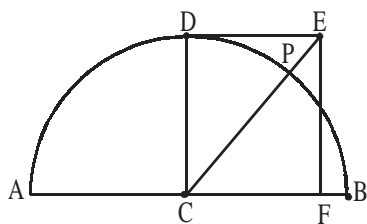


SECTION - I

1. The value of A is given by the square of the volume of a sphere drawn by taking the longest diagonal of a cube as the diameter of the sphere. The value of B is taken as the cube of the sum of the areas of all the circles of maximum radius that can be enclosed inside each of the faces of the above cube. Find $\frac{A}{B}$.
- (a) $\frac{2}{9\pi}$ (b) $\frac{4}{9\pi}$ (c) $\frac{3}{16\pi}$ (d) $\frac{4\sqrt{3}}{27\pi}$
2. Given that w, x, y and z are natural numbers such that $4w = xyz$, $4x = wyz$ and $4z = wxy$. Which of the following is a possible value of $(w + x + y - z)^2$?
- (a) 25 (b) 9 (c) 36 (d) 1
3. P is a group of four numbers 1, 2, 3 and 1. In every step, 1 is added to any two numbers in group P. In how many such steps is it possible to make all the four numbers in group P equal?
- (a) 3 (b) 5 (c) 7 (d) Not possible
4. Given that $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{1}{x+y+z}$. Then what is the value of k, if $(x + y)(y + z)(z + x) = kxyz$?
- (a) 0 (b) 1 (c) 3 (d) 8
5. A large solid sphere is melted and moulded to form identical right circular cones with base radius and height same as the radius of the sphere. One of these cones is melted and moulded to form a smaller solid sphere. What is the ratio of the surface area of the smaller sphere to the surface area of the larger sphere?
- (a) $1:3^{\frac{4}{3}}$ (b) $1:2^{\frac{3}{2}}$ (c) $1:3^{\frac{3}{2}}$ (d) $1:2^{\frac{4}{3}}$
6. Beaker A and beaker B contain methanol, ethanol and phenyl in the ratio 1:3:2 and 2:1:5 respectively. Some parts of the solutions from beaker A and beaker B are thoroughly mixed and put into another beaker C. Which of the following cannot be the ratio of methanol, phenyl and ethanol in beaker C?
- (a) 10:23:15 (b) 7:15:16 (c) 6:13:13 (d) 9:20:18
7. Pipes A and B can completely fill a water tank independently in 4 hrs and 5 hrs respectively. A pipe C can empty the tank filled completely with water in 3 hrs. Initially the tank is empty and all the pipes are closed. Pipe A is opened first at time $t = 0$ hrs and pipe C is opened at the instant when the tank is exactly half filled with water. Pipe B is opened after pipe C and at the instant when the tank is exactly one-fourth filled with water. Find the total time taken to fill the tank completely counting from $t = 0$ hrs.
- (a) $11\frac{3}{7}$ hrs (b) 11 hrs (c) $13\frac{3}{7}$ hrs (d) 13 hrs

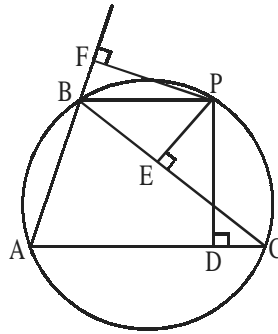
8. Let S be the sum of an arithmetic series. The arithmetic mean of every two consecutive terms and every three consecutive terms of S form the consecutive terms of series S_1 and S_2 respectively. If the sum of all the terms in series S_1 and in series S_2 are 1375 and 690 respectively, then find the sum of all the terms in series S .
 (a) 1960 (b) 2580 (c) 2060 (d) Cannot be determined.
9. Sumit committed a mistake in finding the LCM of three distinct positive integers greater than 1 namely A , B and C , and found it to be 840, which is a common multiple of A , B and C all, but is not the lowest. The HCF of A , B and C is 1. Find the maximum possible value of $A + B + C$.
 (a) 631 (b) 613 (c) 563 (d) 257
10. A triangle ABC has 2 points marked on side BC , 5 points marked on side CA and 3 points marked on side AB . None of these marked points is coincident with the vertices of the triangle ABC . All possible triangles are constructed taking any three of these points and the points A , B , C as the vertices. How many new triangles have at least one vertex common with the triangle ABC ?
 (a) 256 (b) 127 (c) 207 (d) 128
11. A semicircle with center at C and radius equal to 4 units is drawn with AB as the diameter as shown in the figure given below. $CDEF$ is a rectangle such that the ratio of area of the semicircle to the area of the rectangle is $2\pi:3$. CE cuts the semicircle at P . Find the length of the line segment PB .



