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OPENMAT–XLIV

Entrance Test for Management Programmes 2018
December, 2018

Total No. of Questions : 200 *Time : 180 Minutes*

- All questions are **compulsory**.
- Use of calculator is **not** allowed. Rough work may be done in the space provided at the end of the Test Booklet.
- The Test Booklet has the following four tests :

Test—I	General Awareness	No. of Questions 30
Test—II	English Language	No. of Questions 50
Test—III	Quantitative Aptitude	No. of Questions 50
Test—IV	Reasoning	No. of Questions 70

Read the instructions given on the OMR Response Sheet carefully before you start.

How to fill up the information on the OMR Response Sheet (Examination Answer Sheet)

1. Write your complete Enrolment No. in 9 digits. This should correspond to the enrolment number indicated by you on the OMR Response Sheet. Also write your correct name, address with pin code in the space provided. Put your signatures on the OMR Response Sheet with date. Ensure that the Invigilator in your examination hall also puts his signatures with date on the OMR Response Sheet at the space provided.

2. On the OMR Response Sheet student's particulars are to be filled in by pen. However use HB pencil for writing the Enrolment No. and Examination Centre Code as well as for blackening the circle bearing the correct answer number against the serial number of the question.

3. Do not make any stray remarks on this sheet.

4. Write correct information in numerical digits in Enrolment No. and Examination Centre Code Columns. The corresponding circle should be dark enough and should be filled in completely.

5. Each question is followed by four probable answers which are numbered 1, 2, 3 and 4. You should select and show only one answer to each question considered by you as the most appropriate or the correct answer. Select the most appropriate answer. Then by using HB pencil, blacken the circle bearing the correct answer number against the serial number of the question. If you find that answer to any question is none of the four alternatives given under the question, you should darken the circle with '0'.

6. If you wish to change your answer, ERASE completely the already darkened circle by using a good quality eraser and then blacken the circle bearing your revised answer number. If incorrect answer is not erased completely, smudges will be left on the erased circle and the question will be read as having two answers and will be ignored for giving any credit.

7. No credit will be given if more than one answer is given for one question. Therefore, you should select the most appropriate answer.

8. You should not spend too much time on any one question. If you find any particular question difficult, leave it and go to the next. If you have time left after answering all the questions, you may go back to the unanswered ones.

9. There is no negative marking for wrong answers.

GENERAL INSTRUCTIONS

1. No cell phones, calculators, books, slide-rules, notebooks or written notes, etc. will be allowed inside the examination hall.

2. You should follow the instructions given by the Centre Superintendent and by the Invigilator at the examination venue. If you violate the instructions, you will be disqualified.

3. Any candidate found copying or receiving or giving assistance in the examination will be disqualified.

4. The Test Booklet and the OMR Response Sheet (Answer Sheet) would be supplied to you by the Invigilators. After the examination is over, you should hand over the OMR Response Sheet to the Invigilator before leaving the examination hall. Any candidate who does not return the OMR Response Sheet will be disqualified and the University may take further action against him/her.

5. All rough work is to be done on the test booklet itself and not on any other paper. Scrap paper is not permitted. For arriving at answers you may work in the margins, make some markings or underline in the test booklet itself.

6. The University reserves the right to cancel scores of any candidate who impersonates or uses/adopts other malpractices or uses any unfair means. The examination is conducted under uniform conditions. The University would also follow a procedure to verify the validity of scores of all examinees uniformly. If there is substantial indication that your performance is not genuine, the University may cancel your score.

7. In the event of your qualifying the Entrance Test, the hall ticket should be enclosed with your admission form (on-line at the time of registration) while submitting it to the University for seeking admission in Management Programmes along with your testimonials and programme fee. Admission forms received without hall ticket in original will be summarily rejected.

