INSTRUCTIONS
(Please read carefully and comply)

RRB Ranchi
(SSE)

1. Kindly read the complete set of instructions carefully and also see the instructions on the back side of the OMR Answer Sheet and fill the details in the OMR Answer Sheet and Question Booklet.

2. One paragraph each Hindi and English is given on Page 1. Copying of the paragraph in the space provided in the OMR Answer sheet (in the language as filled in the application form either in Hindi or English) in your running hand is compulsory. DO NOT USE BLOCK LETTERS.

3. (a) Question Booklet Serial No. must clearly be written and marked in the bubbles in the space provided in the OMR Answer Sheet.

   (b) OMR Sheet No. should be written in the space provided in the Question Booklet.

4. After being instructed to open the Booklet, the candidates will open the seals. It is the responsibility of the candidate to check and ensure that the booklet contains 150 questions and start the paper from page no. 10.

5. The question paper comprises 150 questions and are available in congruent versions of English, Hindi, Urdu, Bengali, Odia, and Punjabi languages. In case of any doubt or confusion, English version shall prevail.

6. All Questions are of Objective type. There is only one correct answer to each question carrying one mark. There will be negative marking for wrong answers. For every wrong answer, ⅓ mark will be deducted.

7. In the event of any mistake in any question/s, candidates will not be penalized. However no corrections will be made in question/s during the examination.

8. You must use Blue or Black ball-point pen only for answering. Altering of answers once entered is not permissible. Enter the answers in the Answer Sheet carefully.

9. Rough work, if any may be done in the Question Booklet only in the space provided. No additional paper shall be provided.

10. Use of Log tables, Calculator, Slide rule, Mobile phone, Pager, Digital diary or any other electronic item/instrument etc. is not allowed. Their use will result in disqualification.

11. No candidate should leave the examination hall before the final bell. The Answer Sheet and the top sheet of the Question Booklet must be handed over to the invigilator before leaving the Examination Hall.

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ENGLISH

1. The Reserve Bank of India was nationalised in the year

   (A) 1947   (B) 1949   (C) 1952   (D) 1980

2. When an acid reacts with a metal, a corresponding salt is formed and

   (A) oxygen gas is evolved   (B) carbon dioxide gas is evolved

   (C) hydrogen gas is evolved   (D) nitrogen gas is evolved

3. Two bus tickets from city A to B and three tickets from city A to C cost Rs 77; but three tickets from city A to B and two tickets from city A to C cost Rs 73. What is the fare for city C from A?

   (A) Rs 13   (B) Rs 23   (C) Rs 15   (D) Rs 17

4. A black body is a

   (A) good absorber, good emitter   (B) bad absorber, bad emitter

   (C) good absorber, bad emitter   (D) bad absorber, good emitter

5. Which of the following relay does not have any moving part?

   (A) forced-guided contacts relay   (B) reed relay

   (C) solid-state relay   (D) stepping relay

6. $\dfrac{10 \times 0.2 \times 0.2 \times 0.1 \times 0.1 \times 10^{10}}{0.001 \times 0.01 \times 10} = ?$

   (A) 40   (B) 400   (C) 4000   (D) 40000

7. The Asian Games held in 2014 in South Korea was the

   (A) 14th Asian Games   (B) 15th Asian Games

   (C) 16th Asian Games   (D) 17th Asian Games

8. If temperature is increased, resistivity of copper

   (A) increases   (B) decreases

   (C) remains same   (D) first increases and then decreases

9. Rohan is seventeenth from the left end of a row of 29 boys and Karim is seventeenth from the right end in the same row. How many boys are there between them in the row?

   (A) 6   (B) 5   (C) 3   (D) 2

10. Orthographic projection is a form of

   (A) angular projection   (B) parallel projection

   (C) skewed projection   (D) magnified projection

11. The survey where the curvature of the earth is taken into account, is called

   (A) Plane surveying   (B) Curvature surveying

   (C) Geodetic surveying   (D) Scale surveying

12. John's age exceeds that of Rakesh by 6 years. 10 years ago, the ratio of their ages was 5:4. Find the present age of John.

   (A) 40 years   (B) 38 years   (C) 50 years   (D) 48 years

13. The 5th term of an AP is 15 and the 9th term is 23. Find the 14th term.

   (A) 27   (B) 37   (C) 35   (D) 33

14. A p-n junction diode allows electrons to flow

   (A) from the N-type side to the P-type side.