- (a) $\frac{8}{5}\sqrt{5}$ units (b) $\frac{5}{3}\sqrt{5}$ units (c) $\frac{17}{9}\sqrt{5}$ units (d) $\frac{9}{5}\sqrt{5}$ units
12. The value of $(222)_X$ in base ' X ' when converted to base 10 is ' P '. The value of $(222)_Y$ in base ' Y ' when converted to base 10 is Q . If $(P - Q)_{10} = 28$, then what is the value of $(Q - X)_{10}$?
 (a) 10 (b) 92 (c) 79 (d) Cannot be determined
13. $f(x) = \log x$ for any real number $x > 0$ and

$$g(n) = \begin{cases} n; & \text{if } n \text{ is even.} \\ \frac{1}{n}; & \text{if } n \text{ is odd.} \end{cases} \quad \text{for any natural number } n.$$
 If ' x ' is a natural number greater than 1 then what is the value of $f(f(x^{g(10)})) - f(f(x^{g(9)})) + f(f(x^{g(8)})) - \dots - f(f(x^{g(1)}))$?
 (a) $\log 10$ (b) $\log (10!)$ (c) $\log \frac{256}{63}$ (d) None of these

14. In the given figure, P is a point on the circumcircle of $\triangle ABC$. From P, perpendiculars PD, PE and PF are drawn on the sides AC, BC and AB respectively. If $\angle BPF = 30^\circ$, then find the measure of $\angle DPC$.



- (a) 30° (b) 60° (c) 20° (d) 50°

DIRECTIONS for Questions 15 and 16: Answer the questions on the basis of the information given below. Sonal and Deepali started swimming towards each other simultaneously from points A and B respectively situated at two ends of a 96 km long stretch of a river. Destinations of Deepali and Sonal were points A and B respectively. Both of them could swim at 12 kmph in still water. When they started, it was high tide and Sonal swam against the stream. As soon as they met, the tide changed to 'low tide' and then Deepali faced the resistance of the stream. Deepali and Sonal took 7 hr 12 min and 8 hr $34\frac{2}{7}$ min to reach their destinations respectively. [Speed of the stream during high and low tide need not necessarily be the same.]

15. Find the speed of the stream during low tide.
 (a) 1 kmph (b) 4 kmph (c) 2 kmph (d) Cannot be determined
16. If they had continued to swim back to their respective starting points after reaching their destinations, then where would they have met during the return journey? [Assume tide changed only once, immediately after their first meeting.]
 (a) 32 km from A
 (b) 32 km from B
 (c) 72 km from A
 (d) 60 km from B

DIRECTIONS for Questions 17 and 18: Answer the questions on the basis of the information given below. Half of a class of 200 students enrolled for exactly one of the three activities swimming, skating and dancing. Total enrollments were 80 in swimming, 75 in skating and 60 in dancing from the class. Number of students who enrolled for skating and swimming only was 10 more than the number of students who enrolled for skating and dancing only.

17. Find the minimum possible number of students who enrolled for at least one of the three activities.
 (a) 142 (b) 143 (c) 144 (d) 141
18. Find the maximum possible number of students who enrolled for exactly 2 activities?
 (a) 57 (b) 56 (c) 55 (d) 54

19. In a pack of 52 cards there are four suits (Club, Heart, Spade, Diamond), each having 13 cards of different denominations. Out of the 52 cards, there are 12 face-cards, 3 from each suit. From the pack, all face-cards are removed and four cards are drawn at random one by one without replacement. Find the probability that they are of the same suit.
- (a) $\frac{9 \times 8 \times 7}{10^4}$ (b) $\frac{9 \times 8 \times 7}{10^3}$ (c) $\frac{10 \times 9 \times 8 \times 7}{{}^{40}C_4}$ (d) $\frac{3 \times 4 \times 7}{13 \times 19 \times 37}$
20. How many ordered pairs (P, Q) are there such that the unit's digits of P^P and Q^Q are the same? P and Q are natural numbers less than 10 and are not necessarily distinct.
- (a) 12 (b) 15 (c) 10 (d) 14

SECTION - II

DIRECTIONS for Questions 21 to 25: Answer the questions on the basis of the information given below: Sixteen football teams: France, Brazil, Portugal, England, Ukraine, Italy, Argentina, Germany, Bolivia, Chile, Ecuador, Costa Rica, Jamaica, Japan, Poland and Netherlands are divided into two groups, X and Y of 8 teams each. Each team has to play exactly one match against a team belonging to the other group. Matches are positioned from first to eighth in the order in which they are played (the first match happening before the second match and so on) and two teams participate in a match. Further,

- I. France, Germany and Costa Rica are in the same group. Also, Jamaica, Chile and Ukraine are in the same group.
 - II. Netherlands is in group Y and it plays against Italy.
 - III. Sixth match is played between Jamaica and Portugal and eighth match is played between Germany and Chile. Germany belongs to group X.
 - IV. England is in the group which does not have Portugal, Ecuador or Poland. Also, group having Argentina does not have Brazil, Japan or Bolivia.
 - V. Brazil plays its match just after Bolivia but before Netherlands.
 - VI. Argentina and Ecuador are in the same group and they play first and second match respectively.
 - VII. The match in which Costa Rica plays is neither first nor third nor fifth nor seventh.
21. Which of the following gives a complete list of the teams belonging to group X?
(a) France, Portugal, Italy, Argentina, Germany, Ecuador, Costa Rica and Poland
(b) France, Brazil, England, Italy, Germany, Bolivia, Costa Rica and Poland
(c) Brazil, England, Ukraine, Bolivia, Chile, Jamaica, Japan and Poland
(d) Data insufficient
22. If England plays the first match and Italy plays the fifth match, then Brazil can play against which of the following teams?
(a) France or Poland only
(b) Costa Rica or Ecuador only
(c) Poland or France or Costa Rica only
(d) Poland or France or Costa Rica or Ecuador

Additional Information for questions 23 to 25:

France plays against Bolivia.

