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Verbal Ability

Instructions

Fill in the blank. Question 1 Since she believed him to be both candid and trust-worthy, she refused to consider the possibility that his statement had been .....

A irrelevant

B facetious

C mistaken

D insincere

Answer: E

Question 2

The sheer bulk of data from the mass media seems to overpower us and drive us to ..... accounts for an easily and readily digestible portion of news.

A insular

B investigative

C synoptic

D subjective

Answer: E

Question 3

Any numerical description of the development of the human population cannot avoid ..... simply because there has never been a census of all the people in the world.

A analysis

B conjecture

C corroboration

D statistics

Answer: E

Question 4

Relatively few politicians willingly forsake center stage, although a touch of _____ on their parts now and again might well increase theirpopularity with the voting public.

A garrulity

B misanthropy

C self-effacement

D self-dramatization

Answer: E

Instructions

Each question has an idiomatic phrase. Choose the word that is closest in meaning to idiomatic phrase.

Question 5

Wear one's heart on one’s sleeve

A inure passionately

B Do the right thing

C Show one's feelings

D Be intimate

Answer: E

Question 6

See eye to eye

A State at each other

B Agree:

C Depend on

D Make an effort

Answer: E

Question 7

To fall flat

A Retreat

B To meet accidentally

C Quarrel

D To be met with a cold reception

Answer: E

Question 8

To stick to one's guns

A Maintain one's stand under attack

B Suspect something

C Make something fail

D Be satisfied

Answer: E

Question 9

To have the gift of the gab

A A talent for speaking

B To do exactly the right thing

C To be cheerful

D To get lots ofgifts

Answer: E

Question 10

Talk shop

A Talk about one's profession

B Talk about shopping

C Ridicule

D Treat lightly

Answer: E

Instructions

Choose the option that replaces the underlined part and makes the sentence most appropriate grammatically.

Question 11

In addition to providing more course offerings than Modern School, the teachers at Ryan School are better trained than those at Modern, having received more information, on instructing a multilingual and culturally diverse student body.

A the teachers at Ryan Schoolare better trained than those at

B Ryan Schoolhas teachers whoare better trained than those at

C Ryan Schoolteachers are better trained than they are at

D the teachers at Ryan Schoolare better in training than those at

Answer: E

Question 12

In 1905, The House of Mirth, Edith Wharton's novel about the blighted aspirations of Lily Bart was published by Scribner's and it was a reputable press in the early twentieth century.

A Lily Bart was published by Scribner's and it was

B Lily Bart, published by Scribner's and was

C Lily Bart was publishedby Scribner's being

D Lily Bart, was published by Scribner's

Answer: E

Question 13

In the past few months, there has been extensive dispute over if fare hikes should be a first or last recourse in improving the transit system.

A over if fare hikes should be first or last recourse

B about if fare hikes are a first or last recourse

C about hiking fares as being a first or last recourse

D over whether fare hikes should be first or last recourse

Answer: E

Question 14

American executives, unlike their Japanese counterparts, have pressure to show high profits in each quarterly report, with little thought given to long-term goals.

A have pressure to show

B are under pressure to show

C are under the pressure of showing

D are pressured toward showing

Answer: E

Instructions

Choose the order of the sentences marked A, B, C, D and E to form logical paragraph.

Question 15

A She got offers to sing from a number of music directors. B Consequently, today her name is all over as a popular singer. C However, she was really reluctant to give auditions, which delayed her entry into the field music. D Not only was she good looking, she had tremendous talent for music, especially singing. E. When she did start singing, she made a mark for herself in a short time.

A AECDB

B BCAED

C DCEAB

D EACBD

Answer: E

Question 16

A As indicated by a number of surveys in 2012, Indian employer will have trouble find in highly qualified people. B This has made it a perennial challenge for HR managers in the days to come. C India Inc has transformed in to a volatile ground for breeding talent with the amplification of the demand-supply gap. D This trend is set to continue for the next three years. E This revelation has come as an eye-opener, as in order to run the game here on, the challenge of a talent crunch will be amongst the foremost snags.

A ECDAB

B BDEAC

C CBADE

D BAEDC

Answer: E

Question 17

A Studio journalism with five people discussing the fate of the country is certainly an absurd idea. B As result, media does not do reflection analysis which is the need of the hour to solve issues. C Electronic media in our country is obviously Delhi - centred. D Presently, media is good at highlighting issues but not solving them. E Thus, you do not have reportage from different parts of the country.

A AEDCB

B CEADB

C DCBAE

D EDACB

Answer: E

Instructions

Rearrange the jumbled alphabets in the following four options and find the odd words among them

Question 18

A ESUNV

B NRSUTA

C SGAGNE

D RPUITEJ

Answer: E

Question 19

A ZIBALR

B FGIAFER

C ECFNAR

D LSAREI

Answer: E

Question 20

A ESTROTIO

B HNDLOPI

C LPICEN

D KHRAS

Answer: E

Instructions

Each of these questions has a text portion followed by four alternative summaries. Choose the option that best captures the essence of the text.

Question 21

Social experts point out that people who stay in nuclear families feel more aloof and lonely and are not able to cope with stressful situations of modern life and, in extreme cases, it leads to spontaneous drastic reactions like suicides and even murders.

A Staying in a nuclear family makes a person lonely and when heis not able to cope with stress, he may even commitmurders or suicides.

B One should not stay in a nuclearfamilyas this makes a person aloof and lonely and he is not able to deal with stress.

C According to social experts nuclear family members become lonely and aloof and find difficulty in coping with stress of modem life, while in extreme cases it may even lead to suicides or committing a murder.

D As per social experts, nuclear families make people lonely and aloof and they may commit murders or suicides as they cannot cope with stressful situations.

Answer: E

Question 22

Few would argue that the problem to put an economy as complex as ours on the path of sustained growth is replete with umpteen challenges, but the country has no dearth of able men to lead the nation to prosperity, the moot point being the political will to address core issues involved.

A Though we have a number of problems facing our country, yet if there is a political will, we can develop our economy.

B Unless we find solutions to certain core issues of our nation, it would not be possible to develop oureconomy adequately.

C India has a large number of competent people who can lead our country and also develop our economyas expected.

D Though we agree that there are a number of challenges to ensure a sustained growth of our economy, yet if we have the political will, there are able people who can do it.

Answer: E

Question 23

India is one of the biggest exporters of knowledge workers, but we do not have the needed mechanism to utilize this asset for our own development and there is a conspicuous absence of local managementtechniques to enthuse Indian companies to outperform others.

A We have enough trained and talented workforce but lack indigenous management techniques to overtake others.

B India has not been abletoutilize its own manpowerfor its development presently.

C India should utilize its knowledge workers for its own development and, with indigenous managementtechniques enthuse Indian workers to overtake others.

D Despite having considerable trained manpower, India has not been able to develop its own managementtechniques to outperform othersin the field.

Answer: E

Instructions

Study the passages below and answer the questions that follow each passage? Passage-I Of the 197 million square miles making up the surface of the globe, 71 per cent is covered by the interconnecting bodies of marine water; the Pacific Ocean alone covers half the Earth and averages near 14,000 feet in depth. The continents — Eurasia, Africa, North America, South America Australia, and Antarctica — are the portions of the continental masses rising above sea level. The submerged borders of the continental masses are the continental shelves, beyond which lie the deep-sea basins. The oceans attain their greatest depths not in their central parts, but in certain elongated furrows, or long narrow troughs, called deeps. These profound troughs have a peripheral arrangement, notably around the borders of the Pacific and Indian oceans. The position of the deeps near the continental masses suggests that the deeps, like the highest mountains, are of recent origin, since otherwise they would have been filled with

waste from the lands. This suggestion is strengthened by the fact that the deeps are frequently the sites of world-shaking earthquakes. For example, the “tidal wave” that in April, 1946, caused widespread destruction along Pacific coasts resulted from a strong earthquake on the floor of the Aleutian Deep. The topography of the ocean floors is not well known. Since in great areas, the available soundings are hundreds or even thousands of miles apart. However,the floor of the Atlantic is becoming fairly well known as a result of special surveys since 1920. A broad, well-defined ridge — the Mid-Atlantic ridge — runs north and south between Africa and the two Americas, and numerous other major irregularities diversify the Atlantic floor. Closely spaced soundings show that many parts of the oceanic floors are as tugged as mountainous regions of the continents. Use of the recently perfected method of echo sounding is rapidly enlarging our knowledge of submarine topography. During World War II, great strides were made in mapping submarine surfaces, particularly in many parts of the vast Pacific basin. The continents stand on the average 2870 feet —slightly more than half a mile — above sea level. North America averages 2300 feet; Europe averages only 1150 feet; and Asia, the highest of the larger continental sub-divisions, averages 3200 feet. The highest point on the globe, Mount Everest in the Himalayas, is 29,000 feet above the sea; and as the greatest known depth in the sea is over 35,000 feet, the maximum relief (that is, the difference in altitude between the lowest and highest points) exceeds 64,000 feet, or exceeds 12 miles. The continental masses and the deep-sea basins are relief features of the first order; the deeps, ridges, and volcanic cones that diversify the sea floor, as well as the plains, plateaus, and mountains of the continents, are relief features of the second Order. The lands are unendingly subject to a complex of activities summarized in the term erosion, which first sculptures them in great detail and then tends to reduce them ultimately to sea level. The modeling of the landscape by weather, running water, and other agents is apparent to the keenly observant eye and causes thinking people to speculate on what must be the final result of the ceaseless wearing down of the lands. Long before, there was a science of geology, Shakespeare wrote “the revolution of the times makes mountains level.”

Question 24

Which of the following would be the most appropriate title for the passage?

A Features of the Earth’s Surface

B Marine Topography

C The Causes of Earthquakes

D Primary Geologic Considerations

Answer: E

Question 25

The "revolution of the times” as used in the passage meansthe

A passage of years.

B current rebellion.

C science of geology

D action of the ocean floor.

Answer: E

Question 26

According to the passage, the peripheral furrows or deeps are found

A only in the Pacific and Indian oceans.

B near earthquakes.

C near the shore.

D in the centre of the ocean.

