BPSC ITI VP

Previous Year Paper 2 Aug, 2024

07/VPR/M–2024

Booklet Series: **A**

Serial No.: 1101112

Candidate's Roll Number

A

Question Booklet

GENERAL ENGINEERING SCIENCE AND APTITUDE

Time Allowed : 3:00 Hours | **Maximum Marks : 150**

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

IMPORTANT INSTRUCTIONS

1. This Question Booklet is divided into two Parts, **Part – I** and **Part – II**. **Part – I** contains questions of **General Engineering Science** and **Part – II** contains questions of **General Aptitude.**
2. **Part – I** consists of Question Nos. 1 to **100** of **General Engineering Science** (The questions and their responses are printed in English only). **Part – II** consists of Question Nos. **101** to **150** of **General Aptitude** (The questions and their responses are printed in both English and Hindi versions).
3. **All** questions carry equal marks.
4. An Answer Sheet has been supplied inside the question booklet to mark the answers. **You must write your Roll Number and encode it and write other particulars in the space provided in the Answer Sheet, failing which your Answer Sheet will not be evaluated.**
5. **Immediately after commencement of the examination, you should check up your Question Booklet and attached answer sheet and ensure that the Question Booklet Series is printed on the top right-hand corner of the Booklet and the series encoded in answer sheet are same. Also please check that the Booklet contains 32 printed pages including two pages (Page Nos. 30 and 31) for Rough Work and no page or question is missing or unprinted or torn or repeated or question booklet and answer sheet have different series. If you find any defect in this Booklet and attached answer sheet, get it replaced immediately by a complete Booklet with OMR sheet of the same series.**
6. You must write your Roll Number in the space provided on the top of this page. Do not write anything else on the Question Booklet.
7. Questions and responses of General Engineering Science are printed in English only and questions and responses of General Aptitude are printed in both English and Hindi versions in this Booklet. Each question comprises of **four** responses — (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark it in your Answer Sheet.
8. In the Answer Sheet, there are **four** circles — Ⓐ, Ⓑ, Ⓒ and Ⓓ against each question. To answer the questions, you are to mark with Black/Blue ink ballpoint pen ONLY ONE circle of your choice for each question. Select only one response for each question and mark it in your Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. **Use Black/Blue ink ballpoint pen only to mark the answer in the Answer Sheet. Any erasure or change is not allowed.**
9. If there is any sort of mistake either of printing or of factual nature, then out of English and Hindi versions of the questions, the English version will be treated as standard.
10. For each question for which a wrong answer has been given by the candidates, one-fourth of the marks assigned to that question will be deducted as penalty.
11. You should not remove or tear off any sheet from the Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the examination. **After the examination has concluded, you must hand over your Answer Sheet to the Invigilator**. Thereafter, you are permitted to take away the Question Booklet with you.
12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.
13. Candidates must assure before leaving the Examination Hall that their Answer Sheets will be kept in Self Adhesive LDPE Bag and completely packed/sealed in their presence.

ध्यान दें : अनुदेशों का हिन्दी रूपान्तर इस पुस्तिका के अन्तिम पृष्ठ पर छपा है ।

1

SEAL

SEAL

PART – I
(GENERAL ENGINEERING SCIENCE)

1. In the case of insulators, as the temperature decreases, resistivity
   (A) remains constant
   (B) increases
   (C) becomes zero
   (D) decreases

2. Which of the following is self adjusting force ?
   (A) Static friction
   (B) Sliding friction
   (C) Limiting friction
   (D) Dynamic friction

3. In the critical path of construction planning, free float can be
   (A) > independent float
   (B) > total float
   (C) < independent float
   (D) = total float

4. The most common coagulant is
   (A) Chlorine
   (B) Magnesium sulphate
   (C) Bleaching powder
   (D) Alum

5. The lime which consists almost entirely of calcium oxide, is called
   (A) hydraulic lime
   (B) poor lime
   (C) limestone
   (D) rich lime

