IBSAT Model Paper–5
Section I
Verbal Ability

I. **_Directions:_** _In the following questions, each word is followed by five options. Choose the option which is the closest **synonym** of the given words. While choosing your answer, keep in mind the finer distinctions in the meaning and usage of certain words._

1. DOLOROUS

(a) Happy   (b) Lachrymose   (c) Furious   (d) Angry   (e) Tempestuous

2. PUISSANT

(a) Powerful   (b) Skillful   (c) Colorful   (d) Beautiful   (e) Gainful

3. RECTITUDE

(a) Immorality   (b) Fulmination   (c) Dissipation   (d) Integrity   (e) Indulgence

4. TEDIUM

(a) Variation   (b) Excitement   (c) Diversion   (d) Monotony   (e) Temporization

5. MAWKISH

(a) Tendentious   (b) Mellifluous   (c) Maudlin   (d) Meridional   (e) Cynical

II. **_Directions:_** _In the following questions, each word is followed by five options. Choose the option which is the closest **antonym** of the given words. While choosing your answer, keep in mind the finer distinctions in the meaning and usage of certain words._

6. JOCUND

(a) Brash   (b) Jocular   (c) Square   (d) Melancholic   (e) Wild

7. INSCRUTABLE

(a) Comprehensible   (b) Confusing   (c) Contradictory   (d) Contemptible   (e) Corruptible

8. EXCORIATE

(a) Prevaricate   (b) Berate   (c) Regurgitate   (d) Cheer   (e) Acclaim

9. GLUM

(a) Desire   (b) Cheerful   (c) Sour   (d) Gloomy   (e) Respond

10. SCRAWNY

(a) Lean   (b) Skinny   (c) Emaciated   (d) Obese   (e) Wrinkled

III. **_Directions:_** _In the following questions, the first two words are related in a particular manner. You have to choose a word from the options so that a new pair of words is formed where the relation is the same as that of the first pair of words. You are required to consider the secondary meaning of certain words while choosing an answer._

11. Weed : garden :: edit :

(a) Publisher   (b) Editor   (c) News   (d) Puzzle   (e) Music

12. Incubator: infant:: green house:

(a)Parasites   (b) Worms   (c) Puppies   (d) Tadpoles   (e) Saplings

13. Pitch: cricket:: Ring

(a) Wrestling   (b) Boxing   (c) Badminton   (d) Tennis   (e) Hockey

14. Darkness: Ignorance: Light:

(a) Intelligence   (b) Knowledge   (c) Cleverness   (d) Familiarity   (e) Dawn

15. Nucleus : Cell ::Yolk :

(a)Grain   (b) Cob   (c) Fruit   (d) Egg   (e) Seed

IV.   *Directions: Fill in the blanks with the words that **best** fit the meaning of the sentence as a whole.*

16. In human as in animal societies the elder ---------transmit by example to the younger the _____experience accumulated by the group.

(a) Progeny …..lurid   (b) Generations ……collective
(c) Denizens …..repeated   (d) Luminary….. personal
(e) Children…….self

17. He was an_____musician, had been awarded by the Saneet Natak academy during the second world war and _____ with the title of Rai Bahadur.

(a) Outstanding.....popularized   (b) Underestimated ..... declared
(c) Accomplished..... honoured   (d) Impressive ..... assigned
(e) Effective …. Delivered

18. China and India _____ similarities in demography and natural resources and that is where those similarities _____.

(a) Exchange ..... close   (b) Surrender ..... expand
(c) Support ..... pass   (d) Share ..... end
(e) Resemble …. Converge

19. The role of the Press cannot be _____ even in dictatorship, because even a dictator needs the press for _____his ideology and policies.

(a) Eulogised ..... supressing   (b) Minimized ..... reflecting
(c) Exploited ..... writing   (d) Misused ..... broadcasting
(e) Committed …. Delivering

20. Modern methods of _____ earthquakes recognize that quakes, far from being geologic anamalies, are part of the periodic accumulation and discharge of _____ energy.

(a) Identifying .....iconic   (b) Locating ..... cosmic
(c) Predicting ..... seismic   (d) Watching ..... heavenly
(e) Prevailing……… acerbic

V.   *Directions: In the following questions, each sentence is divided into four parts (a), (b), (c) and (d). Find out which part of the sentence contains an error. If there is no error, mark your answer as (e).*

21.   The mutual co-operation   of employees is   essential to the success
                (a)   (b)   (c)

   of business. No error
      (d)   (e)

22. <u>Not less</u> <u>than fifty</u> <u>passengers were</u> <u>killed in the bus accident.</u> <u>No error</u>
     (a)   (b)   (c)   (d)   (e)

23. <u>The Chairmen of all large</u> <u>private sector banks met with</u> <u>senior World bank officials to give its</u>
           (a)   (b)   (c)

<u>suggestions about implementing the new policy.</u> <u>No error</u>
               (d)   (e)

24. <u>The sun hadn't hardly</u> <u>set when the mosquitoes began to sting</u> <u>so annoyingly that we had</u>
       (a)   (b)   (c)

<u>to run off from the playground.</u> <u>No error</u>
        (d)   (e)

25. A wise <u>and expexperienced</u> <u>manager will assign</u> <u>a job to whom ever is best qualified.</u> <u>No eror</u>
   (a)   (b)   (c)   (d)   (e)

VI. ***Directions:*** *In each of the following questions, a part of the given sentence has been underlined as this part **may have** an error. The first option is the same as the underlined part in the given sentence. Choose this option if you think that the underlined part has no error. Otherwise, choose the option that rectifies the error in the underlined part of the given sentence.*

26. When you leave out a player <u>who is the best in the country by a mile</u>, the people need to know the real reasons and this is where the attitude of the BCCI is depressing.

   (a)   Who is the best in the country by a mile
   (b)   Who is the best in the country
   (c)   Who is the best in the country for a mile
   (d)   Who is the best in the country with a mile
   (e)   Who is the best in the country within a mile

27. The reason why she is <u>absent today is because her husband is ill.</u>

   (a)   Absent today is because her husband is ill.
   (b)   Absent today because her husband is ill.
   (c)   Absent today is that her husband is ill.
   d)   Absent today is because her husband illness.
   (e)   Absent today was that her husband was ill.