   (B) from the P-type side to the N-type side.

   (C) from any side to any side.

   (D) first from the P-type side to the N-type side, and then from N-type side to the P-type side.

15. A set of electronic circuits on one small plate or chip of semiconductor material is called

   (A) thin film circuit   (B) operational circuit

   (C) integrated circuit   (D) small plate circuit

16. Which of the following statement is *not* true:

   Compare to a four-stroke engine

   (A) the efficiency of a two-stroke engine is higher.

   (B) two-stroke engines consume larger amount of lubricating oil.

   (C) for a two-stroke engine, the turning moment on the crank shaft is more uniform.

   (D) two-stroke engine needs a smaller flywheel.

17. In rolling process, cracks are usually caused by

   (A) inhomogeneous deformation   (B) bending of the rolls

   (C) low ductility of the material   (D) high thermal conductivity of the material

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18. A moving iron ammeter responds to

(A) both direct and alternating currents

(B) neither direct nor alternating current

(C) only direct current

(D) only alternating current

19. Out of the following statements, find out the statement which is *False*:

(A) A transistor is a semiconductor device.

(B) Transistors are commonly used as electronic switches.

(C) Transistors are used to amplify electronic signals.

(D) Transistors can not be used as logic gates.

20. Under usual operating conditions, a synchronous AC electric motor has

(A) zero slip

(B) positive slip

(C) negative slip

(D) positive or negative slip

21. Three words are given below, which have something in common among themselves. Choose the most appropriate description about these three words.

Rickets : Scurvy : Beri-Beri

(A) They are insects.

(B) They are infectious diseases.

(C) They are diseases caused by deficiency of vitamins.

(D) They are diseases caused by certain insect bites.

22. Fill in the blank:

To create slide shows, _____ is used.

(A) Microsoft Access

(B) Microsoft Outlook

(C) Microsoft Power Point

(D) Microsoft Word

23. Damodar River originates from

(A) Chota Nagpur Plateau

(B) Malwa Plateau

(C) Deccan Plateau

(D) Shillong Plateau

24. The plane which is not subjected to shear stress is known as

(A) simple plane

(B) non-shear plane

(C) compound plane

(D) principal plane

25. Fill in the blank:

The blood has _____ cells, which circulate around the body and plug the leaks by helping to clot the blood at the points of injury.

(A) red blood   (B) white blood   (C) clot   (D) platelet

26. Choose the correct option:

In amplifier

(A) the input circuit is forward-biased and output circuit is reverse-biased.
(B) the output circuit is forward-biased and input circuit is reverse-biased.
(C) both input and output circuits are forward-biased.
(D) both input and output circuits are reverse-biased.

27. If the shielding gases used are not effective during welding, this may lead to

(A) porosity   (B) undercutting   (C) cracks   (D) slag inclusion

28. Out of the following, find out the computer programming language which is *not* a high-level programming language.

Fortran, Java, Machine code, Visual Basic

(A) Machine code   (B) Java   (C) Visual Basic   (D) Fortran

29. The magnetic field produced by a current-carrying wire at a given point depends directly on the

(A) thickness of the wire   (B) material of the wire
(C) current passing through it   (D) length of the wire

30. Originally, the constitution of India had

(A) 350 articles   (B) 335 articles   (C) 395 articles   (D) 415 articles

31. If a full wave rectifier circuit is operating from 50 Hz mains, the fundamental frequency in the ripple will be

(A) 25 Hz   (B) 50 Hz   (C) 70.7 Hz   (D) 100 Hz

32. Fill in the blank:

The principal cause of acid rain is _____ from human sources.

(A) carbon compounds   (B) compounds of calcium and sodium
(C) sulphur and nitrogen compounds   (D) carbon dioxide

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33. Area wise, the biggest state of India is

(A) Rajasthan   (B) Uttar Pradesh   (C) Maharashtra   (D) Madhya Pradesh

34. The number of boys in a class is exactly three times the number of girls. Which one of the following numbers can not represent the total number of children in the class?

