

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

## QUESTION BOOKLET

**SERIES IV**

**Subjects : General English, General Knowledge & Aptitude, Mathematics**

**BOOKLET SERIAL NO.**

**1276**

**Marks : 300**

**Time : 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 Ball Pen in 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. 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 :**

**Directions : Find the error in the given sentences :**

1. The Prime Minister called on the President yesterday.

- a) called                      b) called on
- c) on                          d) no error

2. I has been completely blind to her faults.

- a) completely              b) has been
- c) blind                      d) to

3. To give dust in one's eyes.

- a) dust                      b) give
- c) in                          d) one's

4. He earns his bread with the sweat of his brow.

- a) bread                      b) with
- c) earns                      d) brow

5. They have had a real good time

- a) have                      b) had
- c) real                        d) no error

**Directions : Fill in the blanks choosing the correct pair of words :**

6. The car was caught \_\_\_\_ two trams but was narrowly saved \_\_\_\_ a disaster.

- a) between, from              b) in, from
- c) over, of                      d) under, against

7. We must always \_\_\_\_ a book which comes up to the \_\_\_\_ standard.

- a) entertain, great
- b) introduce, present
- c) prescribe, required
- d) inaugurate, necessary

8. The spy was engaged to \_\_\_\_ the murderer's house \_\_\_\_ from a distance.

- a) guard, quietly              b) watch, secretly
- c) see, closely                d) study, looking

**Directions : Choose a word which is closest in meaning to the given word.**

9. Abhor

- a) like                          b) hate
- c) interest                      d) dislike

10. Baffle

- a) to confuse                  b) worry
- c) appreciate                  d) understand

11. Candid

- a) danger                      b) disaster
- c) blunt                        d) confidence

12. Prudent

- a) wise                        b) clever
- c) dull                         d) bright

13. Adept

- a) skilful                      b) inept
- c) experienced                d) wise

**Directions : From the given options, choose the word which best expresses the meaning of the given word :**

14. Luxuriant

- a) rich in growth              b) bountiful
- c) luxurious                    d) impoverished

15. Disinterested

- a) biased                      b) selfless
- c) unfriendly                  d) unjust

16. Fair-play

- a) justice                      b) beautiful game
- c) favoritism                  d) principled

17. Meddle

- a) an award in the form of a metallic coin
- b) honourable
- c) to interfere
- d) confusion

18. Ingenuous

- a) trusting                    b) skillful
- c) insincere                  d) native

**Directions : Choose the most appropriate word / phrase closest in meaning to the underlined word / phrase and select your**



answer from the given options :

19. It is expedient for you to resign.

- a) desirable                      b) imperative
- c) unwise                        d) disgraceful

20. Malaria is an infectious disease.

- a) disease spread through air and water
- b) disease of the nerves
- c) disease spread by contact
- d) disease spread by bacteria

21. Peter was bent on studying medicine.

- a) doubtful                      b) faltering
- c) weak-kneed                  d) resolved

22. Sita makes more friends being nice than she does by being belligerent.

- a) thoughtless                  b) indecisive
- c) amicable                      d) aggressive

23. He tried heart and soul to help me.

- a) indifferently                  b) impulsively
- c) earnestly                      d) willingly

**Directions : In the following sentences use the appropriate form of Verbs given in order to complete the sentence.**

24. If you \_\_\_\_ a fool, you would accept the offer.

- a) were                              b) are
- c) be                                d) was

25. Keep him \_\_\_\_ with the latest news of his mother.

- a) post                              b) posts
- c) posted                          d) posting

26. He \_\_\_\_ abroad five years ago.

- a) goes                              b) is going
- c) went                              d) will be going

27. I \_\_\_\_ him to be a good man.

- a) thought                          b) will think
- c) am thinking                      d) thinks

28. If there is smoke, there \_\_\_\_ fire.

- a) will be                          b) had been
- c) is                                d) was

**Directions : In the following, a sentence / part of the sentence is underlined. Below**

**are given alternatives to the underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is required, choose "No improvement".**

29. Apart from writing the letter for me, he posted it.

- a) alongwith                      b) as well as
- c) inspite of                      d) No improvement

30. I saw a dead ox walking there.

- a) I have seen a dead ox walking there.
- b) while walking there I saw a dead ox.
- c) there is a dead ox walking seen by me.
- d) No improvement

