need is massive rip-offs from domestic counterfeiters. Foreign and Chinese investors alike should get together and step up the pressure on Beijing to forcefully crack down or risk damaging the nation's competitiveness.

- a. Although making fakes is a big business in Chinese economy it is likely to damage the country's future. The government needs to stop it so as to encourage more foreign investments and protect the Chinese concerns against domestic counterfeiters.
- b. Although making fakes is a big business in Chinese economy it is likely to damage the country's future. At the same time, the presence of powerful companies which produce fake goods is putting pressure on the government to discreetly encourage it.
- c. Chinese government is in a tough situation of trying to balance to the country's foreign exchange earnings with its brand image.
- d. The Chinese government is really interested in increasing investment in its economy.

32. Four alternative summaries are given below the paragraph. Choose the option that best captures the essence of the paragraph.

Modernity comes from *modo*, meaning "just now." Modernity is about novelty, the constant reworking of nature into concepts, making, or as we say, "creating," a "thingless perceptual after-world." One of these concepts is human equality, from which can come individualism—the goal of the American Constitution. The Constitution has "a large-minded liberality of governance" that sets limits so as to contain humans, but sets them widely so as to give them space. The "contrived newness" or "systematic production of novelty" characteristic of modernity elevates method over substance, and reason over nature. It works well for us in politics, in procedural democracy, which is "our political salvation," but it leaves us vulnerable to "eager beaver" intellectuals and academics who want to reform us.

- a. Modernity puts an emphasis on consistently redefining concepts. In the context of the American Constitution it makes sense in that this is appropriate in politics, but in other spheres it allows for unnecessary redefinitions.
- b. Modernity means reworking old concepts into new. This makes sense in the American Constitution but academics thereby get a reason to redefine the Constitution, which is uncalled for.
- c. Modernity is the means to an end but when the means become more important the ends become vague. This is the case with American politics where academics have spoiled the concept of "procedural democracy".
- d. The American constitution is based on the concepts of modernity. These concepts have been criticized by the intellectuals.

33. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from the given choices to construct a coherent paragraph.
- A. The style of government used by many of these city-states is generally regarded as “the forerunner, if not the direct ancestor, of the constitutional democracies of the contemporary West”.
 - B. Perhaps the most influential of the classical discussions of the nature of politics has been Aristotle’s book, *Politics*.
 - C. Indeed, as we have seen, the word “politics” is itself closely related to the Greek word for these city-states, *polis*.
 - D. Modern political systems have their roots, to a large extent, in the ancient Greek “city-states”.
- a. ABCD b. DCBA c. ADBC d. DACB
34. The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from the given choices to construct a coherent paragraph.
- A. Truth was an automatic hereditary property of theoremhood.
 - B. Mathematical statements in such systems are patterns made up of arbitrary symbols.
 - C. The beauty of a mechanistic vision of mathematics was that it eliminated all need for thought or judgement.
 - D. As long as the axioms were true statements falsehoods simply could never creep in.
- a. ACDB b. CDAB c. BCAD d. DABC

DIRECTIONS for Questions 35 to 37: Read the passage given below and answer the questions that follow.

There is common agreement that the rapid development of digital technology means that our mediascape will be almost unrecognizable in the near future. This commonness is what rhetoricians call a common place (common and community) that establishes a particular path for an argument about the future of journalism.

Newspapers have been hit by a ‘perfect storm’ of threats surrounding their business models, including: declining print circulation (particularly among young people); the shift of classified advertising to the Internet; the rise of low-cost alternative online news outlets; the rise of citizen journalism, blogging and self-publishing; and fundamental shifts in user behaviour toward accessing news content. In countries such as the United States and Britain, this has led to leading newspapers either going bankrupt or online-only, and threatens to bring down even flagship publications such as the New York Times.