23. How many different teams can possibly be the one playing against Poland?
(a) 2 (b) 3 (c) 4 (d) 5
24. Against which team does England play?
(a) Poland (b) Argentina
(c) Ecuador (d) Either (a) or (b) or (c)

25. Which of the following is DEFINITELY true?
- Brazil plays against Costa Rica
 - Netherlands can play at three positions out of eight positions from first to eighth.
 - Costa Rica and Jamaica are in the same group.
 - Both (a) and (b)

DIRECTIONS for Questions 26 to 30: Answer the questions on the basis of the information given below. Devendra has 15 different locks L1 through L15. The locks are classified into three categories based upon their number of levers. L1, L15, L13 and L4 are of 8 levers each. L6, L2, L7, L9 and L14 are of 6 levers each and the remaining locks are of 10 levers each. He selects five out of these fifteen locks on each of the eight consecutive days viz. Day 1, Day 2, Day 3, Day 4, Day 5, Day 6, Day 7 and Day 8. On each day he tries to unlock the selected locks but is successful in unlocking only one of the selected locks. If he unlocks a lock on a particular day, that lock is not selected by him on the subsequent days. It is also known that out of the locks unlocked by him, the number of locks of 6 levers is less than the number of locks of 8 levers. The following table gives details about the locks selected by him on each of the given eight days.

Day 1	L1	L7	L8	L4	L11
Day 2	L3	L15	L14	L12	L8
Day 3	L2	L7	L15	L9	L10
Day 4	L15	L13	L10	L3	L6
Day 5	L2	L15	L9	L10	L5
Day 6	L13	L6	L1	L8	L10
Day 7	L14	L11	L8	L2	L13
Day 8	L5	L6	L10	L14	L11

26. For how many days is it possible to uniquely determine which lock is unlocked by Devendra?
- Three
 - Four
 - Five
 - Six
27. If Devendra wants the aggregate number of levers of all the locks that he unlocks in these 8 days to be the minimum then the number of levers of the lock unlocked on day 7 is
- 6
 - 8
 - 10
 - Either (a) or (b)

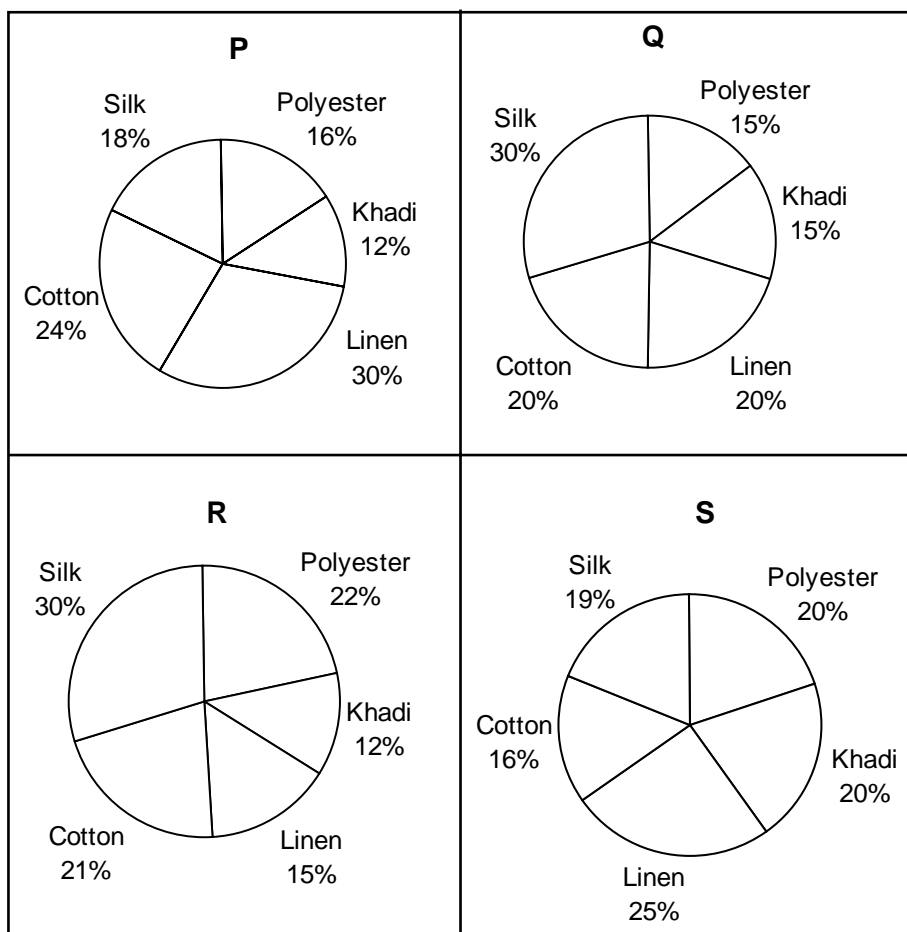
Additional Information for questions 28 to 30:

After Day 8 Devendra finds that the aggregate number of levers of all the locks that he has unlocked is more than 64 but not more than 68.

