

DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO

SERIES : I

QUESTION BOOKLET

Subjects : General English, General Knowledge & Aptitude 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 & Aptitude | : 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.

PART—A : GENERAL ENGLISH

(Marks : 100)

Each question carries 2 marks

Directions (Q. Nos. 1-10) :

In these questions, out of the four alternatives given, choose the one which best expresses the meaning of the given idioms.

1. To be the joker in the pack
 - (A) somebody who is humiliated
 - (B) somebody who is very funny
 - (C) somebody or something doing what is expected
 - (D) somebody or something that could change a situation in an unexpected way
2. To take the rap
 - (A) to be punished or blamed for something
 - (B) to climb up the stairs
 - (C) to be in an unfamiliar situation
 - (D) to be confident
3. To go through fire and water
 - (A) to go on a foolish expedition
 - (B) to encounter any difficulty and undergo any risk
 - (C) to have an argument with somebody
 - (D) to be in a state of preparedness
4. To bring to light
 - (A) to conceal
 - (B) to reveal
 - (C) to provide shelter
 - (D) to appeal
5. To throw dust in one's eyes
 - (A) to harm someone
 - (B) to feel uncomfortable
 - (C) to deceive
 - (D) to insult someone
6. To be on tenterhooks
 - (A) to hang on to something
 - (B) to feel sick
 - (C) to wait nervously to find out what is going to happen
 - (D) to be very confident about what is going to happen
7. It takes two to tango
 - (A) to be good at dancing
 - (B) to have the need for an active cooperation of both parties for some enterprises
 - (C) to be non-cooperative for some enterprises
 - (D) to be secretive

8. To pull one's socks up

- (A) to make an effort to improve one's work because it is not good enough
- (B) to start a new enterprise
- (C) to be able to face any situation at work
- (D) to make a fool of oneself

9. To stay on the sidelines

- (A) not be actively involved in something
- (B) to keep silent
- (C) not to feel left out
- (D) to be actively involved in something

10. To tighten the screw

- (A) to be able to fix something
- (B) to become aggressive
- (C) to hug somebody
- (D) to pressure somebody

Directions (Q. Nos. 11-20) :

In these questions, out of the four alternatives given, choose the one which best expresses the similar meaning of the given words.

11. BAMBOOZLE

- (A) trick
- (B) clarify
- (C) enlighten
- (D) shock

12. BERATE

- (A) praise
- (B) compliment
- (C) scare
- (D) scold

13. CAPRICIOUS

- (A) impulsive
- (B) steady
- (C) consistent
- (D) aggressive

14. CRESTFALLEN

- (A) elated
- (B) disappointed
- (C) joyful
- (D) disgusted

15. IGNOBLE

- (A) noble
- (B) honourable
- (C) ignorant
- (D) unworthy

16. SUAVE

- (A) awkward
- (B) clumsy
- (C) sophisticated
- (D) beautiful

17. INVIGORATING

- (A) draining
- (B) exhausting
- (C) youthful
- (D) vitality

18. SUCCUMB

- (A) yield
- (B) resist
- (C) overcome
- (D) tempting

19. KUDOS

- (A) prayer
- (B) disapproval
- (C) criticism
- (D) praise

20. DISPERSE

- (A) gather
- (B) scatter
- (C) assemble
- (D) sow

Directions (Q. Nos. 21–30) :

In these questions, out of the four alternatives given, choose the one which best expresses the opposite meaning of the given words.