28. It was <u>she, not me,</u> who put forth the attractive propositions.

(a) She, not me,   (b) Her, not me,   (c) Her, not I,   (d) She, not I,   (e) her, not myself

29. It is with a heavy heart that I pen these few lines <u>to condole for you on</u> the death of your beloved mother.

(a) Condole for you on   (b) Condole with you in   (c) Condole upon you on
(d) Condole with you on   (e) Condole for you in

30. <u>Neither the manager nor the Cashier were able to</u> report on the Company's progress.

   (a)   Neither the manager nor the Cashier were able to
   (b)   Neither the manager or the Cashier were able to
   (c)   Neither the manager nor the Cashier could able to
   (d)   Neither the manager nor the Cashier will able to
   (e)   Neither the manager nor the Cashier was able to

VII. Directions: *In the following questions, different parts of a sentence/passage have been jumbled. Choose the option that represents the **best** sequence to make the sentence/passage coherent and meaningful. Ignore punctuation marks.*

31. P. Children need to be loved, and in a sense they cannot have too much of it.
    Q. She herself doesn't want to grow up and attempts to make time stand still.
    R. Fortunately she cannot succeed.
    S. But it is not because of love that a mother prevents her child from growing up.

    (a) PSQR   (b) PSRQ   (c) PQRS   (d) PQSR   (e) PRQS

32. P: It would perhaps be possible for you to be of some use to this brave little boy
    Q: She said to herself silently at first , that
    R: Without neglecting anything of what was due to her important mission
    S: And this idea pleased her

    (a) PSQR   (b) RSQP   (c) QRPS   (d) QSPR   (e) SPQR

33. P. The real challenge today is unlearning, which is much harder
    Q. The new world of business behaves differently from the world in which we grew up
    R. Learning is important for both people and organizations however
    S. Each of us has a mental model that we've used over the years to make sense, but

    (a) SPQR   (b) RSPQ   (c) RSQP   (d) RPSQ   (e) SQPR

34. P: Passengers were told to be ready to quit the ship
    Q: The rising gale fanned the smoldering fire.
    R: Everyone now knew there was fire on board.
    S: Flames broke out here and there.

    (a) SRQP   (b) QPSR   (c) RSPQ   (d) QSRP   (e) PQRS

35. P. He dares not say "I think", "I am" but quotes some saint or sage
    Q. These roses under my window make no reference to former roses or to better ones
    R. He is ashamed before the blade of grass or the blowing rose
    S. Man is timid, apologetic and no longer upright

    (a) QRSP   (b) SPQR   (c) QSPR   (d) SQPR   (e) SPRQ

VIII. Directions: *Choose a suitable **one-word substitute** for the given phrase from the options under each question.*

36. A person filled with excessive zeal, especially for an extreme religious or political cause.

    (a) Lunatic   (b) Critic   (c) Fanatic   (d) Cynic   (e) Skeptic

37. The study of human history and prehistory through the excavation of sites and the analysis of physical remains.

    (a) Anthropology   (b) Genealogy   (c) Ornithology   (d) Etiology   (e) Archaeology

38. Person who suffers from delusions of greatness

    (a) Megalomaniac   (b) Kleptomaniac   (c) Romantic   (d) Hypochondriac   (e) Ascetic

39. Term used to refer to the health care of old people

    (a) Bariatric   (b) Veteran   (c) Geriatric   (d) Novice   (e) Turncoat

40. That which can be drunk

    (a) Edible   (b) Eatable   (c) Potable   (d) Palatable   (e) Perishable

IX. *Directions: Choose the option that **best** expresses the meaning of the given idiom/phrase.*

41. "I thought you said this was a difficult problem. It isn't. In fact, it's *as easy as pie*."

    (a) Evident   (b) Unmistakable   (c) Not worthy
    (d) Very difficult   (e) Very simple

42. "You're a real *couch potato*, Jay. You need to get more exercise!"

    (a) Plump chap   (b) Lazy person
    (c) Ignorant soul   (d) Sick individual
    (e) Careless being

43. "I don't think you can depend on Srikanth to do that job by himself. He's too *green*."

    (a) Childish   (b) Envious   (c) Indecisive   (d) Inexperienced   (e) Irresponsible

44. It's late and you've accomplished a lot. Why don't you *call it a day?*

    (a) Sleep   (b) Take rest   (c) Stop work   (d) Be happy   (e) Enjoy

45. My new car cost an *arm and a leg*.

    (a) Negligible   (b) Exorbitant   (c) Reasonable   (d) Cheap   (e) Economical

X. *Directions: Replace the number with the word(s) that **best** fit(s) the meaning of the passage as a whole.*

It is _____(46) to read a book about our planet by an author who does not allow facts to be _____ (47) by politics: well aware of the political disputes about the effects of human activities on climate and biodiversity, this author does not permit them to _____ (48) his comprehensive description of what we know about our biosphere. He emphasizes the enormous gaps in our knowledge, the _____ (49) of our observations, and the _____(50) of our theories, calling attention to the many aspects of planetary evolution that must be better understood before we can accurately diagnose the condition of our planet.

46. (a) Refreshing   (b) Stimulating   (c) Boring   (d) Dreary   (e) Tedious

47. (a) Invalidated   (b) Overshadowed   (c) Illuminated   (d) Interfered   (e) Elucidated

48. (a) Analyse   (b) Garble   (c) Obscure   (d) Enhance   (e) Underscore

49. (a) Leanness   (b) Neatness   (c) Tidiness   (d) Thinness   (e) Sparseness

50. (a) Showiness   (b) Resistance   (c) Certainty   (d) Superficiality   (e) Plausibility

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END OF SECTION I

Section II
Reading Comprehension

Directions: *Each passage is followed by questions based on its content. Answer the questions on the basis of what is directly stated in each of the passages or can be inferred from it.*

Passage I

The world dismisses curiosity by calling it idle or mere idle curiosity even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced everyday with a string of unanswerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. With in the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is what a university is for. Some of the questions which the scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires one of them why he wants to know the answer to a particular question he may say especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility.

But to you who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way the mountain climber wants to climb a mountain, simply because it is there. Similarly a historian asked by an outsider why he studies history may come out with the argument that he has learnt to respect to report on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler, something happened and he would like to know what. It is true that scholars can be put to work answering questions for sake of the consequences as thousands are working now, for example, in search of a cure for cancer. But this is not the primary for scholars. For the consequences are usually subordinate to the satisfaction of curiosity.

