

Booklet Serial No.

43429

DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO**SERIES : I****QUESTION BOOKLET****Subjects : General English, General Knowledge and Mathematics****Full Marks : 300****Time Allowed : 2½ Hours***Read the following instructions carefully before you begin to answer the questions.***INSTRUCTIONS TO CANDIDATES**

1. This Booklet contains **150 questions** to be answered in a separate OMR Answer Sheet using Black Ballpoint Pen in the following three Parts :

Part—A	: General English	:	50 questions
Part—B	: General Knowledge	:	50 questions
Part—C	: Mathematics	:	50 questions

2. All questions are compulsory.
3. You will be supplied the Answer Sheet separately by the Invigilator. You must complete the details of particulars asked for.
4. Answer must be shown by completely blackening the corresponding circle in the Answer Sheet against the relevant question number by Black Ballpoint Pen. OMR Answer Sheet without marking Series shall not be evaluated.

Example :

Suppose the following question is asked :

The Capital of Meghalaya is

- (A) Guwahati
 (B) Kohima
 (C) Shillong
 (D) Delhi

You will have four alternatives in the Answer Sheet for your response corresponding to each question of the Question Booklet as below :

(A) (B) (C) (D)

In the above illustration, if your chosen response is alternative (C), i.e., Shillong, then the same should be marked on the Answer Sheet by blackening the relevant circle with a Black Ballpoint Pen only as below :

(A) (B) (C) (D)

The example shown above is the only correct method of answering.

5. Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any one question.
6. There will NOT be any negative marking for wrong answers.
7. The Answer Sheet must be handed over to the Invigilator before you leave the Examination Hall.
8. No Rough Work is to be done on the Answer Sheet. Space for Rough Work has been provided in the Question Booklet.

SEAL

PART—A : GENERAL ENGLISH

(Marks : 100)

Each question carries 2 marks :

Directions : (Q. Nos. 1-10), Choose the correct option from the four alternatives given below. Use the correct form of the given verb forms.

Fingerprints 1 (be) the impressions made by the whorls that form unique pattern on the fingertips. People 2 (know) for hundreds of years that no two fingerprints are the same. However, only in the last seventy years have fingerprints 3 (be use) by the police in the detection of crime. It 4 (be) a mistake to believe that fingerprints 5 (point) the way only to criminals. Because of their singularity they 6 (be use) in security and defence organisations to establish the identity of personnel. Hospitals 7 (be know) to take the footprints of newborn babies so that mothers can be sure they 8 (take) home the right infants. Recently, it 9 (be find) that the identity of dogs 10 (be establish), as no two dogs have the same nose print!

1. (A) is (B) are
(C) be (D) have been
2. (A) have known
(B) know
(C) known
(D) is known
3. (A) used
(B) use
(C) been used
(D) have been used
4. (A) is (B) are
(C) were (D) is been
5. (A) pointed (B) has pointed
(C) is pointed (D) point
6. (A) are used
(B) is used
(C) have been used
(D) been used
7. (A) are known
(B) been known
(C) be known
(D) have been known
8. (A) will take (B) take
(C) are taking (D) have taken
9. (A) is found
(B) been found
(C) was found
(D) has been found
10. (A) be established
(B) established
(C) is established
(D) was established

Directions : (Q. Nos. 11-15), Fill in the blank choosing an appropriate term from the choices given below each sentence.

11. In his later years, the writer was troubled ____ poor health.
(A) by (B) with
(C) for (D) upon
12. Tourism has taken ____ much of the simple beauty of hill stations.
(A) off (B) by
(C) away (D) about
13. With a few deft strokes the artist shaped the block of ice ____ a fish.
(A) to (B) like
(C) into (D) for
14. The first to come ____ to help were children.
(A) by (B) forward
(C) there (D) onward
15. The mountaineers were advised ____ starting their expedition till the weather improved.
(A) at (B) about
(C) for (D) against

Directions : (Q. Nos. 16–20), Choose an appropriate meaning from the options given below, for the words printed in **BLOCK LETTERS**.