However, there is limited evidence in Australia of a fundamental shift away from mass media such as television and radio. Rather, what appears to have primarily occurred is a substitution effect between print media (newspapers and magazines) and the Internet. Secondly, the decline in newspaper circulation has not been as sharp in Australia as in the United States. Crikey, On Line Opinion and New Matilda attract only about 5-10% of the readership of online sites such as theaustralian.com.au.

Let’s be clear that the core problem is that advertisers—not readers—are deserting newspapers. And it is advertisers, not readers, who have always paid the expensive cost of newspaper journalism.

Before I make an argument some philosophical points need to be made about the terms ‘blueprints’ ,‘progress’ and ‘media’ used in the title of the forum—The Future of Journalism: Blueprint for Progress. These presuppose a certain mode of knowledge/power that underpins traditional journalism.

The process of change in the mediascape is such that there can be no blueprint. We just don't know with certainty. Those who say they have one do so on the basis of ignorance and are more than likely to be engaged in deception than enlightenment. How many economists had any sense of the global financial crisis or the extent of its fallout? Their blueprint consisted of them all endlessly spinning about the eternal mining boom that would deliver utopia. Instead of 'blue print' we should use 'threshold' with a map. We stand on a threshold and we can make educated guesses.

"progress" is two edged not a linear path to the future akin to a yellow brick road. Some things will improve or develop whilst others will deteriorate or die. Consider the effects of the Snowy Mountains Hydro Scheme and the emergence of irrigated agriculture on the ecology of the Murray-Darling river system. Or, if that is not persuasive, consider the powering of capitalism's growth engine with cheap black and brown coal. This enabled Australia to have a competitive advantage. It has given rise to a global heating now weaving a swathe of destruction through irrigated agriculture whilst drying out our landscape.

This implies a regime of knowledge that is universal, knowledge of truth is rock solid certain, accurate knowledge is an instrument for control and mastery. The role of the intellectual/journalist is privileged as a legislator articulating universal and necessary truths. Its a form of knowledge/power that underpins the traditional 'gatekeeping' models of journalism, where the process of news gathering is highly centralized and controlled, authority is exclusively held by credentialed professional journalists, and public input is restricted to token measures such as the Letters to the Editor page.

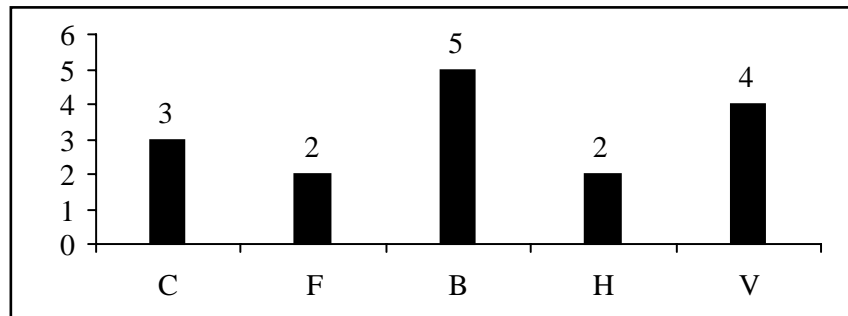
35. By the reference to commonness, the rhetoricians are trying to imply
- an understanding that would revolutionize the media in the future.
 - a meeting ground for people who are not in favour with digital technology.
 - a common view which creates a need to think and argue about the future of journalism.
 - a common understanding which makes it clear that the future of journalism is bleak.
36. Which of the following does not represent the future scenario of journalism as advocated by the author?
- The journalist who has accurate knowledge of truth will stand to gain.
 - The knowledge of truth that a journalist possesses will make the traditional modes of journalism redundant.
 - A journalist taking on the responsibilities of a legislator and also articulating universal and necessary truths.
 - None of the above.
37. The primary purpose of the author in the passage is to
- clarify the background before he makes a particular argument about the future of journalism in the changing mediascape.
 - give examples to support the fact that universal knowledge and universal truth will be the pillars of future journalism.
 - assert that digital technology is creating change in the mediascape and that journalists have to be prepared for the same.
 - attack traditional journalism and point out its inability to adjust to the changing mediascape.

