

DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO**QUESTION BOOKLET****SERIES I****Subjects : General English, General Studies & Aptitude and Arithmetic****BOOKLET SERIAL NO.****400113****Marks : 300****Time : 3 (three) hours**

Read the following instructions carefully before you
begin to answer the questions.

INSTRUCTIONS TO CANDIDATES

1. This booklet contains **200 questions** to be answered in a separate OMR Answer Sheet using Black Ball Pen in following three parts:
Part-A-General English : 50 questions, Part-B-General Studies & Aptitude :100 questions,
Part-C-Arithmetic : 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. Answers must be shown by completely blackening the corresponding circles in the Answer Sheet against the relevant question number by Black Ball Pen. OMR Answer Sheet without marking series/double series marking shall not be evaluated.

Example :

Supposing 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 Ball Point Pen only as below :-

(A) (B) (●) (D)

WHICH 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.

PART -A-GENERAL ENGLISH

Marks :100

Each question carries 2 marks :

SECTION-I

A. Choose the correct option to fill in the gaps :

1. The laboratory conducted an _____ to measure the presence of ore in the composition.

- a) assail b) essay
- c) array d) assay

2. A rudely carved stone lion is locally regarded as a _____ against famine and plague.

- a) symbol b) talisman
- c) totem d) colophon

3. The minister is tempted to _____ money from the church.

- a) tangle b) forgo
- c) tackle d) embezzle

4. In order to be elected, a candidate needs only a _____ of the votes cast.

- a) majority b) plurality
- c) morsel d) modicum

5. His decision to sell the land still _____ with her.

- a) rankled b) ranted
- c) ransacked d) rambled

6. The photograph awakens _____ memories of happier days.

- a) poised b) poignant
- c) ponderous d) pontifical

7. We fixed a _____ in the kitchen for Nancy.

- a) palette b) pallet
- c) palate d) pellet

8. The tree was _____ by lightning.

- a) sired b) steered
- c) cored d) seared

9. The tests are designed to _____ the disease early.

- a) note b) detect
- c) witness d) observe

10. Students have the _____ of studying abroad in their second year.

- a) option b) choice
- c) possibility d) alternative

11. He _____ me he was right.

- a) assured b) prompted
- c) persuaded d) convinced

12. His kitchen is full of _____ he never uses.

- a) tools b) devices
- c) appliances d) gadgets

13. The cold air made her face _____.

- a) itch b) tingle
- c) sting d) ache

14. She _____ the silk delicately.

- a) felt b) patted
- c) handled d) fingered

15. Flying _____ her.

- a) frightened b) scared
- c) terrified d) alarmed

16. Her eyes were wild with _____.

- a) fright b) panic
- c) fear d) terror

17. Your decision is _____ to our future.

- a) crucial b) critical
- c) vital d) essential

18. She was very _____ at the way she had been treated.

- a) angry b) crossed
- c) indignant d) mad

19. She was _____, at the prospect of travelling alone.

- a) scared b) alarmed
- c) paranoid d) frightened

20. Ravi was accurate _____ his calculations.

- a) with b) on
- c) in d) at

21. Do you take his word _____ mine ?

- a) over b) or
- c) for d) with

22. He takes a lot of trouble _____ his work.

- a) in b) about
- c) for d) with

23. The public was cautioned _____ pick-pockets.

- a) about b) of
- c) over d) against

24. _____ a party next Sunday. I hope you can come.

- a) we have b) we're having
- c) we'll have d) we'd have

25. Rose couldn't decide _____ book to read.

- a) what b) whose
- c) which d) whatever

SECTION-II

B. Choose the correct sentences :

26. (i) The reason they missed the train was that the car broke down.

(ii) The reason they missed the train was because the car broke down.

(iii) They missed the train because the car broke down.

- a) (i) and (ii) b) (i) and (iii)
- c) (ii) and (iii) d) (i), (ii) and (iii)

27. (i) He will answer if you write to him.

(ii) He would answer if you wrote to him.

(iii) He would have answered if you had written to him.

- a) (i) and (ii) b) (i) and (iii)
- c) (ii) and (iii) d) (i), (ii) and (iii)

28. (i) He is always early.

(ii) He will always come early.

(iii) He always comes early.