6. In a CPM network earliest start time for an event A is 10 weeks. Activity A – B takes 4 weeks for completion. Event B starts after 16 weeks. Total float for activity A – B is
   (A) 10 weeks
   (B) 6 weeks
   (C) 2 weeks
   (D) 12 weeks

7. The same retarding force is applied to stop a train. The train stops after 80 m. If the speed is doubled, then the distance will be
   (A) halved
   (B) the same
   (C) four times
   (D) doubled

8. In a thermal boundary layer, the fluid temperature is affected by
   (A) Fluid pressure
   (B) Fluid velocity
   (C) Heating or cooling from the surface wall
   (D) Viscosity

9. Timber can be made reasonably fire resistant by

(A) seasoning process

(B) soaking it in ammonium sulphate

(C) drying process

(D) coating with tar paint

10. The depth of the bucket for a Pelton wheel is generally as

(where d = diameter of jet)

(A) 1.8 d

(B) d

(C) 2 d

(D) 1.2 d

11. An ideal voltmeter should have

(A) high resistance

(B) zero resistance

(C) infinite resistance

(D) low resistance

12. What advantage is obtained, if the load is applied through shear centre in beam cross-section ?

(A) There is no bending moment in the beam

(B) There is no twisting moment in the beam

(C) There is no direct stress in the beam

(D) There is no shear in the beam

13. If the process of transfer of heat is slow, then it can be

(A) Convection or radiation

(B) Conduction or radiation

(C) Radiation only

(D) Conduction or convection

14. BOD of safe drinking water must be

(A) 10

(B) 30

(C) Zero

(D) 20

15. For power to be constant, the force has to vary with speed as

(A) $F \propto V$

(B) $F \propto \frac{1}{V}$

(C) $F \propto V^2$

(D) $F \propto \frac{1}{\sqrt{V}}$

16. The percentage of silica in a good brick earth should vary from

(A) 30 to 40%

(B) 50 to 60%

(C) 20 to 30%

(D) 40 to 50%

17. The power rating of a lamp is given as 10 V and 2 A. The power of the lamp is

(A) 2 W

(B) 20 W

(C) 30 W

(D) 10 W

18. The time with which direct cost does ***not*** reduce with the increase in the time is known as

(A) normal time

(B) crash time

(C) standard time

(D) optimistic time

19. Cumulative errors that occur in chaining are proportional to (where L = length of the line)

(A) $1/L$

(B) L

(C) $1/\sqrt{L}$

(D) $\sqrt{L}$

20. In a single phase transformer, the primary induced and secondary induced voltage vectors are

(A) 90° apart

(B) 270° apart

(C) In phase

(D) 180° apart

21. To check the perfect threading in hole, following gauge is used

(A) centre gauge

(B) screw pitch gauge

(C) screw plug gauge

(D) radius gauge

22. In 1 in 25 model of a spillway, the velocity is 3 m/s. The corresponding velocity in the prototype is

(A) 16.43 m/s

(B) 15 m/s

(C) 9 m/s

(D) 15.5 m/s

23. If the true difference in level of two points A and B within a range of telescope is required, the level must be set up