28. Which of the following locks is definitely unlocked by Devendra?
- L15
 - L13
 - L10
 - Cannot be determined
29. If L9 is not unlocked and L8 is unlocked by Devendra, then which of the following can be a lock that is unlocked by him?
- L14
 - L5
 - L11
 - L2

30. If out of the locks unlocked by him, the number of locks of 10 levers is less than the number of locks of 8 levers, which is the lock unlocked on Day 7?
 (a) L8 (b) L13 (c) L2 (d) Cannot be uniquely determined

DIRECTIONS for Questions 31 to 35: Answer the questions on the basis of the information given below. There are only four companies viz. P, Q, R and S that manufacture shirts in the market. The shirts manufactured by these companies are made of one or the other of the five types of cloth viz. Silk, Cotton, Linen, Khadi and Polyester. The following pie-charts provide information about the number of shirts of each of the types of cloth manufactured by the company as a percentage of the total number of shirts manufactured by that company.



The following table provides information about the number of Linen shirts manufactured by each of the companies as a percentage of the total number of Linen shirts manufactured by all the companies.

P	Q	R	S
25.00%	25.00%	20.00%	30.00%

31. For which of the companies, the total number of shirts manufactured by it is the second largest among these companies?
 (a) P (b) Q (c) R (d) S

32. What is the minimum possible number of shirts that should have been manufactured by all the companies combined such that for each company, the number of shirts of each of the types of cloth manufactured by it is an integer?
(a) 6925 (b) 5540 (c) 27700 (d) Cannot be determined
33. Each of the two companies Q and S sell each shirt manufactured by them at Rs.10 above their cost price. If the difference between the profit generated by both the companies is Rs.15000, then what is the difference between the number of Polyester shirts manufactured by the companies P and R? (Assume that all the shirts that are manufactured are sold).
(a) 4800 (b) 1500 (c) 3000 (d) Cannot be determined
34. What is the ratio of the profit generated by the company R by selling all the Cotton shirts to the profit generated by selling all the Khadi shirts manufactured by it?
(Given that the ratio of the profit generated on a sale of one Khadi shirt to the sale of one Cotton shirt by the company R is 3:4).
(a) 3:7 (b) 4:3 (c) 21:16 (d) None of these
35. Which of the following statement(s) (is/are) true?
I. The number of Cotton shirts manufactured by Q is equal to the number of Polyester shirts manufactured by S.
II. The number of Linen shirts manufactured by P is equal to the number of Cotton shirts manufactured by Q.
III. Total number of Cotton shirts manufactured by all the companies is 10% less than the total number of Linen shirts manufactured by the all companies.
(a) I only (b) II only (c) III only (d) II and III

SECTION - III

DIRECTIONS for Questions 36 to 44: Read the passages given below and answer the questions that follow.

PASSAGE - 1

Rich consumers are still voraciously gobbling up the world's resources, despite the worst recession in a generation, with their appetite pushing the planet into "ecological debt" from today, according to a report by think-tank the new economics foundation (nef). This "ecological debt day" marks the point in the year when consumption around the world exceeds the Earth's annual "biocapacity" — so for the remainder of the year, we will be eating into environmental resources that will not be replaced, according to nef's calculations.

Andrew Simms, nef's director, said the deep recession had delayed this "ecological debt day" by only 24 hours compared with last year, when it fell on 24 September. He warned that as G20 leaders gather in Pittsburgh to discuss global finance, there is a risk that the world economy will be kick-started again, without learning the lessons of the "consumption explosion".

"Debt-fuelled over-consumption not only brought the financial system to the edge of collapse, it is pushing many of our natural life support systems toward a precipice. Politicians tell us to get back to business as usual, but if we bankrupt critical ecosystems no amount of government spending will bring them back," he said. In the UK, nef warns of increasing dependence on overseas energy, declining self-sufficiency in food, and the proliferation of "boomerang trade" — sending goods to foreign markets and receiving almost identical items back.

The research also underlines the yawning gap between the energy consumption of the world's poorest people, and the rich. Just 7% of the global population produces 50% of greenhouse gas emissions. A typical American will by 4am on January 2 have produced as many emissions as a Tanzanian generates in a year.

Nef argues that while the arrival of reliable electricity and other energy resources could bring enormous improvements in life expectancy and quality of life in developing countries, when consumption increases above a certain level, it will stop improving people's health or happiness.

