QUESTION BOOKLET

Duration : 120 Minutes समय : 120 मिनट	Exam Code : परीक्षा कोड :	**TSD001**
No. of Pages / पृष्ठों की संख्या : **240**	Total Marks / कुल अंक : **150**	

Roll No. : अनुक्रमांक :		Question Booklet No. प्रश्न पुस्तिका संख्या :	**7099712**

Date of Examination : परीक्षा तिथि :	OMR Answer Sheet No. OMR उत्तर शीट क्रमांक :

Candidate's Name / परीक्षार्थी का नाम	Candidate's Signature / परीक्षार्थी के हस्ताक्षर

*** As given in application form / आवेदन पत्र में दिये गये ***

CANDIDATE SHOULD OPEN THE SEALS ONLY AFTER THEY ARE ASKED TO DO SO.

परीक्षार्थी निर्देश मिलने पर ही सील खोलें।

The question paper is made up of the following sections as tabulated below.

निम्न तालिका में दर्शाये अनुसार, इस प्रश्न पत्र को निम्नलिखित भागों में विभाजित किया गया है।

Section / भाग	Language / भाषा	No. of Questions / प्रश्नों की संख्या	Pages / पृष्ठ	
			From / से	To / तक
Section-I	English / अंग्रेजी	150	15	34
Section-II	Hindi / हिन्दी	150	35	58
Section-III	Urdu / उर्दू	150	59	78
Section-IV	Assamese / असामी	150	79	98
Section-V	Bengali / बंगाली	150	99	118
Section-VI	Gujarati / गुजराती	150	119	138
Section-VII	Kannada / कन्नड़	150	139	158
Section-VIII	Manipuri / मणिपुरी	150	159	178
Section-IX	Marathi / मराठी	150	179	198
Section-X	Odia / उड़िया	150	199	218
Section-XI	Telugu / तेलगू	150	219	238

English Paragraph : All the details given by me in the Application Form are true and complete to the best of my knowledge. I understand that I may be issued with Call letter for the exam on the basis of above information and mere issue of call letter will not confer on me any right to be eligible for the post. I also understand that in case any of my statements are found to be untrue at any stage of recruitment or thereafter, I shall be disqualified forthwith for the post applied for and I shall be liable for any other penal action under the extant rules.

हिन्दी पैराग्राफ : आवेदन पत्र में मेरे द्वारा दिया गया सभी विवरण मेरी अधिकतम जानकारी के अनुसार सत्य और पूर्ण है। मैं समझता / समझती हूँ कि मुझे परीक्षा के लिए उपर्युक्त सूचना के आधार पर बुलावा पत्र जारी किया जाएगा और केवल बुलावा पत्र जारी करना पद के लिए पात्र होने का मुझे कोई अधिकार नहीं देता है। मैं यह भी समझता हूँ / समझती हूँ कि यदि मेरा विवरण भर्ती के किसी चरण पर या तत्पश्चात असत्य पाया जाता है, तो मैं आवेदित पद के लिए तत्काल निरर्हक हो जाऊंगा / जाऊंगी और मुझ पर लागू नियमों के तहत कोई अन्य दंडात्मक कार्रवाई की जाएगी।

Signature of invigilator / निरीक्षक के हस्ताक्षर	Centre / सेंटर	Deptt. / डिपार्टमैंट

TSD001414

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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 in Hindi and English is given on page 1. Copying of the paragraph (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. Check whether the booklet contains **150** questions and start the paper from Page No. **15**.

5. The question paper comprises **150** questions available in congruent versions of **English, Hindi, Urdu, Assamese, Bengali, Gujarati, Kannada, Manipuri, Marathi, Odia, Telugu**. In case of any doubt or confusion, English version shall prevail.

6. All Questions are of Objective type. There is only one correct answer/best answer to each question carrying one mark. There will be negative marking for wrong answers. For every wrong answer, 1/3 mark will be deducted.

7. In the event of any mistake in any question/s, candidate 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 OMR Answer Sheet carefully.

9. Rough work, if any, may be done in the Question Booklet only in the space provided at the end of the Booklet or at any specified space. 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 top sheet of Question Booklet as well as the Answer Sheet should be handed over to the invigilator before leaving the Examination Hall.