(A) 52   (B) 40   (C) 44   (D) 42

35. As per Boolean Algebra,

x AND y = ?; if x = 0, y = 1

(A) 1   (B) 0   (C) 2   (D) 10

36. Which one is the best conductor of heat (out of the following)?

Lead, Iron, Copper, Wood

(A) wood   (B) lead   (C) copper   (D) iron

37. Which of the following instruments is used to measure angles?

(A) Geodimeter   (B) Sextant   (C) Tellurometer   (D) Telescope

38. $\dfrac{(9.69 + 3.26)^2 + (9.69 - 3.26)^2}{9.69^2 + 3.26^2} = ?$

(A) 2   (B) 2.16   (C) 2.60   (D) 3

39. Generally concrete has

(A) low compressive strength, but higher tensile strength.

(B) high compressive strength, but lower tensile strength.

(C) equal compressive and tensile strength.

(D) tensile strength much higher compared to compressive strength.

40. "The magnitude of the induced emf in a circuit is equal to the time rate of change of magnetic flux through the circuit".

The above law is

(A) Tesla's law of electromagnetic induction.

(B) Faraday's law of electromagnetic induction.

(C) Ohm's law of electromagnetic induction.

(D) Volta's law of electromagnetic induction.

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41. Pointing to a gentleman, Arun said to his friend, "His only brother is the father of my son's father". How is the gentleman related to Arun?

   (A) Father   (B) Grandfather   (C) Uncle   (D) Brother-in-law

42. A man running with a speed of 18 km/hour crosses a train of length 280 metres, running in the opposite direction in 20 seconds. What is the speed of the train?

   (A) 9 m/s   (B) 10 m/s   (C) 12 m/s   (D) 15 m/s

43. The main thinking part of the brain is the

   (A) fore-brain   (B) mid-brain

   (C) hind-brain   (D) complete brain with all the three major parts

44. Working stress is always

   (A) less than ultimate stress   (B) equal to ultimate stress

   (C) more than ultimate stress   (D) double the ultimate stress

45. Find out the statement which is *False*:

   (A) E-mail is a method of exchanging digital messages.

   (B) E-mail uses technology to communicate a digital message over the internet.

   (C) E-mail is widely used on smart phones.

   (D) For using E-mail, the users and their computers are required to be online simultaneously.

46. In human beings, oxygen is carried by

   (A) the white blood cells   (B) the red blood cells

   (C) both red and white blood cells   (D) water present in blood

47. The diagonals of a Rhombus are 10 cm and 12 cm. Find the area of the Rhombus.

   (A) 120 cm²   (B) 100 cm²   (C) 60 cm²   (D) 40 cm²

48. A vessel has 60 litres of solution (mixture) of milk and water, having 80% milk. How much water should be added to it to make it a solution in which milk forms 60%?

   (A) 18 litres   (B) 20 litres   (C) 22 litres   (D) 24 litres

49. Find the smallest number which when divided by 4, 11 or 13; leaves a remainder of 1 and is greater than the remainder

   (A) 521   (B) 552   (C) 573   (D) 585

50. Out of the following, which one is inorganic water pollutant?

(A) tree and bush debris

(B) detergents

(C) fertilizers

(D) petroleum hydrocarbons

51. In the next 3–4 years, the Union Budget 2014–15 of India, aims for sustained growth of

(A) 3–4 percent

(B) 5–6 percent

(C) 7–8 percent

(D) 9–10 percent

52. By selling an article for Rs 360, loss incurred is 10%. At what minimum price should the article be sold to avoid loss?

(A) Rs 380   (B) Rs 400   (C) Rs 410   (D) Rs 430

53. Find out the option which is *not* correct

In actual transformers, energy losses occur due to the following reasons

(A) flux leakage

(B) resistance of the windings

(C) eddy currents and hysteresis

(D) mechanical losses

54. Raju goes to Sitapur from Rampur at a speed of 40 km/hour and returns with a speed of 60 km/hour. What is the average speed during the whole journey?

(A) 55 km/hour   (B) 50 km/hour   (C) 48 km/hour   (D) 45 km/hour

55. In Turning process, continuous chips are usually formed at

(A) low cutting speeds and low-rake angles.

(B) low cutting speeds and high rake angles.

(C) high cutting speeds and low rake angles.

(D) high cutting speeds and high rake angles.

56. If a right circular cone has a base of radius 7 cm and height of 30 cm, then find out the volume of the right circular cone (in cm^3)

(A) 1500   (B) 1540   (C) 1200   (D) 1240

57. Raju faces towards north. Turning to his right, he walks 25 metres. He then turns to his left and walks 30 metres. Next, he turns to his right and walks 25 metres. He then turns to his right again and walks 55 metres. Finally, he turns to his right and moves 40 metres. In which direction is he now from his starting point?