- a) (i) and (ii) b) (i) and (iii)
- c) (ii) and (iii) d) (i), (ii) and (iii)

29. (i) You need to cut your hair.

(ii) Your hair needs cutting badly.

(iii) Your hair badly needs cutting.

a) (i) and (ii)

b) (i) and (iii)

c) (ii) and (iii)

d) (i), (ii) and (iii)

30. (i) He doesn't have a cold today.

(ii) He has a cold today.

(iii) He hasn't a cold today.

a) (i) and (ii)

b) (i) and (iii)

c) (ii) and (iii)

d) (i), (ii) and (iii)

SECTION-III

C. Read the following passage and answer the questions given below as instructed :

Nothing sharpens a man's wits like poverty. Hence many of the greatest men have originally been poor men. Poverty often purifies and braces a man's morals. To spirited people, difficult tasks are usually the most delightful ones. If we may rely upon the testimony of history, men are brave, truthful, and magnanimous, not in proportion to their wealth, but in proportion to their smallness of means. And the best are often the poorest always supposing that they have sufficient to meet their temporal wants.

A divine has said that God has created poverty, but he has not created misery. And there is certainly a great difference between the two. While honest poverty is honourable, misery is humiliating ; inasmuch as the latter is for the most part the result of misconduct, and often of idleness and drunkenness. Poverty is no disgrace to him who can put up with it ; but he who finds the beggar's staff once get warm in his hand, never does any good, but a great amount of evil.

Choose the appropriate antonyms of the following :

31. Wit

a) Acumen

b) Composure

c) Stupidity

d) Levity

32. Spirited

a) Intrepid

b) Fiery

c) Diffident

d) Insolent

33. Temporal

a) Mundane

b) Transient

c) Ephemeral

d) Spiritual

34. Poorest

- a) Insolvent b) Impecunious
c) Opulent d) Indigent

35. Disgrace

- a) Dishonor b) Distinguish
c) Discredit d) Disrepute

Choose the appropriate meaning of the words given below in the specific context of the passage :

36. Braces

- a) Enervates b) Debilitates
c) Reinforces d) Tightens

37. Testimony

- a) Evidence b) Legacy
c) Will d) Affidavit

38. Delightful

- a) Enchanting b) Captivating
c) Pleasing d) Ecstatic

39. Rely

- a) Depend b) Trust
c) Lean d) Bet

40. Misery

- a) Calamity b) Ordeal
c) Despondency d) Grief

- a) torch-bearer b) pioneer
c) sinecure d) entrepreneur

45. One who loves mankind and seeks to promote the good of others means

- a) altruist b) humanitarian
c) pacifist d) philanthropist

46. One with an evil reputation means.

- a) anarchist b) terrorist
c) notorious d) renegade

47. A noisy bombastic speech addressed to a large assembly means

- a) harangue b) rally
c) symposium d) conference

48. Doing good means

- a) beneficial b) benevolent
c) beneficent d) benediction

49. To agree means

- a) ascend b) assent
c) ascent d) Accent

50. Unbiased means

- a) uninterested b) indifferent
c) disinterested d) dispassionate

SECTION-IV

D. Choose the correct meaning for the phrases given below :

41. An established principle of practical wisdom means

- a) proverb b) tenet
c) moral d) maxim

42. That is full of more words than necessary means

- a) circumlocution b) loquacious
c) verbose d) tautological

43. A person who always thinks he is ill means

- a) octogenarian b) valetudinarian
c) valerian d) agrarian

44. One who leads others in any field means

PART - B - GENERAL STUDIES & APTITUDE

Marks : 100

Each question carry 1 mark :

51. What is the official language of Brazil ?

- a) French b) Spanish
- c) Portuguese d) Latin

52. Gautama Buddha was born in which country ?

- a) India b) Myanmar
- c) Bhutan d) Nepal

53. Ichthyologists are zoologists studying

- a) Birds b) Fish
- c) Snakes d) Insects

54. Kimberlite contains what precious item ?

- a) Diamond b) Emerald
- c) Ruby d) Platinum

55. Translated from Persian to English, what does Koh-i-Noor mean ?

- a) Mountain of Light b) Break of Dawn
- c) Shining star d) Radiant beauty

56. Who was the first Chief Justice of the Republic of India ?

- a) M. Patanjali Sastri
- b) Amal Kumar Sarkar
- c) Jayantilal Chhotlal Shah
- d) H. J. Kania