1. A closed thermodynamic system is one in which
   (A) There is no energy or mass transfer across the boundary
   (B) There is no mass transfer, but energy transfer exists
   (C) There is no energy transfer, but mass transfer exists
   (D) Both energy and mass transfer take place across the boundary, but mass transfer is controlled by valves

2. Pressure reaches a value of absolute zero
   (A) at a temperature of –273 K
   (B) under vacuum condition
   (C) at the earth's centre
   (D) when molecular momentum of system becomes zero

3. Zeroth Law of Thermodynamics states that
   (A) Two thermodynamic systems are always in thermal equilibrium with each other
   (B) If two systems are in thermal equilibrium, then the third system will also be in thermal equilibrium
   (C) Two systems not in thermal equilibrium with a third system will also not be in thermal equilibrium with each other
   (D) When two systems are in thermal equilibrium with a third system they are in thermal equilibrium with each other

4. Heat is mainly transferred by conduction, convection and radiation in
   (A) Insulated pipes carrying hot water
   (B) Refrigerator freezer coil
   (C) Boiler furnaces
   (D) Condensation of steam in a condenser

5. The discharge of Hydrocarbons from petrol automobile exhaust is minimum when the vehicle is
   (A) Idling   (B) Cruising
   (C) Braking   (D) Decelerating

6. Which one of the following is an advantage of forging ?
   (A) Good Surface Finish   (B) Low tooling cost
   (C) Close tolerance   (D) Improved physical property

7. In a fillet welded joint, the weakest area of the weld is
   (A) Toe   (B) Root
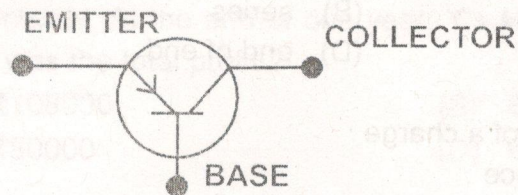   (C) Throat   (D) Face

8. Which one of the following is the correct statement ?
   Gate is provided in moulds to
   (A) feed the casting at constant rate
   (B) give passage to gases
   (C) compensate for shrinkage
   (D) avoid cavities

9. Which of the following processes is the wiredrawing process ?
   (A) Compressive   (B) Tensile
   (C) Shear   (D) Hydrostatic stress

10. Heat transfer in liquids and gases is essentially due to
    (A) Conduction
    (B) Convection
    (C) Radiation
    (D) Conduction and Radiation put together

11. Stroke of an I.C. engine equals
    (A) half the crank radius   (B) the crank radius
    (C) twice the crank radius   (D) four times the crank radius

12. The main constituent of moulding sand is
    (A) Clay   (B) Silica
    (C) Alumina   (D) Iron Oxide

13. Seam Welding is
    (A) a continuous spot welding process
    (B) a multi-spot welding process
    (C) an arc welding process
    (D) a thermit welding process

14. Two transformers operating in parallel will share the load depending upon their
    (A) Ratings   (B) Leakage Reactance
    (C) Efficiency   (D) Per Unit Impedance

15. Flow of electrons in circuit constitutes
    (A) magnetic charge   (B) an e.m.f
    (C) an electric current   (D) an electric charge

16. Bulbs in street lighting are all connected in
    (A) parallel   (B) series
    (C) series parallel   (D) end of end

17. The electric field strength of a charge
    (A) increases with distance
    (B) decreases with cube of distance
    (C) decreases with distance
    (D) decreases with square of distance

18. Which of the following is the unit of magnetic flux.
    (A) tesla   (B) coulomb
    (C) weber   (D) ampere-turn

19. The hysteresis loss in a given magnetic material may be decreased by
    (A) laminating it
    (B) increasing flux density through it
    (C) increasing frequency of reversal of magnetisation
    (D) decreasing maximum flux density established through it

20. Vacuum is considered as
    (A) Non-magnetic material   (B) Diamagnetic material
    (C) Paramagnetic material   (D) Ferromagnetic material

21. Bakelite is a/an
    (A) insulator   (B) semiconductor
    (C) high resistance conductor   (D) Low resistance conductor

22. Losses which do not occur in transformer but do occur in rotating electric machine are
    (A) Copper losses
    (B) Magnetic losses
    (C) Friction and windage losses
    (D) Hysteresis and eddy current losses