DIRECTIONS for Questions 38 to 40: Answer the questions on the basis of the information given below.

Each of the six siblings namely Azhar, Atif, Aslam, Aaqib, Armaan and Ahmad are asked to choose three sports out of six different sports namely Cricket, Football, Hockey, Basketball, Swimming and Volleyball. The number of siblings who chose Cricket, Football, Hockey, Basketball, Swimming and Volleyball are denoted by C, F, H, B, S and V respectively. The following bar – graph gives the values of C, F, H, B and V.

Additional Information Given

- I. Atif has chosen exactly one sport, which Armaan did not choose.
- II. There are exactly two sports that have been chosen by Azhar as well as Aslam and there are exactly three sports that have not been chosen by Aslam as well as Ahmad.
- III. Ahmad chose Cricket and Swimming and Armaan did not choose Basketball.



38. Which of the following sports is definitely chosen by Azhar?
a. Swimming b. Cricket c. Basketball d. Both (b) and (c)
39. For how many siblings, the three sports chosen by them can be uniquely determined?
a. Six b. Two c. Four d. Three
40. Which of the following two siblings played Hockey?
a. Armaan and Aaqib b. Aaqib and Atif
c. Atif and Armaan d. Cannot be determined

DIRECTIONS for Questions 41 to 43: Read the passage given below and answer the questions that follow.

Skepticism quite properly forbids us to speculate beyond the content of our present experience and memory, yet we find it entirely natural to believe much more than that. Hume held that these unjustifiable beliefs can be explained by reference to custom or habit. That's how we learn from experience. When I observe the constant conjunction of events in my experience, I grow accustomed to associating them with each other.

Although many past cases of sunrise do not guarantee the future of nature, my experience of them does get me used to the idea and produces in me an expectation that the sun will rise again tomorrow. I cannot prove that it will, but I feel that it must.

Remember that the association of ideas is a powerful natural process in which separate ideas come to be joined together in the mind. Of course they can be associated with each other by rational means, as they are in the relations of ideas that constitute mathematical knowledge. But even where this is possible, Hume argued, reason is a slow and inefficient guide, while the habits acquired by much repetition can produce a powerful conviction independently of reason. Although the truth of " $9 \times 12 = 108$ " can be established rationally in

principle, most of us actually learned it by reciting our multiplication tables. In fact, what we call relative probability is, on Hume's view, nothing more than a measure of the strength of conviction produced in us by our experience of regularity.

Our beliefs in matters of fact, then, arise from sentiment or feeling rather than from reason. For Hume, imagination and belief differ only in the degree of conviction with which their objects are anticipated. Although this positive answer may seem disappointing, Hume maintained that custom or habit is the great guide of life and the foundation of all natural science.

According to Hume, our belief that events are causally related is a custom or habit acquired by experience: having observed the regularity with which events of particular sorts occur together, we form the association of ideas that produces the habit of expecting the effect whenever we experience the cause. But something is missing from this account: we also believe that the cause somehow produces the effect. Even if this belief is unjustifiable, Hume must offer some explanation for the fact that we do hold it. His technique was to search for the original impression from which our idea of the necessary connection between cause and effect is copied. The idea does not arise from our objective experience of the events themselves. All we observe is that events of the "cause" type occur nearby and shortly before events of the "effect" type, and that this recurs with a regularity that can be described as a "constant conjunction." Although this pattern of experience does encourage the formation of our habit of expecting the effect to follow the cause, it includes no impression of a necessary connection.

Nor do we acquire this impression (as Locke had supposed) from our own capacity for voluntary motion. Here the objective element of constant conjunction is rarely experienced, since the actions of our minds and bodies do not invariably submit to our voluntary control. And even if volition did always produce the intended movement, Hume argued, that would yield no notion of the connection between them. So there is no impression of causal power here, either.

