Booklet Serial No. **23053**

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

QUESTION BOOKLET

SERIES : I

Subjects : General English, General Awareness & Aptitude and Arithmetic

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 Awareness & Aptitude	:	75 questions
Part—C	:	Arithmetic	:	25 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 :

Ⓐ Ⓑ Ⓒ Ⓓ

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 :

Ⓐ Ⓑ ● Ⓓ

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 be 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

(*Marks* : 100)

Each question carries **2** marks :

Directions **(Q. Nos. 1–5) : Read the following passage and complete the sentences by filling the blank space with the choice from the alternatives given. Mark the correct answer in your answer sheet.**

Over the last decade, many of Bundelkhand's villages have faced significant depopulation. Famous of late for farmer protests, the region, which occupies parts of Uttar Pradesh and Madhya Pradesh, has been adversely impacted by climate change. It was once blessed with over 800–900 mm rainfall annually, but over the last seven years, it has seen this halved, with rainy days reported to be down to just 24 on average in the monsoon period. With rains patchy, crop failures become common. There is hardly any greenery in many villages, making it difficult for farmers to even maintain cattle. Farmers are increasingly abandoning their lands and heading to nearby towns to find work as labourers.

India is fortunate to have the monsoon, but it is also uniquely vulnerable to rising temperatures, with the country ranked 14th on the Global Climate Risk Index 2019. The country has over 120 million hectares suffering from some form of degradation. With rain-fed agriculture practised in over 67% of our total crop area, weather variability can lead to heavy costs, especially for coarse grains (which are mostly grown in rain-fed areas). A predicted 70% decline in summer rains by 2050 would devastate Indian agriculture. Within 80 years, our Kharif season could face a significant rise in average temperatures (0·7 °C–3·3 °C) with rainfall concomitantly impacted, and potentially leading to a 22% decline in wheat yield in the Rabi season, while rice yield could decline by 15%.

There are simple solutions to mitigate this. Promotion of conservation farming and dryland agriculture, with each village provided with timely rainfall forecasts, along with weather-based forewarnings regarding crop pests and epidemics in various seasons, is necessary. Our agricultural research programmes need to refocus on dryland research, with adoption of drought-tolerant breeds that could reduce production risks by up to 50%. A mandate to change planting dates, particularly for wheat, should be considered, which could reduce climate change induced damage by 60%–75%, by one estimate. There needs to be an increase in insurance coverage and supply of credit. Insurance coverage should be expanded to cover all crops, while interest rates need to be subsidised, through government support and an expanded Rural Insurance Development Fund. The recently announced basic income policy by the government is a welcome step as well...

1. As per the passage, why has Budelkhand witnessed a lot of depopulation?

   (A) Due to increasing Naxalism and lawlessness in the area

   (B) Due to adverse impact of climate change with less rains

   (C) Pollution related diseases have steadily increased over the years

   (D) Due to a sudden spike in temperature and weather-related events

2. An increase in 'degraded land' can definitely have which of the following consequences for farmers?

(I) Decline in income

(II) Increase in droughts

(III) Increase in welfare schemes

(A) Only II

(B) Only III

(C) Only I and II

(D) Only I and III

3. Why does the occurrence or non-occurrence of rains have such a big impact on Indian agriculture?

(A) Indian agriculture is mostly rain-fed in nature

(B) The weather is variable in India and can change quickly

(C) Government has invested a lot in improving irrigation

(D) There is increasing desertification in India

4. Which of the following is/are solution(s) highlighted in the passage?

(I) More focus on dryland agriculture research

(II) Extension of insurance coverage to all crops

(III) Promotion of conservation farming

(A) Only I

(B) Only II

(C) Only III

(D) All of the above

5. Which of the following is most similar in meaning to the word 'concomitantly' as mentioned in the passage?

(A) Diversifying

(B) Adjusting

(C) Manipulative

(D) Alongside

***Directions* (Q. Nos. 6–10) : From the given underlined idioms, choose the best alternative which expresses the closest meaning of the idiom. Mark the correct answer in your answer sheet.**