57. The Right to Information Act was enacted in which year ?

- a) 2002 b) 2004
- c) 2005 d) 2006

58. Mercalli is an alternative scale to measure

- a) Rainfall b) Smoke
- c) Earthquake d) Light

59. The most abundant metal on Earth is ?

- a) Copper b) Aluminium
- c) Lead d) Zinc

60. Who is known as the Father of Genetics ?

- a) Mendel b) Crick
- c) Watson d) Darwin

61. The Opium Wars were fought in which

country ?

- a) Japan b) South Korea
- c) China d) Russia

62. Which country is known as the Land of Thousand Lakes ?

- a) Norway b) Denmark
- c) Iceland d) Finland

63. The highest Civilian Award in India is ?

- a) Padma Bhushan b) Khel Ratna
- c) Bharat Ratna d) Padma Shri

64. The Indian Penal Code was enacted in which year ?

- a) 1860 b) 1870
- c) 1910 d) 1912

65. How many members of the Rajya Sabha are nominated by the President ?

- a) 10 b) 12
- c) 15 d) 18

66. President's Rule (Article 356) remains valid in the state for the maximum period of

- a) 2 months b) 4 months
- c) 6 months d) 12 months

67. Who was the founder of first European Settlement in Greenland ?

- a) Eric the Red
- b) B. Leif Ericsson
- c) C. William Janszoon
- d) Captain James Cook

68. The DRDO was formed in which year ?

- a) 1956 b) 1957
- c) 1958 d) 1959

69. Who was the first Indian to get a gold medal in Olympics in shooting event

- a) K.D. Jadhav
- b) Major Rajyawardhan Rathor
- c) Abhinav Bindra
- d) Samser Jang

70. When did India successfully launch its first moon mission, Chandrayaan-1 ?

- a) 10th September, 2008

b) 22nd October, 2008

c) 5th October, 2008

d) 3rd January, 2018

71. Who is the current Chief Justice of India ?

a) Dipak Misra

b) T.S. Thakur

c) Jagdish Khehar

d) Ranjan Gogoi

72. Who is the Chief Election Commissioner of India ?

a) Nasim Zaidi

b) H.S. Brahma

c) Om Prakash Rawat

d) Navin Chawla

73. In which state is the Buddhist site Tabo Monastery located ?

a) Arunachal Pradesh

b) Himachal Pradesh

c) Sikkim

d) Uttarakhand

74. The accumulation of stress along the boundaries of lithospheric plates results in which of the following ?

a) Earthquakes

b) Magnetic reversals

c) Hurricanes

d) Increased deposition of deep-sea sediments

75. The theory which advocates that living beings can arise only from other living beings is termed

a) Bio-genesis

b) Abiogenesis

c) Catastrophism

d) Cosmozoic

76. The wonder pigment chlorophyll is present in

a) Mitochondria

b) Centrosomes

c) Quantosomes

d) Lysosomes

77. Who receives Dronacharya Award ?

a) Scientists

b) Sports Coaches

c) Movie actors

d) Sportsmen

78. The Panchayat Raj is a

a) One-tier System

b) Two-tier System

c) Three-tier System

d) Four-tier System

79. Gobar gas contains mainly

a) Carbon dioxide

b) Methane

c) Ethylene

d) Carbon monoxide

80. The French supremacy in India came to an end with the

a) Battle of Wandiwash

b) Battle of Plassey

c) Battle of Buxar

d) Battle of Panipat

81. Gondwana hills are located in

a) Punjab

b) Jammu and Kashmir

c) Madhya Pradesh

d) Nagaland

82. Which of the following is not a Fundamental Right ?

a) Right to equality

b) Right to property

c) Right against exploitation

d) Right to freedom of speech and expression

83. The concept of welfare state is included in the Constitution of India in

a) Preamble

b) Fundamental Rights

c) Fourth Schedule

d) Directive Principles of State Policy

84. Mixed economy means

a) Coexistence of small and large scale industries

b) Coexistence of private and public sectors

c) Promotion of agriculture as well as industries

d) Coexistence of rich and poor

85. Which was the first company formed to manufacture motor cars ?

a) Daimler

b) Ford

c) General Motors

d) None of these

86. Tim Berners-Lee is an English scientist known as the inventor of the?

a) e-mail

b) world wide web

c) instant messaging

d) voice over IP (VOIP)