Answer: E

Question 27

As per the passage, it can be inferred that earthquakes

A occur only in the peripheral furrows.

B occur more frequently in newly formed land or sea formations.

C are a prime cause of soil erosion.

D will ultimately "make mountains level".

Answer: E

Instructions Study the passages below and answer the questions that follow each passage? Passage-II Plato may have understood better what forms the mind of man than do some of our contemporaries who want their children exposed only to “real” people and everyday events —knew what intellectual experiences make for true humanity. He suggested that the future citizens of his ideal republic begin their literary education with the telling of myths, rather than with mere facts or so-called rational teachings. Even Aristotle, master of pure reason, said: “The friend of wisdom is also a friend of myth.” Modern thinkers who have studied myths and fairy tales from a philosophical or psychological viewpoint arrive at the same conclusion, regardless of their original persuasion. Mircea Eliade, describes these stories as “models for human behavior by that very fact, give meaning and value to life.’ Drawing on anthropological parallels, he and others suggest that myths and fairy tales were derived from, or given symbolic expression to, initiation rites or other rites of passage — such as metaphoric death of an old, inadequate self in order to be reborn on a higher plane of existence. He feels that this is why these tales meet a strongly felt need and are carriers of such deep meaning. Other investigators with a depth psychological orientation emphasize the similarities between the fantastic events in myths and fairy tales and those in adult dreams and daydreams — the fulfillment of wishes, the winning out over all competitors, the destruction of enemies — and conclude that one attraction of this literature is its expression of that which is normally prevented from coming to awareness. There are, of course, very significant differences between fairy tales and dreams. For example, in dreams more often than not the wish fulfillment is disguised, while in fairy tales much of it is openly expressed. To a considerable degree, dreams are the result of inner pressures which have found no relief, of problems which beset a person to which he knows no solution and to which the dream finds none. The fairy tale does the opposite: it

projects the relief of all pressures and not only offers ways to solve problems but promises that a "happy" solution will be found. We cannot control what goes on in our dreams. Although our inner censorship influences what we may dream, such control occurs on an unconscious level. The fairy tale, on the other hand, is very much the result of common conscious and unconscious content having been shaped by the conscious mind,not of one particular person, but the consensus of many in regard to what they view as universal human problems, and what they accept as desirable solutions.If all these elements were not present in a fairy tale, it would not be retold by generation after generation. Only if a fairy tale met the conscious and unconscious requirements of many people was repeatedly retold, and listened to with great interest. No dream of a person could arouse such persistent interest unless it was worked into a myth, as was the story of the pharaoh's dream as interpreted by Joseph in the Bible

Question 28

It can be inferred from the passage that the author's interestin fairy tales centers chiefly on their

A literary qualities.

B historical background.

C factual accuracy.

D psychological relevance.

Answer: E

Question 29

It can be inferred from the passage that Mircea Eliade is most likely a/an

A writer of children's literature.

B student of physical anthropology.

C twentieth-century philosopher,

D advocate of practical education.

Answer: E

Question 30

Which of the following best describes the author's attitude toward fairy tales?

A Reluctant fascination

B Wary skepticism

C Scornful disapprobation

D Open approval

Answer: E

Question 31

The author quotes Plato and Aristotleprimarilyin ordert

A define the nature of myth

B Contrast their opposite points of view

C support the point that myths are valuable,

D prove that myths originated in ancient times.

Answer: E

Question 32

The author mentions all of the followingas reasons for reading fairy tales except

A emotional catharsis.

B behavioral paradigm.

C uniqueness of experience.

D sublimation ofaggression.

Answer: E

Instructions Study the passages below and answer the questions that follow each passage? Passage-III Advanced technology has created a vast increase in occupational specialties, many of them requiring many, many years of highly specialised training. It must motivate this training. It has made ever more complex and "rational" the ways in which these occupational specialties are combined in our economic and social life. It must win passivity and obedience to this complex activity. Formerly, technical rationality had been employed only to organise the production of rather simple physical objects, for example, aerial bombs. Now technical rationality is increasingly employed to organise all of the processes necessary to the utilisation of the physical objects, such as bombing systems, maintenance, intelligence and supply systems. For this reason it seems a mistake to argue that we are in a "post-industrial" age, a concept favouredby the laissez innover school. On the contrary, the rapid spread of technical rationality into organisational and economic life and, hence, into social life is more aptly described as second and much more intensive phase of industrial revolution. One might reasonably suspect that it will create analogous social problems. Accordingly, a third major hypothesis would argue that there are very profound social antagonisms or contradictions not less sharp or fundamental than those ascribed by Marx to the development of nineteenth century industrial society. The general form of the contradictions might be described as follows — a society characterised by the employment of advanced technology requires an ever more socially disciplined population, yet retains an ever declining capacity to enforce the required discipline. One way readily describes four specific formsof the same general contradiction. Occupationally, the work force must be over-trained and under-utilised. Here, again, an analogy to classical industrial practice serves to shorten and simplify the explanation, I have in mind the assembly line. As a device in the organisation of the work process, the assembly line is valuable mainly. It gives management a high degree of control over the pace of the work and, more to the point in the present case, it divides the work process into units so simple that the quality of the work performedis readily predictable. That is, since each operation uses only a small fraction of worker's skill, there is a very great likelihood that the operation will be performed in a minimally acceptable way.

Alternately, if each operation taxed the worker's skill, there would be frequenterrors in the operation, frequent disturbance of the work flow, and a thoroughly unpredictable quality of the end product. The assembly line also introduces standardisation in work skills and thus makes for a high degree of interchange ability among the work force. For analogous reasons, the work force in advanced technological systems must be relatively over-trained or, what is the same thing, its skills relatively under-used. My impression is that, this is no less true now sociologists that of welders, of engineers than of assemblers. The contradiction emerges when we recognize that technological progress requires a continuous increasein the skill levels of its work force, skill levels which frequently embodya fairly rich scientific and technical training. While at the same time, the advance of technical rationally in work organisation means that those skills will be less and less fully used. Economically, there is a parallel process at work. It is commonly observed that the work force within technologically advanced organisations is asked to work not less hard but more so. This is particularly true for those with advanced training and skills. Brzezinski's conjecture that technical specialists undergo continuous retraining is off the mark only in that it assumes such retraining only for a managingelite. To get people of work harder require growing incentives. Yet the prospérity which is assumed in technologically advanced society erodes the value of economic incentives. Salary and wage increases and the goods they purchase lose their over riding importance once necessities, creature comforts, and an ample supply of luxuries are assured. As if in confirmation of this point, it has been pointed out that among young people one can already observe a radical weakening in the power of such incentives as money status and authority.

Question 33

The passage indicates that technologically advanced institutions

A fully utilise worker' skills.

B fare best under a democratic system.

C necessarily overtrain workers.

D find it unnecessary to enforce discipline.

Answer: E

Question 34

Technologies cannot conquer nature unless

A there is another more intense industrial revolution.

B there is strict adherence to a laissez innoverpolicy.

C worker and managementare in concurrence.

D the institutions have control over the training, mobility and skills of the work force.

Answer: E

Question 35

It can be inferred from the passage that the author is

A an eloquent spokesman for technological advancement.

B in favour ofincreased employee control of industry.

C vehemently opposed to the increase of technology.

D skeptical of the working of advanced technological institutions

Answer: E

Question 36

The articles states that money, status and authority

A will always be powerful work incentives.

B are not powerful incentives for the young.

C are unacceptable to radical workers,

D are incentives evolving out of human nature.

Answer: E

Instructions

Study the passages below and answer the questions that follow each passage? Passage-IV One major obstacle in the struggle to lower carbon dioxide emissions, which are believed to play a role in climate change, is the destruction of tropical rain forests. Trees naturally store more carbon dioxide as they age, and the trees of the tropical rain forests in the Amazon, for example, store an average of 500 tons of carbon dioxide per hectare (10,000 square miles). When such trees are harvested, they release their carbon dioxide into the atmosphere. This release of carbon dioxide through the destruction of tropical forests, which experts estimate accounts for 20% of global carbon dioxide emissions annually, traps heat in the earth's atmosphere, which leads to global warming. The Kyoto treaty set forth a possible measure to curtail the rate of deforestation. In the treaty, companies that exceed their carbon dioxide emission limits are permitted to buy the right to pollute by funding reforestation projects in tropical rain forests. Since forests absorb carbon dioxide through photosynthesis, planting such forests helps reduce the level of atmospheric carbon dioxide, thus balancing out the companies' surplus of carbon dioxide emissions. However, attempts at reforestation have so far been unable to keep up with the alarming rate of deforestation, and it has become increasingly clear that further steps must be taken to curtail deforestation and its possible deleterious effects on the global environment. One possible solution is to offer incentives for governments to protect their forests. While this solution could lead to a drastic reduction in the levels of carbon dioxide, such incentives would need to be tied to some form of verification, which is extremely difficult, since most of the world's tropical forests are in remote areas, like Brazil's Amazon basin or the island of New Guinea, which makes on-site verification logistically difficult. Furthermore, heavy cloud cover and frequent heavy rain make conventional satellite monitoring difficult. Recently, scientists at the Japan Aerospace Exploration Agency have suggested that the rates of deforestation could be monitored using new technology to analyze radar waves emitted from a surveillance satellite. By analyzing multiple radar microwaves sent by a satellite, scientists are able to prepare a detailed, high resolution map of remote tropical forests. Unlike photographic satellite images, radar images can be measured at night and during days of heavy cloud cover and bad weather.

Nevertheless, critics of government incentives argue that radar monitoring has been employed in the past with little success, citing the Global Rain Forest Mapping Project which was instituted in the mid 1990s amid concern over rapid deforestation in the Amazon. However, the limited data of the Mapping Project was due only to the small amount of data that could be sent from the satellite. Modern satellites can send and receive 10 times more data than their predecessors of the mid 1990s, obviating past problems with radar monitoring. Furthermore, recent technological advances in satellite radar that allow for more accurate measurements to be made, even in remote areas, make such technology a promising step in monitoring and controlling global climate change.

Question 37

Which one of the following most accurately expresses the main point of the passage?