6. Beat a dead horse

(A) Exploid someone to the point of killing him/her

(B) To continue playing a game knowing very well that you are going to lose

(C) Show extreme level of cruelty especially to animals

(D) To uselessly dwell on a subject far beyond its point of resolution

7. Out of print

(A) A book no longer available from the publisher

(B) All publishers refuse to publish your book

(C) Not able to print due to being short on paper

(D) Intentionally not mention some items in the article or book

8. Keep under one's hat

(A) Take care of somebody else's valuables given to you for safe-keeping

(B) Steal and hide something

(C) To keep something a secret

(D) Keep all your wealth in your home

9. Ball is in your court

(A) Request someone to return your belonging

(B) To tell someone politely about his/her mistake

(C) Put the blame on the other person

(D) It is up to you to make the next decision or step

10. Make one's flesh creep
   (A) To flatter someone
   (B) To frighten someone
   (C) To confuse someone
   (D) To abuse someone

Directions (Q. Nos. 11–15) : In the following questions, substitute each sentence with a single word from among the given alternatives. Mark the correct answer in your answer sheet.

11. A disease which spreads by contact
   (A) Curable
   (B) Infectious
   (C) Fatal
   (D) Contagious

12. A man who rarely speaks the truth
   (A) Crook
   (B) Liar
   (C) Scoundrel
   (D) Hypocrite

13. One who studies insect life
   (A) Geologist
   (B) Zoologist
   (C) Entomologist
   (D) Botanist

14. A lady who remains unmarried
   (A) Spinster
   (B) Artist
   (C) Bachelor
   (D) Misanthrope

15. Animal that feeds on plants
   (A) Carnivorous
   (B) Herbivorous
   (C) Insectivorous
   (D) Graminivorous

Directions (Q. Nos. 16–20) : In the following questions, choose a word that is opposite in meaning with the given word from among the given alternatives. Mark the correct answer in your answer sheet.

16. Widely
   (A) Spaciously   (B) Succinctly
   (C) Narrowly   (D) Limitedly

17. Development
   (A) Progress   (B) Climb
   (C) Impunity   (D) Regression

18. Modern
   (A) Ancient   (B) Recent
   (C) Update   (D) Present

19. Covering
   (A) Hiding   (B) Exhibiting
   (C) Avoiding   (D) Protecting

20. Divided
   (A) Isolated   (B) Unpleasant
   (C) United   (D) Separated

Directions (Q. Nos. 21–25) : In the following questions, choose a word that is most similar in meaning with the given word from among the given alternatives. Mark the correct answer in your answer sheet.

21. Brittle
   (A) Soft   (B) Like iron
   (C) Tough   (D) Fragile

22. Wreck
   (A) To escape   (B) To neglect
   (C) To inflict   (D) To ignore

23. Meddle
   (A) Interfere   (B) Stay out of
   (C) Facilitate   (D) Overlook

24. Skip
   (A) Introduce   (B) Take on
   (C) Overlook   (D) Stay

25. Keep
   (A) Share   (B) Retain
   (C) Pass on   (D) Give

Directions (Q. Nos. 26–30) : In the following questions, a sentence is given in Direct/ Indirect speech. Out of the four alternatives suggested, choose the one which best expresses the same sentence in Direct/Indirect speech. Mark the correct answer in your answer sheet.

26. My friend said, "I am leaving today."
   (A) My friend said that he is leaving today.
   (B) My friend said that he was leaving today.
   (C) My friend said that he leaves today.
   (D) My friend said that he was leaving that day.

27. She said to him, "What a cold day!"
   (A) She told him that it was a cold day.
   (B) She exclaimed that it was a cold day.
   (C) She exclaimed sorrowfully that it was a cold day.
   (D) She exclaimed that it was a very cold day.

28. The man exclaimed that his wallet was stolen.
   (A) "My wallet was stolen!" the man said.
   (B) "Somebody stole my wallet!" exclaimed the man.
   (C) The man exclaimed, "My wallet was stolen!"
   (D) The man cried, "My wallet was stolen."

29. Socrates said, "Virtue is its own reward."
   (A) Socrates said that virtue had its own rewards.
   (B) Socrates says that virtue is its own rewards.
   (C) Socrates said that virtue is its own reward.
   (D) Socrates said that virtue was its own rewards.