51. Children whose curiosity survives parental discipline means

    (a)   Children retaining their curiosity in spite of being discouraged by their parents
    (b)   Children pursuing their mental curiosity
    (c)   Children's curiosity subdued due to parents intervention
    (d)   Children being disciplined by their parents
    (e)   Children being reprimanded by their parents

52. Pick out the word which is a close synonym of 'Extinguish' as used in the passage.

    (a) Embrace   (b) Nurture   (c) Remove   (d) Sow   (e) Blast

53. According to their passage, the children make life difficult for their parents by

    (a)   Their ceaseless curiosity
    (b)   Unceasing bombardment of questions
    (c)   Asking irrelevant questions
    (d)   Raising doubts
    (e)   Posing riddles

54. The common people consider unimportant some of the questions that the scholars ask, as

    (a)   They are too lazy and idle
    (b)   They are too modest
    (c)   It's beyond their comprehension
    (d)   It is considered a waste of time
    (e)   They are uneducated

55. A historian studies the past

    (a)   To comprehend the present and to reconstruct the future
    (b)   To explain the present and plan the future
    (c)   To understand the present and make fortune
    (d)   To understand the present and mould the future
    (e)   To study the past , present and future

56. Pick out the statement, which is *true.*

    (a)   Scientists know that the world understands and respects utility
    (b)   The world encourages curiosity
    (c)   Parents always encourage curiosity of their children
    (d)   In the university questions are rarely asked to find out answers
    (e)   Parents feel good when they are asked questions by their children

57. It may be inferred from the passage that curiosity

    (a)   Results in Boredom
    (b)   Breeds inefficiency
    (c)   Results in action
    (d)   Is liked by the society
    (e)   Is linked to genes of parents

58. According to the passage, parents do their best to discourage curiosity in their children, because they

    (a)   have no time
    (b)   are unable to answer all the questions
    (c)   feel that their children ask stupid questions continuously
    (d)   have no patience to answer them
    (e)   have more important tasks to attend to

Passage II

The theory of plate tectonics describes the motions of the lithosphere, the comparatively rigid outer layer of the Earth that includes all the crust and part of the underlying mantle. The lithosphere is divided into a few dozen plates of various sizes and shapes; in general the plates are in motion with respect to one another. A mid - ocean ridge is a boundary between plates where new lithospheric material is injected from below. As the plates diverge from a mid - ocean ridge they slide on a more yielding layer at the base of the lithosphere.

Since the size of the Earth is essentially constant, new lithosphere can be created at the mid - ocean ridges only if an equal amount of lithospheric material is consumed elsewhere. The site of this destruction is another kind of plate boundary: a subduction zone. There one plate dives under the edge of another and is reincorporated into the mantle. Both kinds of plate boundary are associated with fault systems, earthquakes and volcanism, but the kinds of geologic activity observed at the two boundaries are quite different.

The idea of sea-floor spreading actually preceded the theory of plate tectonics. In its original version, in the early 1960s, it described the creation and destruction of the ocean floor, but it did not specify rigid lithospheric plates. The hypothesis was substantiated soon afterward by the discovery that periodic reversals of the Earth's magnetic field are recorded in the oceanic crust. As magma rises under the mid - ocean ridge ferromagnetic minerals in the magma become magnetized in the direction of the geomagnetic field. When the magma cooks and solidifies, the direction and the polarity of the field are preserved in the magnetized volcanic rock. Reversals of the field give rise to a series of magnetic stripes running parallel to the axis of the rift. The oceanic crust thus serves as a magnetic tape recording of the history of the geomagnetic field that can be dated independently. The width of the stripes indicates the rate of the sea - floor spreading.

59. What is the core theme of the passage?

    (a)   Magnetic field reversal
    (b)   The formation of magma
    (c)   The location of mid - ocean ridges
    (d)   Plate tectonic theory
    (e)   Oceanic crust sedimentation

60. Which of the following can be created at mid – ocean ridges?

(a) Subduction zone
(b) Lithosphere
(c) Fault systems
(d) Geomagnetic -field
(e) Volcanic rocks

61. Which of the following is *true* about tectonic plates?

(a) They move in relationship to one other
(b) They have unchanging borders
(c) They are located far beneath the lithosphere
(d) They have the same shape
(e) They are the main reason for the global warming

62. According to the passage, which of the following statements about the lithosphere is *least* likely to be true?

(a) It is a relatively inflexible layer of the Earth
(b) It includes the crust and some of the mantle of the Earth
(c) It is made up entirely of volcanic ash
(d) It is divided into plates of various shapes and sizes
(e) Lithosphere is connected to the solid part of the earth consisting of crust and the outer mantle

63. What does the author imply about the periodic reversal of the Earth's magnetic field?

(a) It analyses the association of plate boundaries
(b) It indicates the amount of magma present in earth's crust
(c) it clarifies formation of new lithosphere
(d) It supports the hypothesis of sea-floor spreading
(e) It explain the creation of mid –ocean ridges

64. The author states that the width of the stripes preserved in magnetized volcanic rock give information about the

(a) Date of a volcanic eruption
(b) Speed of sea - floor spreading
(c) Width of oceanic crust
(d) Future behavior of the geomagnetic field
(e) Temperature of the lava that erupted

65. Since the size of the Earth is essentially constant, new lithosphere can be created at the mid – ocean ridges only when

(a) Magma rises from earth's crust
(b) Polarity of magnetic field is maintained
(c) Tectonic plates are incorporated into the mantle
(d) Volcanic rock is magnetised
(e) An equal amount of lithospheric material is consumed elsewhere

66. Which of the following serve(s) as a magnetic tape recording of the history of the geomagnetic field?

(a) Tectonic plates
(b) Oceanic crust
(c) Ferromagnetic minerals
(d) Geomagnetic field
(e) Subduction zone

Passage III

Archaeology is a source of history, not just a humble auxiliary discipline. Archaeological data are historical documents in their own right, not mere illustrations to written texts. Just as much as any other historian an archaeologist studies and tries to reconstitute the process that has created the human world in which we live-and us ourselves in so far as we are each creatures of our age and social environment. Archaeological data are all changes in the material world resulting from human action or more succinctly the fossilized results of

human behavior. The sum total of these constitutes what may be called the archaeological record. This record exhibits certain peculiarities and deficiencies the consequences of which produce a rather superficial contrast between archaeological history and the more familiar kind based upon written records.