TEST I

GENERAL AWARENESS

1. Peak Mount Kamet of Himalaya is located in which state ?

   (1) J & K (2) Himachal Pradesh

   (3) Uttarakhand (4) Sikkim

2. Wild Ass sanctuary is located in which state ?

   (1) J & K (2) Rajasthan

   (3) Gujarat (4) None of these

3. Ibn Batuta visited India during whose reign ?

   (1) Mohammad-bin-Tughlaq (2) Ibrahim Lodi

   (3) Shershah Suri (4) Shahjahan

4. Where was the Headquarter/Capital of French East India Company ?

   (1) Goa (2) Madras

   (3) Hugli (4) Surat

5. What is the Indian name of constellations Ursa Major (Great Bear) ?

   (1) Mriga (2) Saptarishi

   (3) Kaleya (4) Dhruva Matsya

6. First Olympiad started in Greece in :

   (1) 767 B. C. (2) 776 B. C.

   (3) 677 B. C. (4) 676 B. C.

7. A Judge of the High Court can hold office until the age of :

   (1) 60 years (2) 62 years

   (3) 65 years (4) 70 years

8. Wing Commander of Indian Air Force is equivalent of which Army rank ?

   (1) Brigadier (2) Lt. Colonel

   (3) Major (4) Colonel

9. What is the name of the Massive Open Online Course (MOOC) platform of HRD Ministry ?

(1) Swayam (2) Khudse

(3) Sarva Siksha (4) None of these

10. Which Indian State city has became the first "Kerosene free State" ?

(1) Delhi (2) Surat

(3) Mumbai (4) Chandigarh

11. In which country Indian Govt. organized 1st Yoga Championship ?

(1) France (2) Germany

(3) U. S. A. (4) Egypt

12. Which is the 1st country of the world to put a ban on Deforestation ?

(1) Somalia (2) Kiribati

(3) Turkey (4) Norway

13. Who among the following headed the 7th Pay Commission ?

(1) A. K. Mathur (2) Vivek Rae

(3) Ratin Roy (4) Meena Agarwal

14. In which city of India's first Water Metro Project that was recently launched ?

(1) Kochi (2) Kolkata

(3) Hyderabad (4) Chennai

15. When is Constitution Day celebrated in India to spread awareness about Constitution ?

(1) 30th November (2) 25th November

(3) 26th November (4) 28th November

16. Dailong Village has been declared as a biodiversity heritage site, is in which state ?

(1) Assam (2) Uttarakhand

(3) Sikkim (4) Manipur

17. Which country has decided to pull out of Paris Climate agreement ?

(1) Russia (2) U.S.

(3) China (4) North Korea

18. Nuclear Capable Prithvi-II missile has been developed by :

(1) DRDO and ISRO (2) DRDO and Bharat Dynamics

(3) ISRO and BEL (4) Bharat Dynamics and BE

19. World Environment Day is celebrated on which Day ?

(1) 3rd June (2) 5th June

(3) 5th July (4) 3rd July

20. Which of the following is the official language in Argentina ?

(1) Portuguese (2) French

(3) Spanish (4) Dutch

21. The dispute over Shatt-al-Arab region gave way to which of the following wars in modern world history ?

(1) Arab-Israeli conflict (2) Iran-Iraq war

(3) Russo-Persian war (4) Gulf war

22. Which of the following was formed after nationalisation of Imperial Bank of India in 1955 ?

(1) Oudh Commercial Bank (2) Punjab National Bank

(3) Bank of India (4) State Bank of India

23. Which of the following is not a pillar of Basel III ?

(1) Minimum Capital standards (2) Supervisory review

(3) Market discipline (4) Consolidation of assets

24. Who among the following has been honored with the 2017 Mother Teresa Memorial Award for Social Justice ?

(1) Nicole Kidman (2) Emma Watson

(3) Angelina Jolie (4) Priyanka Chopra

25. The joint naval exercise 'Sea Breeze' was held between India Navy with the naval force of which country ?

(1) Saudi Arabia
(2) Turkey
(3) Iraq
(4) Oman

26. Who among the following has broken all the past records to become the fastest sailor in the world for sailling solo around the world ?