87. Which vitamin helps our body to fight colds

a) VitA

b) VitB

c) Vit B complex

d) Vit C

88. Linen is made from which plant ?

a) Flax

b) Cotton

c) Jute

d) Hemp

89. How many time zones are there on Earth ?

- a) 20
- b) 22
- c) 24
- d) 26

90. Table sugar, from sugar cane or beet, is what type of sugar ?

- a) Fructose
- b) Sucrose
- c) Glucose
- d) Maltose

91. The branch of medical science which is concerned with the study of disease as it affects a community of people is called

- a) epidemiology
- b) oncology
- c) paleontology
- d) pathology

92. The study of how people use tools to perform work and how people physically relate to their working environment is called :

- a) engineering
- b) ergonomics
- c) agronomy
- d) physiology

93. What famous scientist and inventor participated in the invention of the Aqua-Lung-self contained underwater breathing apparatus ?

- a) Thomas Edison
- b) Isaac Newton
- c) Leonardo da Vinci
- d) Jacques Cousteau

94. A type of plastic that is biodegradable has been in the news lately. The ingredient that makes it biodegradable is

- a) vegetable oil
- b) petroleum
- c) cornstarch
- d) leather

95. If a metal can be drawn into wires relatively easily it is called :

- a) malleable
- b) ductile
- c) extractive
- d) tactile

96. In which country was a method for making rust-resistant iron discovered in the fifth century B.C. ?

- a) Sumeria
- b) Egypt
- c) India
- d) Babylon

97. Cystitis is the infection of which of the following ?

- a) liver
- b) urinary bladder
- c) pancreas
- d) lung

98. The per capita birth rate of a population is known as its

- a) mortality
- b) natality
- c) population density
- d) carrying capacity

99. Which of the following is primarily composed of calcium carbonate ?

- a) Fish scales
- b) Shark teeth
- c) Oyster Shells
- d) Whale bones

100. Yeast, used in making bread is a

- a) plant
- b) fungus
- c) bacteria
- d) seed

101. The Statue of Liberty is green because of

- a) green stone
- b) oxidized brass
- c) steel painted green
- d) oxidized copper

102. The word atom is from a Greek word meaning

- a) small
- b) indivisible
- c) unseen
- d) visible

103. Pollination by wind is called

- a) autogamy
- b) entomophily
- c) anemophily
- d) ornithophily

104. Atolls are most probably formed by

- a) a rise in the earth's crust
- b) sand brought in from the mainland
- c) collapse of the center of a volcano
- d) coral reef upbuilding during subsidence

105. The radioactive element most commonly detected in humans is

- a) potassium-40
- b) cobalt-60
- c) iodine-131
- d) plutonium-238

106. An important safety feature required at U.S. nuclear power plants that was not present at the Chernobyl Power Plant in the Soviet Union was the

- a) reactor
- b) cooling water
- c) control rods
- d) containment building

107. Which of the following materials is used along with iron ore and limestone to produce iron in a modern blast furnace ?

- a) coke
- b) cementite
- c) coal
- d) bauxite

108. What range of frequencies are usually referred to as audio frequencies for humans ?

- a) 0 to 20 Hertz
- b) 20 to 20,000 Hertz
- c) 200 to 200,000 Hertz
- d) 10,000 to 30,000 Hertz

109. In the early 17th century, based on his observations with a telescope, Galileo Galilei attacked a belief espoused by the church. That belief was

- a) that the earth was flat
- b) the sky was a large dome with holes through which heaven could be seen
- c) that the earth was at the center of the universe.
- d) there are no other planets.

110. You use a hydrometer to check the condition of the electrolyte in your car battery. It is actually measuring what property of the fluid ?