21. DURABLE

- (A) lasting
- (B) enduring
- (C) flimsy
- (D) resistant

22. SUCCINCT

- (A) clear
- (B) concise
- (C) brief
- (D) detailed

23. RUSE

- (A) trick
- (B) honesty
- (C) deceive
- (D) forthright

24. FIZZLE

- (A) thrive
- (B) sputter
- (C) hiss
- (D) erupt

25. DOODLE

- (A) draw
- (B) scribble
- (C) focus
- (D) spoil

26. VILIFY

- (A) defame
- (B) praise
- (C) elevate
- (D) destroy

27. MOIST

- (A) wet
- (B) watery
- (C) dry
- (D) damp

28. RIGOROUS

- (A) thorough
- (B) demanding
- (C) strict
- (D) lenient

29. ROUSE

- (A) soothe
- (B) awaken
- (C) stimulate
- (D) excite

30. ANALOGY

- (A) connectivity
- (B) dissimilarity
- (C) difference
- (D) contrast

Directions (Q. Nos. 31–35) :

In these questions, some of the sentences have errors and some have none. Find out which part (A), (B) or (C) of a sentence has an error. Mark (D) if the sentence has no error.

31. This is a / book that Riya / bought yesterday from the Book Fair . / No error
(A) (B) (C) (D)

32. The night was / dark and / she did not known the way . / No error
(A) (B) (C) (D)

33. The matter / will have / to discussed by everyone . / No error
(A) (B) (C) (D)

34. The factory manufactures / five hundred / cars every month . / No error
(A) (B) (C) (D)

35. The Principal has / to distributed prizes / among the winners . / No error
(A) (B) (C) (D)

Directions (Q. Nos. 36–40) :

In these questions, out of the four alternatives given, choose the one which can be substituted for the given group of words.

36. An allowance paid by the husband to his wife after legal separation
(A) salary
(B) testimony
(C) alimony
(D) dowry
37. That is capable of being broken
(A) durable
(B) edible
(C) invincible
(D) brittle
38. That which cannot be removed
(A) indelible
(B) ineligible
(C) indispensable
(D) infallible
39. Lasting only for a short period
(A) immutable
(B) ephemeral
(C) ethereal
(D) transcendental
40. That which reminds one of something
(A) reminiscent
(B) reticent
(C) itinerant
(D) sycophant

Directions (Q. Nos. 41–45) :

In these questions, out of the four alternatives given, choose the correct answer to fill in the blanks.

41. John's case is under _____.
(A) consideration
(B) condensation
(C) compensation
(D) construction
42. No one _____ the rank of Captain may enter the room.
(A) on
(B) under
(C) of
(D) by
43. Rahul was _____ on the basis of merit.
(A) anointed
(B) instigated
(C) insinuated
(D) appointed
44. The sky was a clear blue canopy _____ our heads.
(A) under
(B) over
(C) by
(D) beneath
45. Leaves are _____ on the water.
(A) scattering
(B) diving
(C) swimming
(D) floating

Directions (Q. Nos. 46–50) :

Read the following passage carefully and answer the questions that follow by choosing the correct answer from the given alternatives.

Nuclear fuels such as uranium and plutonium are radioactive. They give out dangerous and very penetrative radiation. During nuclear fission even more radiation is produced. This radiation is harmful even in small quantities. It attacks living tissues and it can alter the genes in body cells. Such mutation can affect later generations. In large quantities its effect is lethal. Nuclear reactors produce wastes that remain dangerously radioactive for hundreds or perhaps thousands of years. The disposal of these wastes is a serious problem. At present, they are often stored in underground tanks or sealed in containers and dropped into ocean trenches. Neither method is very satisfactory. The threat of environmental pollution is always there.

Nuclear plants need to be suitably located away from densely populated areas. Adequate waste disposal facilities should be available. The reactor ought to be surrounded by concrete and steel walls thick enough to prevent any escape of radiation. The working of the reactor should be slowed down by inserting control rods also known as neutron absorbing rods into the core. It is necessary that the reactor should have emergency systems to cope with any unexpected failure of the fuel elements of the cooling system.