Still, we do have the idea of a necessary connection, and it must come from somewhere. For a (non-justificatory) explanation, Hume refers us back to the formation of a custom or habit. Our (non-rational) expectation that the effect will follow the cause is accompanied by a strong feeling of conviction, and it is the impression of this feeling that is copied by our concept of a necessary connection between cause and effect. The force of causal necessity is just the strength of our sentiment in anticipating efficacious outcomes.

41. According to Hume, the linking of an effect to a cause is based on all of the following except
- a. our rational thinking.
 - b. our sentiment.
 - c. our feeling of conviction.
 - d. the initial impression that we carry.
42. What is the primary purpose of the passage?
- a. To highlight Hume's theory of the predominance of custom or habit over reason in shaping beliefs and ideas.
 - b. To differentiate between the role played by custom and habits in beliefs and imagination.
 - c. To show the role of the constant conjunction in the formation of ideas about cause and effect relations.
 - d. To discuss Hume's theory regarding objective and subjective experience.
43. Hume would agree with which of the following statements?
- a. Association of ideas produces habit.
 - b. Ideas cannot be associated by rational means.
 - c. A cause cannot produce an effect.
 - d. Expectation of something leads to its experience.

44. Given below are four sentences on a topic. These sentences when read together constitute a paragraph. Some sentences are grammatically incorrect or inappropriate. Select the option that indicates the grammatically incorrect and inappropriate sentence(s).
- A. A team of NASA scientists, along with their Indian and Nepalese aides, is set to leave for the Everest base camp to carry out experiments on “sleeping and waking movements” for future space programmes.
 - B. The team of 25 scientists from NASA, who arrived in Kathmandu on Saturday on a research mission, includes doctors, pilots and scientists.
 - C. Besides the American scientists there are also six Indian and 11 Nepalese aides in the team.
 - D. “Quality sleep is crucial to daytime alertness and performance on critical tasks, and can also impact long-term health,” said Steve Vander Ark.
- a. A and C b. Only B c. Only D d. None of the above
45. Given below are four sentences on a topic. These sentences when read together constitute a paragraph. Some sentences are grammatically incorrect or inappropriate. Select the option that indicates the grammatically incorrect and inappropriate sentence(s).
- A. Every few months there are upgraded versions of the appliances that we own.
 - B. And, as people get tech-savvy, the demands for gadgets just keeps increasing.
 - C. By the end of the year India should achieve a PC penetration of 65 per 1,000.
 - D. While that in itself is a good statistic, we also have two million old PCs ready for disposal.
- a. A, C and D b. A and D c. B and C d. Only A
46. Given below are four sentences on a topic. These sentences when read together constitute a paragraph. Some sentences are grammatically incorrect or inappropriate. Select the option that indicates the grammatically incorrect and inappropriate sentence(s).
- A. FIFA, soccer’s world governing body, is branching into fashion, announcing plans on Sunday to sell branded clothes and merchandise from this summer through new FIFA stores and retail partners.
 - B. The Federation Internationale de Football Association (FIFA) says it would initially launch five collections.
 - C. It will also introduce an event range for the 2010 FIFA World Cup in South Africa.
 - D. FIFA said it had signed a license agreement with a brand management and licensing company, which is working with designers and signing up distributors.
- a. Only A b. Only B c. Only C d. None of the above

DIRECTIONS for Questions 47 to 49: Answer the questions on the basis of the information given below.

Six persons P, Q, R, S, T and U play in a tournament called “High Rollers”. Every game involved two players. Each of the participants played with every other participant exactly once. In the game both the players rolled an unbiased die each. The player who gets the larger number on the top surface of the die wins the game. Every game resulted in a win/loss. The player who wins, gets as many coins as the number on the top surface of his die. The total number of games won by each person is distinct.

Further it is known that:

1. Q won his game against P.
2. R won the maximum number of coins, more than any one else.
3. U lost only two games, one against S and the other against R.
4. T did not lose more than three games.