(A) at the exact middle point of A and B

(B) at any point between A and B

(C) at point B

(D) at point A

24. For an object other than a black body, its emissivity (e) is

(A) $e > 1$

(B) $e = 1$

(C) $e = 0$

(D) $0 < e < 1$

25. For laminar pipe flow, kinetic energy correction factor is

(A) 1

(B) 2

(C) 1.33

(D) 3.7

26. In construction project planning, free float can effect which of the following ?

(A) overall completion

(B) preceding activity

(C) only that particular activity

(D) succeeding activity

27. Which of the following starter can ***not*** be used in DC motor ?

(A) Star delta starter

(B) Three point starter

(C) Direct switching starter

(D) Two point starter

28. The flow ratio in case of Francis turbine varies from

(A) 0.6 to 0.9

(B) 0.15 to 0.30

(C) 1 to 1.5

(D) 0.4 to 0.5

29. The degradation of BOD is classified as what type of reaction ?

(A) Zero order reaction

(B) Third order reaction

(C) First order reaction

(D) Second order reaction

30. The total strain energy stored in a body is termed as

(A) resilience

(B) impact energy

(C) modulus of resilience

(D) proof resilience

31. The electric circuit used to get smooth D.C. output from a rectifier circuit is called

(A) Amplifier

(B) Oscillator

(C) Diode

(D) Filter

32. Slow sand filter is efficient to remove the bacterias from the raw water to an extent of

(A) 89%

(B) 60%

(C) 99%

(D) 78%

33. If the length of a chain line along a slope of $\theta°$ is L, the required slope correction is

(A) $L \tan^2 \theta/2$

(B) $2L \sin^2 \theta/2$

(C) $L \cos^2 \theta/2$

(D) $2L \cos^2 \theta/2$

34. If the input AC voltage is 10 V_{rms}, find the maximum voltage across the diode of a half-wave rectifier with capacitor input filter.

(A) 10 V

(B) 10.41 V

(C) 14.1 V

(D) 20 V

35. According to which theory of failure does the ductile material begin to yield, when the maximum principal strain reaches the yield strain under uniaxial loading ?

(A) St. Venant's theory
(B) Rankines' theory
(C) Guest's theory
(D) Haigh's theory

36. Which of the following should be avoided in brick masonry ?

(A) vertical joints
(B) horizontal joints
(C) brick bat
(D) queen closer

37. In order to avoid cavitation in centrifugal pumps

(A) The suction pressure should be high
(B) The delivery pressure should be high
(C) The suction pressure should be low
(D) The delivery pressure should be low

38. When an object is in equilibrium state, then

(A) its net acceleration must be zero
(B) it must be at rest
(C) its net acceleration must be constant
(D) no force is acting on it

39. The heat taken from a sink is based on

(A) Zeroth law of thermodynamics
(B) First law of thermodynamics
(C) Stefan-Boltzmann's law
(D) Second law of thermodynamics

40. The imaginary line drawn such that the tangent at each point on the line indicates the direction of the velocity of the fluid particle at that point, is called

(A) Streak line
(B) Path line
(C) Stream line
(D) Potential line

41. A string is used to pull a block of mass m vertically up by a distance h at a constant acceleration g/3. The work done by the tension in the string is

(A) mgh
(B) $\frac{2}{3}$mgh
(C) $\frac{4}{3}$mgh
(D) $-\frac{mgh}{3}$

42. Unsymmetrical bending occurs due to

(A) the beam is subjected to thrust in addition to bending moment
(B) the beam cross-section is unsymmetrical
(C) the bending moment diagram is unsymmetrical
(D) the shear centre does not coincide with the neutral axis

43. A coil with 500 turns carries a current of 2 A. What is the MMF of the coil ?

(A) 1000 AT

(B) 20 AT

(C) 55 AT

(D) 200 AT

44. Which operation can ***not*** be done easily on mild steel ?

(A) punching

(B) hardening

(C) cutting

(D) drilling

45. Which of the following does ***not*** help in disinfecting water ?

(A) Alums

(B) Filtration

(C) Boiling

(D) Chlorine tablets

46. Theodolite is an instrument used for measuring very accurately

(A) horizontal and vertical angles

(B) horizontal angles only

(C) linear measurements

(D) vertical angles only

47. Which of the following is also known as the dual of Thevenin's theorem ?

(A) Maximum power transfer theorem

(B) Norton's theorem

(C) Millman's theorem

(D) Superposition theorem

48. Flow in pipe is laminar, if Reynold's number is

(A) < 2000

(B) 2500 – 3000

(C) > 3000

(D) = 3500

49. Which of the following pumps is suitable for small discharge and high heads ?

(A) Axial flow pump

(B) Centrifugal pump

(C) Reciprocating pump

(D) Mixed flow pump

50. Strain rosetters are used to measure

(A) volumetric strain

(B) shear strain

(C) areal strain

(D) linear strain

51. The change in internal energy of a 2 moles of a gas is –10 J. Find the work done on the gas if the process is adiabatic.