(1) Francois Gabart
(2) Thomas Loville
(3) Francis Joyon
(4) Robin Lee Graham

27. The 3rd edition of Raisina Dialogue, 2018 was held in which city ?

(1) Mumbai
(2) Gandhinagar
(3) New Delhi
(4) Jaipur

28. Who has been elected as the new President of Sahitya Academy ?

(1) Chandra Shekhar Kambar
(2) Madhav Koushik
(3) Pratibha Roy
(4) Manoj Das

29. The Bansagar dam is built on which river in Madhya Pradesh ?

(1) Narmada river
(2) Chambal river
(3) Tapti river
(4) Son river

30. Which Indian shuttler has won the 2018 Swedish Open Junior International Series ?

(1) Parupalli Kashyap
(2) B. Sai Praneeth
(3) Kidambi Srikanth
(4) Siddhartha Pratap Singh

TEST II

ENGLISH LANGUAGE

Directions for Question Number 31 to 45 : Read the following passages and answer the questions below them.

Passage I

Read the following passage and answer the questions below it :

Ideas about instanity have varied greatly during different periods of human history.

Scholars have speculated that early humans believed in prehistory that the voices characteristically heard by schizophrenics came from gods or spirits. One scholar even suggested that the first human being to have an identifiable thought experienced it as an internal voice and was terrified by it, and that the human brain evolved as bicameral in order to control such "voices". If so, the voices in schizophrenia might be a throwback to an earlier stage of humanity.

The ancient Greeks generally believed that mental illness was caused when angry gods took people's minds away, but, Hippocrates and his followers held that mental disorders, like physical disorders, had natural causes; and Plato thought of intanity as an imbalance where one part of the mind dominates the others.

The Middle Ages abandoned the naturalistic approach substituting instead demonic possession, so exorcists were hired to drive out demons. Insane people were sometimes confined on a ship ("ship of fools") which sailed from port to port, taking on food and water but never allowing its human cargo to disembark.

During the fifteenth century, belief intensified in demonic possession and witch hunts began. Persecution of witchcraft did not end until the eighteenth century, and throughout this period many mentally ill people were treated as witches. However, one historically famous institution for mental patients, Bethlehem Royal Hospital in London, was established in the sixteenth century; actually, it had been founded much earlier as a religious organization and had housed a few mental patients then. Bethlehem Hospital—whose name is the origin of the term *bedlam*—had more patients than it could handle, though, and simply released many of them to wander as beggars.

Serious concern for the mentally ill developed in the eighteenth century, as fervor against witchcraft diminished and the concept of natural causes of disease took hold. An important figure was the French physician Philippe Pinel (1745—1826), who became

head of the Bicêtre Hospital for the Insane in Paris. Patients at Bicêtre had been kept chained, but Pinel insisted on unchanging many of them, with dramatically therapeutic results.

In the nineteenth century, approaches to mental illness were mixed. Some Philadelphians, for example, paid admission to mental hospitals, where they gawked at mental patients in chains and prided themselves on their own normality. More enlightened treatment was provided by the Society of Friends, who saw God (not Satan) in the insane. Early in the century, Quaker institutions practiced "moral treatment", allowing patients to roam the grounds freely and work in gardens. This moral treatment also included trying to create a homelike atmosphere for patients while isolating them from the conditions that were thought to have brought on their insanity, such as marital and financial problems.

In the twentieth century, treatments based on modern psychiatry have been developed; there has also been a new emphasis on patients' rights, and on the molecular-biological-chemical causes of insanity.