47. How many games did Q win ?
a. 1 b. 2 c. 3 d. Either (a) or (b)
48. Which of the following statements is necessarily true?
a. T won 5 games b. R won 5 games c. S won 5 games d. None of these
49. R won 11 coins. He lost one game. If the total number of coins won by the different players in the tournament is 47, then the number of coins won by T is
a. 11 b. 4 c. 10 d. 5

DIRECTIONS for Questions 50 to 52: Read the passage given below and answer the questions that follow.

“Our Revolutionary Parson.” What was he like? Backward over the years we send him a grateful thought, remembering that he had no mean share in establishing America’s freedom and independence, blessings that might have long been delayed, but for his timely aid and influence, and we believe when the war was over he was in harmony with the jubilant company who rejoiced that their enemy, obstinate old King George, was conquered.

A description of the Rev. Eliphalet Williams, pastor of the church in East Hartford from 1748 to 1801- a period which covered all the Revolution and years before and after—may serve as a type of the personal appearance of the Revolutionary parson. “He wore the old-time minister’s dress, which consisted of a black straight-buttoned waistcoat, with the ends of its broad white bands showing on his chest, long black stockings and knee breeches, with shoe and knee buckles; a big white wig, so large that a child once called it a lamb, covered his head. On the top of all this he wore a large, stiff, broad-brimmed hat. He had a high sense of the dignity and sanctity of his office. To him the clergy were as ‘Lords over the heritage of God.’ “He was not, by nature, tolerant. He was never cordially loved; and no doubt he did call some of the wood his parishioners were obliged to bring him “crooked stuff,” and “had the making of all the letters of the alphabet in it.” Upon which remark, the owner drove promptly home, and left none of the wood. He clung to his dark views of what in the unlovely phraseology of that day was known as “Infant Damnation,” until many mothers withdrew from his preaching.

The minister’s position was well expressed by the word Parson. (The par-son with a capital). This was very august. He had the complete monopoly of all the material of the intellectual and spiritual life of the people, with no competition.

”The requirements were many and varied. He must be as full of facts as an encyclopedia, and full of the knowledge of human nature; interesting as a play; close to life as a newspaper. He must have the style of Ruskin, the eloquence of Carlyle, the prophet-tone of Emerson and the imagination of Shakespeare. To say nothing of calling on everyone, before he called on any-one else. A kind of miniature omnipresence.”

50. According to the passage, the revolutionary parson
a. had a backward orientation.
b. supported the revolution in spite of his backward orientation.
c. passively supported the revolution.
d. played an important part in the revolution.

51. From the passage, which of the following can be accurately inferred about the Parson?
- a. The Parson had a strange contradiction of being revolutionary in outlook yet traditional in his rejection of infant procreation.
 - b. The Parson had no doubts that he and the members of the clergy were Gods and even superior to ministers and kings.
 - c. He wanted the people to regard him as omnipresent and a person possessing the best qualities of various famous people.
 - d. None of the above.
52. The statement, “To say nothing of calling on everyone, before he called on any-one else” most probably means:
- a. to visit people without informing them before informing people whom one would visit.
 - b. to be completely thorough on everything before one starts to guide others.
 - c. to have a commanding presence before one starts to preach.
 - d. to imbibe the qualities of great people before one starts to preach.
53. Given below is a paragraph with one italicized word that does not make sense. Choose the most appropriate replacement for that word from the options given below the paragraph.

It remains a matter of uncertainty how far governments are prepared to concede that democracy and human rights are indivisible from the culture of peace and therefore essential to sustained development. There is ample evidence that culture and development can actually be made to serve as *gjivilk* for resisting calls for democracy and human rights.

- a. formulae b. pretexts c. rules d. canons

54. Given below is a paragraph with one italicized word that does not make sense. Choose the most appropriate replacement for that word from the options given below the paragraph.

Instantly recognizable, like Charlie Chaplin’s Little Tramp, Albert Einstein’s shaggy-haired visage was as familiar to ordinary people as to the matrons who fluttered about him in salons from Berlin to Hollywood. Yet he was *hijjkl* profound — the genius among geniuses who discovered, merely by thinking about it, that the universe was not as it seemed.