(A) 10 J

(B) 20 J

(C) –10 J

(D) –20 J

52. Work-energy theorem is valid in the presence of

(A) conservative forces only

(B) external forces only

(C) all types of forces

(D) internal forces only

53. Which of the following devices work on the principle of electromagnetic induction ?

(A) DC motor

(B) Electric lamp

(C) Electric bell

(D) Electric generator

54. The paint which has high reflective property is

(A) bronze paint

(B) cellulose paint

(C) enamel paint

(D) casein paint

55. Which of the following agents is responsible for turning the Taj Mahal yellow ?

(A) Sulphur dioxide

(B) Sulphur

(C) Nitrogen dioxide

(D) Chlorine

56. The multiplying constant for the tacheometer is generally kept as

(A) 60

(B) 20

(C) 40

(D) 100

57. If n identical resistance, each of resistance R are connected in parallel, the equivalent resistance is

(A) nR

(B) n^2R

(C) R/n^2

(D) R/n

58. PERT is used in the preparation of

(A) evaluating

(B) budgeting

(C) finalizing

(D) scheduling

59. Principle planes have

(A) no direct stress

(B) maximum shear stress

(C) no shear stress

(D) minimum shear stress

60. In which of the following processes, heat is neither absorbed nor released by a system ?

(A) Isothermal

(B) Isochoric

(C) Adiabatic

(D) Isobaric

61. A line normal to the plumb line at all points is known as

(A) vertical line

(B) horizontal line

(C) level line

(D) line of collimation

62. When does the transistor act like an open switch ?

(A) Saturated region

(B) Cut off region

(C) Active region

(D) Inverted region

63. $\frac{dp}{\rho} + gdz + vdv = 0$ is a differential equation of motion suggested by

(A) Laplace

(B) Bernoulli

(C) Cauchy-Riemann

(D) Leonhard Euler

64. When there is sudden increase or decrease in shear force diagram between any two points, it indicates that there is a

(A) uniformly varying load between the two points

(B) no loading between the two points

(C) concentrated load at the two points

(D) uniformly distributed load between the two points

65. The acceptable outdoor noise level (dB) in urban residential area is

(A) 35 – 45

(B) 25 – 35

(C) 60 – 70

(D) 30 – 40

66. The frictional resistance in a turbulent flow is independent of

(A) Density of fluid

(B) Pressure

(C) Surface roughness

(D) Velocity of fluid

67. If a piece of a material neither expands nor contracts in volume when subjected to triaxial stresses, then the Poisson's ratio must be

(A) 0.33

(B) zero

(C) 0.25

(D) 0.5

68. A body of mass m is lifted up from the surface of the earth to a height four times radius of the earth R. The change in potential energy of the body is

(A) 4mgR/5

(B) mgR/4

(C) 4mgh

(D) mgR/5

69. In PERT chart, the activity time distribution is

(A) Poisson

(B) Normal

(C) Beta

(D) Binomial

70. A four-stroke petrol engine theoretically operates on

(A) Joule cycle

(B) Otto cycle

(C) Bell Coleman cycle

(D) Braton cycle

71. Column of given length, cross section and material have different values of buckling loads for different end conditions. The strongest column is one whose