16. PHILATELIST

- (A) a person who spoils or destroys in secret, to prevent the functioning of something
- (B) a person who studies and collects postage stamps
- (C) a person cooperating with the enemy occupying his country
- (D) an expert judge on the finer things of life

17. EUPHEMISM

- (A) a pleasant name for something unpleasant
- (B) to give much importance or undue reverence for something
- (C) enthusiasm for a particular country or group
- (D) a belief of making different races live apart

18. LUDDITE

- (A) a person who dabbles in a subject, especially related to fine arts
- (B) a person who skates on thin ice
- (C) a person who has a general, but not serious interest in various subjects
- (D) a person opposed to mechanical and technological changes

19. PROSCENIUM

- (A) the stage area between the curtain and the orchestra
- (B) native to the place where found
- (C) a roof or covering of a structure designed to provide cover from sun and rain
- (D) the art of trickery

20. ANACHRONISM

- (A) the mistake or referring things of an age earlier or later than the age described
- (B) references to classical events or legends
- (C) mistakes in grammar and structure
- (D) reference to the effect of time on the life of man

Directions : (Q. Nos. 21–25), Choose the correct sentence/sentences.

- 21.** (i) He boasted that he had never been ill all his life.
 (ii) He boasted of keeping perfect health all his life.
 (iii) He boasted of being healthy in his life.
- (A) (i) (B) (i) and (iii)
 (C) (ii) and (iii) (D) (i), (ii) and (iii)

- 22.** (i) 'Do not exceed the speed limit', the notice read.
 (ii) 'Do not exceed the speed limit' the notice warned.
 (iii) The notice cautioned drivers not to exceed the speed limit.
- (A) (i) and (ii) (B) (i) and (iii)
 (C) (ii) and (iii) (D) (i), (ii) and (iii)

- 23.** (i) Theirs was the most lavish wedding we ever attended.
 (ii) Never did we attended a lavish wedding as theirs.
 (iii) Never have we attended a lavish wedding as theirs.
- (A) (i) (B) (i) and (iii)
 (C) (ii) and (iii) (D) (i), (ii) and (iii)

- 24.** (i) As Mike knew Greek he had no difficulty when he toured Greece.
 (ii) Mike's knowledge of Greek helped him when he toured Greece.
 (iii) Mike's knowledge of Greek helped him during his tour of Greece.
- (A) (i) and (ii) (B) (i) and (iii)
 (C) (ii) and (iii) (D) (i), (ii) and (iii)

- 25.** (i) A holiday was declared by the administration and few voters came out of their homes to vote.
 (ii) In spite of a holiday being declared by the administration few voters came out of their homes.
 (iii) Although a holiday had been declared by the administration, few voters came out of their homes.
- (A) (i) and (ii) (B) (i) and (iii)
 (C) (ii) and (iii) (D) (i), (ii) and (iii)

Directions : (Q. Nos. 26–30), Arrange the sentences a, b, c and d to form a logical sequence between sentences 1 and 6.

- 26.** 1. Reptiles become stuck in a swamp and die
- Over great periods of time, the peat is compressed and turned to coal
 - As the centuries pass and more vegetation accumulates, the deposit turns to peat
 - Changes in the sea level may cause the swamp to be flooded and layers of sand to be deposited on top of the peat
 - Dead vegetation drifts to the bottom and covers them
6. The reptile's bones still remain with it.
- (A) dbca (B) dacb
(C) cdab (D) cdab

- 27.** 1. The top management should perceive the true worth of people and only then make friends
- Such 'true friends' are very few and rare
 - Factors such as affluence, riches, outward sophistication and conceptual abilities are not prerequisites of genuine friendship
 - Such people must be respected and kept close to the heart
 - Business realities call for developing a large circle of acquaintances and contracts; however, all of them will be motivated by their own self-interest and it would be wrong to treat them as genuine friends
6. There is always a need for real friends to whom one can turn for balanced, unselfish advice, most so when one is caught in a dilemma.
- (A) cdab (B) dbac
(C) cadb (D) acbd