A Although scientists continue to search for a solution, there is, as yet, no good solution for the problem of rain forest deforestation.

B One major obstacle to lessening the contribution of atmospheric carbon dioxide caused by deforestation may be removed through satellite radar monitoring.

C Recent increases in the rate of deforestation of tropical rain forests have caused serious concern and spurred efforts to curb such deforestation.

D Although an excellent first step, the solutions set forth by the Kyoto treaty will not significantly curb the rate of deforestation unless companies begin to lessen their carbon dioxide emissions.

Answer: E

Question 38

It can be inferred from the passage that photographic satellite images

A are impervious to bad weather

B cannot be used efficiently at night

C are less expensive than radar monitoring

D can send only a small amount of data from a satellite to a base

Answer: E

Question 39 The information presented in the passage implies which one of the following about the Mapping Project?

A The project was unsuccessful because it used only satellite radar monitoring.

B If the satellite had been able to send more data, the project may have been successful.

C It was established by the Kyoto treaty in response to widespread concern over deforestation.

D The project used only conventional satellite monitoring and on-site verification visits. Answer: E

Question 40

According to the passage, each of the following is true about tropical rainforests EXCEPT

A harvested trees release carbon dioxide

B they are sometimes subject to heavy cloud cover.

C they are protected from deforestation by the Kyoto treaty.

D they are not always easily reachable by modern transportation.

Answer: E

Quantitative Ability

Instructions

For the following questions answer them individually:

Question 41.

A, B, and C have a few chocolates among themselves. Agivestoeachof the other two half the number chocolatesthey already have. Similarly B and C (inthat order) give each of the other two half the numberofchocolates each of them already has. Now,ifeach of them has the same number of chocolates, what could be the minimum number of chocolates they have among themselves?

A 243

B 81

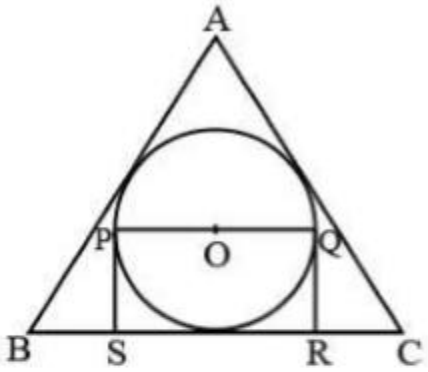
C 27

D None of these

Answer: D

Question 42

ABC is an equilateral triangle while PQRS is a rectangle, then what is the area of PQRS if each side of the ABC = 10. The side of the rectangle passes through the center O of the circle?



A $30\sqrt{3}$

B $\frac{50}{\sqrt{3}}$

C 16.67

D 12.25

Answer: E

Question 43

Five bells begin to toll together and toll respectively at intervals of 6, 7, 8, 9 and 12 seconds. How many timesthey will toll together in one hour?

A 5

B 14

C 6

D 7

Answer: D

Explanation:

L.C.M. of (6,7,8,9,12) = 504 Thus, after every 504 seconds = 8.4 minutes, the bells toll together.

=> Number of times, they will toll together in an hour =$\frac{60}{8.4} = 7.14 = 7\ times$.

Question 44

Eight members of different ages from the same family sit around a circular table for dinner. In how many ways can they be arranged such that on either side of younger members there are elder members seated?

A 144

B 720

C 5040

D 61

Answer: 5040

Question 45

The median of the first 20 prime numbers is

A 29

B 26

C 34

D 30

Answer: D

Explanation:

First 20 prime numbers = 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71

Thus, median is mean of 10th and 11th value =$\frac{29+31}{2} = \frac{60}{2} = 30$

=> Ans - (D)

Question 46

Sum of two numbers is 17, whereas sum of their squares is 145. What is the product of the two numbers?

A 72

B 42

C 82

D 14

Answer: A

Explanation:

Let the two numbers be $x\ and\ y$.

=> Sum= $x + y = 17$

Squaring both sides, we get : $(x + y)^2 = (17)^2$

=>$x^2 + y^2 + 2xy = 289$

Also, it is given that $x^2 + y^2 = 145$

=> $2xy = 289 - 145 = 144$

=> $xy = \frac{144}{2} = 72$

=> Ans - (A)

Question 47

What is the least square number whichis divisible by 3, 5, 6 and 9?

A 900

B 700

C 500

D None of these

Answer: A

Explanation:

L.C.M. of (3,5,6,9) = 90

Now, the numbers of the form will be divisible by 3,5,6,9, where is a natural number

Prime Factorization of 90 $3^2 \times 2 \times 5$

Thus, in order to have both even powers, we need to multiply it by 10 = 900

=> Ans - (A)

Question 48

If $\left(1+\frac{x}{144}\right)^{\frac{1}{2}}=1+\frac{1}{2}$, what is the value of x?

A 25

B 75

C 115

D 225

Answer: E

Explanation:

Expression :

$$\left(1+\frac{x}{144}\right)^{\frac{1}{2}}=1+\frac{1}{2}\rightarrow 1+\frac{x}{144}=\left(\frac{3}{2}\right)^{2}\rightarrow \frac{x}{144}=\frac{9}{4}-1\rightarrow x=\frac{5}{4}\times 144=180$$

Question 49

The difference between two positive numbers is 3. If the sum of their squares in 369, then the 3 sum of the numbers is

A 81

B 33

C 27

D 25

Answer: C

Explanation:

Let the numbers be $x\ and\ y$

$$Given\text{: }(x-y)=3\ldots\ldots(1)\ and\ x^2+y^2=369\ldots\ldots\ldots(2)$$

Squaring both sides in equation (i), $x^2+y^2-2xy=9$

we get : Substituting value from equation (ii), =>$2xy=369-9=360\rightarrow xy=\frac{360}{2}=180$

To find : $(x+y)=z=?$

Now, we know that $(x+y)^2=x^2+y^2+2xy$

$z^2=369+2(180)=729\rightarrow z=\sqrt{729}=27$

=> Ans - (C)

Question 50

If $x = 7 - 4\sqrt{3}, then\ the\ value\ of\ x^2 + \frac{1}{x^2}\ is$

A 53

B 61

C 28

D 194

Answer: D

Explanation: Given :

$$x = 7 - 4\sqrt{3} \ldots\ldots\ldots (1)$$

$$\rightarrow \frac{1}{x} = \frac{1}{7 - 4\sqrt{3}}$$

Rationalizing the denominator, we get

$$\rightarrow \frac{1}{x} = \frac{1}{7 - 4\sqrt{3}} \times \frac{7 + 4\sqrt{3}}{7 + 4\sqrt{3}} \rightarrow \frac{1}{x} = \frac{7 + 4\sqrt{3}}{7^2 - \left(4\sqrt{3}\right)^2} = \frac{7 + 4\sqrt{3}}{49 - 48} = 7 + 4\sqrt{3} \ldots\ldots (2)$$

Adding equations (i) and (ii), we get: $\left(x + \frac{1}{x}\right) = 14$

Squaring both sides $\left(x + \frac{1}{x}\right)^2 = 14^2 \rightarrow x^2 + \left(\frac{1}{x}\right)^2 + 2(x)\left(\frac{1}{x}\right) = 196 \rightarrow x^2 + \left(\frac{1}{x}\right)^2 = 196 - 2 = 194$

=> Ans - (D)

Question 51

If one-third of one-fourth of a number is 15, then three-tenth of that number is

A 35

B 36

C 45

D 54

Answer: D

Explanation:

Given : one-third of one-fourth of a number is 15

=> Number $= 15 \times 3 \times 4 = 180$

$$\therefore \frac{3}{10} \times 180 = 54$$

=> Ans - (D)

Question 52

What least fraction must be subtracted from the square root of $105\frac{1}{16}$ so that the result is a whole number?

A $\frac{1}{4}$

B $\frac{1}{3}$

C $\frac{1}{2}$

D None of These

Answer: A

Explanation:

Square root of : $\sqrt{105\frac{1}{16}} \rightarrow \sqrt{\frac{1681}{16}} \rightarrow \frac{41}{4} \rightarrow 10\frac{1}{4}$

Now, the least number to be divided to make it a whole number is clearly $\frac{1}{4}$

= $10 + \frac{1}{4} - \frac{1}{4} = 10$

=> Ans - (A)

Question 53

Which one of the following fractions is the least?

$$\frac{29}{57}, \frac{31}{85}, \frac{13}{38}, \frac{17}{42}$$

A $\frac{29}{57}$

B $\frac{31}{85}$

C $\frac{13}{38}$

D $\frac{17}{42}$

Answer: C

Explanation:

$$\frac{29}{57} \approx 0.5$$

$$\frac{31}{85} \approx 0.36$$

$$\frac{13}{38} \approx 0.33$$

$$\frac{17}{42} \approx 0.5$$

=> Ans - (C)

Question 54

The sum and product of two numbers are 12 and 35 respectively. What will be the sum of their reciprocals?

A $\frac{1}{3}$

B $\frac{1}{5}$

C $\frac{12}{35}$

D $\frac{35}{12}$

Answer: C

Explanation:

Let the two numbers be $x\ and\ y$

Given : $x + y = 12\ and\ xy = 35 \ldots\ldots\ldots (1)$

To find : $\frac{1}{x} + \frac{1}{y} = \frac{x+y}{xy}$

Using equation (i), = $\frac{12}{35}$

=> Ans - (C)

Question 55

The simplified value of $\frac{\frac{1}{3}+\frac{1}{3}\times\frac{1}{3}}{\frac{1}{3}+\frac{1}{3}\ of\frac{1}{3}} - \frac{1}{9}$ is

A 2

B 1

C $\frac{1}{3}$

D None of these

Answer: D

Explanation:

Expression : $\frac{\frac{1}{3}+\frac{1}{3}\times\frac{1}{3}}{\frac{1}{3}+\frac{1}{3}of\frac{1}{3}}-\frac{1}{9}\rightarrow\frac{\frac{1}{3}+\frac{1}{9}}{\frac{1}{3}+\frac{1}{9}}-\frac{1}{9}$

= $1-\frac{1}{9}$

=> Ans - (D)

Question 56 .