30. Mr. Sam asked the boy if he could tell him where the nearest post office is.
   (A) Where is the nearest post office? Mr. Sam asked the boy.
   (B) Mr. Sam asked the boy, "Could you tell me where the nearest post office is?"
   (C) Mr. Sam asked the boy, "Where is the nearest post office?"
   (D) Mr. Sam said to the boy, "Where is the nearest post office"?

Directions (Q. Nos. 31–35) : In the following questions, some sentences have errors and some do not. The underlined words are the key words where you can identify whether the sentence is erroneous or not. From the given set of choices, choose the correct alternative for the identified errors. Where there is no error, choose the specified option (D). Mark the correct answer in your answer sheet.

31. The film *Titanic* <u>is</u> one of the greatest pictures ever made.
   (A) was   (B) had
   (C) are   (D) No errors

32. The river flowed smoothly <u>across</u> the bridge.
   (A) above   (B) under
   (C) on   (D) No errors

33. The train arrived right <u>on</u> schedule.

(A) in

(B) by

(C) over

(D) No errors

34. The notorious thief was finally caught <u>with</u> the police.

(A) over

(B) under

(C) by

(D) No errors

35. The boy trembled <u>on</u> fear of the deadly snake.

(A) by

(B) at

(C) with

(D) No errors

Directions (Q. Nos. 36–40) : In the given questions below, there are jumbled up sentence parts. Rearrange these parts, which are labelled I, II, III and IV to produce the correct sentence. Choose the correct sequence from the given set of alternatives. Mark the correct answer in your answer sheet.

36. (I) the ship

(II) violently

(III) the storm

(IV) rocked

(A) I–II–III–IV

(B) I–II–IV–III

(C) I–III–II–IV

(D) III–II–IV–I

37. (I) that the burglar

(II) I read

(III) has been caught

(IV) in the paper

(A) I–III–II–IV

(B) II–IV–I–III

(C) II–I–III–IV

(D) IV–III–I–II

38. (I) a torch

(II) they could

(III) the cave without

(IV) not explore

(A) III–II–I–IV

(B) III–IV–II–I

(C) I–IV–III–II

(D) II–IV–III–I

39. (I) masterpiece

(II) the

(III) worked at his

(IV) artist carefully

(A) IV–III–I–II

(B) III–II–I–IV

(C) II–IV–III–I

(D) IV–III–II–I

40. (I) the

(II) nightfall

(III) their howling calls at

(IV) wolves began

(A) I–IV–III–II

(B) IV–III–I–II

(C) I–II–III–IV

(D) IV–III–II–I

Directions (Q. Nos. 41–45) : In the following close passage, there are blank spaces which are numbered. Against each number, choose the most appropriate choice in meaning from the set of given alternatives. Mark the correct answer in your answer sheet.

Miss Anabel, the owner of a departmental store, was worried. Her money was missing. When she went to visit her sick friend this morning, she had __41__ a sealed envelope with six thousand rupees inside her desk drawer in her office at the back of the store. When she __42__ returned to her office, the envelope was gone. Ms. Anabel always locks her office whenever she leaves, therefore no one could have __43__ it. No one but for the cleaning lady, Maria, who also had the __44__ to her office. Maria cleaned her office every morning but Ms. Anabel cannot prove that Maria actually __45__ the money.

41. (A) rest
    (B) left
    (C) felt
    (D) ordered

42. (A) later
    (B) near
    (C) now
    (D) soon

43. (A) run
    (B) placed
    (C) entered
    (D) broken

44. (A) pass
    (B) lock
    (C) way
    (D) key

45. (A) gave
    (B) took
    (C) open
    (D) hid

Directions (Q. Nos. 46–50) : In the following questions, the sentences have blank spaces followed by four alternative answers. Choose the correct alternative from the given choices. Mark the correct answer in your answer sheet.