46. What happens during nuclear fission?

- (A) Human mutation takes place immediately
- (B) Radiation is produced
- (C) Wastes are produced
- (D) Harmful air is released into the atmosphere

47. What does nuclear reactor produce?

- (A) Wastes that are productive
- (B) Wastes that are radioactive
- (C) Wastes which are easily disposable
- (D) Wastes which can be recycled

48. How should reactors be constructed?

- (A) Surrounded by concrete and steel walls
- (B) Surrounded by oceans all around
- (C) Sealed with control rods
- (D) Kept and covered by plastic materials

49. How does radiation affect a human body?

- (A) Small amount of exposure to radiation is not harmful to human body
- (B) It attacks living tissues and can alter the genes in body cells
- (C) It can cause a surge in human strength
- (D) Mutation does not affect later generations if exposed to radiation

50. What does the word 'fission' in the passage mean?

- (A) The process of splitting the nucleus of an atom into bigger particles
- (B) The process of splitting the nucleus of an atom into smaller particles
- (C) Sudden reaction of uranium and plutonium
- (D) To explode suddenly

PART—B : GENERAL KNOWLEDGE & APTITUDE

(Marks : 100)

Each question carries 2 marks

51. What is the State bird of Meghalaya?
- (A) Red-vented Bulbul
(B) Hill Myna
(C) Grey Sibia
(D) Grey-hooded Warbler
52. As of 2024, who was the Chairman of University Grants Commission (UGC)?
- (A) Professor D. P. Singh
(B) M. Jagadesh Kumar
(C) Shanti Swarup Bhatnagar
(D) Professor Ved Prakash
53. Which gases predominantly constitute the sun?
- (A) Nitrogen and oxygen
(B) Carbon dioxide and nitrogen
(C) Hydrogen and helium
(D) Oxygen and carbon dioxide
54. Which ministry has been honoured with the National Award for e-governance, 2024?
- (A) The Ministry of Women and Child Development
(B) The Ministry of Consumer Affairs
(C) The Ministry of Health and Family Welfare
(D) The Ministry of Commerce and Industry
55. Pomology is the study of
- (A) fruit farming
(B) beekeeping
(C) cultivation of grapes
(D) vegetable farming
56. Who presided over the first-ever investiture ceremony for Rashtriya Vigyan Puraskar (National Science Awards)?
- (A) Prime Minister Narendra Modi
(B) Dr. Jitendra Singh
(C) President Draupadi Murmu
(D) Dr. Harsh Vardhan
57. Which is the largest tributary of the Indus River?
- (A) Sutlej
(B) Chenab
(C) Ravi
(D) Beas
58. Which of the following is **not** a member of Shanghai Cooperation Organization (SCO)?
- (A) Pakistan
(B) India
(C) China
(D) Japan

59. What is the International Boundary Line between India and Pakistan called?
- (A) Oder-Neisse Line
(B) Maginot Line
(C) McMahon Line
(D) Radcliffe Line
60. When was the Planning Commission replaced by the NITI Aayog?
- (A) 1st January, 2015
(B) 1st January, 2014
(C) 31st December, 2017
(D) 2nd January, 2016
61. Who was India's first Education Minister?
- (A) Maulana Abul Kalam Azad
(B) Dr. Rajendra Prasad
(C) Dr. John Mathai
(D) Jawaharlal Nehru
62. Who won the British Grand Prix 2024?
- (A) George Russell
(B) Lewis Hamilton
(C) Verstappen
(D) Charles Leclerc
63. The Parliament of India consists of which of the following?
- (A) The Lok Sabha and the Rajya Sabha
(B) The President of India, the Lok Sabha and the Rajya Sabha
(C) The President of India, the Vice President of India, the Lok Sabha and the Rajya Sabha
(D) The Prime Minister of India, the Lok Sabha and the Rajya Sabha
64. Which of the following is **not** a member of G7?
- (A) European Union
(B) India
(C) Canada
(D) Japan
65. Who is the author of the book, *The Wealth of Nations*?
- (A) Karl Marx
(B) Warren Buffett
(C) Adam Smith
(D) Milton Friedman
66. Where was the new campus of Nalanda University inaugurated?
- (A) Himachal Pradesh
(B) Uttar Pradesh
(C) Uttarakhand
(D) Bihar