31. The title of the passage could be :
    (1) Insanity : An unwanted disease
    (2) Ancient approaches to treating insanity
    (3) Cause and effect of treating insanity
    (4) Looking at instanity through the ages

32. The primary focus of the passage is :
    (1) Differential treatment of the insane
    (2) A historical overview of treating the insane
    (3) The inhuman treatment of the insane
    (4) Cause and effect of insanity

33. All the ideas are mentioned in the passage *except one* :
    (1) During the middle ages the mentally sick sometimes spent their entire life on the sea
    (2) In the nineteenth century, some people treated insanity as a form of entertainment
    (3) Ancient people were terrified of their thoughts
    (4) Insanity was a defence mechanism against marital and financial stress

34. The phrase "dramatically therapeutic results" suggests :

(1) the treatment improved suddenly

(2) there was considerable improvement in patients

(3) Dr. Pinel followed a good therapy

(4) the therapy worked miraculously

35. From the tone of the passage we can infer that the author is of the view that :

(1) there is no understanding of the mentally sick

(2) the mentally sick were ill-treated through the ages

(3) mental sickness can never be totally understood

(4) understanding and treatment of mental sickness is evolving

36. The Quaker institutions were "morally right" in comparison to others because they :

(1) treated patients in a relatively free and stress-free environment

(2) felt that God not devil possessed the insane

(3) gave rights to the mentally sick

(4) viewed insanity as a moral problem

37. The style of the passage is :

(1) Persuasive (2) Argumentative

(3) Creative (4) Factual

38. The line most likely to follow this passage is :

(1) The twentieth century approach to patients' rights initially came about as an alternative to commitment in a mental institution

(2) In the 1960s and 1970s, views clashed about mental patients

(3) On the other side, many psychiatrists agreed that psychiatry was benevolent

(4) Other factors also contributed to deinstitutionalization

Passage II

Read the passage given below and answer the questions that follow :

The Potentially harmful effects of loneliness and social isolation on health and longevity, especially among older adults, are well established. For example, in 2013 it was reported after research that loneliness can impair health by raising levels of stress hormones and inflammation, which in turn can increase the risk of heart disease, arthritis, Type 2 diabetes, dementia and even suicide attempts.

Among older people who reported they felt left out, isolated or lacked companionship, the ability to perform daily activities like bathing, grooming and preparing meals declined and deaths increased over a six-year study period relative to people who reported none of these feelings.

Writing for *The New York Times'* department *The Upshot* last December, Dr. Dhruv Khullar, a physician and researcher at Weill Cornell Medicine in New York, cited evidence for disrupted sleep, abnormal immune responses and accelerated cognitive decline among socially isolated individuals, which he called "a growing epidemic".

As research moves forward on these topics, scientists are gaining a more refined understanding of the effects of loneliness and isolation on health. They are also looking into factors such as who is likely to be most seriously affected, and what kinds of interventions may reduce the associated riks.

There are some surprising findings. First, though equivalent in risk, loneliness and social isolation don't necessarily go hand-in-hand, Julianne Holt-Lunstad and Timothy B. Smith, psychologist-researchers at Brigham Young University, have ponited out.

"Social isolation denotes few social connections or interactions, whereas loneliness involves the subjective perception of isolation—the discrepancy between one's desired and actually level of social connection", they wrote in the journal *Heart* last year.

In other words, people can be socially isolated and not feel lonely; they simply prefer a more hermetic existence. Likewise, people can feel lonely even when surrounded by lots of people, especially if the relationships are not emotionally rewarding. In fact, Dr. Carla Perissinotto and colleagues at the Uniersity of California at San Francisco reported in 2012 that most lonely individuals are married, live with others and are not clinically depressed.

"Being unmarried is a significant risk", Holt-Lunstad said, "but not all marriages are happy ones. We have to consider the quality of relationships, not simply their existence or quantity".

As Dr. Nancy J. Donovan, a geriatric psychiatrist and researcher in neurology at Brigham and Women's Hospital in Boston, said in an interview, "There is a correlation between loneliness and social interaction, but not in everyone. It may be simplistic to suggest to people who are lonely that they should try to interact more with others."

Perhaps equally surprising is the finding that older adults are not necessarily the loneliest among us. Although most studies of the effects of loneliness have looked only at older people, Dr. Holt-Lunstad, who with colleagues has analysed 70 studies

encompassing 3.4 million people, said that the prevalence of loneliness peaks in adolescents and young adults, then also in the old.