Not all human behavior fossilizes. The words I utter and you hear as vibrations in the air are certainly human changes in the material world and may be of great historical significance. Yet they leave no sort of trace in the archaeological records unless they are captured by a dictaphone or written down by a clerk. The movement of troops on the battlefield may "change the course of history", but this is equally ephemeral from the archaeologist's standpoint. What is perhaps worse is most organic materials are perishable. Everything made of wood, hide wool, Linen, grass hair and similar materials will decay and vanish in dust in a few years or centuries save under very exceptional conditions. In a relatively brief period the archaeological record is reduced to mere scraps of stone, Bone, glass, metal, and earthenware. Still modern archaeology, by applying appropriate techniques and comparative methods, aided by a few lucky finds from peat bogs, Deserts and frozen soils is able to fill up a good deal of the gap.

The purpose of archaeology is to learn more about past societies and the development of the human race. Over 99% of the development of humanity has occurred within prehistoric cultures, which did not make use of writing, thereby not leaving written records of themselves that can be studied today. Without such written sources, the only way to learn about prehistoric societies is to use archaeology. Many important developments in human history occurred during prehistory, such as the evolution of humanity during the Paleolithic period, when the hominins developed from the australopithecines in Africa and eventually into modern *Homo sapiens*. Archaeology also sheds light on many of humanity's technological advances, for instance the ability to use fire, the development of stone tools, the discovery of metallurgy, the beginnings of religion and the creation of agriculture. Without archaeology, we would know little or nothing about the use of material culture by humanity that pre-dates writing.

However, it is not only prehistoric, pre-literate cultures that can be studied using archaeology but historic, literate cultures as well, through the sub-discipline of historical archaeology. For many literate cultures, such as Ancient Greece and Mesopotamia, their surviving records are often incomplete and biased to some extent. In many societies, literacy was restricted to the elite classes, such as the clergy or the bureaucracy of court or temple. The literacy even of aristocrats has sometimes been restricted to deeds and contracts. The interests and world-view of elites are often quite different from the lives and interests of the populace. Writings that were produced by people more representative of the general population were unlikely to find their way into libraries and be preserved there for posterity. Thus, written records tend to reflect the biases, assumptions, cultural values and possibly deceptions of a limited range of individuals, usually a small fraction of the larger population. Hence, written records cannot be trusted as a sole source. The material record may be closer to a fair representation of society, though it is subject to its own biases, such as sampling bias and differential preservation.

67. Identify from the following, statement that denotes the main purpose of the passage.

(a) To point out the importance of recent advances in archaeology
(b) To describe the excavations of an archeologist
(c) To explain how archaeology is a source of history
(d) To encourage more people to become archaeologists
(e) To know about past societies and their development

68. The only way to learn about prehistoric societies is through the study of

(a) Psychology   (b) Anthropology   (c) History   (d) Archaeology   (e) Geology

69. 'Yet **they** leave no sort of trace in the archaeological records unless they are captured by a dictaphone or written down by a clerk'. The word 'they' in this sentence refers to

(a) Scraps   (b) Words   (c) Troops   (d) Humans   (e) Animals

70. Which of the following is *not* an example of an organic material?

(a) Stone   (b) Wool   (c) Grass   (d) Hair   (e) Bone

71. The author mentions in the pasage, all of the following archaeological discovery sites *except*

    (a) Urban areas   (b) Peat bogs   (c) Stone caves   (d) Frozen earth   (e) Deserts

72. During the paleolithic period, the beginning of the process of evolution of humanity occurred in which of the following places?

    (a) Australia   (b) South America   (c) Asia   (d) Africa   (e) Europe

73. According to the passage, the archaeological record consists of

    (a)   Spoken words of great historical significance
    (b)   The fossilized results of human activity
    (c)   Organic materials
    (d)   Ephemeral ideas
    (e)   Geophysical experiments

74. According to the writer, prehistoric studies have shed light on many of humanity's technological advances. Identify the *one* which is *not* mentioned in these technological advances.

    (a)   The creation of agriculture
    (b)   The beginnings of religion
    (c)   The discovery of metallurgy
    (d)   The development of stone tools
    (e)   The ability to use script

75. The surviving records of which civilization are often found to be incomplete and biased?

    (a)   Indus valley civilization
    (b)   Egyptian civilization
    (c)   Mesopotamian civilization
    (d)   Incas civilization
    (e)   Aztec civilization

Passage IV

Insects' lives are very diminutive and they have many enemies, but they must survive long enough to rear and perpetuate their kind. The less insect-like they look, the better their probability of survival. To look "uneatable" by resembling or imitating plants is a deceit widely practised by insects. Mammals hardly ever use this kind of camouflage, but many fish and invertebrates do.

The stick caterpillar is well named. It is hardly discernible from a brown or green twig. This caterpillar is quite familiar and can be found almost anywhere in North America. It is also called "measuring worm" or "inchworm." It walks by arching its body, than stretching out and grasping the branch with its front feet then looping its body again to bring the hind feet forward. When danger threatens, the stick caterpillar stretches its body away from the branch at an angle and remains rigid and still, like a twig, until the danger has passed.

Walking sticks, or stick insects, do not have to assume a rigid, twig-like pose to find protection; they look like inedible twigs in any position. There are many kinds of walking sticks, ranging in size from the few inches of the North American variety to some tropical species that may be over a foot long. When at rest their front legs are stretched out heightening their camouflage. Some of the tropical species are adorned with spines or ridges imitating the thorny bushes or trees in which they live. Leaves also seem to be a favorite object for insects to imitate. Many butterflies can suddenly disappear from view by folding their wings and sitting quietly among the foliage that they resemble.