(A) south-west   (B) south-east   (C) south   (D) north-east

58. A computer program which attaches itself and becomes part of another executable program and thus halts the system by leading to some undesired result, is known as

    (A) 'Computer halter'
    (B) 'Computer virus'
    (C) 'Computer processor'
    (D) 'Computer firmware'

59. 'Microsoft Excel' is a

    (A) spreadsheet program
    (B) presentation program
    (C) personal information manager
    (D) word processor

60. Fill in the blank:

    The _____ is a system of interlinked hypertext documents that are accessed via the internet.

    (A) hyperlink
    (B) web page
    (C) web browser
    (D) world wide web

61. Linux is a

    (A) computer hardware
    (B) proxy server
    (C) type of computer networking
    (D) computer operating system

62. The hardware within a computer that carries out the instructions of a computer program and process information and data provided through the input devices, is called

    (A) Central Logic Unit
    (B) Memory Unit
    (C) Central Processing Unit
    (D) Input Unit

63. If 120 is 20% of a number, then 120% of that number will be

    (A) 360
    (B) 400
    (C) 600
    (D) 720

64. The bulk density of loamy surface soil is about

    (A) 0.4 to 0.6 grams/cm^3
    (B) 0.6 to 0.9 grams/cm^3
    (C) 1.1 to 1.6 grams/cm^3
    (D) 2.0 to 2.5 grams/cm^3

65. Which of the following constitute a food-chain?

    (A) grass, wheat and apple
    (B) grass, goat and human
    (C) goat, cow and elephant
    (D) grass, fish and goat

66. Every substance has a unique value for the amount of heat absorbed or rejected to change the temperature of unit mass of it by one unit. This quantity is referred to as the

    (A) Heat capacity
    (B) Thermal capacity
    (C) Temperature capacity
    (D) Specific heat capacity

67. Static friction is always

(A) greater than dynamic friction

(B) less than dynamic friction

(C) equal to dynamic friction

(D) less than or greater than dynamic friction

68. In telecommunication, the process of conveying a message signal, inside another signal that can be physically transmitted is known as

(A) amplification   (B) modulation   (C) rectification   (D) conduction

69. The length and breadth of a rectangular plot are increased by 20% and 50%, respectively. Then the new area is how many times the original area?

(A) $\frac{5}{8}$ (B) $\frac{9}{5}$ (C) $\frac{3}{7}$ (D) $\frac{7}{5}$

70. The river Ganges (Ganga) begins at the confluence of the Bhagirathi and Alaknanda rivers at

(A) Haridwar   (B) Rishikesh   (C) Allahabad   (D) Devprayag

71. In submerged arc welding (SAW), the consumable electrode is a

(A) coil of flux coated wire

(B) coil of bare wire

(C) coil of plastic coated wire

(D) flux coated rod

72. Canberra is the capital of

(A) Argentina   (B) Angola   (C) Austria   (D) Australia

73. Who among the following is the author of novel "The Lowland"?

(A) Anita Desai

(B) Jhumpa Lahiri

(C) Arundati Roy

(D) Shashi Deshpande

74. Who among the following founded the Benaras Hindu University in Varanasi

(A) Bal Gangadhar Tilak

(B) Madan Mohan Malaviya

(C) Swami Vivekananda

(D) Motilal Nehru

75. Bernoulli's theorem deals with the principle of conservation of

(A) energy   (B) momentum   (C) mass   (D) force

76. Reaching the place of meeting 20 minutes before 8.50 hrs, Mohit found himself thirty minutes earlier than the man who came 40 minutes late. What was the scheduled time of the meeting?

(A) 8.20   (B) 8.10   (C) 8.05   (D) 7.50

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77. Galvanisation is a method of protecting steel and iron from rusting, by coating them with a layer of

(A) tin   (B) zinc   (C) aluminium   (D) paint

78. For measuring detonating characteristic of any fuel on Octane Number Scale, Iso-octane is rated as

(A) 100   (B) 90   (C) 75   (D) 50

79. Working together, A and B can do a work in 10 days A alone can do the same work working alone in 15 days. In how many days, B alone can do the whole work working alone?