31. His bonafides are in doubt.

- a) would                          b) is
- c) has been                        d) No improvement

32. Since you have money, you can help me.

- a) so                                b) if
- c) had                                d) No improvement

33. The medical college is joined to Orissa University.

- a) connected                      b) attached
- c) affiliated                        d) No improvement

**Directions : Select whichever word you consider most appropriate for the blank space.**

34. That which cannot be conquered is called \_\_\_\_

- a) inevitable                      b) invisible
- c) invincible                      d) incorrigible

35. A person living at the same time of another is called \_\_\_\_

- a) prisoner                        b) cosmopolitan
- c) contemporary                  d) colleague

36. Beyond the power of nature means \_\_\_\_

- a) divine                          b) supernatural
- c) spiritual                        d) mythical

37. The custom of having more than one husband is \_\_\_\_

- a) polygamy                        b) polygyny
- c) polyglot                        d) polyandry

38. A combination of similar elements \_\_\_\_

- a) heterogenous                      b) amalgam
- c) concoction                        d) homogenous

39. A person who enjoys good food and drink

- a) glutton                              b) teetotaler
- c) epicurean                         d) reveller

40. A \_\_\_\_\_ person is very particular about every or minute details.

- a) immaculate                        b) meticulous
- c) amateur                            d) professional

**Directions : From the given options, choose the word which is the opposite meaning of the given word.**

41. Confident

- a) trustworthy                        b) focussed
- c) diffident                            d) unfaithful

42. Apparent

- a) obscure                              b) indisputable
- c) pronounced                        d) unnoticed

43. Zenith

- a) bottom                                b) nadir
- c) anti-climax                        d) peak

44. Temporal

- a) temperament                        b) metaphysical
- c) spiritual                              d) earthly

45. Liberate

- a) capture                                b) escape
- c) enclose                                d) enslave

**Directions : In each of the following questions there is a capitalized word which has been used in four different ways. Select the option in which the usage of the word is not appropriate .**

46. BOARD

- a) passengers should board the train now.
- b) Vishal is elected to the Board of Directors of Lion's Club.
- c) what do they charge for room and boarding?
- d) dinner will be served on board the plane.

47. EFFECT

- a) impatient investors effected our roll out date
- b) the management effected a sweeping policy

change

- c) the hot sun always has a burning effect on my skin
- d) the production relied too much on spectacular effects

48. ADVICE

- a) the mother advised his son to stay away from bad company
- b) If you are unsure, get advice from a solicitor
- c) the committee said that they feel like an advice bureau
- d) he was too proud to ever seek advice

49. CROP

- a) the main crops are rice and wheat
- b) the drought destroyed the crops in Rajasthan
- c) the dress had to be cropped to fit her
- d) we had a bumper crop this year

50. ENSURE

- a) please ensure that she reaches here in time.
- b) all her ornaments are heavily ensured against theft.
- c) the college ensures fairness in the application process.
- d) ensuring that no one was watching, she opened the letter.



## **PART - B - GENERAL KNOWLEDGE & APTITUDE**

**Marks : 100**

**Each question carries 2 marks :**

**51.** Which area in India gets the summer monsoon first ?

- a) The Himalayas
- b) The Eastern Ghats
- c) Western Ghats
- d) Indo - Gangetic plains

**52.** Name the soil requiring least application of fertilizers as it gets renewed naturally :

- a) Alluvial
- b) Red
- c) Desert
- d) Laterite

**53.** Which wildlife reserve is known for the Great Indian One-horned Rhinoceros ?

- a) Dudhwa
- b) Corbet
- c) Kaziranga
- d) Gir

**54.** Generally, the Prime Minister is

- a) The senior most member of the Parliament
- b) The leader of the majority party in the Parliament
- c) A close friend of the president
- d) Not a member of Parliament

**55.** Which of the following personalities was an Indian diplomat and the first female President of the United Nations General Assembly ?