23. In Fleming's Right Hand rule, the thumb points towards
    (A) direction of flux
    (B) direction of induced e.m.f.
    (C) direction of motion of conductor, if fore finger points along the lines of flux
    (D) direction of motion of the conductor if fore finger points in the direction of generated e.m.f.
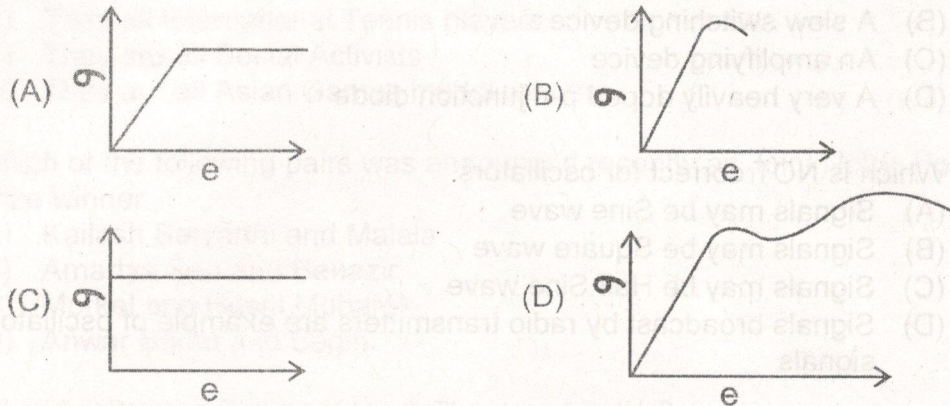
24. Figure shown below represents a

   (A) A power diode   (B) Zener Diode
   (C) NPN Transistor   (D) PNP Transistor

25. An antenna is a device which
   (A) Converts electric Power into radio waves or vice versa
   (B) Converts a sound wave to a magnetic signal
   (C) Converts a sound wave of one wavelength to other
   (D) Converts an AC to DC

26. Which of the following can provide a digital signal ?
   (A) Sine wave
   (B) Square wave
   (C) Gradual tuning of a potentiometer
   (D) Slow change in the value of resistor

27. An inverter converts
   (A) a DC power of low frequency to DC power of high frequency
   (B) a DC to AC
   (C) and AC of low frequency to an AC power of high frequency
   (D) an AC to DC

28. Potentiometer is basically a
   (A) Measuring instrument   (B) Integrating instrument
   (C) Calibrating instrument   (D) Indicating instrument

29. An element whose atoms have three valance electrons, the example of such element is
   (A) Silicon   (B) Copper
   (C) Germanium   (D) Aluminium

30. A NOR gate is called Universal Logic Gate because
   (A) It can be used without need of any other gate type
   (B) It can be used only with AND gate universally
   (C) It can be used only with OR gate universally
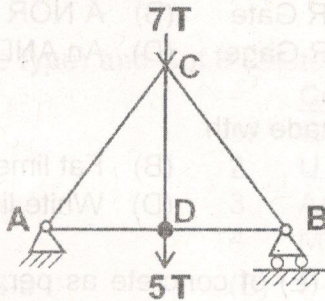   (D) It can be used only with NOT gate universally

31. A tunnel diode is
    (A) High resistivity p-n junction diode
    (B) A slow switching device
    (C) An amplifying device
    (D) A very heavily doped p-n junction diode

32. Which is NOT correct for oscillators.
    (A) Signals may be Sine wave
    (B) Signals may be Square wave
    (C) Signals may be Half Sine wave
    (D) Signals broadcast by radio transmitters are example of oscillator signals

33. The output of a logic gate is '1' when all its inputs are '0'. Then the gate is either
    (A) A NAND or an EX–OR Gate   (B) A NOR or an EX–NOR Gate
    (C) An OR or an EX–NOR Gage   (D) An AND or an EX–OR Gate

34. Lime mortar is generally made with
    (A) Quick lime   (B) Fat lime
    (C) Hydraulic lime   (D) White lime

35. The Modulus of Elasticity (E) of concrete as per IS 456:2000 is given by (notations are conventional)
    (A) $E = 1000\, f_{ck}$ (B) $E = 5000\sqrt{f_{ck}}$
    (C) $E = 5500\sqrt{f_{ck}}$ (D) $E = 10000\sqrt{f_{ck}}$

36. In paints, linseed oil is used as
    (A) a solidifier   (B) a driver
    (C) a vehicle   (D) a water-proofing base

37. A simply supported beam of span L and flexural rigidity EI, carries a unit point load at its centre. The strain energy in the beam due to bending is
    (A) $\dfrac{L^3}{48EI}$ (B) $\dfrac{L^3}{192EI}$ (C) $\dfrac{L^3}{96EI}$ (D) $\dfrac{L^3}{16EI}$