Beyond this point, they say, "to increase human well-being, the focus should shift away from a quantitative focus on income and consumption, towards more qualitative improvements in the human environment to do with culture, civic, community and family life, long-term learning and those other dimensions that contribute to relatively long and happy lives."

The analysis suggests many countries have passed far beyond saturation point, into wasteful "overconsumption".

In the past 50 years, the report argues, people in the rich world have changed their lifestyles radically, and "in doing so, we have generally assumed that the resources and energy these activities rely on are limitless and cheap." In the 1970s, the average household in the UK had 17 domestic appliances, for example - but that had almost trebled, to 47, by 2006, and is expected to continue rising. Yet in fact, consumption has begun to gnaw away at natural resources at a rate which cannot be sustained.

36. Which of the following statements cannot be inferred from the passage?
- (a) It is quite likely that post financial recession, nations will continue to consume resources at the same or higher rate.
 - (b) Energy consumption per person in developing countries is much lower in comparison to that of developed countries.
 - (c) Finance may fuel economies but it most definitely cannot conserve natural ecosystems.
 - (d) Over consumption of resources by a very little percentage of the global population is putting the entire world into ecological debt.
37. The report refers to 'wasteful over-consumption' in order to show that:
- (a) certain nations have reached a point of no return.
 - (b) the habit of consuming resources at a high rate is common throughout nations.
 - (c) unrestrained use of natural resources is unsustainable.
 - (d) 'over-consumption' is bound to lead nations to 'wasteful over-consumption.'
38. Why does the author urge to shift the focus to qualitative improvements?
- (a) Because it is not impossible to sustain the present lifestyles of human beings
 - (b) Because it will close the 'yawning gap' between the rich and the poor
 - (c) Because 'ecological debt' on the planet will reduce to some extent
 - (d) Because the extent of improvement through consumption is limited

PASSAGE - 2

What's new in Deathly Hallows, however, is that this is the first time it's all-out war – and while the rousing arc about a small group of rebels fighting to bring down an unstoppably evil regime isn't exactly new to pop-culture storytelling (think Star Wars or Terminator 2), Rowling hints at real-world underpinnings. It's impossible not to think of Anne Frank when Harry and his friends are holed up in a desolate house to escape the stalking Death Eaters, just as Voldemort's pure-blood obsession harks back to Hitler – and these parallels bring about some inevitable dissonances in a book written with children in mind. When Hermione runs over her checklist before launching into a particularly dangerous offensive, we note, with some alarm, that her ammunition consists of the Invisibility Cloak, Polyjuice Potion, Decoy Detonators, Puking Pastilles, Nosebleed Nougats and Extendable Ears ,although, later, Rowling does acknowledge these preparations as "laughably childish". Another factor that eats considerably into the element of danger is that practically every move of Voldemort's is sensed comfortably ahead-of-time by Harry, thanks to his psychically-connected scar. That's not to say Deathly Hallows is anything less than a nail-biting read. A rescue operation inside the Ministry of Magic is thrillingly written, and the climactic battle is a real rouser, what with the magical creatures of the world uniting against a common enemy the way they did in another fictional universe, many decades ago, when another fantasist wrote about a quest to destroy a near-indestructible magical object. (Harry's mission to eliminate the Horcruxes parallels Frodo's journey in other respects too, particularly in the revelation that a Horcrux has the power to cloud the possessor's mind.) Along the way, there are nods to the Arthurian legends (a sword is retrieved from a lake), Gothic romances like Jane Eyre (an embarrassment to the family is locked up inside her own home), and perhaps even our own Ramayana (a magical deer that may be trap for three people living in a forest, go figure!) – but then, Rowling has always been an equal-opportunity appropriator. And these appropriations, in Deathly Hallows, come together as well as you could wish for. Rowling may leave you dissatisfied with the surprisingly slapdash way her villain goes about his nefarious business, and she may leave you quibbling over her seemingly inexhaustible stock of narrative coincidences, but you brush aside these concerns because you care about the characters. You care for Harry when he gets hold of a letter written by his mother, and you care that she made her g's the same way he does. ("He searched through the letter for every one of them, and each felt like a friendly little wave glimpsed from behind a veil.") These relationships – between friends (Harry and Ron and Hermione), between whether-or-not boyfriends and girlfriends (Harry

and Ginny, Ron and Hermione), between parent and child (Lily and Harry, Molly Weasley and her brood, Narcissa Malfoy and Draco, Xenophilius Lovegood and Luna, the Grangers and Hermione) – are the reason we buy, yet again, one last time, into Rowling’s writing. Spells, enchantments, jinxes and curses all have their place, but as the wise Dumbledore once put it, the greatest and most powerful magic is love.