- a) charge
- b) density
- c) temperature
- d) surface tension

111. When petroleum is refined it is subject to a number of processes including cracking. During the cracking process

- a) lighter hydrocarbons are combined to form heavier ones
- b) heavy hydrocarbons are broken up into lighter ones
- c) lighter hydrocarbons are separated by distillation
- d) oxygen is used to burn the heavier hydrocarbons

112. Which of the following is believed to be responsible for the hole in the ozone layer over Antarctic ?

- a) carbon dioxide
- b) compounds containing sulphur
- c) radioactivity
- d) compounds containing chlorine

113. A thermocouple is used to measure

- a) pressure
- b) current
- c) strain
- d) temperature

114. "Fool's gold" is a common name for this mineral

- a) halite
- b) cinnabar
- c) magnetite
- d) pyrite

115. Which two gases are used to disinfect water in sewage treatment facilities ?

- a) helium and nitrogen
- b) ozone and chlorine
- c) oxygen and hydrogen
- d) nitrogen and chlorine

116. Raja Ram Mohan Roy was the founder of the

- a) Brahma Samaj
- b) Arya Samaj
- c) Ramakrishna Mission
- d) Hindu Mahasabha

117. Who convinced the British in 1829 to outlaw Sati ?

- a) Raja Ram Mohan Roy
- b) Swami Dayananda Saraswati
- c) Lokmanya Tilak
- d) Bhagat Singh

118. Swami Vivekananda, known in his pre-monastic life as

- a) Narendra Nath Datta
- b) Vishwanath Datta
- c) Upendranath Datta
- d) Vasava Datta

119. Prominent in the Labour and Socialist movements, a member of the Fabian Society and Social Democratic Federation, and took an active part in Trade Union work among unskilled labourers.

- a) Annie Besant
- b) H.P. Blavatsky
- c) W. T. Stead
- d) H. S. Olcott

120. The *swadeshi* movement in Bengal started on

- a) 1902
- b) 1905
- c) 1908
- d) 1909

121. The Indian National Congress was founded in 28 December 1885 at

- a) Bombay
- b) Calcutta
- c) Madras
- d) Gujarat

122. Who appoints the chairman of the Finance Commission

- a) The President
- b) Prime Minister
- c) Council of Ministers
- d) Vice President

123. The duration of an ordinance issued by the President of India is

- a) 6 weeks
- b) 1 year
- c) 6 months
- d) 6 weeks from the date of assembly of the Parliament

124. Quo warranto is

- a) Writ
- b) statute
- c) Treaty
- d) Act

125. Who said "the Preamble is the key to the Constitution"?

- a) Dr.B.R. Ambedkar
- b) Dr. Rajendra Prasad
- c) Jawaharlal Nehru
- d) C. Rajagopalachari

Each question carry 1 mark :

126. Five boys were climbing a hill. J was following H. R was just ahead of G. K was between G & H. They were climbing up in a column. Who was the second ?

- a) H
- b) K
- c) G
- d) J

127. The length of the side of a square is represented by $x + 2$. The length of the side of an equilateral triangle is $2x$. If the square and the equilateral triangle have equal perimeter, then the value of x is

- a) 2
- b) 3
- c) 4
- d) 5

128. A number whose reciprocal is the number itself

- a) 0
- b) 1
- c) 2
- d) 3

129. If point P is on line segment AB, then which of the following is always true ?

- a) $AP > PB$
- b) $PB > AP$
- c) $AB > AP$
- d) $AB > AP + PB$

130. All men are vertebrates. Some mammals are vertebrates. Which of the following conclusions drawn from the above statement is correct.

- a) All men are mammals
- b) All mammals are men
- c) Some vertebrates are mammals
- d) All vertebrates are mammals

131. If we are using a binary (two value) system, how many unique combinations can we make with 5 binary digits ?

- a) 28
- b) 30
- c) 32
- d) 34

132. Using all the letters of the word "PLACE", how many words can be formed, which begin with P and end with E ?

- a) 6
- b) 8
- c) 12
- d) 20

133. 56 men can complete a piece of work in 24 days. In how many days can 42 men complete the same ?

- a) 18 days
- b) 32 days
- c) 98 days
- d) 48 days

134. What is the next value in the series 6, 24, 60, 120, 210

- a) 336
- b) 340
- c) 348
- d) 360

135. In a span of 24 hours, how many times would the two hands of a clock point exactly in opposite directions ?

- a) 10
- b) 11
- c) 22
- d) 23

136. In a certain code 'LIGHT' is written as 'KJFIS'. How is 'PLUGH' written in that code?

- a) OMTHG
- b) QMTHG
- c) OMTFG
- d) QKTHG

137. Three of the following four are alike in a certain way and so form a group. Which is the one that does not belong to that group ?