46. The Mayor said that it _____ him great pleasure to be there that evening.
    (A) gives
    (B) gave
    (C) was giving
    (D) give

47. He said that he _____ go as soon as it was possible.
    (A) will
    (B) would
    (C) can
    (D) could

48. The lion told the mouse that he was very weak and that his teeth _____ out.
    (A) fell
    (B) have fallen
    (C) had fallen
    (D) will fall

49. The teacher often tells me that if I _____ hard I will fail.
    (A) didn't work
    (B) hadn't worked
    (C) can't worked
    (D) don't work

50. Yesterday, it _____ raining so heavily.
    (A) was
    (B) has
    (C) is
    (D) had

PART—B : GENERAL AWARENESS AND APTITUDE

(*Marks* : 150)

Each question carries **2** marks :

51. Four usual dice are thrown on the ground. The total of numbers on the top faces of these four dice is 13 as the top faces showed 4, 3, 1 and 5 respectively. What is the total of the faces touching the ground?

(A) 12

(B) 13

(C) 15

(D) Cannot be determined

52. *A* alone can do a piece of work in 6 days and *B* alone in 8 days. *A* and *B* undertook to do it for ₹ 3,200. With the help of *C*, they completed the work in 3 days. How much is to be paid to *C*?

(A) ₹ 375

(B) ₹ 400

(C) ₹ 600

(D) ₹ 800

53. *A* can do a piece of work in 4 hours. *B* and *C* together can do it in 3 hours, while *A* and *C* together can do it in 2 hours. How long will *B* alone take to do it?

(A) 8 hours

(B) 10 hours

(C) 12 hours

(D) 24 hours

54. If the first day of a year (other than leap year) was Monday, then which was the last day of that year?

(A) Tuesday

(B) Friday

(C) Saturday

(D) Monday

55. The calendar for the year 2007 will be the same for the year

(A) 2014

(B) 2016

(C) 2017

(D) 2018

56. Running at the same constant rate, 6 identical machines can produce a total of 270 bottles per minute. At this rate, how many bottles could 10 such machines produce in 4 minutes?

(A) 648

(B) 1800

(C) 2700

(D) 10800

57. A camp had provision of food for 150 men for 45 days. After 10 days, 25 men left the camp. The number of days for which the remaining food will last is

(A) 29

(B) 37

(C) 42

(D) 54

58. The length of a rectangle is twice its breadth. If its length is decreased by 5 cm and breadth is increased by 5 cm, the area of the rectangle is increased by 75 sq. cm. What is the length of the rectangle?

(A) 20 cm

(B) 40 cm

(C) 16 cm

(D) 18 cm

59. There will be 3 statements that will be given in the questions mentioned below, followed by conclusions : I, II, III and IV. You must accept the provided claims as true, even if they appear to contradict generally known truths. Read the conclusions and then evaluate which of the supplied conclusions logically follows from the given assertions, taking into account widely known facts.

Statements :
  Some ships are boats.
  All boats are submarines.
  Some submarines are watches.

Conclusions :
  I.   Some watches are boats.
  II. Some submarines are boats.
  III. Some submarines are ships.
  IV. Some watches are ships.

(A) All follow

(B) Only II and III follow

(C) Only III follows

(D) Only IV follows

60. The average weight of *A*, *B* and *C* is 45 kg. If the average weight of *A* and *B* be 40 kg and that of *B* and *C* be 43 kg, what is the weight of *B*?

(A) 28 kg

(B) 31 kg

(C) 32 kg

(D) 30 kg

61. At 3:40, the hour hand and the minute hand of a clock form an angle of

(A) 130°

(B) 120°

(C) 135°

(D) 125°

62. If North-East becomes West and South-East becomes North, then what will West become?

(A) South-East

(B) North-East

(C) South

(D) North-West

63. A man walks 6 km towards the North, then turns towards his left and walks for 4 km. He again turns left and walks for 6 km. At this point, he turns to his right and walks for 6 km. How many km and in what direction is he from the starting point?

(A) 10 km, West

(B) 6 km, South

(C) 4 km, South

(D) 8 km, West

64. Peter and Ashley start from their office and walk in opposite direction, each travelling 10 km. Peter then turns left and walks 10 km, while Ashley turns right and walks 10 km. How far they are now from each other?