- 28.** 1. Managers must lead by example; they should not be averse to giving a hand in manual labour, if required
- They should update their competence to guide their subordinates, this is possible only if they keep in regular touch with the new processes, machines, instruments, gauges, systems and gadgets
 - Work must be allocated to different groups and team members in clear, specific terms
 - Too much of wall building is detrimental to the exercise of the personal charisma of the leader whose presence should not be felt only through notices, circulars or memos, but by being seen physically
 - Simple, clean living among one's people should be insisted upon
6. This would mean the maintaining of an updated organization chart, laying down job descriptions, identifying key result areas, setting personal targets and above all, monitoring of performance to meet organizational goals.
- (A) bdac (B) bcda
(C) adcb (D) acbd

- 29.** 1. Now as we struggle to create
- It is in vastly different circumstances
 - A better life for our people
 - Watchfulness, we cannot indulge in such
 - For obviously in today's eagle-eyed
6. Practices even for worthwhile purposes.
- (A) adcb (B) dcba
(C) dbac (D) badc

30. 1. Historically, stained glass was almost entirely reserved for ecclesiastical spaces
- By all counts, he has accomplished that vision with unmistakable style
 - "It is my mission to bring it kicking and screaming out of the milieu", says Clarke
 - The first was the jewel-like windows he designed for a Cistercian Church in Switzerland
 - Two recent projects show his genius in the separate worlds of the sacred and the mundane
6. The other was a spectacular, huge skylight in a shopping complex in Brazil.
- (A) cbad (B) badc
(C) abdc (D) dbac

Directions : (Q. Nos. 31-35), Each of the sentences below contains an underlined phrase. From the alternatives given below choose the correct option that best expresses the meaning of the underlined phrase.

31. Why should you always be the one to cast the first stone?
- deeply involved
 - to be the first to find fault
 - to praise first of all
 - to start a fight
32. The entire discussion revolved around the moot point.
- an important point
 - a non-controversial issue
 - a controversial issue
 - an unrelated issue

33. While I do my shopping, you may chew the cud.
- go through legalities
 - reflect upon one's past
 - have breakfast
 - kill time
34. The project seems to be in an apple pie order.
- a disorderly manner
 - a messy manner
 - perfectly neat and tidy
 - beautifully decorated
35. Unexpectedly he proved to be a man of straw when his moral courage was tested.
- very stubborn
 - very weak
 - upright
 - very useful

Directions : (Q. Nos. 36-40), From the alternatives given below, select the one-word substitution for the given sentences.

36. A school boy who cuts classes frequently
- Defeatist
 - Sychophant
 - Truant
 - Martinet
37. The act of violating the sanctity of the Church
- Blasphemy
 - Heresy
 - Sacrilege
 - Desecration

38. Nemesis is a symbol of

- (A) Low birth
- (B) Punishment
- (C) Treason
- (D) Self-love

39. The act of sleepwalking

- (A) Prevaricate
- (B) Misologist
- (C) Somnambulism
- (D) Xenophobia

40. The inclination of wasting resources or behaving extravagantly

- (A) Profligate
- (B) Wastage
- (C) Rankle
- (D) Vacillating

Directions : (Q. Nos. 41–45), Choose an appropriate antonym for the words printed in BOLD LETTERS from the options given below.

41. **MUTATION**

- (A) Constancy
- (B) Decency
- (C) Adolescent
- (D) Coordination

42. **INSOLVENT**

- (A) Physically pure
- (B) Financially stable
- (C) Trivial
- (D) Chemically active

43. **ACQUITTAL**

- (A) Warrant
- (B) Condemnation
- (C) Punishment
- (D) Castigation

44. **PARSIMONY**

- (A) Closely held
- (B) Free spending
- (C) Tight fisted
- (D) Precision

45. **VOCIFEROUS**

- (A) Laudable
- (B) Quiet
- (C) Dangerous
- (D) Powerful

Directions : (Q. Nos. 46–50), Choose an appropriate synonym for the words printed in BOLD LETTERS from the options given below.