- a. comprehensibly b. understandably c. visibly d. unfathomably

55. Given below is a paragraph from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

Adaptation, the process by which one thing develops into another thing, by which one shape or form changes into a different form, is a commonplace artistic activity. Books are turned into plays and films all the time, plays are turned into movies and also sometimes into musicals, movies are turned into Broadway shows and even, by the ugly method known as “novelisation”, into books as well. We live in a world of such transformations and metamorphoses. _____

- a. Ricky Gervais turns into Steve Carell, just as, long ago, the British working-class racist Alf Garnett in ‘Till Death Us Do Part’ turned into the American blue-collar bigot Archie Bunker in ‘All In the Family’.
- b. British TV comedy series are turned into American TV comedy series, so that ‘The Office’ becomes a different ‘The Office’.
- c. British reality programmes are adapted to suit American audiences as well; ‘Pop Idol’ becomes ‘American Idol’ when it crosses the Atlantic.
- d. Good movies - ‘Lolita’, ‘The Pink Panther’ - are remade as bad movies; bad movies - ‘The Incredible Hulk’, ‘Deep Throat’ - are remade as even worse movies.

56. There are two blanks in the following sentence. From the pairs of words given, choose the one that fills the blanks most appropriately. The first word in the pair should fill the first blank.

The metaphor of a light in one's heart, therefore, represents a rejection of the _____ dichotomy between reason and emotion; all the more so since it is a candle of understanding in one's heart, for a candle _____ both light and heat.

- | | |
|-----------------------|-----------------------|
| a. growing, bars | b. pressing, brews |
| c. putative, emanates | d. subsiding, rebukes |

DIRECTIONS for Questions 57 to 59: Answer the questions on the basis of the information given below.

Indian Railways has started seven new summer special trains which originate from seven different stations, viz. Agra, Bandra, Chambal, Daund, Egmore, Fatehpur, and Gandhinagar. All the trains terminate at either of the two stations viz. New Delhi (ND) or Hazrat Nizamuddin (HN). Each of these seven trains runs via only one of the three intermediate stations viz. Kanpur, Lucknow, and Varanasi. The train originating from Chambal terminates at Hazrat Nizamuddin. The trains originating from Daund and Egmore terminate at different stations. The number of trains terminating at New Delhi is more than the number of trains terminating at Hazrat Nizamuddin, and the number of trains running via Kanpur is twice the number of trains running via Lucknow. The trains originating from Agra and Fatehpur terminate at the same station. The only train running via Varanasi originates from Egmore. All the trains that run via either Varanasi or Lucknow terminate at Hazrat Nizamuddin.

57. Out of the following, which were definitely the originating stations of the trains that terminated at the Hazrat Nizamuddin station?
- Chambal, Daund and Gandhinagar.
 - Chambal, Bandra, and Egmore.
 - Chambal, Egmore, and Gandhinagar.
 - None of the above.

58. Given below are two statements made on the basis of the information provided. Choose the best option that follows.

Statement I: The train originating from Gandhinagar runs via Lucknow.

Statement II: The train originating from Bandra terminates at Hazrat Nizamuddin.

- Both the statements I and II are definitely true.
 - Statement I is true but statement II is false.
 - One of the two statements I and II is true.
 - None of the above.
59. Due to heavy rush half of the trains terminating at the New Delhi station will now terminate at the SDA station. If the train originating from Bandra terminates at New Delhi, then which of the following statements is definitely false?
- The train originating from Gandhinagar terminates at SDA.
 - The train originating from Daund terminates at SDA.
 - The train originating from Agra runs via Lucknow.
 - More than one of the above.

60. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:
Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.
Mark (b) if the question can be answered by using either statement alone.
Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.
Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** There are five vendors A, B, C, D, and E in a row. Which vendor is exactly in the middle?
- A.** A is to the right of B. B is to the immediate right of D.
B. E is to the right of D, who is on one corner.