According to Lousie Hawkley, senior research scientist at the National Opinion Research Center at the University of Chicago, "If anything, the intensity of loneliness decreases from young adulthood through middle age and doesn't become intense again until the oldest old age." Only 30 per cent of older adults feel lonely fairly often, according to data from the National Social Life, Health and Aging Project.

39. The primary focus of the article is :

(1) to discuss the role of loneliness and social isolation in old age
(2) understanding loneliness in society
(3) to understand the difference between social interaction and loneliness
(4) to combat loneliness

40. According to the passage loneliness is most acute :

(1) among young adults (2) amongst children
(3) in middle age (4) among the old

41. All the ideas are mentioned in the passage *except* one :

(1) loneliness effects the health of older people
(2) scientists are looking for ways to reduce the stress of loneliness
(3) loneliness may have a pathological effect on the brain
(4) most lonely people are married and are not clinically depressed

42. The phrase "they simply prefer a more hermetic existence" means :

(1) prefer to live a sparse life (2) prefer to live a godly life
(3) prefer to be isolated (4) prefer to abandon civilization

43. The phrase "loneliness and social isolation don't necessarily go hand-in-hand" suggests in the light of the passage :

(1) that people may be perfectly happy even if not interacting with others
(2) people who are surrounded by other people are always happier
(3) married people are happier
(4) we are lonely when other people perceive us as isolated

44. The appropriate title of this passage should be :

(1) Loneliness through the ages
(2) Loneliness and old age
(3) Lonely people are not always alone
(4) Loneliness and its effect on health

45. The line most likely to follow the passage is :

(1) Equally intriguing is a recent finding suggesting that loneliness may be a preclinical sign for Alzheimer's disease.
(2) In this study, loneliness was not associated with the extent of people's social network or social activity or even with their socio-economic status.
(3) "We have found stronger risks for those under 65 then for those over 65", Holt-Lunstad said.
(4) Suggestions for lonely or socially isolated adults have included taking a class, getting a dog, doing volunteer work and joining a senior centre.

Directions for Question Numbers 46 to 50 : Each of these questions consists of a word in capital letters followed by four alternative words or phrases. From among the alternatives, choose the word/phrase most nearly similar in meaning to the word in capital letters in each case :

46. PLAUDITS

(1) fits of anger
(2) suggestions
(3) praise
(4) arguments

47. RAVAGE

(1) destroy
(2) break
(3) abolish
(4) demolish

48. SAPIENT

(1) foolish
(2) sacred
(3) wise
(4) sallow

49. WALLOW

(1) cringe
(2) indulge
(3) coax
(4) ambish

50. TURPITUDE

(1) in action
(2) temporary
(3) lucid
(4) depravity

Directions for Question Numbers 51 to 55 : Each of these questions consists of a word is capital letters followed by four alternative words or phrases. From among the alternatives, choose the word/phrase most nearly opposite in meaning to the word in capital letters in each case :

51. VIRILE

(1) effeminate
(2) synthetic
(3) malignant
(4) robust

52. DEMUR

(1) concur
(2) disagree
(3) dissipate
(4) consume

53. BIAS

(1) unfairness
(2) subjective
(3) absoluteness
(4) objectivity

54. ABORTIVE

(1) successful
(2) defeated
(3) unfruitful
(4) fixed

55. FOOLHARDY

(1) quick
(2) sensative
(3) futile
(4) wise

Directions for Question Numbers 56 to 60 : Choose the word or phrase that best completes each sentence :

56. After working for the foreign office, ordinary clerical work seemed rather ..... .

(1) exciting
(2) heavenly
(3) fascinating
(4) mundane

57. My job is so enjoyable and generously paid that I have little ..... to look for promotion elsewhere.

(1) incitement
(2) influence
(3) incentive
(4) instigation

58. As a ..... President, his views are treated with respect when he is interviewed.

(1) prior
(2) previous
(3) late
(4) former

59. His jokes seemed to ..... very well with his audience, if their laughter was any indication.

(1) go off
(2) go down
(3) go along
(4) go by

60. I think my fear of spiders must ..... from a horror film which I saw as a child.

(1) stem
(2) rise
(3) start
(4) begin

Directions for Question Numbers 61 to 65 : Identify that part of the sentence which is incorrect :

61. (1) The Government of India (2) has provided a lot of money (3) of the education (4) of backward communities.