67. Which instrument measures the strength of electric current?
- (A) Ammeter
 - (B) Electrometer
 - (C) Ohmmeter
 - (D) Radar
68. Who was the Chairman of the first Finance Commission?
- (A) N. K. Singh
 - (B) Dr. Vijay Kelkar
 - (C) K. C. Neogy
 - (D) Dr. C. Rangarajan
69. Which metal compound is used in artificial rain?
- (A) Silver chloride
 - (B) Zinc phosphide
 - (C) Barium sulphate
 - (D) Silver iodide
70. Beriberi is caused by the deficiency of
- (A) vitamin D
 - (B) vitamin B1
 - (C) vitamin B2
 - (D) vitamin A
71. Who was the first Chief Justice of Meghalaya High Court?
- (A) Justice Mohammad Rafiq
 - (B) Justice T. Meena Kumari
 - (C) Justice Ranjit V. More
 - (D) Justice Sanjib Banerjee
72. What was the motto of the Paris Olympics 2024?
- (A) Faster, Higher, Stronger-Together
 - (B) A New World
 - (C) Inspire a Generation
 - (D) Games Wide Open
73. Where was the first case of Monkeypox detected in India?
- (A) Maharashtra
 - (B) Gujarat
 - (C) Tamil Nadu
 - (D) Kerala
74. Which of the following separates Tamil Nadu and Sri Lanka?
- (A) Coco Strait
 - (B) Palk Strait
 - (C) Duncan Pass
 - (D) Grand Channel
75. Who appoints the judges of a High Court of India?
- (A) The President of India
 - (B) The Governor
 - (C) The Chief Justice of India
 - (D) The Prime Minister of India

- 76.** What are the missing numbers in the series
15, 20, 24, 15, 28, 32, 15, __, __, 15?
- (A) 37, 41
(B) 36, 40
(C) 38, 42
(D) 40, 44
- 77.** Find the missing number in the series
1, 2, 3, 10, __
- (A) 89
(B) 99
(C) 79
(D) 69
- 78.** Pointing to a woman in a photograph, Ram says, "She is the only daughter of the mother-in-law of my only son". How is the woman related to Ram?
- (A) Wife
(B) Daughter
(C) Mother
(D) Daughter-in-law
- 79.** Tom walked 10 m towards north then turned right and walked 25 m. Then he turned right and walked 30 m. Now he turned left and walked 10 m. Finally, he turned left and walked 20 m. How far and in which direction is he from the starting point?
- (A) 35 m East
(B) 50 m East
(C) 30 m North
(D) 40 m North
- 80.** A dealer gets the cost price of 15 oranges by selling 12 oranges. What is the percentage profit?
- (A) 35%
(B) 12%
(C) 25%
(D) 5%
- 81.** A train 360 m long is running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long?
- (A) 20 s
(B) 30 s
(C) 40 s
(D) 50 s
- 82.** A person travels from P to Q at a speed of 40 km/hr and returns by increasing his speed by 50%. What is his average speed for both the trips?
- (A) 48 km/hr
(B) 34 km/hr
(C) 44 km/hr
(D) 52 km/hr
- 83.** Today is Thursday. After 132 days, it will be
- (A) Monday
(B) Sunday
(C) Wednesday
(D) Thursday

84. A man bought 10 pencils for ₹ 50 and sold them for ₹ 60. What is his gain in terms of percentage?

- (A) 10%
- (B) 5%
- (C) 20%
- (D) 12%

85. In the following question, a number series is given with one term missing. Choose the correct alternative that will follow the same pattern and fill in the blank :

3, 13, 31, ____, 91

- (A) 69
- (B) 57
- (C) 63
- (D) 48

86. Study the following table chart and answer the question based on it. Expenditures of a company (in Lakh Rupees) per annum over the given years.