(A) both ends are fixed

(B) one end is fixed and other end is hinged

(C) one end is fixed and other end is free

(D) both ends are hinged

72. Which of the following diseases is caused by water pollution ?

(A) Diarrhoea

(B) Conjunctivitis

(C) Bronchitis

(D) Respiratory infections

73. The collimation method for obtaining the reduced levels of points does ***not*** provide a check on

(A) change points

(B) fore sights

(C) intermediate sights

(D) back sights

74. The maximum thickness of boundary layer in a pipe of radius R is

(A) R

(B) Zero

(C) 2R

(D) 0.5 R

75. The path which moves along the activities having total float zero, in the network diagram is called

(A) total float

(B) free float

(C) independent float

(D) critical path

76. If fineness modulus of sand is 2.5, it is graded as

(A) coarse sand

(B) very fine sand

(C) fine sand

(D) medium sand

77. If T is the absolute temperature of a body, then according to Stefan-Boltzmann law the radiation energy emitted by the body is directly proportional to

(A) T^2

(B) T^4

(C) T

(D) T^3

78. Who gave the fundamental principle of straightness measurement ?

(A) Euler

(B) Bryan

(C) Amedeo

(D) Moire

79. The kinetic energy of a body is increased by 300%. The momentum of the body would increase by

(A) 150%

(B) 50%

(C) 300%

(D) 100%

80. For which of the following substances, the thermal conductivity is maximum ?

(A) Diamond

(B) Steel

(C) Silver

(D) Aluminium

81. The difference between the total float and free float is called

(A) Earliest start time

(B) Duration

(C) Latest start time

(D) Interfering float

82. Electric current in a circuit is measured by

(A) odometer

(B) voltmeter

(C) potential meter

(D) ammeter

83. The soundness of cement is tested by

(A) Le-Chatelier method

(B) Vicat's apparatus

(C) Air permeability method

(D) Universal testing machine

84. A continuous time signal is said to be periodic if $x(t) = x(t + T_0)$. Here, T_0 is called

(A) Fundamental period

(B) Dummy period

(C) Starting period

(D) Sampling period

85. An engine develops 10 KW of power. How much time it will take to lift a mass of 200 kg to a height of 40 m ?

(A) 5s

(B) 8s

(C) 4s

(D) 10s

86. A cycle tyre bursts suddenly. What is the type of this process ?

(A) Isochoric

(B) Isothermal

(C) Isobaric

(D) Adiabatic

87. Which of the following defects in timber is ***not*** caused by seasoning of timber ?

(A) splitting

(B) war page

(C) checks

(D) ring all

88. Plants growing under shade are known as

(A) Heliophytes

(B) Psammophytes

(C) Monocots

(D) Sciophytes

89. An invar tape is used for accurate measurement of distance because its coefficient of thermal expansion is

(A) high

(B) zero

(C) medium

(D) low

90. Which of the following equipments is used to level the ground and spreads the loose material ?

(A) Grader

(B) Excavator

(C) Tractor

(D) Scraper

91. Venturimeter is based on the principle of

(A) Navier-Stoke's equation

(B) Euler's equation of motion

(C) Bernoulli's equation

(D) Reynold's equation of motion

92. Which of the following can be carbon composition of cast iron ?

(A) 0.5%

(B) 1%

(C) 2.5%

(D) 1.5%

93. Input resistance of a common emitter transistor is of the order of

(A) 1 Ω

(B) 1 MΩ

(C) 0.10 Ω ,

(D) 1 KΩ

94. A particle moves under the effect of a force F = Cx from x = 0 to $x = x_1$. The work done in the process is

(A) Cx_1

(B) Cx_1^2

(C) Zero

(D) $\frac{1}{2}Cx_1^2$

95. The superposition theorem is applicable to

(A) Power and current

(B) Current only

(C) Voltage and current

(D) Voltage and power

96. The cores of electromagnets used in energy meter are made up of

(A) Carbon

(B) Silver

(C) Phosphor bronze

(D) Silicon-steel

97. Which of the following does ***not*** describe the diesel cycle ?

(A) Constant volume heat addition

(B) Limited maximum temperature

(C) No spark plug needed

(D) High compression ratio

98. A shaft of diameter D is subjected to a twisting moment T and a bending moment M. If the maximum bending stress is equal to maximum shear stress developed, then M is equal to