62. (1) Most of the children (2) in the school I taught (3) some years ago (4) are coming from very backward families.

63. (1) If you look (2) at the map of the world (3) you find that hot deserts (4) are always almost on the western margins of land masses.

64. (1) The incidence of malaria (2) the number of people effected by the disease (3) depends on the number of (4) mosquitoes infected.

65. (1) Human beings has always tried to (2) suppress weeds (3) and to prevent their propagation (4) and to eliminate harmful animals.

Directions for Question Numbers 66 to 68 : Fill in the blanks with the correct options :

66. You won't be allowed into the club ..... you wear a suit and tie.

(1) if
(2) unless
(3) whether
(4) apart

67. ..... different cuisines from all over the world in Delhi.

(1) There are a lot of
(2) There's loads of
(3) There's much
(4) There is a lots of

68. How many times ..... not to do that ?

(1) haven't I told you
(2) have I told
(3) I told you
(4) have I told you

Directions for Question Numbers 69 and 70 : Each question has a group of sentences marked A, B, C, D and E. Arrrange these to form a logical sequence :

69. (A) That means, not many companies, individuals or housewives are in any hurry to reinstate the budget they cut during slowdown.

(B) Corporate boardrooms to kitchen cabinets, a 'New Normal' rules the roost.

(C) Though slowdown is last year's story, a majority find comfort in this new regime and intend to stay with it.

(D) Downturn taught enterprises and families alike to do more with less.

(E) For, the cut did not hamper the quality of life or productivity at work.

(1) BDCAE

(2) AEBDC

(3) EDCAB

(4) BADEC

70. (A) A compromise agreement may be reached.

(B) However, sometimes one of the sides decides to take industrial action.

(C) Where there is disagreement, bargaining or negotiating will take place.

(D) The management can 'lock out' the employees and prevent them from coming to work, which used to be quite common, but is rarely used today.

(E) Where this is not possible, the sides can go to arbitration and bring in a third party from outside to say what they think should happen.

(1) EBDCA

(2) BDCAE

(3) CAEBD

(4) DACBE

Directions for Question Numbers 71 to 75 : In all these questions, either a part or whole of the sentence is underlined. The sentence is followed by four ways of writing the underlined part. Select the alternative which represents the correct way of writing the underlined part as per Standard English :

71. After viewing both movies, <u>John agreed that the first one was the best of the two.</u>

(1) John agreed that the first was the best of the two.

(2) John agreed that the first one was the better of the two.

(3) John agreed that of the two the better was the first.

(4) John agreed that the best of the two was the first.

72. She seldom ever wants to try and face the true facts.

(1) seldom ever wants to try and face the facts.

(2) seldom ever wants to try to face the facts.

(3) seldom wants to try and face the facts.

(4) seldom wants to try to face the facts.