| Year | Salary | Fuel and Transport | Bonus | Interest on Loans | Tax |
|------|--------|--------------------|-------|-------------------|-----|
| 1998 | 288 | 98 | 3.00 | 23.4 | 83 |
| 1999 | 342 | 112 | 2.52 | 32.5 | 108 |
| 2000 | 324 | 101 | 3.84 | 41.6 | 74 |
| 2001 | 336 | 133 | 3.68 | 36.4 | 88 |
| 2002 | 420 | 142 | 3.96 | 49.4 | 98 |

Total expenditure on all these items in 1998 was approximately what percent of the total expenditure in 2002?

- (A) 61%
- (B) 47%
- (C) 59%
- (D) 69%

87. A is two years older than B who is twice as old as C. If the total ages of A, B and C is 27 years, then how old is B?

- (A) 7 years
- (B) 8 years
- (C) 9 years
- (D) 10 years

88. Find the sum of first 90 even natural numbers.

- (A) 8180
- (B) 8190
- (C) 8100
- (D) 8110

89. If mean of 25, 29, 25, 32, 24 and x is 27, then what will be the median?

- (A) 32
- (B) 27
- (C) 26
- (D) 25

90. Beautiful : Repulsive :: Frequent : ?

- (A) Seldom
- (B) Wise
- (C) Fast
- (D) Apparent

91. An amount doubles itself in 15 years. What is the rate of interest?

- (A) 7.85%
- (B) 9.41%
- (C) 6.66%
- (D) 4.21%

92. Choose the odd one out from the following category.
- (A) Peacock
 - (B) Vulture
 - (C) Sparrow
 - (D) Swan
93. Choose the number that is different from the rest in the following.
- (A) 139
 - (B) 177
 - (C) 144
 - (D) 183
94. A is the father of C and D is the son of B. E is the brother of A. If C is the sister of D, then how is B related to E?
- (A) Daughter
 - (B) Sister-in-law
 - (C) Husband
 - (D) Brother-in-law
95. A, B, C, D, E and F are sitting in a row facing north. A is the neighbour of B and D. E is the neighbour of C and F, and D is the neighbour of C. How many members are there between A and E?
- (A) Two
 - (B) One
 - (C) Three
 - (D) Four
96. At 3:40, the hour hand and the minute hand of a clock form an angle of
- (A) 120°
 - (B) 125°
 - (C) 130°
 - (D) 135°
97. A rectangular garden has a perimeter of 60 meters, and its width is 10 meters. What is its length?
- (A) 20 meters
 - (B) 30 meters
 - (C) 10 meters
 - (D) 25 meters
98. If 2012, 2nd February was on Wednesday, then in which year will it be repeated?
- (A) 2040
 - (B) 2030
 - (C) 2020
 - (D) 2050
99. The square root of 64009 is
- (A) 347
 - (B) 253
 - (C) 363
 - (D) 803
100. A train 240 meters long passes a pole in 24 seconds. How long will it take to pass a platform that is 650 metres long?
- (A) 65 seconds
 - (B) 100 seconds
 - (C) 89 seconds
 - (D) 150 seconds

PART—C : MATHEMATICS

(Marks : 100)