Two numbers are such that they are 40% and 50% of the third number. First number as a percentage of the secondis

A 80%

B 40%

C 25%

D 47%

Answer: A

Explanation:

Let third number be 10

Thus, first number = 4 and second number = 5

=> Required % =$\frac{4}{5}\times 100=80\%$

=> Ans - (A)

Question 57

A student has to secure 45% marks to qualify for interview in a written examination. If he gets 79 marks and fails by 56 marks, what is the maximum marks setto qualify for

A 200

B 300

C 350

D 400

Answer: B

Explanation:

Let total marks = and minimum marks to qualify is 45% = $45x$

According to ques, =≥$45x = 79 + 56$

$$45x = 135 \rightarrow x = \frac{135}{45} = 3$$

∴Max marks = 300

=> Ans - (B)

Question 58

Anita gave 10% in charity from her salary, and then 20% from the remaining she gave to her friend as loan. She is left now with ₹7200. What is the salary of Anita?

A ₹ 15000

B ₹ 10000

C ₹ 20000

D ₹ 9000

Answer: B

Explanation:

Effective % amount she gave to charity and friend =$10 + 20 - \left(\frac{10\times20}{100}\right) = 28\%$

Now, remaining salary is $72\% \equiv 7200$

=> Total salary = $100\% \equiv \frac{7200}{72} \times 100 = Rs\ 10{,}000$

=> Ans - (B)

Question 59

A man gets double the amount in 7 years at a certain rate percent. In how many years, he gets 8 the amount at the same rate?

A 56 Years

B 49 Years

C 25 Years

D 14 Years

Answer: B

Explanation:

Using the formula :$\frac{N_1-1}{N_2-1} = \frac{T_1}{T_2}$

Let in t years, he gets 8 times the amount.

=> $\frac{2-1}{8-1} = \frac{7}{t}$

=> $\frac{1}{7} = \frac{7}{t}$

=> $t = 49$ years

=> Ans - (B)

Question 60

A Man took a loan of ₹ 2400 to be paid back in 13 equal monthly installments of ₹ 200 each.If the rate of interest is simple, what is the rate percent?

A 18.38%

B 16.52%

C 14.25%

D None of these

Answer: D

Explanation:

Let rate of interest =$r\%$ and $principal\ sum = Rs\ 2400$

Simple interest for 13 months =$\frac{P \times R \times T}{100}$

=> $2400 \times r \times \frac{13}{12 \times 100} = 200$

=> $26r = 200$

=> $r = \frac{100}{13} \approx 7.7\%$

=> Ans - (D)

Question 61

Rani invested a sum of ₹800 in a post office for 3 years at 5% compound interest, How much will she get at the end of 3 years

A ₹800

B ₹758.20

C ₹926.10

D ₹824.30

Answer: C

Explanation:

Principal sum = Rs. 800

Rate of interest = 5% for 3 years

Amount under compound interest= $P\left(1+\frac{r}{100}\right)^T$

$$= 800 \times \left(1+\frac{5}{100}\right)^3$$

$$800 \times \left(\frac{21}{20}\right)^3$$

$$= \frac{9261}{10} = Rs.926.10$$

=> Ans - (C)

Question 62

On what principal will the compound interest for 3 years at 5% per annum amount to ₹63.05?

A ₹400

B ₹600

C ₹300

D ₹800

Answer: A

Explanation:

Let principal amount be Rs. P

Rate of interest = 5% for 3 years

Compound interest= $P\left[\left(1+\frac{r}{100}\right)^T-1\right]$

=> $P\left[\left(1+\frac{5}{100}\right)^3-1\right]=63.05$

=> $P\left[\left(\frac{21}{20}\right)^3-1\right]=63.05$

=> $P\times\left(\frac{9261-8000}{8000}\right)=63.05$

=>$P=63.05\times\frac{8000}{1261}=Rs.400$

=> Ans - (A)

Question 63

A is thrice as good a workman as B and therefore able to finish a piece of work in 60 days less than B. How much time will they both take to finish it together?

A $11\frac{1}{3}$ days

B $22\frac{1}{2}$ days

C $33\frac{1}{3}$ days

D None of these

Answer: A

Explanation:

Let time taken by B = t days, and thus time taken by A=$(t-60)$ days.

Since, efficiency is inversely proportional to time,

=> $\frac{3}{1}=\frac{t}{t-60}$

=>$3t-180=t$

=> $2t=180$

=> $t=\frac{180}{2}=90$

Thus, time taken by B is 90 days and by A is 30 days

=> Time taken by them to finish the work together $1\div\left(\frac{1}{90}+\frac{1}{30}\right)\rightarrow\frac{90}{4}=22\frac{1}{2}\ days.$

=> Ans - (B)

Question 64

A does half as much work as B, and C does half as much work as A and B together. If C alone can finish the work in 40 days then together all will finish the work in?

A $13\frac{1}{3}$ days

B 15 days

C 20 days

D 30 days

Answer: A

Explanation:

Let B's efficiency = $4x$ units/days

=> A's efficiency = $2x$ units/day

=> C's efficiency = $3x$ units/day

If C alone can finish the work in 40 days,

=> Total work = $120x$ units

Time taken for all of them to finish the work together = $\frac{120x}{4x+2x+3x} = \frac{120}{9} = 13\frac{1}{3}\ days.$

=> Ans - (A)

Question 65

A train 110 m in length is travelling at the speed of 58 km/h. The time taken in which it will pass a passer by walking at the rate of 4 km/h in the same direction is

A 6 seconds

B seconds

C seconds

D 15 seconds

Answer: C

Explanation:

Speed of train = 58 km/hr and speed of passer by = 4 km/hr

Relative speed $58 - 4 = 54\frac{km}{hr} = 54 \times \left(\frac{5}{18}\right) = 15m/s$

=> Time taken to cross the passer by = $\frac{110}{15} = 7\frac{1}{3}$ seconds

=> Ans - (C)

Question 66

A car can finish a certain journey in 10 hoursat a speed of 48 km/h. In orderto cover the séme distance in 8 hours, the speed of the car mustbe increased by

A 6 km/h

B 7.5 km/h

C 12 km/h

D 15 km/h

Answer: C

Explanation:

Distance covered by car in 10 hours at 48 km/hr = $10 \times 48 = 480$ km

Now, speed when it is covered in 8 hours = $\frac{480}{8} = 60$ km/hr

Thus, speed must be increased by = 60-48=12 km/hr

=> Ans - (C)

Question 67

In covering a certain distance, the speeds of A and B are in the ratio of 3: 4. A takes 20 minutes more than B to reach the destination. The time taken by A to reach the destination is

A $1\frac{1}{4}$ hours

B $1\frac{1}{3}$ hours

C 2 hours

D $2\frac{1}{2}$ hours

Answer: B

Explanation:

Let time taken by B is minutes, and thus time taken by A = $(t + 20)$ minutes

Also, speed is inversely proportional to time,

=> $\frac{3}{4} = \frac{t}{t+20}$

=> $3t + 60 = 4t$

=> $t = 60$

Thus, time taken by A = $60 + 20 = 80$ minutes = $1\frac{1}{3}$ hours

=> Ans - (B)

Question 68

A man Walks a distance at 8 km/h and returns at 6 km. If the total time taken by him is $3\frac{1}{2}$ hours, the total distance he walks is

A 12 km

B 14 km

C 24 km

D 28 km

Answer: C

Explanation: Let distance each side be d km

Using, time = distance/speed

=> $\frac{d}{8}+\frac{d}{6}=3.5$

=> $\frac{7d}{24}=\frac{7}{2}$

=> $d=12$ km

Thus, total distance travelled (both sides) = $12\times2=24$ km

=> Ans - (C)

Question 69

The ratio of age of Aman and his mother is 3:11 . the difference of their ages is 24 years. what will be the ratios of their ages after 3 years?

A 1:3

B 3:2

C 1:4

D 5:4

Answer: A

Explanation:

Let Aman's age = $3x$ years and his mother's age = $11x$ years

=> Difference =$11x-3x=8x=24$

=> $x=3$

Ratio after 3 years= $\frac{3(3)+3}{11(3)+3}=\frac{12}{36}=1:3$

=> Ans - (A)

Question 70

A, B and C have amounts in the ratio of 3 : 4 : 5. First B gives to A and to C then C gives to A. What is the final ratio of amount of A, B and C respectively?

A 4 : 3 : 5

B 5 : 4 : 3

C 6 : 4 : 2

D 5 : 2 : 5

Answer: D

Explanation:

Let amount with A, B and C be Rs. 300,400 and 500 respectively.

First, B gives $\frac{1}{4^{th}}$ to A and $\frac{1}{4^{th}}$ to C

=> Amount with A= $300 + \frac{1}{4} \times 400 = Rs.400$

C = $500 + \frac{1}{4} \times 400 = Rs.600$

B =$400 - 100 - 100 = Rs.200$

Secondly, C gives $\frac{1}{6^{th}}$ to A

=> Amount with A =$400 + \frac{1}{6} \times 600 = Rs.500$

$B = Rs.200$

$C = 600 - 100 = Rs.500$

Thus, final ratio with A:B:C = 5:2:5

=> Ans - (D)

Question 71

Ms. Gupta bought a house for ₹C in 2010. Three years later she sold the house for 25% more than she paid for it. She has to pay a tax of 50% on the gain. (The gain is the selling price minus the cost.) How much tax must Ms. Gupta pay?

A $\frac{1}{24}C$

B $\frac{1}{4}C$

C $\frac{1}{8}C$

D $\frac{1}{6}C$

Answer: C

Explanation:

Cost price of house = Rs. C

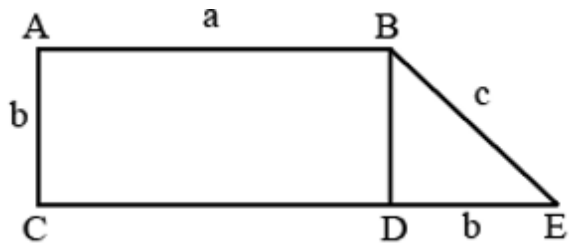
Profit on house $= \frac{25}{100} \times C = Rs.\frac{1}{4}C$

Tax paid = $\frac{50}{100} \times \frac{C}{4}$

=> Ans - (C)

Question 72

What is the area of the figure below, if ABDC is a rectangle and BDE is an isosceles right triangle ?