39. The author would agree with which of the following ?
- (a) Rowling freely lifts concepts and examples from other works and hence is guilty of plagiarism.
 - (b) The fact that Harry can sense the movements of his nemesis by means of the scar reduces to some extent the sense of danger created by the book.
 - (c) In the book, Rowling could have avoided creating circumstances or instances which have close similarity with real world terror as these circumstances or instances are laughably childish.
 - (d) Rowling’s seemingly inexhaustible stock of narratives make it difficult to appreciate the element of love in the relationships demonstrated in the book.
40. Which of the following statements best represents the author’s feelings about ‘Deathly Hallows’ ?
- (a) Deathly Hallows is different in the sense that it has real world underpinnings woven into a story where a group of rebels are at war against an evil regime; a story which is a nail biting read with appropriations from other works that go into the intricacies of human relationships.
 - (b) Deathly Hallows is a story where a group of rebels are at war against an evil regime; a story with real world underpinnings which is a nail biting read and succeeds in arousing emotions of love and care through its portrayal of relationships in spite of its excessive narratives.
 - (c) Deathly Hallows is a story where a group of rebels are at war against an evil regime with real world underpinnings ; a nail biting read which succeeds in arousing emotions of love and care through its portrayal of relationships in spite of there being appropriations from other works.
 - (d) Deathly Hallows is different from pop-culture storytelling in the sense that it has a story where a group of rebels are at war against an evil regime; a story which is a nail biting read with appropriations from other works.
41. The tone of the author in the passage is ?
- (a) Mesmerizing
 - (b) Appreciating
 - (c) Analytical
 - (d) Critical

PASSAGE - 3

Among philosophers, Friedrich Nietzsche is most often associated with nihilism. For Nietzsche, there is no objective order or structure in the world except what we give it. Penetrating the façades buttressing convictions, the nihilist discovers that all values are baseless and that reason is impotent. “Every belief, every considering something-true,” Nietzsche writes, “is necessarily false because there is simply no true world”. For him, nihilism requires a radical repudiation of all imposed values and meaning: “Nihilism is . . . not only the belief that everything deserves to perish; but one actually puts one’s shoulder to the plough; one destroys”.

The caustic strength of nihilism is absolute, Nietzsche argues, and under its withering scrutiny “the highest values devalue themselves. The aim is lacking, and ‘Why’ finds no answer”. Inevitably, nihilism will expose all cherished beliefs and sacrosanct truths as symptoms of a defective Western mythos. This collapse of meaning, relevance, and purpose will be the most destructive force in history, constituting a total assault on reality and nothing less than the greatest crisis of humanity:

What I relate is the history of the next two centuries. I describe what is coming, what can no longer come differently: the advent of nihilism. . . . For some time now our whole European culture has been moving as toward a catastrophe, with a tortured tension that is growing from decade to decade: restlessly, violently, headlong, like a river that wants to reach the end. . . . Since Nietzsche's compelling critique, nihilistic themes—epistemological failure, value destruction, and cosmic purposelessness—have preoccupied artists, social critics, and philosophers. Convinced that Nietzsche's analysis was accurate, for example, Oswald Spengler in *The Decline of the West* (1926) studied several cultures to confirm that patterns of nihilism were indeed a conspicuous feature of collapsing civilizations. In each of the failed cultures he examines, Spengler noticed that centuries-old religious, artistic, and political traditions were weakened and finally toppled by the insidious workings of several distinct nihilistic postures: the Faustian nihilist “shatters the ideals”; the Apollinian nihilist “watches them crumble before his eyes”; and the Indian nihilist “withdraws from their presence into himself.” Withdrawal, for instance, often identified with the negation of reality and resignation advocated by Eastern religions, is in the West associated with various versions of epicureanism and stoicism. In his study, Spengler concludes that Western civilization is already in the advanced stages of decay with all three forms of nihilism working to undermine epistemological authority and ontological grounding.

In 1927, Martin Heidegger, to cite another example, observed that nihilism in various and hidden forms was already “the normal state of man” (*The Question of Being*). Other philosophers' predictions about nihilism's impact have been dire. Outlining the symptoms of nihilism in the 20th century, Helmut Thielicke wrote that “Nihilism literally has only one truth to declare, namely, that ultimately Nothingness prevails and the world is meaningless” (*Nihilism: Its Origin and Nature, with a Christian Answer*, 1969). From the nihilist's perspective, one can conclude that life is completely amoral, a conclusion, Thielicke believes, that motivates such monstrosities as the Nazi reign of terror. Gloomy predictions of nihilism's impact are also charted in Eugene Rose's *Nihilism: The Root of the Revolution of the Modern Age* (1994). If nihilism proves victorious—and it's well on its way, he argues—our world will become “a cold, inhuman world” where “nothingness, incoherence, and absurdity” will triumph.