(A) 18 days   (B) 20 days   (C) 25 days   (D) 30 days

80. Two trains of length 200 metres and 220 metres are running on parallel tracks in the same direction. Speed of first train is 72 km/hour and speed of second train is 54 km/hour. What is the time taken by both the trains to cross each other

(A) 70 seconds   (B) 76 seconds   (C) 80 seconds   (D) 84 seconds

81. A wire of a given material having length L and area of cross-section A has a resistance of 4 ohm. What would be the resistance of another wire of the same material having length $\frac{L}{2}$ and area of cross-section 2A?

(A) $\frac{1}{4}$ ohm   (B) $\frac{1}{2}$ ohm   (C) 1 ohm   (D) 8 ohm

82. In metal casting process, a small taper is provided in sand-mold patterns to enable removal of the pattern without damaging the mold. The taper provided is called

(A) parting   (B) draft   (C) angular allowance   (D) inclination

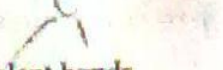83. In internal combustion engine, pistons are generally made of

(A) iron   (B) copper   (C) aluminium alloy   (D) silver

84. Zener diode is used for

(A) amplification   (B) stabilisation

(C) rectification   (D) producing oscillations in an oscillator

85. Who among the following was known as 'Deshbandhu'?

(A) Dadabhai Naoroji   (B) Vallabhbhai Patel

(C) Chittaranjan Das   (D) Subhas Chandra Bose

86. Ethane, with the molecular formula C_2H_6 has

(A) 5 covalent bonds

(B) 6 covalent bonds

(C) 7 covalent bonds

(D) 8 covalent bonds

87. Rate of doing work is called

(A) energy

(B) power

(C) force

(D) momentum

88. Concurrent forces are those forces whose lines of action

(A) lie on the same line

(B) meet on the same plane

(C) meet at one point

(D) lie on different planes

89. The rate at which the Reserve Bank of India lends short-term money to the banks, is known as

(A) Repo rate

(B) Reverse Repo rate

(C) Liquidity rate

(D) Prime Lending rate

90. Plastic deformation is followed by elastic recovery upon removal of the load. In bending process, this recovery is known as

(A) spring back

(B) spring effect

(C) radius gain

(D) radius loss

91. Kathakali is a classical dance – drama form, which originated from

(A) Kerala

(B) Tamilnadu

(C) Manipur

(D) Odisha

92. In case of an overloading in a domestic circuit, the possible damage can be prevented by using

(A) an electric switch

(B) an earth wire

(C) an electric meter

(D) an electric fuse

93. A compiler is a

(A) Computer hardware

(B) Computer virus

(C) Computer networking

(D) Computer program

94. In how many horizontal rows (periods) are the elements in the Modern Periodic Table arranged?

(A) 5

(B) 7

(C) 8

(D) 10

95. The cost of 4 mangoes equals the selling price of 3 mangoes. Find the profit percentage.

(A) 30%

(B) $33\frac{1}{3}$ %

(C) 40%

(D) $42\frac{1}{2}$ %

96. Ratio of the age of A and B is 2:5 and ratio of age of B and C is 3:4. What is the ratio of age of A, B and C?

(A) 3 : 4 : 5   (B) 6 : 15 : 18   (C) 6 : 15 : 20   (D) 6 : 15 : 25

97. Which scientist was awarded with 'Bharat Ratna' in the year 2014?

(A) Prof. Padmanabhan Balaram   (B) Prof. Jyeshtharaj Joshi

(C) Prof. C.N.R. Rao   (D) Prof. Anisuzzaman

98. Choose the most reactive metal (as per the Reactivity Series) out of the following:

Potassium, Aluminium, Magnesium, Iron, Copper

(A) Potassium   (B) Iron   (C) Magnesium   (D) Aluminium

99. A sum of money amounts to Rs 2600 in 3 years, and to Rs 3000 in next two years at simple interest. What is the rate of interest?

(A) 10%   (B) 12%   (C) 5%   (D) 7%

100. Find the value of x, if $\log 3x - \log 6 = \log 12$

(A) 20   (B) 21   (C) 22   (D) 24

101. The President of India must be a citizen of India, not less than

(A) 25 years of age   (B) 35 years of age   (C) 30 years of age   (D) 40 years of age

102. If an object is kept between infinity and optical centre of a concave lens, the image formed is

(A) virtual and erect   (B) virtual and inverted

(C) real and erect   (D) real and inverted

103. If a solution turns red litmus blue, its pH is likely to be

(A) 2   (B) 4   (C) 5   (D) 10

104. Indian Railways have a total route kilometres of approximately

(A) 55000 kms.   (B) 65000 kms.   (C) 75000 kms.   (D) 85000 kms.