46. **OSTENSIBLE**

- (A) Apparent
- (B) Elaborate
- (C) Traditional
- (D) Showy

47. **LOQUACIOUS**

- (A) Verbose
- (B) Taciturn
- (C) Rational
- (D) Amiable

48. **PREPOSTEROUS**

- (A) Formal
- (B) Judicious
- (C) Ridiculous
- (D) Ceremonious

49. **CANTANKEROUS**

- (A) Talkative
- (B) Aggressive
- (C) Quarrelsome
- (D) Obedient

50. **ELAN**

- (A) Flair
- (B) Spiritual
- (C) Inspiration
- (D) Boredom

PART—B : GENERAL KNOWLEDGE

(Marks : 100)

Each question carries 2 marks :

51. The ₹ 3,800 crores Ranjeet Sagar Dam under Thein Dam Project is located on the river
(A) Beas (B) Chenab
(C) Ravi (D) Sutlej
52. Which of the following States is least developed in rail routes?
(A) Chhattisgarh
(B) Jharkhand
(C) Manipur
(D) Uttarakhand
53. 'Lakshya', which has been induced into the Indian defence system, is a
(A) surface-to-air missile
(B) missile-firing submarine
(C) multi-barrel rocket system
(D) pilotless target aircraft
54. The author of the book, *Waiting for the Mahatma* is
(A) Amrita Pritam
(B) R. K. Narayan
(C) N. A. Palkhivala
(D) Manohar Malgoankar
55. Who invented optical fibre?
(A) Samuel Cohen
(B) Narinder Kapany
(C) Percy L. Spencer
(D) T. H. Maimah
56. Alzheimer's disease affects
(A) children
(B) adolescent
(C) young people
(D) elderly people
57. The Indian Factory Act was passed in
(A) 1861 (B) 1881
(C) 1887 (D) 1898
58. Most of the ozone in the atmosphere is concentrated in the
(A) ionosphere
(B) mesosphere
(C) stratosphere
(D) troposphere
59. The year 2009 was observed as the Year of Ox in which country?
(A) Japan
(B) South Korea
(C) China
(D) Vietnam
60. Bombay (Mumbai) was acquired by the English from the Portuguese in the year
(A) 1662 (B) 1612
(C) 1600 (D) 1595
61. Eiffel Tower is in
(A) Paris
(B) London
(C) Tokyo
(D) New York

62. Shakespeare's sonnet has how many lines?
 (A) 9 (B) 14
 (C) 24 (D) 12
63. Which of the following countries is **not** included in G-8 (Group of eight industrialized countries)?
 (A) Italy
 (B) Russia
 (C) Netherlands
 (D) Canada
64. When is the International Youth Day observed?
 (A) August 9
 (B) August 12
 (C) August 15
 (D) August 23
65. Who were the first to issue gold coins in India?
 (A) Mauryas (B) Indo-Greeks
 (C) Guptas (D) Kushans
66. Which German physicist invented the electron microscope that won him the 1986 Nobel Prize in Physics?
 (A) Ernst Ruska
 (B) van't Hoff
 (C) J. H. D. Jensen
 (D) Eugene P. Wigner
67. The ocean between America and Europe is called
 (A) Arctic
 (B) Atlantic
 (C) South Atlantic
 (D) Pacific
68. Pulitzer prize is given for
 (A) agriculture (B) journalism
 (C) art (D) social work
69. Which of the following projects is the largest multipurpose project in India?
 (A) Hirakud
 (B) Bhakra Nangal
 (C) Beas
 (D) Damodar Valley
70. What was the name of the town established by Akbar?
 (A) Agra
 (B) Delhi
 (C) Fatehpur Sikri
 (D) Nizamabad
71. Who was the first Indian to have received the Nobel Prize?
 (A) Rabindranath Tagore
 (B) C. V. Raman
 (C) Jaishankar Prasad
 (D) Gopal Krishna Gokhale
72. Panama Canal joins
 (A) Mediterranean Sea and Red Sea
 (B) Atlantic Ocean and Pacific Ocean
 (C) Black Sea and Caspian Sea
 (D) Caspian Sea and Red Sea
73. A person who is **not** a member of the Parliament can be appointed as a Minister by the President for a maximum period of
 (A) 9 months
 (B) 6 months
 (C) 12 months
 (D) 3 months