- a) Proton
- b) Electron
- c) Atom
- d) Neutron

138. Pointing towards Paul, Mary said, "He is the son of the only son of my grandmother". How is Paul related to Mary ?

- a) Brother
- b) Cousin
- c) Uncle
- d) Insufficient data

139. The base of a right angled triangle is 5 cm and its hypotenuse is 13 cm. The area of the triangle is

- a) 65 cm^2
- b) 30 cm^2
- c) 60 cm^2
- d) 120 cm^2

140. The price of an item that cost Rs.100 was raised by 25%. What is the new price

- a) 120
- b) 125
- c) 130
- d) 135

141. Two numbers are respectively 20% and 50% more than a third number. The ratio of the

two numbers is

- a) 2 : 5
- b) 3 : 5
- c) 4 : 5
- d) 6 : 7

142. Pick the odd one from the series : 6, 9, 15, 21, 24, 28, 30

- a) 28
- b) 21
- c) 9
- d) 30

143. A clock is started at noon. By 10 minutes past 5, the hour hand has turned through

- a) 145 deg
- b) 150 deg
- c) 155 deg
- d) 160 deg

144. If "GREEN" is given number code as 49, what is the difference between the number codes of "VIOLET" and "PINK" ?

- a) 33
- b) 45
- c) 50
- d) 53

145. Which one of the following is not a prime number ?

- a) 7
- b) 23
- c) 49
- d) 17

146. Today is Monday. After 61 days, it will be:

- a) Wednesday
- b) Saturday
- c) Tuesday
- d) Thursday

147. In a coded message, SLOW MOVE, GET BACKWARDS, FIRE AWAY is written as VFMD ZMWE, BEN PCTLDCOXU, QHOE CDCI.

- a) UCFNI
- b) UCFIN
- c) UCINF
- d) UCHIN

148. In a certain code, MEN is written as ABC and DARK is written as LSTZ. How can READ be written in this code ?

- a) TCSL
- b) TBSL
- c) TASL
- d) TLSL

149. If the sum two numbers is 31 and their product is 240, then find the absolute difference between the numbers

- a) 1
- b) 3
- c) 4
- d) 5

150. 5 times a positive number is less than its square by 24. What is the integer ?

- a) 5
- b) 7
- c) 8
- d) 9

PART - C - ARITHMETIC

Marks :100

Each question carries 2 marks :

151. On dividing 4217 by a certain number, the quotient is 108 and the remainder is 5, the divisor is

- a) 108 b) 54
c) 49 d) 39

152. The number nearest to 2160 and exactly divisible by 52 is

- a) 2184 b) 2148
c) 2177 d) 1232

153. When the numbers 1, 3, 5,, 25 are multiplied together, then the number of zeroes at the right end of the product is

- a) 13 b) 9
c) 6 d) 0

154. The least number which when divided by 36, 48 and 64 leaves the remainders 25, 37 and 53 respectively is

- a) 556 b) 565
c) 655 d) 656

155. If the LCM of two numbers is 240 and their HCF is 16, then the two numbers are

- a) 24 and 40 b) 24 and 80
c) 48 and 80 d) 48 and 40

156. If 90% of A = 30% of B and B = x % of A, then the value of x is

- a) 900 b) 800
c) 400 d) 300

157. A piece of cotton cloth 20 m long, shrinks by 0.5% after washing. The length of the cloth after washing is

- a) 19.5 m b) 19.9 m
c) 19.95 m d) 19.05 m

158. If the average of a, b and c is M, then the average of a, b, c and M is

- a) $\frac{M}{2}$ b) M
c) 2M d) 4M

159. The average weight of 35 students in a class is 35 kg. If the teacher is also included, the average weight increases to 36 kg. The weight of the teacher is

- a) 71 kg b) 70 kg
c) 55 kg d) 36 kg

160. If the mean of 6, 4, 7, a and 10 is 8, then the value of a is

- a) 9 b) 11
c) 13 d) 15

161. The ratio between two numbers is 12 : 13. If each number is reduced by 20, the ratio becomes 2 : 3. Find the smaller number.