76. What is the main theme of the passage?

    (a)   Life cycle of insects
    (b)   The feeding habits of insects
    (c)   Camouflage techniques in insects
    (d)   Mode of survival in mammals
    (e)   Tropical species of insects

77. The word "camouflage" means to

   (a) Conceal   (b) Reveal   (c) Divulge   (d) Drop   (e) Entwine

78. How does the stick caterpillar make itself look like a twig?

   (a) By looping itself around a stick
   (b) By holding its body stiff and motionless
   (c) By changing the color of its skin
   (d) By laying its body flat against a branch
   (e) By burrowing inside a twig

79. Which of the following is *not true* of insect camouflage techniques?

   (a) Insects look like inedible twigs in any position
   (b) insects stretch out at rest their front legs
   (c) Insects are adorned with spines or ridges imitating the thorny bushes
   (d) Insects change color to make them invisible
   (e) Insects fold their wings and sit quietly among the foliage

80. Which of the following are favorite objects for butterflies to imitate?

   (a) Twigs   (b) Flowers   (c) Thorny bushes   (d) Grasses   (e) Leaves

$$\boxed{\textbf{END OF SECTION II}}$$

Quantitative Aptitude

*Directions: There are 30 questions in this section. Each question is followed by five alternatives (a), (b), (c), (d) and (e). You are required to choose the **best** alternative from these five alternatives.*
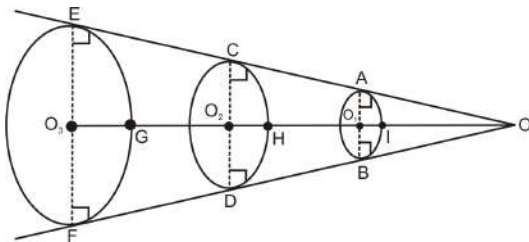
81. A, B and C are three associates in a firm. A invests Rs. 6,000, B invests Rs. 9,000 and C invests Rs. 12,000. A and B are the working partners and gets 10% and 20% of the profit respectively as their salary and the remaining profit is distributed in the ratio of their capitals. If the profit made at the end of the year is Rs. 27,000, then what is the share of A?

(a) Rs. 2,300   (b) Rs. 3,900   (c) Rs. 6,900   (d) Rs. 8,400   (e) Rs. 12,300

82. If (b + c), (c + a), (a + b) are in harmonic progression, then a^2, b^2, c^2 are

(a) AP   (b) GP   (c) HP

(d) Both AP and HP   (e) None of these

83. In the figure below, the unknown side of the triangle is the diameter of the circle, what is the area of the unshaded region? (Figure not drawn to scale)

(a) 125.50π sq.cm   (b) 134π sq.cm
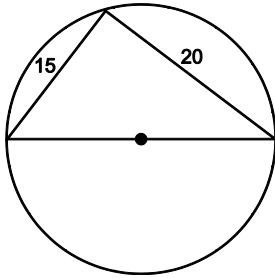
(c) 156.25π sq.cm   (d) 162.50π sq.cm   (e) 175 sq.cm

84. Given three circles with centres O_1, O_2 and O_3. OE and OF are the tangents drawn from an external point O to the three circles as shown in the figure below. OE = 24 cm, $O_3E = 2O_2C = 4O_1A = 7$ cm. Find $O_2G : O_1H$. (Figure not drawn to scale)


(a) 2 : 3   (b) 1 : 4   (c) 1 : 3   (d) 1 : 2   (e) 1 : 1

85. A, B and C are three associates in a firm. A invests Rs. 6,000, B invests Rs. 9,000 and C invests Rs. 12,000. A and B are the working partners and gets 10% and 20% of the profit respectively as their salary and the remaining profit is distributed in the ratio of their capitals. If the profit made at the end of the year is Rs. 27,000, then what is the share of C?

(a) Rs. 2,300   (b) Rs. 3,900   (c) Rs. 6,900   (d) Rs. 8,400   (e) Rs. 12,300

86. Two solid pyramids are melted together. These pyramids had number of edges equal to the length of each of their edges equal to 8 units. They are moulded to form a hexagonal pyramid with length of each side of base 8 units. What is the slant height of the new pyramid?

(a) $\dfrac{8}{3}\sqrt{\dfrac{35}{3}}$ units

(b) $8\sqrt{\dfrac{35}{3}}$ units

(c) $2\sqrt{\dfrac{35}{3}}$ units

(d) $3\sqrt{35}$ units

(e) $8\sqrt{35}$ units

87. The figure below is a regular hexagon with side '2a' cm. If AG = FG and ED ∥ GH, then what is the area of the shaded region?
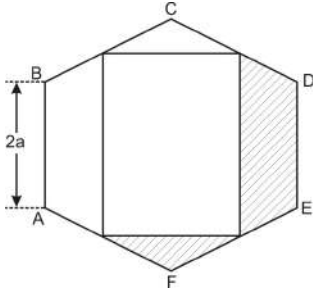
(a) $\left(3\sqrt{3}\right)a^2$ cm²

(b) $\left(\dfrac{3\sqrt{3}}{2}\right)a^2$ cm²

(c) $\left(\dfrac{\sqrt{3}}{2}\right)a^2$ cm²

(d) $\left(6\sqrt{3}\right)a^2$ cm²

(e) $a^2\sqrt{3}$ cm²

88. In a class of 40 students, who study mathematics, physics and chemistry, the number of students studying mathematics is 2 more than 40% of those studying chemistry, while 20 of the students study physics. Three less than one fifth of the total students in class study all the three subjects. The number of students studying only physics is 2 less than the number of students studying mathematics. The number of students studying only mathematics and only chemistry is 3 and 15 respectively. The number of students studying mathematics as well as physics is same as number of students studying mathematics as well as chemistry. How many students are studying both mathematics and chemistry but not all the three subjects?

(a) 25   (b) 15   (c) 10   (d) 3   (e) 2

89. A solid metallic cuboid with sides in the ratio 3 : 4 : 6 is melted to form smaller cubes with sides 2 cm. If the sum of the length of the edges of the cuboid is 208 cm, then what is the ratio of the surface area of the original cuboid to the total surface area of the smaller cubes?

(a) 1 : 6   (b) 4 : 11   (c) 1 : 8   (d) 2 : 9   (e) 3 : 11

90. What is the maximum volume of the cylinder, if the sum of its radius and the height is 8 cm?

(a) $\dfrac{256\pi}{9}$ cc

(b) $\dfrac{512\pi}{9}$ cc

(c) $\dfrac{256\pi}{27}$ cc

(d) $\dfrac{512\pi}{27}$ cc

(e) $\dfrac{1024\pi}{27}$ cc

91. A number is divided into two parts such that half of the first part added to the one fourth the second part equal to two-fifth of the number. What is the ratio of the two parts?

(a) 1 : 2   (b) 2 : 5   (c) 3 : 2   (d) 4 : 3   (e) 5 : 6

92. A property was to be divided among P, Q, R, S and T in the ratio of 1 : 1.5 : 2 : 2.5 : 3. If instead, it was divided in the duplicate ratio, then who among the four would be benefitted most?