Each question carries 2 marks

101. If $A:B=2:3$, $B:C=4:5$ and $C:D=6:7$, find the ratio of A and D.
(A) 4 : 13
(B) 16 : 35
(C) 7 : 24
(D) 8 : 22
102. Three persons start business and make profit of ₹ 1,180. If their capitals are in the ratio of $\frac{1}{5} : \frac{1}{6} : \frac{1}{8}$, how should the profit be divided?
(A) ₹ 500, ₹ 380, ₹ 300
(B) ₹ 490, ₹ 390, ₹ 300
(C) ₹ 480, ₹ 400, ₹ 300
(D) ₹ 470, ₹ 420, ₹ 290
103. Some money was lent on 4% CI. If the difference in interest of the second and the first year is ₹ 88, find out the sum.
(A) ₹ 50,000
(B) ₹ 60,000
(C) ₹ 65,000
(D) ₹ 55,000
104. If the cost of $\frac{1}{4}$ th of kg is ₹ 0.60, then what is the cost of 200 gm?
(A) 42 paise
(B) 48 paise
(C) 40 paise
(D) 50 paise
105. A person finds that if he invests his money in the $4\frac{1}{2}\%$ stock at ₹ 96, his income will be greater by ₹ 100 than if he invests in the 4% stock at ₹ 88. Find the amount which he invests.
(A) ₹ 35,200
(B) ₹ 1,05,600
(C) ₹ 70,400
(D) ₹ 17,600
106. Mr. X has got a new telephone connection for a plan that has a 30-day rental of ₹ 300. The phone was installed on June 19. What is the amount of the bill for the month of June if billing is done on pro rata proportionate basis?
(A) ₹ 410
(B) ₹ 710
(C) ₹ 110
(D) ₹ 1,010
107. If one-fourth of $\frac{3}{5}$ of two-thirds of a number is 34, what is 20% of the number?
(A) 68
(B) 36
(C) 86
(D) 63

108. The ratio of the ages of Yogesh and Prakash is 3:5 and the sum of their ages is 80 years. What will be the ratio of their ages after 10 years?

- (A) 3:2
- (B) 3:5
- (C) 2:3
- (D) 1:2

109. A train running at 90 km/hr crosses a pole in 10 seconds. What is the length of the train?

- (A) 250 m
- (B) 150 m
- (C) 900 m
- (D) None of the above

110. 60% of 35 is what percent of 400?

- (A) $5\frac{1}{4}$
- (B) $10\frac{1}{2}$
- (C) $12\frac{1}{2}$
- (D) 6

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

- (A) 198
- (B) 180
- (C) 108
- (D) 189

112. If $x:y=3:1$, then $x^3 - y^3 : x^3 + y^3 = ?$

- (A) 13:14
- (B) 14:13
- (C) 10:11
- (D) 11:10

113. Three years ago the average age of A and B was 18 years. With C joining them now, the average becomes 22 years. How old is C now?

- (A) 24 years
- (B) 29 years
- (C) 32 years
- (D) 33 years

114. A can do a piece of work in 10 days and B in 20 days. If they together work on it for 5 days, then the fraction of the work that left is

- (A) $\frac{3}{4}$
- (B) $\frac{1}{4}$
- (C) $\frac{4}{3}$
- (D) $\frac{3}{20}$

115. A man goes from place A to B at a speed of 12 km/hr and returns at the speed of 18 km/hr. The average speed for the whole journey is

- (A) 15 km/hr
- (B) $15\frac{1}{2}$ km/hr
- (C) $14\frac{2}{5}$ km/hr
- (D) 16 km/hr

116. A train is travelling at the rate of 45 km/hr. How many seconds will it take to cover a distance of $\frac{4}{5}$ km?
- (A) 45 sec
(B) 42 sec
(C) 46 sec
(D) 64 sec
117. A man can go 30 km/hr upstream and 34 km/hr downstream. Find the speed of the man in still water.
- (A) 38 km/hr
(B) 32 km/hr
(C) 36 km/hr
(D) 40 km/hr
118. If the sum of the interior angles of a regular polygon be 1080° , find the number of sides of the polygon.
- (A) 6
(B) 8
(C) 10
(D) 12
119. The area of a circular field is 13.86 hectares. Find the cost of fencing it at the rate of ₹ 4.40 per meter.
- (A) ₹ 5,808
(B) ₹ 4,803
(C) ₹ 6,201
(D) ₹ 4,812
120. The ratio of radii of two cylinders is 2:3 and the ratio of their heights is 5:4. Find the ratio of their volumes.
- (A) 9:5
(B) 5:6
(C) 10:6
(D) 5:9
121. The sum of four consecutive even numbers is 748. The smallest among them is
- (A) 188
(B) 186
(C) 184
(D) 174
122. Which of the following numbers is greatest of all?
- (A) 0.9
(B) $0.\bar{9}$
(C) $0.0\bar{9}$
(D) $0.\overline{09}$
123. The greatest number, that divides 122 and 243 leaving respectively 2 and 3 as remainders, is
- (A) 12
(B) 24
(C) 30
(D) 120