- a) 24 b) 26
c) 12 d) 18

162. The fraction which bears the same ratio to

$\frac{3}{7}$ that $\frac{1}{5}$ does to $\frac{7}{15}$ is

- a) $\frac{9}{49}$ b) $\frac{2}{49}$
c) $\frac{3}{35}$ d) $\frac{7}{75}$

163. A bag contains one rupee, fifty paise, twenty five paise and ten paise coins in the proportion 1 : 3 : 5 : 7. If the total amount is Rs. 22.25, find the number of 25 paise coins.

- a) 40 b) 35
c) 30 d) 25

164. A man mixes 6 kg of tea worth Rs.6 per kg and 4 kg of tea worth Rs.7 per kg and the mixture is sold at 10% profit. Find the selling price per kg of the mixture.

- a) Rs.7.04 b) Rs.7.40
c) Rs.6.05 d) Rs.6.50

165. One thousand men in a fortress have provisions for 12 days. How long will the provision last if 200 more men join them ?

- a) 14 days b) 12 days
c) 10 days d) 8 days

166. Working with a project, David and Sam

together complete a piece of work in 6 days. If David works alone for 2 days and complete

$\frac{1}{4}$ th of the work, in how many days Sam alone

complete the rest of the work ?

- a) 24 days b) 18 days
c) 12 days d) 6 days

167. Two friends take a piece of work for Rs.960. One alone could do it in 12 days, the other in 16 days. With the assistance of an expert they finish it in 4 days. How much remuneration the expert should get ?

- a) Rs.240 b) Rs.320
c) Rs.400 d) Rs.500

168. A pipe can fill a cistern in 12 minutes and another pipe in 15 minutes, but a third pipe can empty it in 6 minutes. The three pipes are kept open together. Find the time the cistern is emptied / filled ?

- a) empty in 60 minutes
b) empty in 27 minutes
c) filled in 60 minutes
d) filled in 27 minutes

169. A shopkeeper bought locks at the rate of 8 locks for Rs.34 and sold them at the rate of 12 locks for Rs.57. His gain or loss is

- a) Rs. 1 loss b) Rs. 1 gain
c) Rs. 0.5 loss d) Rs. 0.5 gain

170. By selling cloth at Rs. 9 per metre, the shopkeeper loses 10%. At what price should, it be sold so as to gain 15%.

- a) Rs.10 per metre
b)Rs.10.50 per metre
c) Rs.11 per metre
d) Rs.11.50 per metre

171. A shopkeeper allows 10% discount on his article. What price must he mark on an article, which cost him Rs. 750, to make a profit of 20%?

- a) Rs.800 b) Rs.1000
c) Rs.1200 d) Rs.1400

172. The simple interest on a certain sum for 4 years at 7.5% per annum is Rs.95 less than the simple interest on the same sum for 3.5 years at 10% per annum. Find the sum.

- a) Rs.1800 b) Rs.1900
c) Rs.2000 d) Rs.2100

173. Find out the capital required to earn a monthly interest of Rs.600 at 6% simple interest.

- a) Rs.1 lakhs b) Rs.1.1 lakhs
c) Rs.1.2 lakhs d) Rs.1.3 lakhs

174. How much will Rs.25000 amount to in 3 years, compounded yearly, if the rates for successive years are 6%, 8% and 10% respectively?

- a) Rs.34182 b) Rs.321482
c) Rs.31428 d) Rs.31482

175. In how many years will Rs.2000 amount to Rs.2662 at 10% compound interest ?

- a) 4 years b) 3 years
c) 2 years d) 1 year

176. The present population of a town is 75000. The population increases by 10% in the first year and decreases by 10% in the second year. Find the population after 2 years.