- a) Aruna Asaf Ali
- b) Vijaya Lakshmi Pandit
- c) Chonira Belliappa Muthamma
- d) Sucheta Kripalani

**56.** The present Lok Sabha, constituted in 2019, is the

- a) 14<sup>th</sup> Lok Sabha
- b) 15<sup>th</sup> Lok Sabha
- c) 16<sup>th</sup> Lok Sabha
- d) 17<sup>th</sup> Lok Sabha

**57.** Which of the following is a non-metal that remains liquid at room temperature ?

- a) Phosphorous
- b) Bromine
- c) Chlorine
- d) Helium

**58.** Chlorophyll is a naturally occurring chelate compound in which central metal is

- a) Copper
- b) Magnesium
- c) Iron
- d) Calcium

**59.** 'Cheraw Dance' is folk dance performed mainly by the tribal communities of which state?

- a) Madhya Pradesh
- b) Chhattisgarh
- c) Odisha
- d) Mizoram

**60.** What is unique to Harappan Civilization in comparison to Egyptian and Mesopotamian Civilization ?

- a) Pictographic script
- b) Temples
- c) Rectangular town planning
- d) Drainage system

**61.** At the end of the trial carried on by the British Government, the deposed Mughal Emperor Bahadur Shah Zafar was exiled to

- a) South India
- b) Jammu
- c) Rangoon
- d) London

**62.** Which countries lie on either side of the Radcliffe Line ?

- a) India and Bangladesh
- b) Nepal and India
- c) North and South Korea
- d) India and Pakistan

**63.** Which of the following is not the function of Reserve Bank of India ?

- a) Issue of Bank Notes
- b) Banker to Government
- c) Opening Savings Bank Account for general public
- d) Custodian of cash reserves of Commercial Banks

**64.** Which was the first geostationary satellite of India, launched by ISRO on June 19, 1981 ?

- a) IRS - I
- b) INSAT - I
- c) APPLE
- d) CARTOSAT - I

**65.** Which crop requires water-logging for its cultivation ?

- a) Tea
- b) Rice
- c) Coffee
- d) Mustard

**66.** In which country would you find the 'Table Mountain', a flat-topped mountain forming a prominent landmark overlooking one of the capital cities of the country ?

- a) Sri Lanka  
c) South Africa

- b) Czech Republic  
d) Turkey

67. The last six characters of the alphanumeric IFSC printed on the cheques helps in identifying the

- a) Bank Branch  
b) Type of Account  
c) Bank Name  
d) Business or profession of customer

68. A small pouch containing silica gel is often found in boxes of electronic gadgets or bottles of medicines either in tablet or powder form because silica gel

- a) Kills bacteria  
b) Kills germs and spores  
c) Absorbs moisture  
d) Absorbs all gases present inside the bottle

69. In Queenstown (New Zealand) Shahid Afridi's 17-year old record for the fastest century in ODIs was broken in a game that was reduced to 21 overs a side due to rain by Corey Anderson. But who holds the record of fastest century in ODI currently, scored in just 31 balls against West Indies at Johannesburg on 18<sup>th</sup> January 2015 with 8 fours and 10 sixes ?

- a) David Miller  
b) Quinton de Cock  
c) A. B. De Villiers  
d) Chris Moriss

70. A diagnostic technique commonly known as 'Ultrasound' is based on recording

- a) Echoes of extremely high frequency waves  
b) Echoes of extremely low frequency waves  
c) Ultraviolet rays  
d) nuclear magnetic resonances

**Directions : (Q.No. 71-73), Fill in the blanks:**

71. John Thomas, an \_\_\_\_\_ writer, passes away in 2018

- a) eminent  
b) dominant  
c) imminent  
d) prominent

72. Five different books (P, Q, R, S, T) are to be arranged on a shelf. The books R and S are to be arranged first and second, respectively from the right side of the shelf. The number of different orders in which P, Q and T may be arranged is \_\_\_\_\_

- a) 12  
b) 2

c) 8

d) 6

73. The growth rate of ABC Motors in 2017 was the same \_\_\_\_\_ XYZ Motors in 2016.

- a) as that off  
b) as off  
c) as that of  
d) as those of

74. A lunar eclipse occurs when

- a) The sun, the moon and the earth are not in the same line  
b) The moon comes between the sun and the earth  
c) The earth comes between the sun and the moon  
d) The sun comes between the earth and the moon

75. Where does the majority of the plastic waste end up ?

- a) Oceans  
b) Landfills  
c) Atmosphere  
d) Domestic waste

76. When Mr. Jawaharlal Nehru became the Prime Minister of India, he delivered an inaugural address to the Nation, towards the midnight of 14<sup>th</sup> August 1947, which has been given a special name. What is the speech called ?