A ab

B ab^2

C $b\left(a+\frac{b}{2}\right)$

D cab

Answer: C

Explanation:

Area of figure = area (ABCD) + area (BDE)

= $(ab)+\left(\frac{1}{2}\times b\times b\right)$

= $b\left(a+\frac{b}{2}\right)$

=> Ans - (C)

Question 73

If 2x+y=5 , then 4x+2y=?

A 5

B 8

C 9

D 10

Answer: D

Explanation:

Given: ---------- (i)

Multiplying equation (i) by 2, we get:

=> $4x+2y=10$

=> Ans - (D)

Question 74

If the radius of a circle is increased by 6%, then the area of the circle is increased by

A .36 %

B 3.6 %

C 6 %

D 12.36 %

Answer: D

Explanation:

Let radius of circle be $r = 1\ units$.

=> Area = $= \pi r^2 = \pi$ sq.units

Now, after 6% increase, new radius = $r' = 1.06$ units

=> New area = $\pi(r')^2 = 1.1236\pi$ sq. units

Increase in area = $\frac{1.1236-1}{1} \times 100 = 12.36\%$

=> Ans - (D)

Question 75

If a light flashes every 6 seconds, how many times will it flash in $\frac{3}{4}$ of an hour?

A 225

B 250

C 450

D 480

Answer: C

Explanation:

Number of time light flashes in 6 seconds = 1 time

Number of times it will flash in 45 minutes (or 2700 sec) = $\frac{2700}{6} = 450$

=> Ans - (C)

Question 76

The sum and difference of LCM and HCF of 2 numbers is 638 and 580. The sum of two numbers is 290. What are the two numbers?

A 29,261

B 87,203

C Data inadequate

D None of these

Answer: B

Explanation:

Let the L.C.M. and H.C.F. of the two numbers be x and y

According to ques, => $x + y = 638$

and $x - y = 580$

Adding above equations, we get : $x = 609$ and $y = 29$

Thus, H.C.F. = 29 and L.C.M. = 609

Let the two numbers be $29a$ and $29b$, where a and b are co-prime

=> Sum of numbers = $29a + 29b = 290$

=> $a + b = 10$

Since, they are co-prime, possible values of a, b are : (1,9), (3,7)

Now, to get L.C.M. as 609, we have a=3 and b=7 (or vice-versa)

Thus, the numbers are: 87 and 203

=> Ans - (B)

Question 77

In a two-digit number, the unit digit is 3 more than the ten's digit. The difference between the number and the number formed by interchanging the digits of the number is 27. What is the value of original number?

A 63

B 27

C 19

D None of these

Answer: D

Explanation:

Let the ten's digit be x and unit's digit = $x + 3$

Thus, number = $10x + (x + 3) = 11x + 3$

If we interchange the digits, number = $10x(x+3)+x = 11x+30$

=> Difference = $(11x+3)+(11x+30) = 27$

Since, the difference is always constant, hence we cannot find the two-digit number, it can be 14,25,36,47,58,69 =>

Ans - (D)

Question 78

A washing machine was purchased under installment system, cash down payment is ₹ 3,000 and 3 equal annual installments of ₹1,300 are payable at the end of first, second and third year. If rate of interest is 10% p.a. under simple interest. Find the price of washing machine and the total interest charged under installment plan.

A ₹6,500; ₹400

B ₹6,600; ₹300

C ₹6,300; ₹600

D ₹6,000; ₹900

Answer: D

Explanation:

Let the price of washing machine = Rs 100x

Rate of interest is 10% for 3 years under simple interest

=> S.I=$\frac{P\times R\times T}{100}$

Total amount paid =$3000+(3\times 1300) = Rs.6900$

=> $100x+\frac{(100x-3000)\times 10\times 3}{100} = 6900$

=> $100x+(x-30)\times 30 = 6900$

=> $130x-900 = 6900$

=> $130x = 6900+900 = 7800$

=>$x = \frac{7800}{130} = 60$

Sum = Rs. 6,000$$ and thus total interest charged = Rs. 900

=> Ans - (D)

Question 79

The three sides of a right-angled triangle have integral lengths and also form an arithmetic progression. A possible length of one of the sides is

A 22

B 91

C 82

D 56

Answer: D

Explanation:

Let the three sides be $(a-d), a, (a+d)$ units.

In a right angled triangle,

=> $(a-d)^2 + a^2 = (a+d)^2$

=> $2a^2 + d^2 - 2ad = a^2 + d^2 + 2ad$

=> $a^2 = 4ad$

=> $a = 4d$

Thus, the three sides are : $3d, 4d, 5d$

Thus, the sides are multiples of either 3,4 or 5.

Thus, only possible side among the options is 56.

=> Ans - (D)

Question 80

Mona and Sonastart simultaneously from two towns, P and Q, towards Q and P respectively at 8:00 AM.R is a check post which is midway between P and Q. Both Mona and Sona turn back towards their respective starting points whenever they reach R and every time-they reach their starting points they turn back and return to R. If the speeds of Mona and Sonaare 45 km/h and60 km/h respectively and PQ = 24 km, when will they reach R at the same time?

A 10:24AM

B 11:36 AM

C 2:12PM

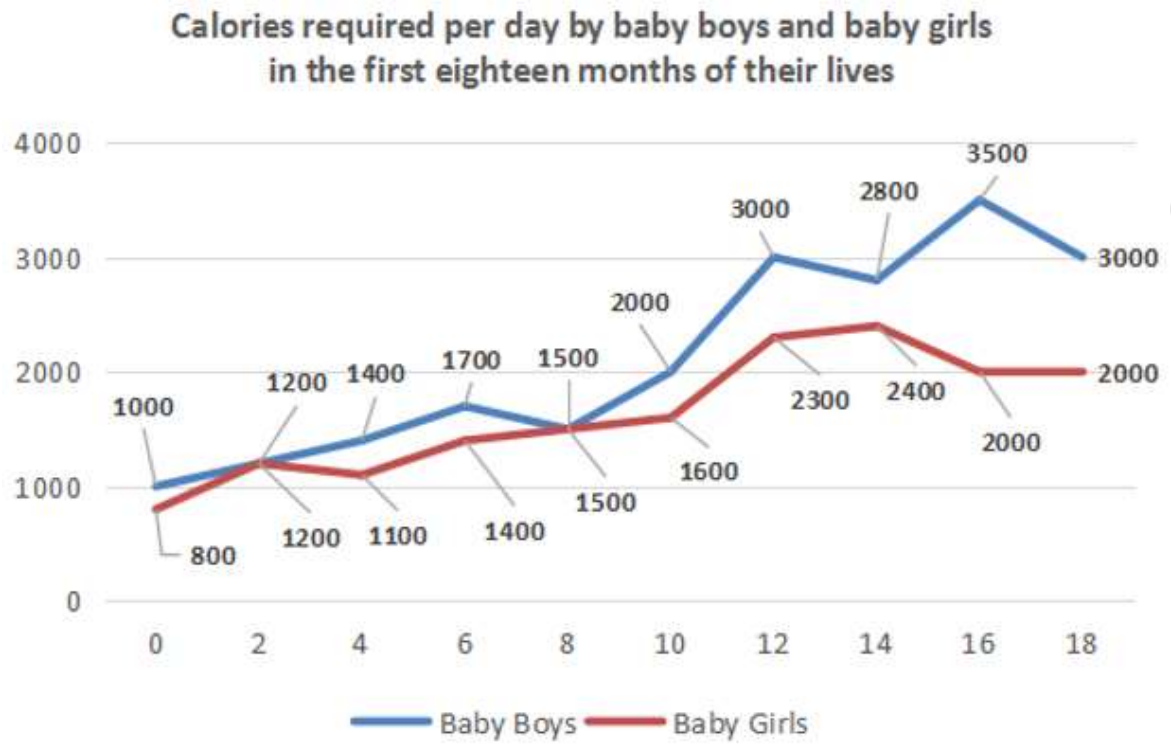
D None of these

Answer: E

Data Interpretation

Instructions

Consider the following graph and answer the questions based on it.



Question 81

At what ages are the requirements of calories for baby boys and baby girls equal?

A 2 months

B 4 months

C 8 months

D 2 months and 8 months

Answer: E

Question 82 The difference between the calorie requirement for baby boys and baby girls at the age of 6 months is approximately equal to

A 300 calories.

B 250 calories.

C 400 calories.

D 200 calories. Answer: E

Question 83

If in a family there are four baby boys aged 4, 6, 8 and 12 months respectively, and three baby girls aged 2, 8 and 16 months respectively, then what is the total calorie requirement per day for the babies in the family?

A 12,100

B 12,250

C 12,400

D None of these

Answer: E

Question 84

If the baby girl aged 16 months goes away, what is the percentage change in the calorie requirement per month for the family?

A 16.3%

B 17.4%

C 14.3%

D 12.2%

Answer: E

Question 85

In a family there are four baby boys aged 4, 6, 8 and 12 months respectively, and three baby girls aged 2, 8 and 16 months respectively. However, doctor Raj informs Ravi that the graphs have got mixed up and what is shown for the baby boys, is for the baby girls and vice versa, then what is the total calorie requirement per day for the babies in the family?