124. The HCF of $\frac{2}{3}$, $\frac{4}{5}$ and $\frac{6}{7}$ is

- (A) $\frac{48}{105}$
- (B) $\frac{2}{105}$
- (C) $\frac{1}{105}$
- (D) $\frac{24}{105}$

125. If ' $\sqrt{\quad}$ ' means 'square', ' \times ' means '+', ' \div ' means ' \times ' and ' $+$ ' means ' \div ', then $\sqrt{20} + 25 \times 5 - 3 = ?$

- (A) 36
- (B) 40
- (C) 31
- (D) 33

126. A number is increased by 10% and then decreased by 10%. Finally the number

- (A) does not change
- (B) decreases by 1%
- (C) increases by 1%
- (D) increases by 0.1%

127. At what percentage above the CP must an article be marked so as to gain 33% after allowing a discount of 5% to a customer?

- (A) 20%
- (B) 40%
- (C) 60%
- (D) 65%

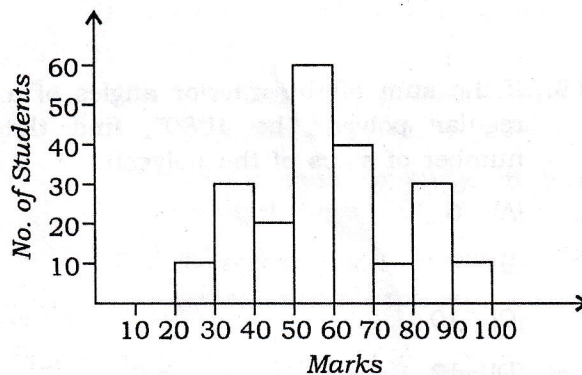
128. 6 litres of milk and water mixture has 75% milk in it. How much milk should be added to the mixture to make it 90% pure?

- (A) 25 litres
- (B) 40 litres
- (C) 9 litres
- (D) 20 litres

129. The compound interest on ₹ 10,000 in 2 years at 4% per annum, the interest being compounded half yearly, is

- (A) ₹ 636.80
- (B) ₹ 824.32
- (C) ₹ 912.86
- (D) ₹ 828.82

130. Study the following histogram and answer :



The percentage of students securing marks less than 50 is

- (A) $47\frac{13}{21}\%$
- (B) $27\frac{5}{7}\%$
- (C) $23\frac{13}{21}\%$
- (D) $28\frac{4}{7}\%$

131. A tangent is drawn to a circle of radius 6 cm from a point outside at a distance of 10 cm from the centre of the circle. The length of the tangent will be

- (A) 8 cm
- (B) 5 cm
- (C) 4 cm
- (D) 7 cm

132. By giving a discount of 10% on the marked price of ₹ 1,100 of a cycle, a dealer gains 10%. The cost price of the cycle is

- (A) ₹ 1,100
- (B) ₹ 900
- (C) ₹ 1,089
- (D) ₹ 891

133. A hollow spherical metallic ball has an external diameter 6 cm and is $\frac{1}{2}$ cm thick. The volume of the ball (in cm^3) is

- (A) $41\frac{2}{3}$
- (B) $37\frac{2}{3}$
- (C) $47\frac{2}{3}$
- (D) $40\frac{2}{3}$

134. The areas of three adjacent faces of a cuboid are p , q and r . Its volume will be

- (A) \sqrt{pqr}
- (B) pqr
- (C) $p^2q^2r^2$
- (D) $\sqrt{p^2 + q^2 + r^2}$

135. In a map, 0.5 cm represents 100 km. If the distance between two cities is shown by 2.4 cm, what should be the distance in terms of km?