- a) Freedom Speech  
b) Tryst with Destiny  
c) Love Tryst for India  
d) Duty, Honour and Country

77. Released on Doordarshan on 7<sup>th</sup> July 1984, which of these was Indian Television's first soap opera and also the first serial drama series on India ?

- a) Hum Log  
b) Yeh Jo Hai Zindagi  
c) Buniyaad  
d) Mungerilal Ke Haseen Sapne

78. Trinitrotoluene (TNT) is a/an

- a) Fertilizer  
b) Explosive  
c) Insecticide  
d) Fungicide

**Each question carries 2 marks :**

**Directions : (Q.No. 79-100), Choose the correct option :**

79. Someone asked a boy his age and the age of his sister. He replied 'Three years ago I was seven times as old as my sister, two years ago I



was four times as old; last year I was three times as old; and this year I am two-and one-half times as old as my sister. What are the present ages of the boy and the girl ?

- a) 10 and 4                      b) 7 and 3  
c) 9 and 4                      d) 12 and 10

80. There are 47 students to go on a picnic. Each is expected to contribute Rs.15/- that would be the expense per head. Three teachers join in and they do not mind paying so that average contribution drops to Rs.12/- per student. What should be the average contribution to be raised from the teachers ?

- a) Rs.186/-                      b) Rs.100/-  
c) Rs.62/-                      d) Rs.90/-

81. Three persons, P, Q and R can do a piece of work respectively in 30 days, 12 days and 20 days. How many days will all the three finish 4 times the original quantum of work ?

- a) 48                              b) 12  
c) 6                                d) 24

82. If 'W' is coded as 'a', 's' as 'r' as 'w', how will 'answer' be written ?

- a) wnsaes                      b) anraew  
c) anrwas                      d) waraess

83. The codes for certain letters are indicated in the following words : TRADE-54321; BADGE-93271; GRADE-74321; QUEUE-80101. What is the code for 'G' ?

- a) 7                                b) 4  
c) 2                                d) 8

84. 'A' sold an article to 'B' at a gain of 10%; 'B' sold it to 'C' at a gain of 20%. If 'C' paid Rs.2640/- for it, what did it cost 'A'?

- a) Rs.2000/-                      b) Rs.2500/-  
c) Rs.1500/-                      d) Rs.1000/-

85. Ramesh is thrice as old as Suresh. Two years hence Ramesh will be twice as old as Suresh. Find Ramesh's present age (in years)

- a) 2                                b) 3  
c) 4                                d) 6

86. Five bells toll at intervals of 5, 6, 10, 12 and 15 seconds respectively. If they toll together at the same time, after how many seconds will they toll together again, for the first time ?

- a) 300                              b) 120

- c) 60                              d) 30

87. In a certain code language if 'pink' means 'black', 'black' means 'white', 'white' means 'yellow', 'yellow' means 'orange', 'orange' means 'red' and 'red' means 'green'; then which colour stands for peace in that code ?

- a) Red                              b) Black  
c) Orange                      d) Green

88. Divya's father pointing towards a person said, 'He is the brother of my father's only sibling'. How is the person related to Divya ?

- a) Father                              b) Uncle  
c) Brother                      d) Grandfather

89. Given the sequence of terms AD, CG, FK, JP, ? , the next term is

- a) OV                              b) OW  
c) PV                              d) PW

90. (i) Tanya is older than Eric

(ii) Cliff is older than Tanya

(iii) Eric is older than cliff

If the first two statements are true, then the third statement is

- a) True                              b) False  
c) Uncertain                      d) Data insufficient

91. If E = 10; J = 20; O = 30; and T = 40, what will be P + E + S + T ?

- a) 51                                b) 120  
c) 82                                d) 164

92. What are the two occasions between 6 am and 7 am, when the minute hand and hour hand of a clock make an angle closest to 60° ?

- a) 6.22 am and 6.44 am  
b) 6.27 am and 6.47 am  
c) 6.38 am and 6.55 am  
d) 6.18 am and 6.50 am

93. Select the pair which is different from the other three

- a) Medicine-Doctor              b) Flower-Artist  
c) Shoes-Cobbler              d) Skin-Dermatologist

94. There are twice as many girls as boys in an English class. If 30% of the girls and 45% of the boys have already handed in their book reports, what percent of the students have not yet handed in their reports ?