A 12,100

B 12,250

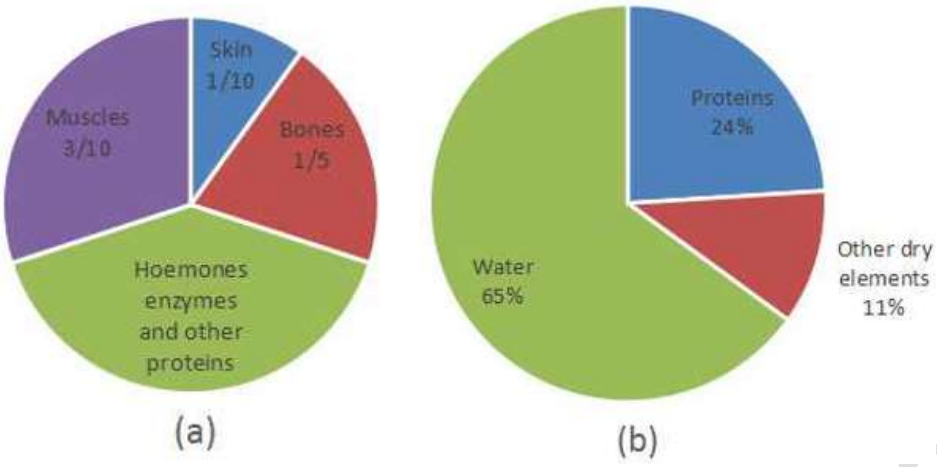
C 12,400

D none of these

Answer: E

Instructions

The following pie charts give the information about the distribution of weight in the human body according to different kinds of components. Study the pie charts carefully to answer these questions.



Question 86

How much of the human body is neither made of bones nor skin?

A 40%

B 50%

C 60%

D 70%

Answer: E

Question 87

What is the ratio of the distribution of proteins in the muscles to that of the distribution of proteins in the bones?

A 2:1

B 2:3

C 3:2

D None of these

Answer: E

Question 88

What percentage of proteins of the human body is equivalent to the weightofits skin?

A 41.66%

B 43.33%

C 44.44%

D None of these

Answer: E

Instructions

Mr Kunal Sharma wants to buy a motorbike which is priced at ₹45,500. The bike is also available at ₹25,000 down payment and monthly installments of ₹1000 per month for 2 years or ₹18,000 down payment and monthly installment of ₹1000 per month for 3 years. Mr Kunal has with him only ₹12,000. He wants to borrow the balance money of the down payment from a private lender whose termsare : if ₹6,000 is borrowed for 12 months, the rate of interest is 20%. The interest will be calculated on the whole amountfor the whole year, even though the repaymenthas to be done in 12 equal monthly installments starting from the first month itself. Thus he will have to repay an amount of ₹600 per month for 12 months to repay ₹6000 (Principal) + ₹1200 (Interest @ 20%). If ₹10,000 upwards is borrowed for one year, the rate of interest is 30% and is calculated in exactly the same manneras above.

Question 89

If Mr Kunal is ready to pay either of the down payments then whichofthe installment schemes is the better option of the two? (Assume that Mr Kunal will pay the installments out of his own earnings and he keeps his savings with himself and earns no interest on the same.) Also assume that instead of borrowing the remaining money for the down payment, he saves the balance before the purchase

A ₹ 1000 for 2 years

B ₹ 2000 for 3 years

C Either of two

D Data inadequate

Answer: E

Question 90

What is the percentage difference in the total amount paid to the bike dealer between the two installment schemes (with respect to the total payment of the scheme with ₹25,000 down payment)?

A 10.2%

B 13.5%

C 11.4%

D None of these

Answer: E

Question 91

If Kunal can spare only a total of ₹2000 to be paid to the bike dealer and the money lender from his monthly earnings starting from the first month onwards, which scheme should be chosen?

A ₹ 1000 for 2 years

B ₹ 2000 for 3 years

C ₹ Either of two

D ₹ Data inadequate

Answer: E

Instructions

The following table is based on the work record of 8 workers — L, M, N, O, P,Q, R and S who are working under the supervision of Gopinath on the September.

Time	Workers							
	L	M	N	O	P	Q	R	S
9:30	E	B	C	B	F	E	F	D
10:30	G	A	B	D	A	D	B	B
11:30	G	C	F	B	B	E	B	E
12:30	B	B	B	D	C	C	D	B
13:30	B	B	G	C	B	A	A	B
14:30	C	A	E	F	D	E	D	A
15:30	A	F	A	B	E	D	E	A
16:30	B	C	B	G	B	C	C	F

A = Talking informally

B = Working sincerely

C = Pretending to work

D = Sitting idle

E = Discussing about work

F = Not at work place

G = Disturbing others

Workers	L	M	N	O	P	Q	R	S
Leaves in September	5	2	4	0	10	6	8	9

The management allocated points for the workers as follows :

A = -2 : B = 5; C = 1 ; D = 0; E = 4; F = -3; G = 4

Question 92

The person, who gotthe highest points for his work on September 30, is

A N

B R

C Q

D P

Answer: E

Question 93

If instead of Gopinath, Raghuram, whocannot identify a worker who is working pretending to work and considers him also as sincerely, is the supervisor. Then the worker with the minimum points will be

A O

B S

C L

D M

Answer: E

Question 94

If the total number of working days in September is 25 and all the workers get the same points as they obtained on September 30 for every day that they have attended in September, then the person who will get the maximum points in the month of September is :

A N

B M

C O

D P

Answer: E

Question 95

The sum of the points of all the workers at a specific time is called the efficiency at that time, then at which of the following times of the day was the efficiency the lowest on September

A 10.30

B 4.30

C 3.30

D 2.30

Answer: E

Question 96

If on September , any worker who gets a zero in any hour and was also not at his/her work place for any hour on that day is dismissed, then how many workers were not dismissed on that day?

A 1

B 2

C 3

D 4

Answer: E

Instructions

Answer these questions on the basis of the information given below.

A newspaper vendor picks up copies of various newspapers from a center and distributes them to his customers as per their subscription. Subscription means that the customer will receive a copy of that newspaper on all days throughout the month. On the last day of each month, he prepares the bill for each customer for that month and collects the payment on the 1* day of the next month. The details of various newspapers along with their retail price per copy on weekdays (Mon-Sun) are shown below. The customers are given bills according to the retail price of the copy of the newspaper they have subscribed to.

Newspapers	Days (Retail Price per copy in ₹							Total
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
NBT	2.00	3.00	2.00	2.00	3.00	2.00	3.00	17.00
TOI	2.00	2.00	2.00	2.00	2.00	2.00	4.50	16.50
HT	2.00	2.00	2.00	2.00	2.00	2.00	4.50	16.50
DJ	2.00	2.00	3.00	2.00	3.00	3.00	3.00	18.00
PK	3.00	2.00	2.00	3.00	2.00	3.00	3.00	18.00
ET	2.00	2.00	2.00	2.00	2.00	10.00	10.00	30.00
DB	2.00	3.50	2.50	2.00	2.00	2.50	2.50	17.00

Question 97

The monthly bill of ₹74 is never possible for which of the following newspapers?

A NBT

B DJ

C DB

D PK

Answer: E

Question 98

The monthly bill of which of the following two newspapers cannot be equal for any month?

A DB and HT

B PK and DJ

C NBT and DB

D DB and PK

Answer: E

Question 99

In the month of August, subscription of which two newspapers can lead to the same amount on the monthly bill of a customer? I. PK and NBT II. DJ and DB III. TOL and DJ IV. DJ and PK

A I and III

B I and IV

C I and II

D V only

Answer: E

Question 100

The month's bill for Mr. Jackson is ₹ 200. Which newspapers did he possibly suscribe to

A ET and TOI

B PK, NBT and HT

C NBT, DB and TOL

D HT, TOL and DB

Answer: E

Question 101

Mr. Sharma has subscribed for ET and PK only. If ₹x is the bill of Mr. Sharma for the month of April, then the bill will be

A $200 \leq x \leq 218$

B $200 \leq x \leq 217$

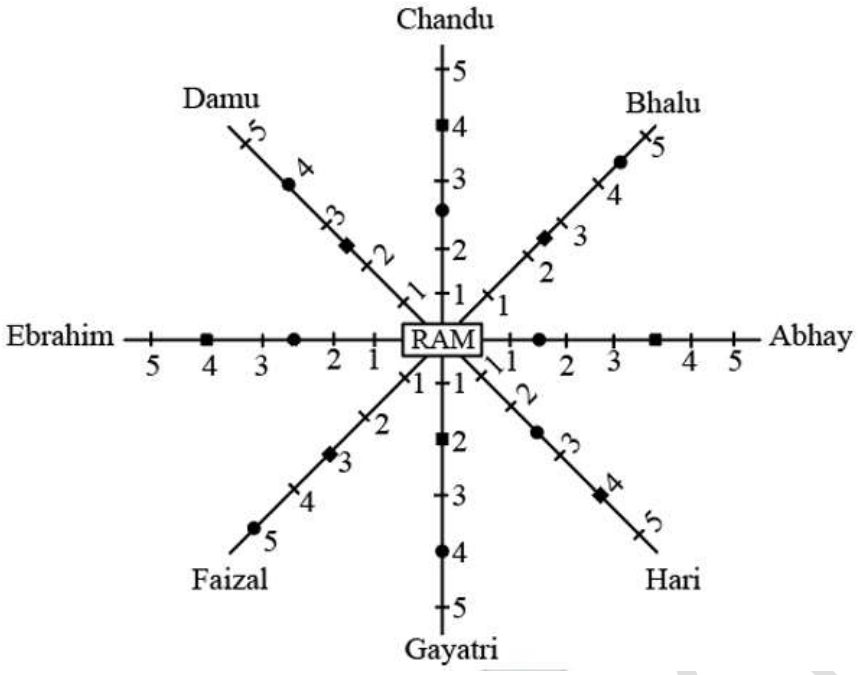
C $201 \leq x \leq 218$

D $201 \leq x \leq 217$

Answer: E

Instructions

Refer to the data given in the diagram below and answer the questions that follow.



Abhay, Bhalu, Chandu, Damu, Ebrahim, Faizal, Gayatri and Hari are Ram's friends. The above diagram gives the distance of each of their houses and time taken by Ram to visit each of them.

→ Distance of particular person's house from Ram's house (Scale 1 division = 1.75 km).

→ Time taken by Ram to reach a particular person's house starting from his house (Seal division = 1.2 hrs.) Question 102 Ram is travelling with maximum average speed, while going to

A Damu's house.

B Bhalu's house.

C Faizal's house.

D Gayatri's house.

Answer: E

Question 103 How much time will Ram take to reach Chandu's house, if he travels at the speed at which he travels to Hari's house

A 4 h

B 5.3 h

C 4.8 h

D 6 h Answer: E

Question 104

If Abhay's Ram's and Bhalu's houses are in 4 straight line, then how muchtime will Ram take to reach Bhalu's house from Abhay’s house,if he is travelling at 0.5 km/h?