(A) 25 km

(B) 40 km

(C) 10 km

(D) 20 km

65. Looking at a picture of a boy, Melvin said, "His mother is the wife of my father's son. Brothers and sisters I have none." At whose picture was Melvin looking?

(A) His son

(B) His cousin

(C) His uncle

(D) His nephew

66. When Alwyn saw Sandy, he recalled, "He is the son of the father of my daughter's mother." Who is Sandy to Alwyn?

(A) Brother-in-law

(B) Brother

(C) Cousin

(D) Uncle

67. Which of the following pairs of words have the same relationship as Fan : Heat?

(A) Water : Drink

(B) Light : Night

(C) Teach : Student

(D) Food : Hunger

68. In the following question, there is a certain relationship between two given pairs on both side of '::'. Choose the correct word from the following options :

Umpire : Game :: ?

(A) Legislator : Election

(B) Moderator : Debate

(C) Prodigy : Wonder

(D) Cricket : Bat

69. Which of the following pairs of words have the same relationship as

Chisel : Sculptor :: Harrow : ?

(A) Gardener

(B) Mason

(C) Blacksmith

(D) Guard

70. If ACNE can be coded as 3 7 29 11, then BOIL will be coded as

(A) 5 29 19 27

(B) 5 29 19 25

(C) 5 31 21 25

(D) 5 31 19 25

71. If RAM is coded as 5, GUI is coded as 1, then what is the code for SAP?

(A) 3

(B) 9

(C) 4

(D) 7

72. In a code language, if POSE is coded as OQNPRTDF, then the word TYPE will be coded as

(A) SUXZOQFD

(B) SUXZQOFD

(C) SUXZOQDF

(D) SUXZQODE

73. Six people, namely, *A*, *B*, *C*, *D*, *E* and *F* are sitting in a row. *E* and *F* are in the centre. *A* and *B* are at the ends. *C* is sitting to the left of *A*. Who is to the right of *B*?

(A) *D*

(B) *C*

(C) *A*

(D) *F*

74. *Q*, *R*, *S* and *T* are sitting on a bench. *P* is sitting next to *Q*, *R* is sitting next to *S*, *S* is not sitting with *T* who is on the left end of the bench. *R* is in the second position from the right. *P* is to the right of *Q* and *T*. *P* and *R* are sitting together. In which position, *P* is sitting?

(A) Between *Q* and *S*

(B) Between *Q* and *R*

(C) Between *T* and *S*

(D) Between *R* and *T*

75. In a 500 m race, the ratio of the speeds of two contestants *A* and *B* is 3 : 4. *A* has a start of 140 m. Then *A* wins by

(A) 60 m

(B) 40 m

(C) 20 m

(D) 10 m

76. Three times the first of three consecutive odd integers is 3 more than twice the third. The third integer is

(A) 9

(B) 11

(C) 15

(D) 17

77. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?

(A) 144°

(B) 150°

(C) 168°

(D) 180°

78. In the series, you are looking at a letter pattern. Fill in the blank at the end of the series.

FAG, GAF, HAI, IAH, _____

(A) JAK

(B) HAL

(C) HAK

(D) JAI

79. In the series, you are looking at a letter pattern. Fill in the blank with the appropriate option.

ELFA, GLHA, ILJA, _____, MLNA

(A) OLPA

(B) KLMA

(C) LLMA

(D) KLLA

80. In Raymond's opinion, his weight is greater than 65 kg but less than 72 kg. His brother doesn't agree with Raymond and he thinks that Raymond's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all of them are correct in their estimation, what is the average of different probable weights of Raymond?

(A) 67 kg

(B) 68 kg

(C) 69 kg

(D) Data inadequate

81. Which letter will replace the question mark?

$$A\ Z\ B\ Y\ C\ ?$$

(A) D

(B) X

(C) W

(D) E

82. If one-third of one-fourth of a number is 15, then three-tenth of that number is

(A) 30

(B) 33

(C) 49

(D) 54

83. I am facing East. Turning to the right, I go 20 m, then turning to the left, I go 20 m and turning to the right, I go 20 m, then again turning to the right, I go 40 m and then again I go 40 m to the right. In which direction am I from my original position?