- a) 25%                              b) 35%

c) 50%

d) 65%

95. If 14<sup>th</sup> February 2001 was a Wednesday, then what day of the week will be 14<sup>th</sup> February 2101 be (i.e. after a century) ?

a) Friday

b) Saturday

c) Sunday

d) Monday

96. Five days ago, Shweta lost her phone. Two days after losing the phone she lodged a complaint with the police. Six days after lodging the complaint she bought a new phone. Four days after buying a new phone i.e., on a Thursday she found her old phone. On which day did she lose her phone ?

a) Friday

b) Saturday

c) Thursday

d) Monday

97. If the time in a clock is 10 hours 40 minutes then what time does its mirror image show ?

a) 2 hours 20 minutes

b) 1 hour 15 minutes

c) 1 hour 10 minutes

d) 1 hour 20 minutes

98. Five persons A, B, C, D and E are sitting in a row facing you such that D is on the left of C and B is on the left of D. If E occupies a corner position then who is sitting in the centre ?

a) A

b) B

c) C

d) D

99. Rahim started from point 'X' and walked straight 5 km West, then turned left and walked straight 2 km and again turned left and walked straight 7 km. In which direction is he from point 'X' ?

a) North-East

b) South-West

c) South-East

d) North-West

100. If JUNE is coded as NXPF, how will STAY be coded in the same manner ?

a) WWCZ

b) WVCZ

c) WWDB

d) VWZC



## PART - C - MATHEMATICS

Marks :100

Each question carries 2 marks :

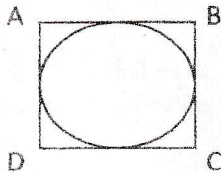
101. The simple interest on a certain sum of money at the rate of 5% p.a. for 8 years is Rs.840. At what rate of interest the same amount of interest can be received on the same sum after 5 years ?

- a) 6%                      b) 7%  
c) 8%                      d) 9%

102. The compound interest on Rs.15,625 for 9 months at 16% per annum compounded quarterly, is

- a) Rs.1951                      b) Rs.1962  
c) Rs.1971                      d) Rs.1988

103. A circle is inscribed in a square ABCD. The ratio of the diagonal of the square to the diameter of the inscribed circle, is



- a)  $\pi : 2$                       b)  $\sqrt{2} : 1$   
c)  $3 : 2$                       d)  $\sqrt{3} : \sqrt{2}$

104. The length of the altitude of an equilateral triangle of side  $2\sqrt{3}$  cm, is

- a) 2.5cm                      b)  $\sqrt{3}$  cm  
c)  $\frac{\sqrt{3}}{2}$  cm                      d) 3cm

105. A rectangular carpet has an area of 120sq.metres and a perimeter of 46 metres. The length of its diagonal is

- a) 15m                      b) 16m  
c) 17m                      d) 20m

106. The area of a sector of a circle of radius 5cm, formed by an arc of length 3.5 cm, is

- a)  $8.75\text{cm}^2$                       b)  $8.5\text{cm}^2$   
c)  $7.85\text{cm}^2$                       d)  $7.5\text{cm}^2$

107. Three solid cubes of edges 1cm, 6cm and 8cm are melted to form a new cube. The surface area of the cube so formed is

- a)  $476\text{cm}^2$                       b)  $486\text{cm}^2$   
c)  $512\text{cm}^2$                       d)  $546\text{cm}^2$

108.  $x = y$  is necessary in which of the following cases ?

- a)  $1^x = 1^y$                       b)  $(-1)^x = (-1)^y$   
c)  $2^x = 2^y$                       d) all of the above

109. The volume of a right circular cylinder of base radius  $r$  is obtained by multiplying its curved surface area by

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

110. On dividing a number by 5, we get 3 as remainder. What will be the remainder when the square of the number is divided by 5 ?

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

111. The greatest number that divides 105, 1001 and 2436 is

- a) 3                      b) 7  
c) 11                      d) 13

112. Which of the following fractions is greater than  $\frac{3}{4}$  and less than  $\frac{5}{6}$  ?

- a)  $\frac{1}{2}$                       b)  $\frac{2}{3}$   
c)  $\frac{4}{5}$                       d)  $\frac{9}{10}$

113. The value of  $\frac{(2.39)^2 - (3.46)^2}{2.39 - 3.46}$  is

- a) 5.85                      b) -1.07  
c) -5.85                      d) 1.07

114.  $20\frac{1}{2} + 30\frac{1}{3} - 15\frac{1}{6} = ?$

- a)  $34\frac{1}{6}$                       b)  $35\frac{2}{3}$   
c)  $35\frac{5}{6}$                       d) none of the above