73. Ritu wanted to have gone to the movies.

(1) had wanted to have gone

(2) wanted to go

(3) wanted to have went

(4) had wanted to have went

74. Since we are living in India for ten years, we are reluctant to move to another country.

(1) Being that we are living

(2) Being that we have been living

(3) Since we have been living

(4) Since we were living

75. Fame as well as fortune were his goals in life.

(1) Fame as well as fortune was his goals

(2) Fame as well as fortune was his goal

(3) Fame and fortune were his goals

(4) Fame also fortune were his goals

***Directions for Question Numbers 76 to 80** : Each of these questions consists of an idiom, followed by four alternative words or phrases. Select the word or phrase which gives the correct meaning of the idiom :*

76. Keep your shirt on :

(1) have courage

(2) don't lose your temper

(3) don't show off

(4) don't lose hope

77. A sight for sore eyes :

(1) very pleased to see someone

(2) eyes swollen because of a quarrel

(3) swollen eyes due to sleeplessness

(4) really unhappy to see someone

78. A close shave :

(1) a lucky escape

(2) a difficult task

(3) a well guarded secret

(4) to abandon a task

79. To take up the Gauntlet :

(1) to accept defeat

(2) to accept a challenge

(3) to accept the honour

(4) to seriously take up the issue

80. To play ducks and drakes :

(1) to squander money recklessly

(2) to do hard work

(3) to be sly

(4) to fight with people

TEST III

QAUANTITATIVE APTITUDE

81. The average of 8 numbers is 21. If each of the numbers is multiplied by 8, the average of the new set of numbers is :

(1) 8 (2) 21

(3) 29 (4) 168

82. The aveage of odd numbers upto 100 is :

(1) 51 (2) 50

(3) 49.5 (4) 49

83. The average expenditure of a man for the first five months is ₹ 120 and for the next seven months it is ₹ 130. If he saves ₹ 290 in that year, his monthly average income is :

(1) ₹ 140 (2) ₹ 150

(3) ₹ 160 (4) ₹ 170

84. In a class, there are 20 boys whose average age is decreased by 2 months, when one boy aged 18 years is replaced by a new boy. The age of the new boy is :

(1) 14 years 8 months (2) 15 years

(3) 16 years 4 months (4) 17 years 10 months

85. Laxman has to cover a distance of 6 km in 45 minutes. If he covers one half of the distance in 2/3rd time, what should be his speed to cover the remaining distance in the remaining time ?

(1) 12 km/hr. (2) 16 km/hr.

(3) 3 km/hr. (4) 8 km/hr.

86. A speed of 30.6 km/hr. is the same as :

(1) 5.1 m/sec (2) 8.5 m/sec

(3) 110.16 m/sec (4) 1.7 m/sec

87. The ratio between the rates of walking of A and B is 2 : 3. If the time taken by B to cover a certain distance is 36 minutes, the time taken by A to cover that much distance is :

(1) 24 min. (2) 54 min.

(3) 48 min. (4) 21.6 min.

88. The length of a rectangle is doubled while its breadth is halved. What is the percentage change in area ?

(1) 50 (2) 75

(3) No change (4) 65

89. The cost of carpeting a room 15 metres long with a carpet 75 cm wide at 30 paise per metre is ₹ 36. The breadth of the room is :

(1) 6 metres (2) 8 metres

(3) 9 metres (4) 12 metres

90. The area of an equilateral triangle whose side is 8 cm is :

(1) 64 sq. cm (2) 21.3 sq. cm

(3) $4\sqrt{3}$ sq. cm (4) $16\sqrt{3}$ sq. cm

91. $9998 \times 999 = ?$

(1) 9997001 (2) 9988002

(3) 9987012 (4) 9898012

92. $\left(1-\frac{1}{3}\right)\left(1-\frac{1}{4}\right)\left(1-\frac{1}{5}\right).....\left(1-\frac{1}{n}\right)=?$

(1) $\frac{1}{n}$ (2) $\frac{2}{n}$

(3) $\frac{2(n-1)}{n}$ (4) $\frac{2}{n(n+1)}$

93. What least number must be added to 1056 to get a number exactly divisible by 23 ?

(1) 21 (2) 25

(3) 3 (4) 2

94. A number is as much greater than 31 as is less than 55. The number is :

(1) 47 (2) 52

(3) 39 (4) 43

95. The sum of squares of two numbers is 80 and the square of their difference is 36. The product of the two numbers is :

(1) 22 (2) 44

(3) 58 (4) 116