(A) North

(B) West

(C) South

(D) East

84. What is the number of boys in a college if 60% of the students are boys and there are 812 girls studying in the college?

(A) 1128

(B) 1218

(C) 1375

(D) 1500

85. If $A : B = 2 : 3$, $B : C = 6 : 11$, then what is the value of $C : B : A$?

(A) $11 : 6 : 2$

(B) $11 : 7 : 14$

(C) $11 : 3 : 2$

(D) $11 : 6 : 4$

86. Who amongst the following is the youngest winner of Nobel Prize?

(A) Malala Yousafzai

(B) Paul Dirac

(C) Abhijit Vinayak Bandyopadhyay

(D) Werner Heisenberg

87. The 'Lotus Temple' in Delhi is a place of worship for people of which faith?

(A) Hindu

(B) Bahai

(C) Buddhist

(D) Sikh

88. Which of the following is a non-communicable disease?

(A) Chickenpox

(B) Beriberi

(C) Common cold

(D) Measles

89. The first artificial satellite launched by India in 1975 was

(A) Sputnik 1

(B) INSAT

(C) Charaka

(D) Aryabhata

90. The Lok Sabha can have a maximum of (after discontinuation of Anglo-Indian representation by the 104th Amendment of Constitution)

(A) 512 members

(B) 543 members

(C) 550 members

(D) 553 members

91. Which of the following is **not** a greenhouse gas?

(A) Carbon dioxide

(B) Sulphur dioxide

(C) Methane

(D) Oxygen

92. Deepa Malik became the first Indian woman to win a medal in the Paralympic Games. She is associated with the sport of

(A) shot put

(B) javelin

(C) table tennis

(D) archery

93. Who is the Union Minister for Youth Affairs and Sports since July, 2021 and preceded by Kiren Rijiju?

(A) Sarbananda Sonowal

(B) Anurag Thakur

(C) Jyotiraditya Scindia

(D) None of them

94. Who is the first Indian woman to win a medal in the individual event in an Olympic Game?

(A) Mary Kom

(B) Saina Nehwal

(C) Karnam Malleswari

(D) P. V. Sindhu

95. Economic and Social Planning comes under which of the following as per Seventh Schedule of the Constitution of India?

(A) Union List

(B) State List

(C) Concurrent List

(D) Residuary List

96. Which State in India has the largest coastline?

(A) Gujarat

(B) Tamil Nadu

(C) Andhra Pradesh

(D) Maharashtra

97. Kathakali dance form has its root in the State of

(A) Kerala

(B) Karnataka

(C) Andhra Pradesh

(D) Tamil Nadu

98. Who among the following is known as the 'Father of Modern Computer'?

(A) Bill Gates

(B) Mark Zuckerberg

(C) Herman Hollerith

(D) Charles Babbage

99. Which was the first bank to introduce ATMs (Automated Teller Machines) in India?

(A) HDFC

(B) SBI

(C) HSBC

(D) Bank of Baroda

100. What was the name of the Mascot of the 2020 Tokyo Summer Olympics held during July–August, 2021, due to COVID pandemic?