115. What fraction of an hour is a second ?

- a)  $\frac{1}{24}$                       b)  $\frac{1}{60}$   
c)  $\frac{1}{120}$                       d)  $\frac{1}{3600}$

116.  $\left(\sqrt{2} - \frac{1}{\sqrt{2}}\right)^2$  is equal to

- a)  $\frac{1}{2}$                       b)  $2\frac{1}{2}$   
c)  $4\frac{1}{2}$                       d)  $1\frac{1}{2}$

117. The arithmetic mean of the first ten prime

numbers is

- a) 11.8                      b) 12.5  
c) 12.9                      d) 13.8

118. The total age of A and B is 12 years more than the total age of B and C ; C is how many years younger than A ?

- a) 12                      b) 24  
c) C is elder than A      d) none of the above

119. The value of k for which the following system of equations

$2x+3y-5=0$ ,  $kx-6y-8=0$  has a unique solution, is given by

- a)  $k = 4$                       b)  $k \neq -4$   
c)  $k \neq 4$                       d)  $k = 6$

120. The sum of the roots of the quadratic equation  $x^2-2(1+3k)x+7(3+2k)=0$ , is

- a)  $1+3k$                       b)  $\frac{7}{2}$   
c)  $\frac{1+3k}{2}$                       d) none of the above

121. In an examination, there are three papers and a candidate has to get 35% of the total to pass. In one paper, he gets 62 out of 150 and in the second, 35 out of 150. How much must he get, out of 180, in the third paper to just qualify for a pass ?

- a) 71                      b) 70  
c) 68                      d) 64

122. If the cost price of 12 pens is equal to the selling price of 8 pens, the gain percent is

- a) 25%                      b) 30%  
c) 50%                      d) 60%

123. A, B and C enter into a partnership with a capital in which A's contribution is Rs.10,000. If out of a total profit of Rs.1000, A gets Rs.500 and B gets Rs.300, then C's capital is

- a) Rs.4000                      b) Rs.5000  
c) Rs.6000                      d) Rs.9000

124. Twenty women can do a work in sixteen days. Sixteen men can complete the work in fifteen days. What is the ratio between the capacity of a man and a woman ?

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

125. One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, then the slower pipe alone will be able to fill the tank in

- a) 85 min                      b) 120 min  
c) 144 min                      d) 166 min

126. A car moves at the speed of 80km/hr. What is the speed of the car in metre per second ?

- a)  $22\frac{2}{9}$  m/sec                      b)  $20\frac{1}{9}$  m/sec  
c)  $15\frac{1}{3}$  m/sec                      d) 10m/sec

127. How much time a train 110 metres long running at the speed of 72km/hr takes to cross a bridge 132 metres in length ?

- a) 10.2 sec                      b) 12.1 sec  
c) 12.45 sec                      d) none of the above

128. A man rows 32km downstream and then 14km upstream. If he takes 6 hours to cover each distance, then the velocity (in km/hr) of the current is

- a)  $2\frac{1}{2}$                       b) 2  
c) 1                      d)  $1\frac{1}{2}$

129. Each interior angle of a regular hexagon is of

- a)  $120^\circ$                       b)  $110^\circ$   
c)  $118^\circ$                       d)  $108^\circ$

130. The angle between the minute hand and



the hour hand of a clock when the time is 8:30, is

- a)  $80^\circ$                       b)  $75^\circ$   
c)  $95^\circ$                       d)  $105^\circ$

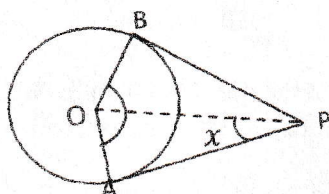
131. In a simultaneous throw of two dice, what is the probability of getting a total of 7?