74. The author of the book, *Lajja* belongs to
 (A) India (B) Pakistan
 (C) Bangladesh (D) Britain
75. Tirana is the capital of
 (A) Hungary (B) Afghanistan
 (C) Albania (D) Yugoslavia
76. Kathakali is the dance of
 (A) Kerala
 (B) Tamil Nadu
 (C) Andhra Pradesh
 (D) Karnataka
77. Who is associated with Chipko Movement in India?
 (A) Vinoba Bhave
 (B) Sunderlal Bahuguna
 (C) Sunita Narain
 (D) Satyapal Maharaj
78. The gold mines at Kolar are situated in
 (A) Kerala
 (B) Karnataka
 (C) Tamil Nadu
 (D) Andhra Pradesh
79. Under which Article of the Constitution of India, Presidential rule can be declared and imposed in a State in India?
 (A) Article 350
 (B) Article 351
 (C) Article 354
 (D) Article 356
80. When was UNO established?
 (A) 1920 (B) 1945
 (C) 1950 (D) 1955
81. AIDS is caused by
 (A) bacteria
 (B) protozoa
 (C) helminth
 (D) virus
82. The second most widely spoken language in India is
 (A) Bengali (B) Marathi
 (C) Punjabi (D) Telugu
83. 'Queensberry Rules' is the name given to the rules in
 (A) hockey (B) cricket
 (C) tennis (D) boxing
84. The retirement age of a judge of the Supreme Court is
 (A) 65 years (B) 62 years
 (C) 60 years (D) 58 years
85. Noise is measured in units called
 (A) hertz (B) decibel
 (C) ampere (D) horse power
86. The Asiatic Society was founded in
 (A) 1773 (B) 1782
 (C) 1784 (D) 1790
87. The Battle of Plassey was fought in
 (A) 1764 (B) 1748
 (C) 1782 (D) 1757
88. Which country in the world is the largest producer of natural rubber?
 (A) Indonesia
 (B) Thailand
 (C) Vietnam
 (D) Malaysia

89. Who was Pablo Picasso (1881–1973)?
 (A) A painter
 (B) A dancer
 (C) A singer
 (D) A writer
90. The famous diamond 'Kohinoor' was presented to Shah Jahan by
 (A) Aurangzeb
 (B) Murad
 (C) Mir Jumla
 (D) Abul Hasan Qutb Shah
91. The World Trade Organization is located at
 (A) New York
 (B) Geneva
 (C) Washington
 (D) London
92. In which of the following States, the productivity of rice is the highest?
 (A) Punjab
 (B) Uttar Pradesh
 (C) Haryana
 (D) None of the above
93. Which of the following States **does not** lie along Patkai Hills?
 (A) Nagaland
 (B) Tripura
 (C) Manipur
 (D) Mizoram
94. The percentage of irrigated land of India is about
 (A) 50 (B) 65
 (C) 35 (D) 20
95. According to the 'United Nations World Happiness Report', what is the rank of India?
 (A) 117 (B) 108
 (C) 111 (D) 96
96. Blue Revolution is associated with
 (A) fish (B) milk
 (C) flower (D) litmus
97. India's biggest telescope Multi Application Solar Telescope (MAST) has been installed at
 (A) Bengaluru
 (B) Shimla
 (C) Udaipur
 (D) Ahmedabad
98. What is common among Kutty, Shankar, Laxman and Sudhir Dar?
 (A) Drawing Cartoons
 (B) Film Direction
 (C) Instrumental Music
 (D) Classical Dance
99. Indian School of Mines is located in
 (A) Asansol
 (B) Tata Nagar
 (C) Jharia
 (D) Dhanbad
100. In which State of India wet agriculture is practised?
 (A) Tamil Nadu
 (B) Karnataka
 (C) Andhra Pradesh
 (D) Kerala

PART—C : MATHEMATICS

(Marks : 100)

Each question carries 2 marks :