105. The major greenhouse gases are

(A) carbon monoxide and nitrogen

(B) carbon monoxide and sulphur dioxide

(C) oxygen, carbon monoxide and sulphur dioxide

(D) water vapour, carbon dioxide and methane

106. A copper wire would enclose an area of 484 square cm, if it was bent in the shape of a square. If it was bent in the form of a circle, find the radius of the circle

    (A) 14 cm   (B) 18 cm   (C) 21 cm   (D) 28 cm

107. Water is filled up in a rectangular vessel upto the height of 20 cm. Then, a solid cube of 10 cm edge is immersed completely in the rectangular vessel containing water. If the dimensions of the base of the vessel are 30 cm and 20 cm respectively (from inside), what is the rise in water level?

    (A) 5 cm   (B) $\frac{3}{5}$ cm   (C) 3 cm   (D) $\frac{5}{3}$ cm

108. Out of the following, which is *not* a intrinsic semiconductor?

    Tellurium, Carbon, Silicon, Germanium

    (A) Germanium   (B) Silicon   (C) Tellurium   (D) Carbon

109. A number is decreased by 10% and then increased by 10%. The number so obtained is 10 less than the original number. What was the original number?

    (A) 1000   (B) 1200   (C) 1500   (D) 1800

110. Compounds with identical molecular formula but different structures are called

    (A) structural isobars   (B) structural isomers
    (C) structural isotope   (D) twin structures

111. Action and reaction (forces) always act on

    (A) different bodies
    (B) the same body
    (C) may act on the same body or different bodies
    (D) a third body

112. Which of the following is a plant hormone?

    (A) auxin   (B) thyroxin
    (C) insulin   (D) oestrogen

113. Which of the following diseases is caused due to deficiency of Vitamin A?

    (A) beriberi   (B) scurvy
    (C) rickets   (D) night-blindness

114. Fill in the blank:

In human beings, the food coming from the stomach is made _____ by bile juice, for the pancreatic enzymes to act.

(A) neutral   (B) acidic   (C) alkaline   (D) salty

115. Find out the *False* statement:

Compared to Brushed DC Motor, Brushless DC Motor has following advantage:

(A) long lifespan   (B) low initial cost   (C) low maintenance   (D) high efficiency

116. Work done in a free expansion process is

(A) positive   (B) negative   (C) maximum   (D) zero

117. Which of the following is *not* used as dopant for obtaining a P-type extrinsic semiconductor from a pure semiconductor?

Indium, Boron, Phosphorus, Aluminium

(A) Indium   (B) Boron   (C) Phosphorus   (D) Aluminium

118. Which of the following is *not* a conic section?

(A) square   (B) hyperbola   (C) parabola   (D) circle

119. Which statement is correct about PERT (Program Evaluation Review Technique) and CPM (Critical Path Method)?

(A) Both are probabilistic.
(B) PERT is probabilistic whereas CPM is deterministic.
(C) Both are deterministic.
(D) CPM is probabilistic whereas PERT is deterministic.

120. The buoyancy depends upon the

(A) pressure with which the liquid is displaced
(B) viscosity of the liquid
(C) compressibility of the liquid
(D) weight of the liquid displaced

121. Please find out the relationship between the first two words and choose the word, which bears the same relationship to the third word, as the first two bear.

Reading : Knowledge : : Work : ?