- a)  $\frac{1}{4}$                           b)  $\frac{2}{3}$   
c)  $\frac{3}{4}$                           d)  $\frac{1}{6}$

132. If  $A : B = 3 : 4$  and  $B : C = 6 : 7$ , then

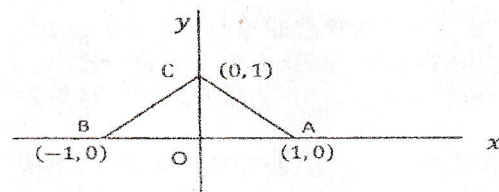
- $A : B : C$  is  
a)  $8 : 9 : 10$                       b)  $10 : 12 : 15$   
c)  $9 : 12 : 14$                       d) none of the above

133. In the figure given below, PA and PB are two tangents to the circle whose centre is O. If  $\angle AOB = 130^\circ$ ,  $\angle OPA = x$ , then  $x$  is equal to



- a)  $30^\circ$                           b)  $25^\circ$   
c)  $45^\circ$                           d)  $35^\circ$

134. The area of triangle ABC (in sq. unit) as shown in the figure given below, is



- a) 1                              b) 2  
c)  $\frac{1}{2}$                               d)  $\frac{3}{2}$

135. If  $x^2 + 4y^2 = 4xy$ , then  $x : y$  is

- a)  $2 : 3$                           b)  $2 : 1$   
c)  $1 : 2$                           d)  $3 : 2$

136. If a man reduces the selling price of a fan from Rs.400 to Rs.380, his loss increases by 2%. The cost price of the fan is

- a) Rs.480                      b) Rs.500  
c) Rs.600                      d) none of the above

137. If  $\sqrt{2} = 1.4142$ , then the value of  $\frac{\sqrt{2}}{2+\sqrt{2}}$  is

- a) 14.142                      b) 2.4142  
c) 0.4142                      d) none of the above

138. If  $a + b = 7$  and  $a^2 + b^2 = 29$ , then the value of  $ab$  is

- a) 21                              b) 19  
c) 20                              d) 10

139. The value of  $\left(\frac{5}{7} \text{ of } 1\frac{6}{13}\right) + \left(2\frac{5}{7} + 3\frac{1}{4}\right)$  is equal to

- a)  $\frac{20}{169}$                           b) 1  
c)  $\frac{5}{4}$                               d) none of the above

140. If ABC is any right angled triangle, then  $\cos^2 A + \cos^2 B + \cos^2 C$  is equal to

- a) 1                              b) 2  
c)  $\frac{3}{2}$                               d) can't be determined

141. A ladder leaning against a wall makes an angle of  $60^\circ$  with the ground. If the length of the ladder is 18 metres, then the distance of the foot of the ladder from the wall is

- a) 9m                              b) 9.5m  
c)  $3\sqrt{3}$  m                      d) none of the above

142. The wrong number in the sequence 1, 5, 14, 30, 50, 55, 91 is

- a) 14                              b) 30  
c) 50                              d) 91

143. Insert the missing number in the sequence: 2, 3, 5, 7, 11, (...)

- a) 12                              b) 13  
c) 15                              d) 21

144. The graph of the linear equation  $x - 2y = 3$  intersects the axis of x at the point

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

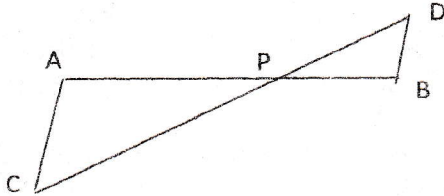
145. What number should be added to  $2x^3 - 3x^2 + x$  so that when the resulting polynomial is divided by  $(x-2)$ , the remainder is 3?

- a) -3                              b) 3  
c) -5                              d) 6

146. How many terms are there in the sequence:  
21, 18, 15, ..., -81 ?

- a) 25                      b) 30  
c) 35                      d) none of the above

147. In the figure, given below, straight lines AB and CD intersect at P ;  $AC \parallel BD$ ,  $BD = 2.4\text{cm}$ ,  $AC = 3.6\text{cm}$  and  $PD = 3.2\text{cm}$ .  
Then PC is equal to



- a) 5cm                      b) 6cm  
c) 7.5cm                      d) 8cm

148. If the equation  $3x^2 - 12x + (a-5) = 0$  has equal roots, then the value of  $a$  is

- a) 10                      b) 15  
c) 17                      d) 20

149. Which of the following cannot be the L.C.M. of the numbers 7 and  $n$  ?

- a) 98                      b) 112  
c) 217                      d) 302

150. Rs.6,500 was divided equally among a certain number of persons. Had there been 15 persons more, each would have got Rs.30 less. The original number of persons was

- a) 50                      b) 55  
c) 60                      d) 65

\*\*\*\*\*