- 101.** The cost of 5 pens of the same kind is ₹ 28, then the cost of each pen is
(A) ₹ 28 (B) ₹ 5.6
(C) ₹ 6.5 (D) ₹ 140
- 102.** The cube root of 2197 is
(A) 21 (B) 19
(C) 13 (D) 27
- 103.** The value of $(2^2)^0$ is
(A) 4 (B) 2
(C) 1 (D) 0
- 104.** The value of $1.272727\dots$ is
(A) 1.3
(B) $\frac{14}{11}$
(C) $\frac{11}{14}$
(D) None of the above
- 105.** A car travels 24 km in one hour. How far will the car travel in 12 hours?
(A) 288 km (B) 24 km
(C) 12 km (D) 2 km
- 106.** How much does 40 m 5 cm exceed 35 m 78 cm?
(A) 4 m 27 cm
(B) 4 m 72 cm
(C) 76 m 28 cm
(D) None of the above
- 107.** The number of vertices in a cuboid is
(A) 6 (B) 8
(C) 12 (D) 4
- 108.** $\frac{3}{5} \square \frac{4}{5}$, where x is
(A) =
(B) >
(C) <
(D) None of the above
- 109.** The degree of the polynomial
 $5 + 2x^2 + 3x^3 + x^6$
is
(A) 4 (B) 6
(C) 2 (D) 5
- 110.** The value of the polynomial $2x - 3x^2 + 10$ at $x = -1$ is
(A) 10 (B) 5
(C) 9 (D) 15
- 111.** The sides of any triangle are 3 cm, 4 cm, 5 cm respectively, then the perimeter of the triangle is
(A) 24 cm (B) 60 cm
(C) 12 cm (D) 20 cm
- 112.** If length, breadth and height of a cuboid are 3 cm, 4 cm, 6 cm respectively, then the total surface area is
(A) 108 cm^2 (B) 84 cm^2
(C) 72 cm^2 (D) 48 cm^2

113. The area of a circle, whose diameter is 14 cm, is
 (A) 616 cm^2 (B) 196 cm^2
 (C) 154 cm^2 (D) 49 cm^2
114. The value of $3^0 \times 3^1 \times 3^2$ is
 (A) 27 (B) 81
 (C) 9 (D) 243
115. The LCM of 12, 24 and 36 is
 (A) 12 (B) 24
 (C) 36 (D) 72
116. If ₹ 600 is divided between Sonu and Monu in the ratio 3 : 2, then they will get respectively
 (A) ₹ 400 and ₹ 200
 (B) ₹ 360 and ₹ 240
 (C) ₹ 240 and ₹ 360
 (D) None of the above
117. The absolute value of -5 is
 (A) 25 (B) 125
 (C) 5 (D) -5
118. The value of $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$ is
 (A) $\frac{1}{16}$ (B) $\frac{15}{8}$
 (C) $\frac{1}{64}$ (D) $\frac{1}{8}$
119. If 2, 5, x, 25 are in proportion, then the value of x is
 (A) 8 (B) 50
 (C) 10 (D) 15
120. $\frac{2}{-5}$ when expressed as a decimal number becomes
 (A) 0.4 (B) 0.04
 (C) -0.4 (D) -0.04
121. The inverse of $\frac{3}{5}$ is
 (A) $\frac{3^{-1}}{5}$ (B) $\frac{3}{5^{-1}}$
 (C) $\frac{3}{5}$ (D) $\frac{5}{3}$
122. The number of days together in the months of February, March and April in the year 2019 is
 (A) 90 days (B) 93 days
 (C) 89 days (D) 91 days
123. The multiplicative inverse of $\left| \frac{2}{-3} \right|$ is
 (A) $\left| \frac{-2}{3} \right|$ (B) $\left| \frac{-2}{-3} \right|$
 (C) $\frac{3}{2}$ (D) $\frac{2}{3}$
124. $(1+a)(1+a^2)(1+a^4)(1-a)$ is equal to
 (A) $1+a^8$ (B) $1-a^8$
 (C) $1+a^6$ (D) $1+a^{16}$
125. A boy attempts $(x+y)$ sums of which $(y+z)$ are wrong. Then the number of correct sums is
 (A) $x+2y+z$ (B) $z+x$
 (C) $x-z$ (D) $z-x$