- a) 74250 b) 74500
c) 77250 d) 75000

177. How much money will be required to buy 275, Rs.60 shares at a discount of Rs.10 ?

- a) Rs.19250 b) Rs.16500
c) Rs.13750 d) Rs.2750

178. A motorcyclist travels for 10 hours, the first half at 21 km/hr and the other half at 24 km/hr. The total distance travelled is

- a) 350 km b) 324 km
c) 224 km d) 225 km

179. Rajdhani Express train travelling at a uniform speed clears a platform 200 metres long in 10 seconds and passes a telegraph post in 6 seconds. The speed of the train is

- a) 150 km/hr b) 165 km/hr
c) 180 km/hr d) 200 km/hr

180. A boat goes 12 km upstream in 48 minutes. The speed of the stream is 2 km/hr. The speed of the boat in still water is

- a) 15 km/hr b) 17 km/hr
c) 24 km/hr d) 48 km/hr

181. A man walked 20 metres to cross a rectangular field diagonally. If the length of the field is 16 metres. What is the breadth of the field ?

- a) 12 metres b) 18 metres
c) 36 metres d) 6 metres

182. When the circumference and area of a circle whose radius is 'r' are numerically equal, then the diameter is numerically equal to

- a) πr^2 b) 2
c) $2\pi r$ d) 4

183. The diameter of the base and the height of a right circular cone are 14 m and 24 m respectively. Find the total surface area of the cone

(Take $\pi = \frac{22}{7}$) ?

- a) 1408 m² b) 1232 m²
c) 616 m² d) 704 m²

184. The radius of a sphere is 9 cm. It is melted and drawn into a wire of diameter 2 mm. Find the length of the wire.

- a) 92700 cm b) 97200 cm
c) 79200 cm d) 72900 cm

185. How many 3-digit number of distinct digits can be formed from the digits 2, 3, 7, 8, 9 ?

- a) 25 b) 40
c) 60 d) 72

186. How many lines can be drawn through 5 points on a circle ?

- a) 10 b) 8
c) 5 d) 12

187. In a single throw of two dice, find the probability of obtaining 'a total of 8'.

- a) 1 b) $\frac{5}{36}$
c) $\frac{1}{8}$ d) 0

188. From a well-shuffled deck of 52 cards, a card is drawn at random. Find the probability that the card drawn is 'either red or a king'.

- a) $\frac{1}{4}$ b) $\frac{1}{52}$
c) $\frac{5}{13}$ d) $\frac{7}{13}$

189. An urn has 9 red balls, 7 white balls and 4 black balls. A ball is drawn from it. Find the probability that the ball drawn is 'not red'.

- a) $\frac{11}{20}$ b) $\frac{7}{20}$
c) $\frac{9}{20}$ d) $\frac{4}{5}$

190. The value of $\log_{27} 9$ is

- a) 2 b) 3
c) $\frac{2}{3}$ d) $\frac{3}{2}$

191. The value of $\frac{\log_{10} 36}{\log_{10} 6}$ is

- a) 6 b) $\log_{10} 6$
c) 2 d) $\log_{10} 2$

192. Which term of the arithmetic progression 64, 60, 56, is 0 ?

- a) 64th b) 31st
c) 17th d) 1st

193. Find the sum of 24 terms of the arithmetic progression 1, 3, 5, 7,

- a) 576 b) 567
c) 675 d) 756

194. How many two-digit numbers are divisible by 7 ?

- a) 7 b) 13
c) 19 d) 21

195. The inclination of a line whose slope is

$\frac{1}{\sqrt{3}}$ is

- a) 0° b) 60°
c) 45° d) 30°

196. If $\sin A + \operatorname{cosec} A = 2$, then the value of $\sin^2 A + \operatorname{cosec}^2 A$ is

- a) 4 b) 2
c) 1 d) -1

197. The value of $\sec 70^\circ \sin 20^\circ + \operatorname{cosec} 50^\circ \cos 40^\circ$ is

- a) -1 b) 0
c) 1 d) 2

198. A boy 1.6 m tall is 20 m away from a tower and observes the angle of elevation of the top of the tower to be 45° . Find the height of the tower.

- a) 21.6 m b) 26.1 m
c) 12.6 m d) 16.2 m

199. The median of 22, 24, 25, 26, 26, 27, 27, 28, 29, 29, 31, 32, 32, 33, 35, 35, 36, 36 is

- a) 27 b) 28
c) 29 d) 30

200. Find the mode from the following frequency distribution :

Number	8	9	10	11	12	13	14	15	16
Frequency	3	8	12	15	14	17	12	8	6

- a) 13 b) 15
c) 17 d) 16