(a) Q   (b) T   (c) R   (d) S   (e) P

93. M and N start a business with respective capitals of Rs. 35,000 and Rs. 22,000. M withdrew an amount of Rs. 1000 every month from the business while N put in an additional amount of Rs. 1,000 every month into the business. If they close the business after 13 months after making a profit of Rs. 85,500, then what is the share of N?

(a) Rs. 22,500   (b) Rs. 33,000   (c) Rs. 43,500   (d) Rs. 46,000   (e) Rs. 48,500

94. The monthly salary of Amar is two and a half times the monthly salary of Bakshi. The ratio of the monthly salaries of Bakshi and Chitra is the duplicate ratio of monthly salaries of Amar and Bakshi. The monthly salary of Chitra is thrice the monthly salary of Daksha. The ratio of monthly salaries of Daksha and Eeshwar is the triplicate of the ratios of monthly salaries of Chitra and Daksha. What is the monthly salary of Amar, if Eeshwar's monthly salary is Rs. 1,560?

(a) Rs. 19,74,375   (b) Rs. 12,75,375   (c) Rs. 9,37,675   (d) Rs. 7,89,750   (e) Rs. 7,65,275

95. The mean proportional of the two positive numbers obtained by subtracting 77 from a positive number and adding 11 to the same number is 33. What is the number?

(a) 154   (b) 143   (c) 121   (d) 99   (e) 88

96. A, B and C are three partners in a business. C is the only working partner. C's investment is one-fifth of B's investment and A's investment is twice that of C. If C gets a salary of Rs. 10,500 a month and A gets a profit share of Rs. 1.44 lakh at the end of the year, then what is the total profit?

(a) Rs. 3,96,000   (b) Rs. 4,16,000   (c) Rs. 5,76,000   (d) Rs. 6,20,000   (e) Rs. 7,20,000

97. What is the difference between the sum of the cubes and that of the sum of the square of first twenty natural numbers?

(a) 21290   (b) 28630   (c) 36340   (d) 39630   (e) 41230

98. If 'y' is a number such that $y = x^{x/2}$, where x is a positive integer, what is the difference between the largest possible four-digit value of y and the smallest possible three-digit value of y?

(a) 1220   (b) 2450   (c) 3240   (d) 3880   (e) 4280

99. 'abcd' is a four-digit number. It has only two factors excluding 1 and itself. In addition, the first two-digits form a perfect square and the next two digits form a number which is one more than a perfect square. Which of the following could be the number?

(a) 1626   (b) 1665   (c) 2565   (d) 2582   (e) 3682

100. Harsha received price money in a jackpot. He expressed the price money in the following way.

Consider a number 'N' that can be expressed in the form of prime factors 3, 5, 7 and 11. The total number of factors of N is 32. The difference between the largest and the smallest such number possible, given that each of these prime factors occur at least once is the price money that Harsha won. What is the price money that Harsha won in the jackpot?

(a) Rs. 45,640   (b) Rs. 91,280   (c) Rs. 1,29,360   (d) Rs. 1,82,560   (e) Rs. 2,73,840

101. What is the remainder obtained when the smallest prime number when raised to the ninety second multiple of sixteen is divided by two hundred and fifty seven?

(a) 1   (b) 2   (c) 3   (d) 5   (e) 6

102. On a cardboard there are 32 squares. 1 coin is kept on the first box, 2 coins on the second box and so on. Collect all the coins and add some more coins to them. These coins are equally distributed on all the squares of the cardboard. What is the minimum number of coins that are added?

(a) 0   (b) 1   (c) 2   (d) 3   (e) 4

103. The figure below is a regular hexagon with side '2a' cm. If AG = FG and ED || GH, then what is the ratio of area of the shaded region to the area of hexagon?
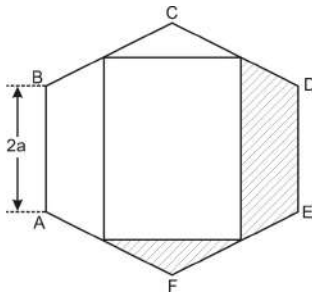
(a) 1 : 2   (b) 1 : 3   (c) 1 : 4   (d) 2 : 3   (e) 2 : 5

104. What is the value of $\log \log \sqrt{\sqrt[5]{\sqrt[10]{\sqrt[10]{10}}}}$?

(a) – 3   (b) – 2   (c) – 1   (d) 1   (e) 3

105. A trader marks up a Music system x% over the cost price and gives a discount of (x/4)% to get a profit of (x/2)%. What is his profit percentage?

(a) 20%   (b) 25%   (c) 30%   (d) 40%   (e) 50%

106. The sales of an article increases by 20% every week. The difference between the sales of the second week and the fourth week is Rs. 660. What were sales of the article in the third week?

(a) Rs. 1,360   (b) Rs. 1,480   (c) Rs. 1,500   (d) Rs. 1,720   (e) Rs. 1,800

107. A survey on population growth was conducted in town A. It revealed that the population of the town was 5.477 lakh. In one year, there is an increase in men (aged above 18 years) population by 8%, increase in population of women (aged above 18 years) by 12.5% and increase in the population of children (boy or a girl aged less or equal to 18 years) by 12%. If the population of town A, after one year was found to be 6.0466 lakh and number of children was found to be 91,840, then what was the population of men in the town before survey?

(a) 246500   (b) 256400   (c) 268400   (d) 272600   (e) 289450

108. M and N start a business with respective capitals of Rs. 35,000 and Rs. 22,000. M withdrew an amount of Rs. 1000 every month from the business while N put in an additional amount of Rs. 1,000 every month into the business. If they close the business after 13 months after making a profit of Rs. 85,500, then what is the share of M?

(a) Rs. 22,000   (b) Rs. 33,000   (c) Rs. 42,000   (d) Rs. 46,000   (e) Rs. 48,000

109. In an examination, 42% of the students passed in at least two subjects out of the three subjects P, Q and R. 36% of the students passed in subjects Q and R. 10% of the students passed in all the three subjects. 38% of the students passed subject P. How many students passed in only subject P?

(a) 32%   (b) 30%   (c) 28%   (d) 24%   (e) 22%

110. Aman purchased 8 mangoes, 6 oranges and 4 apples for a certain amount. With 35% less amount, Pavan could purchase 4 mangoes, 3 oranges and 3 apples. What percentage of the total amount did Aman spend on apples?