126. $(x-y)(x^2+xy+y^2)$ is equal to

- (A) x^3+y^3
- (B) x^3-y^3
- (C) y^3-x^3
- (D) $x^3+y^3+3x^2y+3xy^2$

127. a^2-5a+6 is equal to

- (A) $(a+3)(a-2)$
- (B) $(a-3)(a+2)$
- (C) $(a-3)(a-2)$
- (D) None of the above

128. $(x-4)(x-3)$ is equal to

- (A) $x^2+7x+12$
- (B) $x^2-7x-12$
- (C) $x^2-7x+12$
- (D) $x^2+7x-12$

129. $2^3+2^2+2^1-2^0$ is equal to

- (A) 13 (B) 14
- (C) 15 (D) 16

130. $(4^0)^2$ is equal to

- (A) 16 (B) 0
- (C) 1 (D) 8

131. The value of $(2\sqrt{3}+3\sqrt{7})-(\sqrt{3}-2\sqrt{7})$ is

- (A) $\sqrt{3}+5\sqrt{7}$ (B) $3\sqrt{3}+5\sqrt{7}$
- (C) $\sqrt{3}-5\sqrt{7}$ (D) $3\sqrt{3}-5\sqrt{7}$

132. $\left(\frac{x^a}{x^b}\right) \cdot \left(\frac{x^b}{x^c}\right) \cdot \left(\frac{x^c}{x^a}\right)$ is equal to

- (A) 0 (B) 1
- (C) $a+b+c$ (D) $x+y+z$

133. If $3x+15=0$, then x is equal to

- (A) 5 (B) -5
- (C) 3 (D) -3

134. How many cubic centimeters make 1 litre?

- (A) 10 cm^3
- (B) 100 cm^3
- (C) 1000 cm^3
- (D) 10000 cm^3

135. The point $(-2, -3)$ lies in

- (A) first quadrant
- (B) second quadrant
- (C) third quadrant
- (D) fourth quadrant

136. $(a+b)^{-1}$ is equal to

- (A) $\frac{1}{a} + \frac{1}{b}$ (B) $a-b$
- (C) $\frac{1}{a+b}$ (D) $\frac{1}{a} - \frac{1}{b}$

137. The arithmetic mean between 12 and -4 is

- (A) 2 (B) 4
- (C) 6 (D) 8

138. $(\sin 90^\circ - \sin 30^\circ)$ is equal to
 (A) $\tan 60^\circ$ (B) $\sin 60^\circ$
 (C) $\frac{1}{2}$ (D) 1
139. If $\sin A = \frac{3}{5}$, then $\cos A$ is equal to
 (A) $\frac{4}{5}$ (B) $\frac{5}{3}$
 (C) $\frac{5}{4}$ (D) $\frac{3}{4}$
140. If $P(E) = 0.05$, then $P(\text{not } E)$ is equal to
 (A) 0.5 (B) 0.95
 (C) 0.05 (D) 0.9
141. If $A + B = 90^\circ$, then
 (A) $\sin A + \cos B = 0$
 (B) $\sin A - \cos B = 0$
 (C) $\sin A + \tan B = 0$
 (D) $\sin A - \tan B = 0$
142. The volume of a sphere with radius r is equal to
 (A) $4\pi r^2$ (B) $\frac{4}{3}\pi r^3$
 (C) $\frac{3}{4}\pi r^3$ (D) πr^2
143. If 2, x , 10 are in AP, then x is equal to
 (A) 4 (B) 5
 (C) 6 (D) 8
144. $(x^2 + x + 1)$ is a
 (A) monomial
 (B) binomial
 (C) trinomial
 (D) None of the above
145. The degree of $(x^2y^2)(2x^3y^3)$ is
 (A) 4 (B) 6
 (C) 10 (D) 12
146. In the product $(2x+4)(3x+2)$, the coefficient of x is
 (A) 2 (B) 3
 (C) 6 (D) 16
147. The square root of 361 is
 (A) 61 (B) 31
 (C) 19 (D) 91
148. Asha bought a pen for ₹ 20 and sold it for ₹ 25. Then gain percentage is
 (A) 5% (B) 10%
 (C) 20% (D) 25%
149. 15% of ₹ 60 is equal to
 (A) ₹ 20 (B) ₹ 4
 (C) ₹ 9 (D) ₹ 10
150. The distance between two points (4, 0) and (0, 3) is
 (A) 3 (B) 4
 (C) 5 (D) 7