38. In terms of bulk modulus (K) and modulus of rigidity (G), Poisson's ratio can be expressed as
    (A) $\dfrac{3K-4G}{6K-4G}$ (B) $\dfrac{3K+4G}{6K-4G}$
    (C) $\dfrac{3K-2G}{6K+2G}$ (D) $\dfrac{3K+2G}{6K-2G}$

39. The stress – strain curve for an ideally plastic material is (conventional symbols)

(A)

(B)

(C)

(D)

40. What is the force in the vertical member CD of the pin – jointed frame shown below ?

(A) 12T (Tension)
(B) 2T (Compression)
(C) 7T (Compression)
(D) 5T (Tension)

41. In a situation where torsion is dominant, which one of the following is the desirable section ?
(A) Angle Section
(B) Channel Section
(C) I-Section
(D) Box-Type Section

42. Lateral ties in RCC columns are provided to resist
(A) Bending moment
(B) Shear
(C) Buckling of longitudinal steel base
(D) Both Bending moment and Shear

43. In a Cantilever beam carrying gravity load, main reinforcement to resist Bending moment is provided
(A) above the Neutral Axis
(B) as vertical stirrups
(C) as a helical reinforcement
(D) below the Neutral Axis

44. In fluid flow, the line of constant piezometric head passes through two points which have the same
(A) Elevation
(B) Pressure
(C) Velocity
(D) Velocity potential

45. A 30m metric chain is found to be 0.1m too short throughout the measurement. If the distance measured is recorded as 300m, then the actual distance measured will be
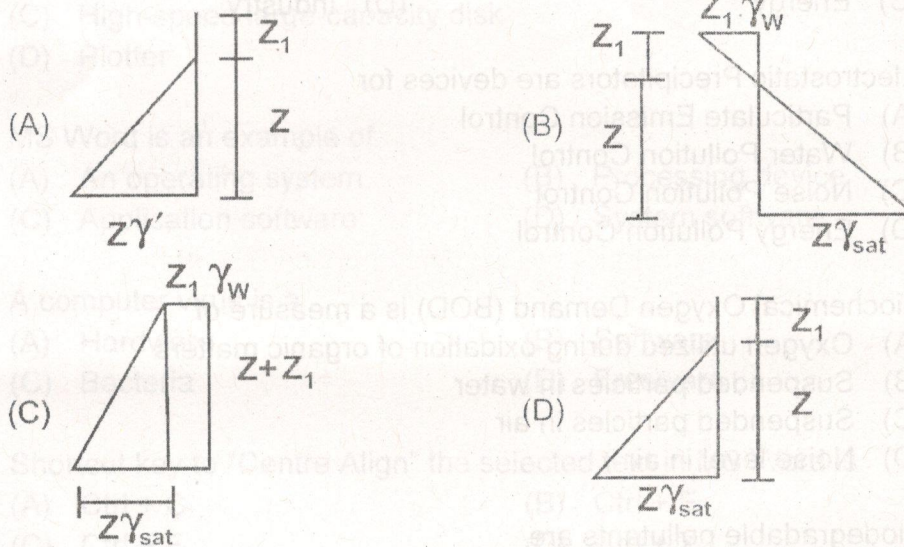(A) 300.1 m   (B) 301.0 m
(C) 299 m   (D) 310 m

46. Which one of the following methods of levelling eliminates the error due to curvature and refraction ?
(A) Fly levelling
(B) Levelling by equalizing the distances of backsight and foresight
(C) Check levelling
(D) Precise levelling

47. Which one of the following diagrams represents the effective pressure distribution for a saturated soil mass of depth 'Z' submerged under water of height 'Z$_1$'above its top level.

(γ_{sat} = sat. density of soil, γ_w = unit wt. of water, γ' = submerged density of soil)

48. Illumination is measured using which one of the following?
(A) Millivoltmeter   (B) Stroboscope
(C) Lux meter   (D) pH meter

49. Alternating Current can be measured by
(A) Moving iron repulsion type voltmeter
(B) Permanent Magnet type Ammeter
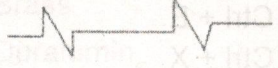(C) Electronic Voltmeter
(D) Induction Ammeter

50. Wheatstone bridge is used to measure
    (A) Low values of current and high values of current
    (B) High values of current
    (C) Low values of voltage
    (D) Resistance values