A 10.5h

B 6h

C 9.5h

D 3 h

Answer: E

Question 105

Ebrahim, Faizal and Ram live in a Straight line, such that Ram stays between Ebrahim and Faizal. How muchtime will Ram take to travel to Faizal's house from Ebrahim's house at the speed at which he travels to Abhay'shouse?

A 20h

B 12h

C 18h

D 21h

Answer: E

Instructions

Answer the questions based on the following table, which gives data about certain coffee producers in India.

	Production ('000 tonnes)	Capacity Utilisation (%)	Sales ('000 tonnes)	Total Sales Value (₹ crore)
Brooke Bond	2.97	76.5	2.55	31.15
Nestle	2.48	71.2	2.03	26.75
Lipton	1.64	64.8	1.26	15.25
MAC	1.54	59.35	1.47	17.45
Total (incl.Others)	11.6	61.3	10.67	132.8

Question 106

What is the maximum production capacity (in '000 tonnes) of Lipton?

A 2.53

B 2.85

C 2.24

D 2.07

Answer: E

Question 107

The highest price of coffee per kg is for

A Nestle

B Mac

C Lipton

D Insufficient data

Answer: E

Question 108

What per cent of the total market share (by Sales Value) is controlled by ‘others’?

A 60%

B 32%

C 67%

D Insufficient data

Answer: E

Question 109

What approximately is the total production capacity (in tonnes)for coffee in India?

A 18,100

B 20,300

C 18,900

D Insufficient data

Answer: E

Instructions

The following data shows the comparative data for state-wise literacy and population growth. Study the data carefully to answer these questions.

State	Percentage increase in		
	Total literacy (from 2001 to 2011)	Female literacy (from 2001 to 2011)	Change in % population growth rate (from 2001 to 2011)
Andhra Pradesh	25.17	23.32	+0.09
Bihar	22.34	19.48	-0.04
Gujarat.	27.21	26.2	-0.53
Haryana	29.19	28.67	-0.11
Himachal Pradesh	31.06	31	-0.24
Karnataka	27.52	26.63	-0.47
Kerala	30.17	31.2	-0.43
Madhya Pradesh	25.58	22.86	+0.13
Maharashtra	25.87	25.92	+0.10
Manipur	29.61	29.68	-0.25

Question 110

Which of thefollowing states shows a higher percentage increase in femaleliteracy than the percentage increase in total literacy? (i) Maharashtra (ii) Himachal Pradesh (iii) Kerala

A (i) only

B (i), (ii) and (iv)

C (i) and (iii)

D All these

Answer: E

Question 111

For the state showing the minimum percentage increase in total literacy, the numerical ratio of the percentage increase in total literacy to the change in percentage population growth rate is nearly (take absolute values only).....

A 508.5

B 558.5

C 598.5

D None of these

Answer: E

Question 112

The ratio of the percentage increase in female literacy to the percentage increase in total literacy is maximum for which state?

A Kerala

B Maharashtra

C Manipur

D Madhya Pradesh

Answer: E

Question 113

The ratio of the overall simple average of the percentage increase in female literacy to the simple average percentage increase in female literacy of those states where the percentage increase is more than the overall average is .....

A 0.972

B 0.818

C 0.89

D 0.146

Answer: E

Question 114

The ratio of the simple overall average of the percentage increase in female literacy to the simple overall average of the percentage increase in total literacy is approximately equal to ___.

A 0.894

B 0.968

C 1.033

D None of these

Answer: E

Question 115

Which state exhibits the highest total literacy?

A Himachal Pradesh

B Kerala

C Manipur

D None of these

Answer: E

Instructions

The following bar chart shows the composition of the GDP of two countries (India and Sri Lanka)

Question 116

What fraction of India's GDP is accounted for by Services?

A

B

C

D None of these Answer: E

Question 117 If the total GDP of Sri Lanka is ₹10,000 crore, then the GDP accounted for by Manufacturing is

A ₹200 crore.

B ₹600 crore

C ₹2000 crore

D ₹6000 crore

Answer: E

Question 118

If the total GDP of India is ₹30,000 crore, then the GDP accounted for by Agriculture, Services and Miscellaneous is

A ₹ 18,500 crore.

B ₹18,000 crore

C ₹21,000 crore.

D ₹15,000 crore.

Answer: E

Question 119

Which country accounts for higher earning out of Services and Miscellaneous together?

A India

B Srilanka

C Both spend equal amounts

D Cannot be determined

Answer: E

Question 120

If the total GDP is the same for both the countries, then what percentage is Sri Lanka's income through agriculture over India's income through services?

A 100%

B 200%

C 133.33%

D None of these

Answer: E

Reasoning and Logical Ability

Instructions

Each of these questions has a statement followed by two conclusions numbered as I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark answer as

Question 121

Statement:

There is mounting concern that water will be a flash point for political, social and economic turmoil. Conclusions: I. Water faces an endemic global shortage. II. The scarcity of water will have serious repercussions on our lives.

A if conclusion I follows

B if conclusion II follows

C if neither conclusion I norII follows

D if both conclusionsI and II follow

Answer: E

Question 122

Statement :

Cardiac myopathy is marked by an increase in the size of heart and decrease in the efficiency of pumping.

Conclusions :

I. The bigger the size of heart the better it works.
II. The efficiency of the heart is inversely proportional to the size of the heart.

A if conclusion I follows

B if conclusion II follows

C if neither conclusion I nor II follows

D if both conclusionsI and II follow

Answer: E

Question 123

Statement:

Some religious gurus preach austerity to poor while living in luxury and driving Mercedes. Conclusions: I. Some of the frauds have donned the garb of religious god men. II. There is a world of difference between preaching and practicing.

A if conclusion I follows

B if conclusion II follows

C if neither conclusion I nor II follows

D if both conclusions and II follow Answer: E

Question 124

Statement :

Every natural remedy is not necessarily harmless and should be used with caution.

Conclusions:

I. The natural remedies are not scientifically proven.
II. Everything natural has no side effect.

A if conclusion I follows

B if conclusion II follows

C if neither conclusion I norII follows

D if both conclusionsI and II follow

Answer: E

Question 125

Statement:

Summer heralds, the arrival of mosquito borne diseases such as malaria, dengue and chickunguniya.

Conclusions:

I. Mosquito bites are harmless during winter, autumn and spring season.
II. Mosquitoes breed rapidly during summers.

A if conclusion I follows

B if conclusion II follows

C if neither conclusion I norII follows

D if both conclusionsI and II follow

Answer: E

Instructions

Study the information below to answer these questions. Five persons, Amrinder, Bishamber, Chidambaram, Digamber and Inder of a family eat grapes, apples, cherries, mangoes and pineapples not in the order as mentioned,after lunch, from Tuesday to Saturday. No member eats any fruit on Sundays and Mondays. Each member eats only one fruit on one day and does not repeat it during the same week. No two members can eat the same fruit on the same day. * Inder does not eat cherries or grapes on Wednesday. * Amrinder eats cherries on Tuesday. * Digambereats apples on Tuesday. * Inder does not take pineapples on Tuesday but takes apples on Thursday. * Bishamber eats pineapples on Friday. * Chidambaram eats grapes on Saturday, cherries on Wednesday and mangoes on Thursday. * Digamber eats pineapples on Wednesday.

Question 126

Which fruit does 'Inder' eat on Wednesday?

A Grapes

B Pineapples

C Apples

D Mangoes

Answer: E

Question 127

Who eats 'mangoes' on "Tuesday'?

A Inder

B Amrinder

C Bishamber

D None of these

Answer: E

Question 128

Which fruit can Chidambaram take on Tuesday ?

A Grapes

B Cherries

C Apples

D Pineapples

Answer: E

Instructions

Study the information below to answerthese questions. There are six boys in a group. Mahesh and Ramesh are in the Hockey team together. Parvesh has defeated Ramesh in badminton butlost to Suresh in tennis. Mahesh and Parvesh are in opposite teams of basketball. Naresh represents his state in cricket while Samresh does so at the district level. Boys who play chess don't play football, basketball or volleyball. Mahesh and Parvesh are together in the volleyball team. Boys who play football also play hockey. Suresh plays chess and competes with Ramesh. Naresh and Samresh are good footballers. Suresh also plays hockey and tennis quite well.

Question 129

Name the boys who don't play the game of football?

A Suresh and Naresh

B Ramesh and Samresh

C Ramesh and Suresh

D Ramesh and Naresh Answer: E

Question 130

Which player plays the maximum number of games ?

A Samresh

B Ramesh

C Parvesh

D Naresh

Answer: E

Question 131

Which is the most popular game with this group of boys ?

A Cricket

B Batminton

C Hockey

D Football

Answer: E

Instructions

Study the information below to answer these questions.

There are five types of cards namely A, B, C, D and E and there are in all 15 cards, i.e., three cards of each type. These cards are to be inserted in 15 envelopes. There are three colors of these envelopes namely red, yellow and brown. There are five envelopes of each color.

* B, D and E types of cards are inserted in red envelopes.

* A, B and C types of cards are to be inserted in yellow envelopes.

* C, D, E are types of cards to be inserted in brown envelope.

* Two Cards each of B and D types are enclosed in red envelopes

Question 132

Which of the following combinations of types of cards and the number of cards are definitely correct in respect of yellow color edenvelop

A A-2, E-1, D-2

B A-2, B-1, C-2

C A-3, C-1, B-1

D B-1, C-2, D-2

Answer: E

Question 133

Which of the following combinations of color of the envelope and the number of cards are definitely correct in respect of E-type of cards ?

A Red-1, Yellow-2

B Yellow-1, Brown-2

C Red-1, Brown-1, Yellow-1

D Red-1, Brown-2

Answer: E

Question 134

Which of the following combinations of types of cards and the number of cards and color of envelope are definitely correct ?

A A-2, B-2, C-1; Yellow

B C-2, D-1, E-2; Brown

C C-1, D-2, E-2; Brown

D B-2, D-2, A-1; Red

Answer: E

Instructions

Study the Information below to answer the questions.