(a) 45%   (b) 50%   (c) 60%   (d) 70%   (e) 80%

END OF SECTION III

Section IV

Data Adequacy and Data Interpretation

I. **Directions:** *Each question given below has a problem and two statements numbered (1) and (2) giving certain information. You have to decide if the information given in the statements is sufficient for answering the problem. Indicate your answer as:*

a — If the data in statement (1) alone is sufficient to answer the question;
b — If the data in statement (2) alone is sufficient to answer the question;
c — If the data in both the statements together are needed to answer the question;
d — If either statement (1) alone or statement (2) alone is sufficient to answer the question;
e — If neither statement (1) nor statement (2) suffices to answer the question.

111. The average score of a batsman was 40 runs per match after 10 matches. What was his average score for last four matches?

Statement 1: Average for first 6 matches is 36

Statement 2: Average for all even numbered matches is 45 and for odd numbered matches is 38

112. The circumference of an inlet pipe and an outlet pipe is 15 cm and 10 cm respectively. How long will it take the tank to be filled, when it is empty and both pipes are opened?

Statement 1: Outlet pipe can empty the tank in 25 minutes

Statement 2: Inlet pipe can fill the empty tank in 56 minutes

113. The diameter of the wheel of a motorcycle is 70 cm. What would be its speed in kmph?

Statement 1: The ratio of revolutions to diameter is 2 : 3

Statement 2: It makes 40 revolutions for every 10 seconds.

114. The difference between compound interest and simple interest on a certain sum of money for 2 years is Rs. 20. What is the sum?

Statement 1: Rate of interest is 5%

Statement 2: Simple interest for one year is Rs. 400

115. The length of rectangle is increased by 60%. What should be the measure of new width to maintain same area?

Statement 1: Percent reduction in width is 37.5%

Statement 2: Area of rectangle is 450 sq.m

116. The mass of a substance A is 4.8 kg. Another substance B of the same mass has 20 gm/cc more density than A. What is the density of substance A?

Statement 1: Volume of substance B is 12 cc less than substance A

Statement 2: The ratio of volumes of substances A and B is 32 : 27

117. The mileage of a vehicle at a speed of 50 kmph is 60 kmpl. If the speed is above 50 kmph, for every rise of 5 kmph in the speed, mileage decreases by 2 kmpl. If a man travels 300 km at a uniform speed, how many litres of petrol will the vehicle consumes?

Statement 1: He travels a distance of 300 km at a uniform speed of 75 kmph

Statement 2: The mileage of a vehicle at a speed of 75 kmph is 50 kmpl

118. The number of terms in an arithmetic progression is 20. The sum of the four middle terms is (– 22). What are the values of first term and common difference?

Statement 1: The sum of first four terms is 74

Statement 2: The difference between first term and common difference is 26

119. The perimeter of a right angled triangle ABC right angled at A is $3+\sqrt{3}$ cm, what is the area of the triangle

Statement 1: AC ≠ AB

Statement 2: ∠ABC = 30º

120. The present ages of Rahul and his father is in the ratio 6 : 13. The ratio between the present ages of his father and his sister is 13 : 5. If the difference between the present ages of his mother and sister is 28 years, what is the difference between the present ages of his father and mother?

Statement 1: The ratio of the present ages of Rahul and his mother is 1 : 2

Statement 2: The difference between present ages of Rahul and his sister is 4 years

121. The price of a shirt is Rs. 800 that of a trouser is Rs. 1000 that of shoes is Rs. 2000 that of a belt is Rs. 500. What is the minimum amount with which one can get all the three articles?

Statement 1:   There is a discount of 30% on shirt and trousers.

Statement 2:   Belt is free with one shirt and a trouser. Shirt is free with one pair of shoes and one trouser.

122. The ratio of present ages of father and son is 6 : 1. What is be the present age of son?

Statement 1: The ratio of ages of father and son after 5 years is 7 : 2

Statement 2: The difference of ages is 25.

123. The speed of river is 5 kmph. How long will it take to reach the point that is at 11 km upstream?

Statement 1: Relative speed = 8 kmph

Statement 2: Speed of man in still water = 6 kmph

124. The swimming pool is fitted with three pipes. The first two pipes operating simultaneously can fill the pool in half the time taken by the third pipe alone to fill the pool. What is the time taken by the three pipes individually to fill the pool?

Statement 1:   The ratio between the time taken by the first and third pipes is 3 : 4

Statement 2:   The second pipe takes 12 hours more than the first pipe working alone and 8 hours more than third pipe working alone

125. There are two concentric circles such that the area of the outer circle is four times the area of the inner circle. If A, B and C are three distinct points on the perimeter of the outer circle such that AB are AC are tangents of inner circle, what is the area of the triangle ABC?

Statement 1: The area of the outer circle is 12 sq.cm

Statement 2: The area of the region between the two circles is 9 sq.cm

II. Directions: *For the question numbers 126 to 130, a graph is given. Study the graph carefully and answer the following questions and choose the **best** answer from the five alternatives given below the question.*

Given below pie diagram shows the marks of Raju in his tenth class with 554 in all. The values mentioned are in degrees.

■ 1st Language □ Hindi ▨ English
▦ Mathematics ▨ Science ▤ Social
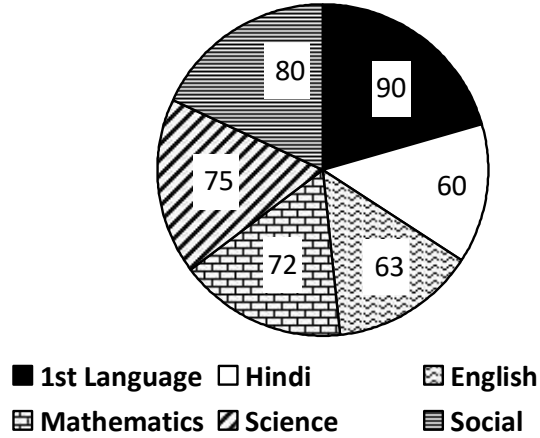
126. The subject in which he scored $16\frac{2}{3}$% of marks is