(A) 2T

(B) T

(C) 1.5T

(D) 0.5T

99. Turbidity of water is expressed in terms of

(A) pO value

(B) Silica scale

(C) pH value

(D) Platinum cobalt scale

100. Which of the following is considered as one item during estimating of work ?

(A) Super-structure and plinth masonry

(B) Plastering and pointing

(C) Flooring and skirting

(D) Foundation and plinth masonry

PART – II
(GENERAL APTITUDE)

101. Which of the following is different from others ?

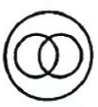
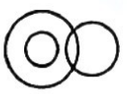
(A) 41
(B) 63
(C) 53
(D) 71

102. In a row of boys, if A who is 20^{th} from the left and B who is 19^{th} from the right, interchange their position, A becomes 25^{th} from the left. How many total boys are there in the row ?

(A) 42
(B) 43
(C) 44
(D) 41

103. Identify the diagram that best represents the relationship among the given classes.

Reptiles, Lizard, Cow

1. 
2. 
3. 
4. 

(A) 2
(B) 1
(C) 4
(D) 3

104. Smita ranked sixteenth from the top and twenty-ninth from the bottom among those students who have passed an examination. Six students did not appear in the examination and 5 failed in it. How many students were there in the class ?

(A) 55
(B) 40
(C) 50
(D) 44

105. If MAP = 51 and CRY = 35, then TIME = ?

(A) 61
(B) 51
(C) 58
(D) 55

106. Choose the correct alternative from the following.

Bread : Yeast :: Curd : ?

(A) Germs
(B) Bacteria
(C) Virus
(D) Fungi

107. Find the wrong term from the following.

PON, RQP, TSR, VVT, XWV, ZYX

(A) VVT
(B) TSR
(C) XWV
(D) RQP

108. Which fraction comes next in the sequence ?

$\frac{3}{4}, \frac{4}{7}, \frac{7}{12}, \frac{12}{19}, ?$

(A) $\frac{13}{28}$

(B) $\frac{17}{28}$

(C) $\frac{19}{28}$

(D) $\frac{15}{28}$

109. Choose the odd pair of words.

(A) Lawyer – Client

(B) Shopkeeper – Customer

(C) Clerk – File

(D) Doctor – Patient

110. Find the missing number in the following figure.

5	3	9
4	7	1
2	6	8
37	22	?

(A) 18

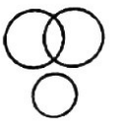
(B) 19

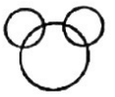
(C) 24

(D) 20

111. Identify the diagram that best represents the relationship among the given classes.

Liquid, Cake, Tea

1. 

2. 

3. 

4. 

(A) 3

(B) 1

(C) 4

(D) 2

112. Find the missing number in the following.

2, 8, 3, 27, ?, 64, 5, 125, 6, 216

(A) 4

(B) 8

(C) 6

(D) 14

113. Choose the odd pair of words.

(A) House : Room

(B) Atom : Electron

(C) Curd : Milk

(D) Train : Engine

114. If you write down all the numbers from 1 to 100, then how many times do you write 1 ?

(A) 20

(B) 21

(C) 19

(D) 11

115. Choose the word which is least like the other words in the group.

(A) Curd

(B) Oil

(C) Cheese

(D) Butter

116. Find the wrong term from the following.

E2R, H5P, K10N, N27L, Q58L

(A) N27L

(B) K10N

(C) Q58L

(D) H5P

117. If $x : y = 3 : 4$, then the value of $\frac{4x+3y}{7x+4y}$ is

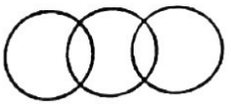
(A) $\frac{31}{37}$

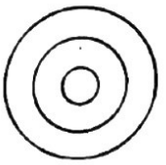
(B) $\frac{24}{37}$

(C) $\frac{27}{39}$

(D) None of these

118. Which of the following diagrams properly represents the relationship among 'Body', 'Nose', 'Foot' ?

(A) 

(B) 

(C) 

(D) 

119. Kilogram is related to the Quintal in the same way as Paisa is related to

(A) Wealth

(B) Rupees

(C) Money

(D) Coin

120. Persons A, B and C are standing in a queue. There are five persons between A and B and eight persons between B and C. If there are three persons ahead of C and 21 persons behind A, what could be the minimum number of persons in the queue ?