(A) Someity

(B) Miraitowa

(C) Hodori

(D) Misha

101. What is the capital of Australia?

(A) Sydney

(B) Melbourne

(C) Canberra

(D) Victoria

102. Jim Corbett National Park is situated in

(A) Himachal Pradesh

(B) Madhya Pradesh

(C) Andhra Pradesh

(D) Uttarakhand

103. Which metal is the best conductor of electricity and heat?

(A) Gold

(B) Silver

(C) Aluminum

(D) Copper

104. In which State was the Panchayati Raj first introduced?

(A) Bihar

(B) Rajasthan

(C) Punjab

(D) Haryana

105. Which gland is responsible for the secretion of insulin?

(A) Thyroid

(B) Adrenal gland

(C) Pancreas

(D) Pineal gland

106. Which planet is known as the Earth's twin?

  (A) Venus

  (B) Mars

  (C) Mercury

  (D) Jupiter

107. The Finance Commission is constituted under Article _____ of the Constitution of India.

  (A) 270

  (B) 280

  (C) 226

  (D) 245

108. Of the water bodies mentioned below, which one is a land-locked sea?

  (A) Aral Sea

  (B) Caribbean Sea

  (C) Red Sea

  (D) South China Sea

109. Who was the first Indian woman to climb Mount Everest?

  (A) Bachendri Pal

  (B) Arunima Sinha

  (C) Premlata Agrawal

  (D) Malavath Purna

110. The stethoscope was invented by

  (A) Alexander Fleming

  (B) Edward Jenner

  (C) Rene Laennec

  (D) Joseph Lister

111. The most famous invention of Alfred Nobel, the Swedish scientist, under whose name the Nobel Prize is awarded is

  (A) dynamite

  (B) X-ray

  (C) ultrasound

  (D) penicillin

112. The longest bridge in India is the

  (A) Dhola-Sadiya Bridge or Bhupen Hazarika Setu

  (B) Mahatma Gandhi Setu

  (C) Bandra-Worli Sea Link

  (D) Bogibeel Bridge

113. Where is the battlefield of Plassey situated?

  (A) Punjab

  (B) West Bengal

  (C) Goa

  (D) Maharashtra

114. Who wrote the line, 'A thing of beauty is a joy forever'?

  (A) P. B. Shelley

  (B) Robert Browning

  (C) John Keats

  (D) William Wordsworth

115. 'OS' computer abbreviation stands for

  (A) Order of Significance

  (B) Open Software

  (C) Operating System

  (D) Optical Sensor

116. The name 'Meghalaya' was coined by

(A) Rabindranath Tagore

(B) Shiba P. Chatterjee

(C) Swami Vivekananda

(D) Stanley Nichols Roy

117. Which of the following planets is **not** a terrestrial planet?

(A) Mercury

(B) Venus

(C) Earth

(D) Saturn

118. The line that demarcates the boundary between India and Pakistan is

(A) McMahon Line

(B) Durand Line

(C) Radcliffe Line

(D) None of the above

119. Which of the following is the largest and deepest ocean in the world?

(A) Arctic Ocean

(B) Atlantic Ocean

(C) Pacific Ocean

(D) Indian Ocean

120. Metals which chemically behave both as metals and non-metals are called

(A) alloys

(B) metalloids

(C) halogens

(D) chalcogens

121. Name the personality who is credited with the invention of E-mail.

(A) T. Leo Burns

(B) Larry Page

(C) Ray Tomlinson

(D) Charles Babbage

122. Who is the author of the book, *Swami and Friends*?

(A) Munshi Premchand

(B) Raman

(C) Chetan Bhagat

(D) R. K. Narayan

123. Which day is observed as the World Population Day?

(A) July 11

(B) June 10

(C) August 10

(D) October 8

124. Entomology is the study of

(A) behaviour of human beings

(B) insects

(C) formation of rocks

(D) fossils

125. Which of the following is used in pencils?

(A) Graphite

(B) Silicon

(C) Charcoal

(D) Magnesium

PART—C : ARITHMETIC

(*Marks* : 50)

Each question carries **2** marks :

126. Which of the following numbers is rational?

(A) $(5 - \sqrt{2})(5 + \sqrt{2})$

(B) $(\sqrt{3} + \sqrt{2})^2$

(C) $\sqrt{\dfrac{9}{27}}$

(D) $\sqrt{45}$

127. What is the smallest number which when increased by 11 is exactly divisible by 15, 20 and 54?

(A) 540

(B) 529

(C) 551

(D) 592

128. The value of $\dfrac{2^n + 2^{n-1}}{2^{n+1} - 2^n}$ is equal to

(A) 1

(B) $\dfrac{1}{2}$

(C) $\dfrac{3}{2}$

(D) $\dfrac{2}{3}$

129. A man saves ₹ 500 at the end of each year and lends the money at 10% per annum compound interest. How much will it become at the end of 4 years?

(A) ₹ 2,250·50

(B) ₹ 2,552·55

(C) ₹ 2,255·25

(D) ₹ 2,552·75

130. A company spends ₹ 3,000 for providing coffee to 50 employees for 20 days. If they spend ₹ 1,500 for 100 employees, then for how many days can they offer coffee?