(A) Experience   (B) Engagement   (C) Qualification   (D) Employment

122. In a Vernier Calliper, the difference between one main scale division and one Vernier Scale division, is equal to

(A) Pitch (B) Least count (C) Zero error (D) Zero correction

123. Use of Chlorofluorocarbons has endangered the

(A) ground water level (B) ocean water level (C) ozone layer (D) oxygen level in atmosphere

124. Very large ecological areas on the earth's surface, with animals and plants adapting to their environment, are called

(A) food chain (B) biome (C) food web (D) habitat

125. The great Mughal Emperor Akbar was succeeded as emperor by his son

(A) Humayun (B) Jahangir (C) Shah Jahan (D) Aurangzeb

126. Find the wrong number in the series

3, 8, 15, 24, 34, 48, 63

(A) 24 (B) 34 (C) 48 (D) 63

127. The case of a market economy, in which individuals and private firms make the major decisions about production and consumption, is called a

(A) Command economy (B) Mixed economy (C) Market economy (D) Auto economy

128. The plan view is a view seen directly from

(A) a side (B) front (C) an angle (D) above

129. As compared to laminar flow, in turbulent flow, boundary layers will be

(A) thinner (B) thicker (C) same (D) half

130. The final of the Football World Cup 2014 was played between

(A) Argentina and Germany (B) Brazil and Germany (C) Germany and Italy (D) Argentina and Netherlands

131. A diagram showing the interconnections between the parts of an industrial process is known as

(A) butterfly diagram (B) indicator diagram (C) block diagram (D) venn diagram

132. One Pascal of pressure is equal to

(A) 1 dyne/cm^2 (B) 1 newton/metre^2 (C) 10 newton/metre^2 (D) 100 newton/metre^2

133. If an electric current I is flowing through a resistor of resistance R, the amount of heat produced H in time t is

(A) IRt^2 (B) IR^{2}t   (C) I^{2}Rt   (D) IRt

134. Fill in the blank:

The State of Assam is surrounded by _____ neighbouring Indian States.

(A) six   (B) five   (C) eight   (D) seven

135. How the large scale properties of solid materials result from their atomic-scale properties, is studied in

(A) metallurgy   (B) liquid-state physics

(C) solid-state physics   (D) crystal physics

136. Fill in the blank

"In an AC generator, the axis of rotation of the coil is _____ to the direction of the magnetic field".

(A) parallel   (B) perpendicular   (C) inclined (30°)   (D) inclined (45°)

137. Nervous tissue is specialised for conducting information from one part of the body to another via

(A) sound waves   (B) mechanical impulses

(C) magnetic impulses   (D) electrical impulses

138. If x% of x is 49, then x is equal to

(A) 7   (B) 70   (C) 700   (D) 1400

139. In screw gauge, the distance moved by the screw due to one complete rotation of the cap is called the

(A) least count   (B) gauge constant   (C) module   (D) pitch

140. In internal combustion engine, the top piston ring nearer to the piston crown is known as

(A) compression ring   (B) oil ring

(C) scrapper ring   (D) groove ring

141. The kidneys in human beings are a part of the system for

(A) nutrition   (B) respiration   (C) transportation   (D) excretion

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142. In Isometric projection, the angles between any two of the coordinate axes are

(A) 90 degrees   (B) 120 degrees   (C) 45 degrees   (D) 30 degrees

143. Arun sold a table to Mohan at 10% profit. Mohan sold it to Raju at 20% profit. If Raju bought for Rs 660; find the price at which Arun bought the table?

(A) Rs 400   (B) Rs 450   (C) Rs 500   (D) Rs 550

144. If 'book' is called 'watch', 'watch' is called 'bag', 'bag' is called 'pillow' and 'pillow' is called 'window'; which is used to carry the books?

(A) pillow   (B) bag   (C) book   (D) watch

145. Relatively long, slender members that transmit foundation loads through soil strata of low bearing capacity to deeper soil strata having a high bearing capacity, are known as

(A) pads   (B) strips   (C) rafts   (D) piles

146. The SI Unit of power of a lens is

(A) Curie   (B) Dioptre   (C) Weber   (D) Watt

147. South African leader Nelson Mandela died at Johannesburg in

(A) June 2013   (B) September 2013   (C) December 2013   (D) February 2014

148. A current of 0.2 ampere is drawn by filament of an electric bulb for 20 minutes. The amount of electric charge that flows through the circuit is

(A) 4 coulomb   (B) 40 coulomb   (C) 100 coulomb   (D) 240 coulomb

149. Fill in the blank:

In the atmosphere, ammonia reacts with _____ to form secondary particles, which are pollutants.

(A) sulphur   (B) oxygen   (C) carbon   (D) nitrogen

150. If $a : b = 3 : 7$, what is the value of $\frac{4a + 5b}{2a + 2b} = ?$

(A) $\frac{7}{4}$ (B) $\frac{5}{2}$ (C) $\frac{37}{20}$ (D) $\frac{47}{20}$