Seven friends namely Anand, Dedphk, Varun' Ujjawal, Pritam, kadir and Jasmeet live in three different buildings namely Ashiana. TopHill and Ridge. Each person is flying a kite of his choice with a different colour like red, green, blue, white, black, yellow, and pink, not necessarily in that order.

* Kadir is flying a pink kite and lives in the same building where Jasmeet stays, i.e., "Ashiana'.

* Varun is flying a black kite and does not live in Ridge building.

* Ujjawal does not live in the same building where Anand or Pritam are living and is flying a Yellow coloured kite.

* Deepak lives in Ridge building with one more person and is flying a green kite.

* None living in Top-Hill building flies a white kite.

* Only two persons are staying in Ridge building while three of them are staying in Top-Hill building.

* Pritam does not fly a blue kite and stays in Top-Hill. Question 135 Who is flying the "Blue' kite ?

A Jasmeet

B Pritam

C Anand

D Deepak

Answer: E

Question 136

Who are staying in Top-Hill building ?

A Anand, Pritam and Deepak

B Varun, Jasmeet and Pritam

C Anand, Varun and Pritam

D Anand and Pritam

Answer: E

Question 137

Who are living in Ridge building ?

A Anand and Pritam

B Varun, Anand and Pritam

C Deepak and Ujjawal

D Deepak, Anand and Pritam

Answer: E

Instructions

Study the Information below to answer these questions. There are five friends in a group, namely Arvind Mohan, Barkat Rai, Chandram Singh, Daya Singh and Arjun Singh. All of them are engaged in different professions like they are horticulturist, physician, journalist, industrialist, and an advocate, though not in this order.

* Three of them, ie., Arvind Mohan, Chandram Singh and the advocate prefer tea to coffee and two of them, i.c., Barkat Rai and the journalist prefer coffee to tea.

* Daya Singh, Arvind Mohan and the industrialist are very close friends but two of them prefer coffee to tea.

* Thehorticulturist is physician's brother.

* Chandram Singh did his MBBS. from Bhopal and Arjun Singh got his law degree from Indore.

Question 138

Who is the Horticulturist?

A Chandram Singh

B Barkat Rai

C Arvind Mohan

D Daya Singh

Answer: E

Question 139

Which of the following groups includes persons who like tea but none in the group is an advocate ?

A Arvind Mohan, Chandram Singh and Arjun Singh

B Daya Singh and Arjun Singh

C Barkat Rai, Chandram Singh and Arjun Singh

D Chandram Singh and Arvind Mohan

Answer: E

Question 140

Who is the Physician ?

A Arvind Mohan

B Arjun Singh

C Daya Singh

D Chandram Singh

Answer: E

Instructions

In each of these questions, two Statements numbered as I & II are provided. These may have a cause and effect relationship or may have independent causes or be the effects of independent causes. Read the statements and mark answer as

Question 141

Statement I:

Most of the private schools have increased the tuition fees in Delhi this year to meet their expenses.

Statement II:

The tuition fees in government-run schools have not been hiked in spite of the unexpected price rise witnessed this year.

A if the statement I is the cause and statement II is its effect.

B if the statement II is the cause and statement I is its effect.

C if both the statements are effects of independent causes.

D if both the statements are effects of some common cause.

Answer: E

Question 142

Statement I:

The results of the students of science stream of class XI in the Kendriya Vidyalayas this year were excellent.

Statement II :

Many teachers of Kendriya Vidyalayas have left these schools and joined private schools.

A if the statement I is the cause and statement II is its effect.

B if the statement II is the cause and statement I is its effect.

C if both the statements are effects of independent causes.

D if both the statements are effects of some common cause.

Answer: E

Question 143

Statement I:

If we incorporate fruits as part of our meals, we avoid excess calories in our daily in-take. Fruits are wholesome and have a very high water content.

Statement II:

Many fruits like watermelon or cucumber are calorie-burners as digesting them burns more calories than eating them.

A if the statement I is the cause and statement II is its effect.

B if the statement II is the cause and statement Iis its effect.

C if both the statements are effects of independent causes.

D if both the statements are effects of some common cause.

Answer: E

Question 144

Statement I :

World Health Organization believes that one in 10 hospital admissions leads to an adverse event and one in 300 admissions in death. Unintended medical errors are a big threat to patient safety.

Statement II:

American Medical Association claims and quantifies that there are nearly 2000 deaths due to unnecessary surgery. 7000 deaths from medication errors, 8000 deaths from infections and nearly 16000 deaths due to adverse effects of medicines.

A if the statement I is the cause and statement II is its effect.

B if the statement II is the cause and statement I is its effect.

C if both the statements are effects of independent causes.

D if both the statements are effects of some common cause.

Answer: E

Question 145

Statement I:

A bone ossification test conducted by AIIMS doctors has led to the release of a man who spent 11 years behind bars on charges of murder despite being a juvenile at the time of offence. Statement II: As per the calculation done by High Court Judge, Fahroog must have been not more than 17 years when he committed the crime and should have been tried as per the Juvenile Justice Act, and should not have been imprisoned for over 3 years for crimes including murder.

A if the statement I is the cause and statement II is its effect.

B if the statement II is the cause and statement I is its effect.

C if both the statements are effects of independent causes.

D if both the statements are effects of some common cause.

Answer: E

Instructions In each of these questions, choose the missing term(s) out of the given alternatives.

Question 146

A S 23	C U 29	E W 31
G Y 37	I A 41	K C 43
M E 47	? ? ?	Q I 59

A N O 49

B P Q 50

C O G 53

D N K 51

Answer: E

Question 147

K_7	L_5	M_3
L_9	M_7	K_5
M_{11}	L_9	?

A J_8

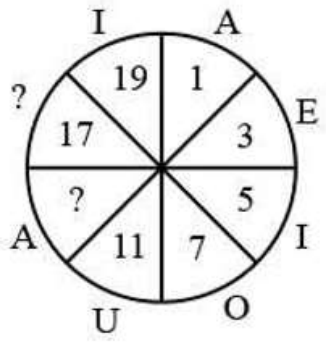
B K_9

C K_7

D N_8

Answer: E

Question 148



A U and 15

B A and 16

C E and 13

D O and 14

Answer: E

Question 149

	A	D	G	J	
T	3	4	7	6	M
Q	2	6	5	8	P
N	1	8	9	2	S
?	14	116	?	104	V
	H	E	B	Y	

A M and 125

B L and 145

C K and 155

D N and 165

Answer: E

Question 150

	A	E	I	M	
I	81	18	62	26	Q
E	39	93	63	36	U
?	15	51	45	18	Y
W	105	60	?	44	C
	S	O	K	G	

A E and 85

B B and 90

C A and 80

D C and 70

Answer: E

Instructions

Read the following information to answer these questions.

* There is a family of seven persons representing three generations.

* There are two married couples. Both the wives ate housewives and both have only two children.

* Ramcharan,the lawyer,is the father of Rohit and has two grand children.

* Monica, the doctor, is the sister of the teacher.

* Sudha’s daughter-in-law Asha is married to a teacher.

* Shikha, the granddaughter of one of the housewives,is studying in the 8" standard.

Question 151

What is the profession of Rohit ?

A Student

B Lawyer

C Teacher

D Can't say

Answer: E

Question 152

Which of the following groups is associated with all the three generations ?

A Rohit, Asha and Shik

B Ramcharan, Monica and Shikha

C Rohit, Monica and Shikha

D None of these

Answer: E

Question 153

Which of the following statements is nottrue ?

A Sudha has two granddaughters.

B The doctoris the paternal aunt of Shikha.

C The teacheris the son of Sudha.

D Ramcharan is the father-in-law of Asha.

Answer: E

Instructions

For the following questions answer them individually

Question 154

Radhika moved a distance of 80 metres towards North. She then turned to the left and after walking for another 20 metres, turned to the left again. She walked for another 80 metres. Finally, she turned to the right at an angle of 45°. In which direction was she moving finally ?

A North-East

B North-West

C South-East

D South-West

Answer: E

Question 155

Raghurbir drove 15kms northwards by his car.He then turned towards west and drove for 10 kms.He then drove towards south for 5 kms and then turned towards east and drove for next 8 kms.Finally he turned to right and drove for next 10kms . How far and in which direction is Raghubir from his starting point?

A 5 km West

B 6km South

C 2 km West

D None of these

Answer: E

Question 156

Krishna walks for walks 3 km towards East. How far and in which direction is he with reference to his starting point ?

A 7 km East

B 7 km West

C 5 km East

D 5 km North-East

Answer: E

Instructions

Each of these questions has an assertion (A) and a reason (R).

Question 157

Assertion (A):

A person jumping out of the moving train falls forward because his feetsuddenly cometo rest, while his body is in motion with the train.

Reason(R):

This is based on Newton's first law of motion which states that a body continues to be in its state of rest or of uniform motion in compelled by an external force to change that state.

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

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

C if (A) is true but (R)is false.

D if (A)is false but (R)is true.

Answer: E

Question 158

Assertion (A) :

Gandhiji withdrew the Non-Cooperatio India for some time.

Reason (R):

Gandhiji believed in non-violence but the protestations by people against the British rule at Chauri-Chaura turned violent. This event disappointed Gandhiji.

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

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

C if (A) is true but (R)is false.

D if (A)is false but (R)is true.

Answer: E

Question 159

Assertion (A):

A parachute enables a person to descend safely from a height in case of an accident.

Reason(R):

A parachute is made of a fabric with a limited air permeabiltyand has very large frontal area .When it falls through air,it experiences heavy air resistance.The forces oflift and drag due to air flow balance the weightof the parachutist so that one descends at a constantly slow speed.

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

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

C if (A) is true but (R)is false.

D if (A)is false but (R)is true.

Answer: E

Question 160

Assertion (A):

It is difficult to cook food on the hills.

Reason(R):

The atmospheric pressure on the hills is quite low because which water starts boiling at a low temperature and therefore it takes longer to cook food on hills

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

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

C if (A) is true but (R)is false.

D if (A)is false but (R)is true.

Answer: E