42. Which of the following definition of nihilism is closest to the one that is propounded by Nietzsche?
 - (a) A revolutionary doctrine that advocates destruction of the social system for its own sake.
 - (b) The delusion that things (or everything, including the self) do not exist; a sense that everything is unreal.
 - (c) Extreme skepticism, maintaining that nothing has a real existence. The rejection of all moral principles.
 - (d) An anarchistic revolutionary doctrine holding that conditions in the social organization are so bad that lead to propound destruction.
43. Which of the following can be inferred from the passage?
 - (a) Nihilism was the prime reason for the fall and collapse of several civilizations, as studied by Oswald Spengler.
 - (b) Nihilism will result in a cold and inhuman world, full of atrocities.
 - (c) Nihilism with its biting analysis of values and assault on beliefs will result in a moral crisis of sorts. It will be one of the most destructive crises for civilization.
 - (d) Withdrawal from outside world and getting deeper into self, has been advocated by eastern doctrines in the form of meditation and *tantra*.
44. Which of the following statements cannot be related to the ideas of Nihilism, as given in the passage?
 - (a) Everything is nothing, including the consciousness of nothing.
 - (b) I think there is an element of meaninglessness about, but I don't think most artists feel their work is meaningless.
 - (c) There is no other world. Nor even this one. What, then, is there? The inner smile provoked in us is by the patent nonexistence of both.
 - (d) There is no such thing as nothingness, and zero does not exist. Everything is something. Nothing is nothing.

DIRECTIONS for Questions 45 and 46: These questions present a sentence, a part or all of which is underlined. Beneath the sentence you will find four ways of phrasing the underlined part. The first of these repeats the original; the other three are different. If you think the original is best, choose the first answer; otherwise choose one of the others. These questions test correctness and effectiveness of expression. In choosing your answer, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, and sentence construction. Choose the answer that produces the most effective sentence; this answer should be clear and exact, without awkwardness, ambiguity, redundancy, or grammatical error.

45. Acting as a facilitator or go-between, the weak link in effective communication between two parties is the broker and the elimination of this person can be the most desirable outcome of our initiative.
- (a) the weak link in effective communication between two parties is the broker and the elimination of this person can be the most desirable outcome of our initiative.
 - (b) the broker is usually the weak link in effective communication among two parties and the elimination of this person can be the most desirable outcome of our initiative.
 - (c) the weak link in effective communication among two parties is the broker and the elimination of that person can be the most desirable outcome of our initiative.
 - (d) the broker is usually the weak link in effective communication between two parties and the elimination of this person can be the most desirable outcome of our initiative.
46. The Students' Union has decided to collaborate together with the Faculty Members' Association when it can convince every teacher to join the students' protest march.
- (a) The Students' Union has decided to collaborate together with the Faculty Members' Association when it can convince
 - (b) The Students' Union has decided to collaborate with the Faculty Members' Association when they can convince
 - (c) The Students' Union has decided to collaborate together with the Faculty Members' Association if it can convince
 - (d) The Students' Union has decided to collaborate with the Faculty Members' Association if it can convince

DIRECTIONS for Questions 47 and 48: Each of the following questions has a paragraph from which the last sentence has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.

47. It was in the 1970s that “offshore” capitalism began, from the margins, to make itself known in the wider world. Multinationals and banks began as a matter of course to expand and grow through tax havens. Financial whizzkids — much like those experimenting with micro-computers at the time — developed instruments that “financialised” everyday assets and commodities and turned them into derivatives, to be traded on their own markets.
- (a) Before the 1970's the nations had complete control over their economies.
 - (b) The new offshore wizardry soon had an impact on the wider world.
 - (c) Monetary authorities and banks tried to regulate international capital markets, but failed.
 - (d) Eventually, the sharp rise of “offshore” capitalism led to recession in “onshore” markets.

48. In feudal and agricultural societies there was gender-based division of labour: men did outdoor work involving harder physical labour, and women did household chores. But in industrial societies this division of labour has almost entirely vanished, and women often do the same work as men and have become economically independent. Since in an industrial society brain is more important than brawn, and since the IQ of an average woman is the same as that of an average man, women should have equality with men. However, in practice that is often not so. Many of the legal provisions for equality remain on paper.
- (a) Even modern industrial setup is unable to alter gender-based inequalities.
 - (b) Equality before the law is not necessarily equality in fact.
 - (c) A complete revolution in our thinking and attitude towards women is essential.
 - (d) But women continue to prove their mettle despite unequal treatment.

DIRECTIONS for Questions 49 and 50: In each of the questions, four different ways of presenting an idea are given. Choose the one that conforms most closely to Standard English Usage.

49. (a) The closing of illegal shops and buildings requires strict action against shrewd real estate developers and irresponsible land owners who have built illegal structures by bribing government officials.
(b) The closing of illegal shops and buildings require strict action against shrewd real estate developers and irresponsible land owners which are building illegal structures by bribing government officials.
(c) The closing of illegal shops and buildings requires strict action against shrewd real estate developers and irresponsible land owners that will be building illegal structures by bribing government officials.
(d) The closing of illegal shops and buildings require strict action against shrewd real estate developers and irresponsible land owners who will have built illegal structures by bribing government officials.
50. (a) When Estella comes to our New York office in 2000, Whitney had already started working on the Supply chain management initiative.
(b) When Estella came to our New York office in 2000, Whitney has been working on the Supply chain management initiative.
(c) Whitney started working on the Supply chain management initiative, when Estella comes to our New York office in 2000.
(d) When Estella came to our New York office in 2000, Whitney had already started working on the Supply chain management initiative.