(A) 40

(B) 41

(C) 27

(D) 28

121. In a group of cows and hens, the number of legs are 34 more than twice the number of heads. The number of cows are

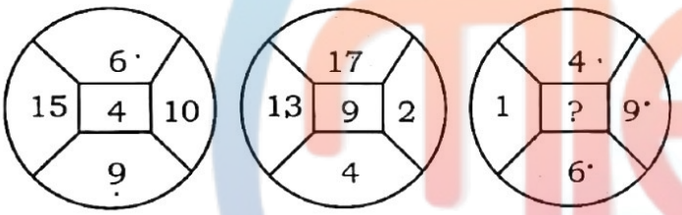
(A) 9

(B) 17

(C) 15

(D) 7

122. Find the missing number in the following figure.



(A) 3

(B) 4

(C) 1

(D) 2

123. Choose the word which is least like the other words in the group.

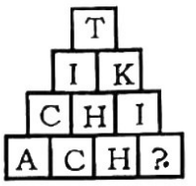
(A) Marigold

(B) Rose

(C) Lotus

(D) Tulip

124. Which of the following letters will replace the question mark ?



(A) I

(B) K

(C) H

(D) J

125. Which of the following is different from others ?

(A) EQ11

(B) BZ14

(C) GY16

(D) GM9

126. Find the missing number in the following table.

1	9	4	5	8	3
1	?	13	21	57	7

(A) 72

(B) 73

(C) 71

(D) 75

127. If in a coded language 'RIPPLE' and 'LIFE' are written as '613382' and '8192' respectively, then how will 'PILLER' be written in the same language ?

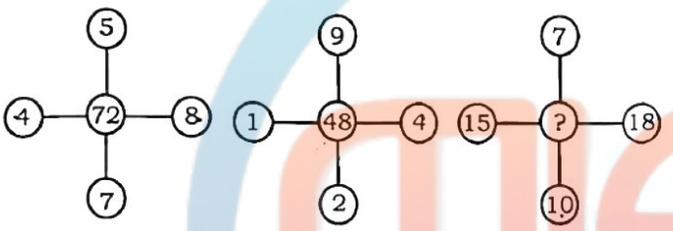
(A) 318862

(B) 318826

(C) 318286

(D) 318268

128. Find the missing number in the following.



(A) 155

(B) 200

(C) 149

(D) 150

129. Given that :

1. A is brother of B
2. C is father of A
3. D is brother of E
4. E is daughter of B

The uncle of D is

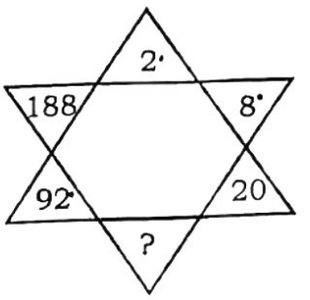
(A) A

(B) E

(C) B

(D) C

130. Which number would come in the place of question mark ?



(A) 46

(B) 72

(C) 60

(D) 44

131. Choose the pair in which the words are differently related.

(A) Circle : Arc

(B) Flower : Petal

(C) Table : Leg

(D) Cover : Page.

132. Find the missing number in the following.

5, 17, 37, 65, ___, 145

(A) 99

(B) 95

(C) 101

(D) 97

133. Which one of the following does ***not*** belong to the group ?

(A) Eye

(B) Ear

(C) Tooth

(D) Nose

134. Find the missing number in the following figure.

2	0	3
7	5	6
3	18	8
31	18	?