- (A) 4800
- (B) 48
- (C) 480
- (D) 80

136. The measure of an angle, whose supplement is three times as large as its complement, is

- (A) 45°
- (B) 75°
- (C) 60°
- (D) 30°

137. The length of shadow of a vertical tower is $20\sqrt{3}$ m. If the height of the tower is 20 m, then angle of elevation of the sun is

- (A) 30°
- (B) 45°
- (C) 60°
- (D) 90°

138. Find the arithmetic mean of 52, 48, 56, 42 and 35.

- (A) 46.5
- (B) 47.7
- (C) 47.6
- (D) 46.6

139. Find the probability of getting a multiple of 3 when one die is thrown once.

- (A) $\frac{1}{3}$
- (B) $\frac{3}{4}$
- (C) $\frac{1}{9}$
- (D) $\frac{1}{4}$

140. Neeraj is as younger to Gopal as he is older to Deepak. If the sum of the ages of Gopal and Deepak is 58 years, what is Neeraj's age?

- (A) 29 years
- (B) 28 years
- (C) 31 years
- (D) 32 years

141. A sum of money is divided among A, B, C and D in the proportion of 7 : 6 : 3 : 5. If B gets 270 more than C, then the share of D is

- (A) ₹ 250
- (B) ₹ 350
- (C) ₹ 450
- (D) ₹ 455

142. The simplified value of

$$\frac{4}{15} \text{ of } \frac{5}{8} \times 6 + 15 - 10$$

is

- (A) 6
- (B) 3
- (C) 5
- (D) 4

143. The greatest number among 3^{50} , 4^{40} , 5^{30} and 6^{20} is

- (A) 3^{50}
- (B) 4^{40}
- (C) 5^{30}
- (D) 6^{20}

144. A store has an offer 'Buy 4 get 1 free'. What is the net percentage of discount?

- (A) 10%
- (B) 15%
- (C) 20%
- (D) 23%

145. In the sequence of numbers 5, 8, 15, 20, 29, 40, 53, one number is wrong. The wrong number is

- (A) 15
- (B) 20
- (C) 29
- (D) 40

146. Total salary of A and B is ₹ 1,500. A spends 90% while B spends 80% of their salary. If the ratio of their savings is 3 : 4, then what are the salaries of A and B?

- (A) ₹ 900, ₹ 600
- (B) ₹ 600, ₹ 900
- (C) ₹ 800, ₹ 600
- (D) ₹ 700, ₹ 900

147. In a class, there are Z students. Out of these, X are boys. What part of the class is composed of girls?

- (A) $\frac{X}{Z}$
- (B) $\frac{Z}{X}$
- (C) $1 - \frac{X}{Z}$
- (D) $\frac{X}{Z} - 1$

148. 84 Maths books, 90 Physics books and 120 Chemistry books have to be stacked topic-wise. How many books will be there in each stack so that each stack will have the same height too?

- (A) 12
- (B) 18
- (C) 6
- (D) 21

149. The simplified value of

$$\sqrt{5 + \sqrt{11 + \sqrt{19 + \sqrt{29 + \sqrt{49}}}}}$$

is

- (A) 3
- (B) 2
- (C) 4
- (D) 6

150. Sarita and Julie start walking from the same place in the opposite directions.

If Julie walks at a speed of $2\frac{1}{2}$ km/hr and Sarita at a speed of 2 km/hr, then in how much time will they be 18 km apart?

- (A) 4.0 hours
- (B) 4.5 hours
- (C) 5.0 hours
- (D) 4.8 hours