DIRECTIONS for Questions 51 to 53: In each question, there are five sentences. The sentence labelled A is in its correct place. The four that follow are labelled B, C, D and E, and need to be arranged in the logical order to form a coherent paragraph. From the given options, choose the most appropriate one.

51. A. In the old joke tales, the targets are mocked for their slowness, for being unable to understand simple rules necessary for a successful life, or other characteristics.
B. Their vice is usually more specific than just universal stupidity.
C. Foreigners are in a clear minority and limited to those who have had direct contact with Estonian natives (travelling Gypsies, Russians, Germans and Jews, less often Finns).
D. In Estonian old folk jokes and early punch-lined jokes, targets are peripheral groups with funny speech and perceived backwardness.
E. Stupidity jokes are in the majority, and there are several targets which vary in different regions.
- (a) CBED (b) DCBE (c) EDCB (d) ECBD

52. A. Laughter, thus, stands for different phenomena in narration.
 B. Narrators can underline the standpoint in the narrative in many ways, such as direct comments, embedding of evaluation, style of telling, metaphors, strong adjectives and facial expression and gestures.
 C. It communicates emotions both in a concealing and a revealing way.
 D. One way of studying this in narration is by analysing the use of humour, irony and paralinguistic devices such as chuckles, laughter, pauses, or changes of tempo.
 E. Laughter is thus one stylistic device to mark a standpoint in narration.
 (a) CEDB (b) CEBD (c) DBCE (d) CBDE
53. A. Despite arguments that it is unethical to conduct research on vulnerable populations caught in conflict, health research is essential to achieving the goals of promoting and enhancing the delivery of life-saving interventions.
 B. This implies training for humanitarian actors engaged in research methods, and greater collaboration with experts to support the design and analysis, and potentially also the implementation of research.
 C. There is much scope to improve the quality of research methodologies implemented in conflict settings through validation of survey tools, the establishment of clear protocols, and training in a broader use or research methodologies that can be applied.
 D. Those engaged in research should first reflect on the necessity of conducting research in such settings, and the feasibility of seeing the research through to completion.
 E. Conflict settings are characterized by instability and rapidly change in circumstances and pose major challenges to the conduct of research.
 (a) DCBE (b) EDCB (c) BCDE (d) EBDC
54. Given below are two words that have a certain relationship with each other followed by alternatives. Select the alternative that has the same relationship as depicted in the original pair of words.
- Vicissitude : Stagnation
 (a) Vexation : Chagrin
 (b) Mortification : Humiliation
 (c) Naivete : Ingenue
 (d) Diffidence : Assertiveness
55. Fill in the blanks of the following sentence using one from the idioms provided in the four alternatives.
- The “I won him” smirk doesn’t work in her favour either; she looks _____. If she wants box office appeal, she needs to stop gloating over the fact that she is dating a relapsed alcoholic who doesn’t give a care about how his wife and kids are handling this affair.
 (a) like something the cat dragged in.
 (b) like the cat who swallowed the canary.
 (c) like a cat on a hot tin roof.
 (d) like a bump on a log.

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

By measuring ocean sediments deposited during the thermal maximum, geochemists have found that the warming coincided with a huge spike in atmospheric CO₂. Between 5 and 9 trillion tonnes of carbon entered the atmosphere in no more than 20,000 years. Where could such a huge amount have come from? Geochemists have long known that when a pulse of CO₂ enters the air, much of it quickly dissolves in the upper layer of the ocean before gradually dispersing through deeper waters. Within a few centuries, an equilibrium is reached, with about 85 per cent of the CO₂ dissolved in the oceans and 15 per cent in the atmosphere. This CO₂ persists for tens or hundreds of thousands of years - what Archer believes will be the "long tail" of the Anthropocene. _____.

- (a) For sure, the oceans cannot be a source of carbon to the atmosphere, because we observe them to be a sink of carbon from the atmosphere.
- (b) The ocean sediments provide a unique record of Earth's climate fluctuations and extensive sequestration of carbon.
- (c) While much of the environmental change presently occurring on Earth is a direct consequence of the industrial revolution, it can be argued that the Anthropocene actually began approximately 10,000 years ago with the termination of the last ice age.
- (d) After studying a few cases from the past the geochemists and climate modellers who were a bit fuzzy on what this tail would look like, have now been able to predict that the tail is unlikely to last longer than 2 million years – still not long at all by geological standards.

DIRECTIONS for Questions 57 to 60: In each of the following questions two pairs of words are given. You have to identify the pair/s that have a synonymous relationship.

57. A. Turpitude : Depravity
B. Sentience : Cognizance
(a) A only (b) B only
(c) Both A and B (d) None
58. A. Stolid : Phlegmatic
B. Heretical : Unorthodox
(a) A only (b) B only
(c) Both A and B (d) None
59. A. Arch : Arcane
B. Esoteric : Eclectic
(a) A only (b) B only
(c) Both A and B (d) None
60. A: Titillate : Titivate
B: Sarcastic : Sardonic
(a) A only (b) B only
(c) Both A and B (d) None