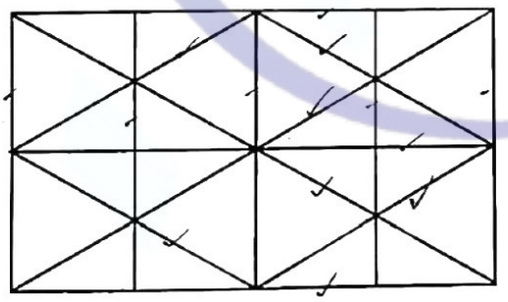
(A) 8

(B) 26

(C) 62

(D) 72

135. How many straight lines are there in the following figure ?



(A) 11

(B) 16

(C) 14

(D) 17

136. Find the missing number in the following series.

480, ? , 80, 20, 4

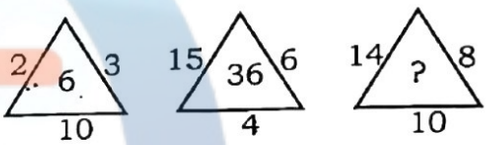
(A) 60

(B) 120

(C) 240

(D) 320

137. Find the missing number in the following.



(A) 112

(B) 12

(C) 14

(D) 114

138. A is to the South of B and C is to th East of B, in what direction is A wit respect to C ?

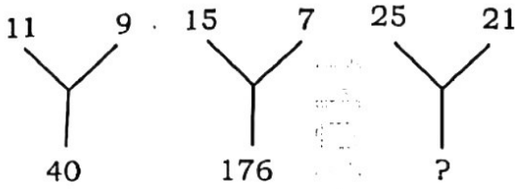
(A) North-West

(B) South-West

(C) North-East

(D) South-East

139. Find the missing number in the following.



(A) 241

(B) 184

(C) 425

(D) 210

140. 'A' ranks 39th in a class of 81 students, what is his rank from the last ?

(A) 43

(B) 30

(C) 41

(D) 42

141. Find the missing number in the following series.

4, 7, 25, 31, 64, 73, ?, 133

(A) 110

(B) 100

(C) 130

(D) 121

142. Find the missing number (?) in the following series.

40, 120, 60, 180, ?, 270

(A) 85

(B) 65

(C) 90

(D) 75

143. Arrange the following in a meaningful order from particular to general.

1. Country
2. Locality
3. Member
4. Community
5. Family

(A) 3, 5, 1, 2, 4

(B) 1, 3, 5, 4, 2

(C) 5, 4, 3, 2, 1

(D) 3, 5, 4, 2, 1

144. Which of the following numbers will replace the question mark ?

3, 7, ?, 55, 163, 487

(A) 21

(B) 28

(C) 26

(D) 19

145. A man travels 28 km straight towards North, then turned right and travelled 12 km straight, then turned right and travels 12 km. How far is he from the starting point ?

(A) 24 km

(B) 20 km

(C) 18 km

(D) 22 km

146. A factory always has

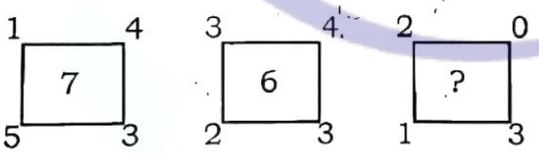
(A) Chimney

(B) Sellers

(C) Workers

(D) Electricity

147. Find the missing number in the following.



(A) 3

(B) 0

(C) 1

(D) –2

148. Choose odd pair of words.

(A) Milk : Curd

(B) Water : Hydrogen

(C) Death : Accident

(D) Sugarcane : Sugar

149. Choose the odd one out.

(A) BQ20

(B) NF8

(C) KC8

(D) EL17

150. If in a certain code NOVEMBER is written as ERMBVENO, then which of the following month would be written for RYUABRFE ?

(A) FEBRUARY

(B) AUGUST

(C) SEPTEMBER

(D) OCTOBER