(A) 5 days

(B) 15 days

(C) 10 days

(D) 8 days

131. If the number $15312x$ has to be divisible by 11, then what should be the value of x?

(A) 0

(B) 1

(C) 2

(D) 3

132. The degree of a biquadratic polynomial is

(A) 0

(B) 2

(C) 3

(D) 4

133. The breadth of a rectangle is two-third of its length and the length exceeds the breadth by 7 cm. What is the perimeter of the rectangle?

(A) 40 cm

(B) 50 cm

(C) 60 cm

(D) 70 cm

134. If $x = -\dfrac{1}{2}$ is a zero of the polynomial $p(x) = 8x^3 - kx^2 - x + 2$, then the value of k is

(A) 0

(B) 2

(C) 4

(D) 6

135. The product of Ram's age five years ago and his age 8 years hence is 30. What is Ram's present age?

(A) 6 years

(B) 7 years

(C) 8 years

(D) 9 years

136. The 5th term of the sequence $t_n = n^2 - n + 1$ is

(A) 21

(B) 20

(C) 5

(D) 6

137. The value of 3 + 4·5 + 6 + ... to 25th term is

(A) 500

(B) 500·5

(C) 525·5

(D) 525

138. The areas of two similar triangles are 121 cm^2 and 64 cm^2 respectively. If the median of the first triangle is 12·1 cm, what is the corresponding median of the other?

(A) 8·8 cm

(B) 7·8 cm

(C) 6·6 cm

(D) 9·8 cm

139. The distance between the pair of points (2, 4) and (–6, 4) is

(A) 4

(B) 6

(C) 8

(D) 10

140. If $\sin\theta = \dfrac{24}{25}$, then the value of $\tan\theta + \sec\theta$ is

(A) 3

(B) 7

(C) 10

(D) 17

141. If $\tan 2\theta = \cot(\theta + 6°)$, where 2θ and $(\theta - 6°)$ are acute angles, what is the value of θ ?

(A) 28°

(B) 24°

(C) 12°

(D) 6°

142. Two angles of a triangle are equal and the third angle is greater than each of those by 30°. Then the greater angle is

(A) 100°

(B) 80°

(C) 50°

(D) 90°

143. Two-third of a number is 4 more than 6. What is the number?

(A) 15

(B) 10

(C) 12

(D) 20

144. What is the probability of choosing a consonant from the alphabets?

(A) $\dfrac{21}{26}$

(B) $\dfrac{20}{26}$

(C) $\dfrac{26}{21}$

(D) $\dfrac{26}{20}$

145. A metal bucket open at the top of height 24 cm is in the form of frustum of a cone, the radii of whose lower and upper circular ends are 7 cm and 14 cm respectively. Find the area of the metal sheet used to make the bucket.

(A) 1804 cm^2

(B) 1480 cm^2

(C) 1408 cm^2

(D) 1840 cm^2

146. If 65% of the population have black eyes and the rest brown eyes, what is the probability that the person selected at random has brown eyes?

(A) $\dfrac{7}{20}$

(B) $\dfrac{13}{20}$

(C) $\dfrac{20}{13}$

(D) $\dfrac{20}{7}$

147. The discriminant of the quadratic equation $\sqrt{3}x^2 + 2\sqrt{2}x - 2\sqrt{3}$ is

(A) $16\sqrt{2}$

(B) $12\sqrt{2}$

(C) 24

(D) 32

148. What is the smallest number by which 5607 must be added so as to get a perfect square?

(A) 17

(B) 27

(C) 18

(D) 9

149. Two parallel chords of lengths 30 cm and 16 cm are drawn on the opposite sides of the centre of a circle of radius 17 cm. What is the distance between the chords?

(A) 20 cm

(B) 23 cm

(C) 25 cm

(D) 27 cm

150. The cost of per kg of almond increased from ₹ 750 to ₹ 810. What is the percentage of increase in the cost?

(A) 10%

(B) 8%

(C) 6%

(D) 5%