   (a) Science   (b) Social   (c) Mathematics   (d) English   (e) Hindi

127. The subject in which he scored approximately 97 marks is

   (a) Science   (b) Social   (c) Mathematics   (d) English   (e) Hindi

128. Of the total marks in which subject his scoring % is highest.

   (a) Science   (b) Social   (c) 1st Language   (d) English   (e) Hindi

129. What is the difference between the marks obtained in 1st language, Hindi, Mathematics and Science, Social, English?

   (a) 2   (b) 3   (c) 4   (d) 5   (e) 6

130. Of the total marks in which subject % of scoring is lowest.

   (a) Science   (b) Social   (c) 1st Language   (d) English   (e) Hindi

III. ***Directions:*** *For the question numbers 131 to 135, a pie graph is given. Study the graph carefully and answer the following questions and choose the **best** answer from the five alternatives given below the question.*
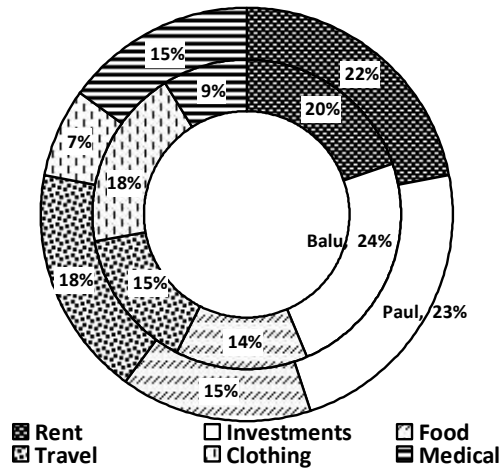
The pie-diagram below shows the % of expenditures of Paul and Balu per month.

15% 9% 22% 20% 7% 18% Balu 24% 18% 15% Paul, 23% 14% 15%

⊠ Rent   ☐ Investments   ▧ Food
⊠ Travel   ☐ Clothing   ☰ Medical

131. If the salary of Balu is Rs. 15,000, what would be the expenditure on Investments and Food?

(a) Rs. 5450   (b) Rs. 4200   (c) Rs. 4560   (d) Rs. 5700   (e)Rs. 5900

132. If both Balu and Paul get equal income, what is the ratio of their expenditures on Food and clothing?

(a) 1 : 1   (b)1 : 2   (c)3 : 1   (d)2 : 3   (e)16 : 11

133. If both Balu and Paul get equal income, what would be the difference of their expenditures on all except Investments?

(a) Rs. 1 of income   (b) Rs. 0.50 of income

(c) Rs. 0.01 of income   (d) Rs. 0.05 of income

(e) Rs. 2 of income

134. If Paul's income was Rs. 13,500, what would be his average expenditure on Investments, Rent and Travelling?

(a) Rs. 2540   (b) Rs. 2125   (c) Rs. 2490   (d) Rs. 2650   (e) Rs. 2700

135. What is the sum of angles subtended by expenditures of Paul on Travel, Rent and Medical?

(a) 207.2º   (b) 165.8º   (c) 157.5º   (d) 207º   (e) 187.2º

IV. **Directions:** *For the question numbers 136 to 140, a graph is given. Study the graph carefully and answer the following questions and choose the **best** answer from the five alternatives given below the question.*
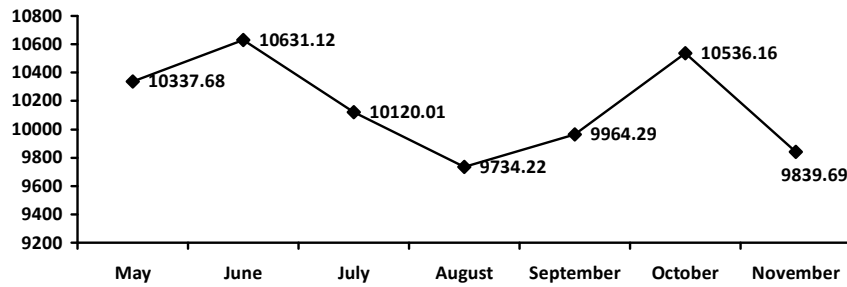
The below shown line graph shows the monthly average sensex report from May'14 to November'14.

136. In which month the average sensex reading showed a greater decrease during the given period.

(a) June   (b) July   (c) August   (d) October   (e) November

137. What is the ratio between the highest reading and lowest reading of the sensex report during the given period? (approximately)

(a) 7 : 5   (b) 11 : 10   (c) 25 : 23   (d) 34 : 31   (e) 43 : 39

138. If it was expected that there would be a huge increase of 20% in the average sensex reading than that of in August, what is the average sensex reading in December'08?

(a) 9968.376   (b) 10249.564   (c) 10958.924   (d) 11681.064   (e) 12389.634

139. What is the percentage decrease in the sensex reading from May to November?

(a) 3.7%   (b) 4.8%   (c) 5.9%   (d) 7.8%   (e) 8.4%

140. For how many months the report has shown the performance below the monthly average report for the given period.

(a) 2   (b) 3   (c) 4   (d) 5   (e) 6

END OF SECTION IV

END OF QUESTION PAPER

Key for IBSAT Model Paper–5

Verbal Ability			
S. No.	Key	S. No.	Key
1	B	26	B
2	A	27	C
3	D	28	D
4	D	29	B
5	C	30	E
6	D	31	A
7	A	32	C
8	E	33	D
9	B	34	A
10	D	35	E
11	C	36	C
12	E	37	E
13	B	38	A
14	B	39	C
15	D	40	C
16	B	41	E
17	C	42	B
18	D	43	D
19	B	44	C
20	C	45	B
21	A	46	A
22	A	47	B
23	C	48	C
24	A	49	E
25	D	50	D

Reading Comprehension	
S. No.	Key
51	A
52	C
53	A
54	C
55	D
56	A
57	C
58	B
59	D
60	B
61	A
62	C
63	D
64	B
65	E
66	B
67	C
68	D
69	B
70	A
71	A
72	D
73	B
74	E
75	C
76	C
77	A
78	B
79	D
80	E

Quantitative Aptitude	
S. No.	Key
81	C
82	A
83	C
84	D
85	D
86	A
87	B
88	E
89	C
90	D
91	C
92	B
93	C
94	A
95	E
96	E
97	E
98	D
99	D
100	C
101	A
102	B
103	C
104	A
105	E
106	E
107	A
108	C
109	D
110	E

Data Adequacy and Data Interpretation	
S. No.	Key
111	A
112	D
113	B
114	A
115	E
116	C
117	D
118	D
119	E
120	D
121	D
122	D
123	D
124	B
125	D
126	E
127	D
128	C
129	E
130	E
131	D
132	E
133	C
134	E
135	E
136	E
137	B
138	D
139	B
140	C