51. Meggar is an instrument to measure
    (A) Q of a coil   (B) Inductance of a coil
    (C) very low resistance   (D) Insulation Resistance

52. A multimeter consists of
    (A) Current and Ohm meter
    (B) Voltmeter and Ohm meter
    (C) Voltmeter and Current meter
    (D) Voltmeter, Current meter and Ohm meter

53. Major contributing activity towards Global Warming by Greenhouse gases
    is
    (A) Agriculture   (B) Deforestation
    (C) Energy   (D) Industry

54. Electrostatic Precipitators are devices for
    (A) Particulate Emission Control
    (B) Water Pollution Control
    (C) Noise Pollution Control
    (D) Energy Pollution Control

55. Biochemical Oxygen Demand (BOD) is a measure of
    (A) Oxygen utilized during oxidation of organic matters
    (B) Suspended particles in water
    (C) Suspended particles in air
    (D) Noise level in air

56. Biodegradable pollutants are
    (A) quickly degraded by natural means
    (B) can not be degraded
    (C) can be degraded by burning only
    (D) disposed in flowing water only

57. Which is NOT a cause of water pollution.
    (A) Bacteria
    (B) Inorganic chemicals
    (C) Oil spills from industry
    (D) high decibels of automobiles

58. In a computer, a compiler is
(A) a program that places programs into memory and prepares them for execution
(B) a program that automate the translation of assembly language into machine language
(C) a program that accepts a program written in a high level language and produces an object program
(D) a program that appears to execute a source program if it were machine language

59. The operating system of a computer serves as a software interface between the user and
(A) hardware (B) peripheral
(C) memory (D) Screen

60. Which of the following hardware components is the most important to the operation of database management system ?
(A) High-resolution video display
(B) Printer
(C) High-speed large-capacity disk
(D) Plotter

61. MS Word is an example of
(A) An operating system (B) Processing device
(C) Application software (D) System software

62. A computer virus is a
(A) Hardware (B) Software
(C) Bacteria (D) Freeware

63. Shortcut key to "Centre Align" the selected text in MS Word is
(A) Ctrl + C (B) Ctrl + E
(C) Ctrl + F (D) Ctrl + X

64. The software in computer that transfers the object program from secondary memory to the main memory is called
(A) Assembler (B) Loader
(C) Linker (D) Task builder

65. In a computer, the system identifies a file by its
(A) Name (B) Absolute Path
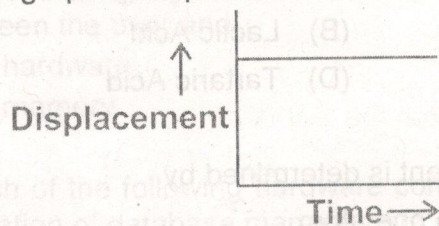(C) File owner (D) Inode number

66. In a computer, Virtual Memory is
   (A) an extremely large main memory
   (B) an extremely large secondary memory
   (C) an illusion of an extremely large memory
   (D) a type of memory used in super computers

67. In a computer, Disk scheduling involves deciding
   (A) which disk should be accessed next
   (B) the order in which disk access requests must be serviced
   (C) the physical location where files should be accessed in the disk
   (D) None of these

68. For Engineering Drawings, match the Col. X and Col. Y

Col. X (Type)		Col. Y (Use)
P.	Large sized letters	1.	Sub-Titles
Q.	Medium sized letters	2.	Dimensions
R.	Small sized letters	3.	Main Titles

   (A) P–3, Q–1, R–2   (B) P–2, Q–1, R–3
   (C) P–3, Q–2, R–1   (D) P–2, Q–3, R–1

69. For drawing engineering curves, which is correct option (e = eccentricity)
   (A) For Ellipse, e > 1   (B) For Parabola, e < 1
   (C) For Hyperbola, e = 1   (D) For Parabola, e = 1

70. Match Col. X (Line Type) with Col. Y (Application)

Col. X		Col. Y
P	– – – – – – – – – –	1.	Centre lines
Q	___ ___ ___ ___	2.	Ground lines
R	_____	3.	Hidden edges
S	(break line)	4.	Long break lines

   (A) P – 2, Q – 1, R – 4, S – 3   (B) P – 3, Q – 1, R – 2, S – 4
   (C) P – 4, Q – 3, R – 1, S – 2   (D) P – 2, Q – 1, R – 3, S – 4

71. Which statement is NOT correct in respect of Engineering Drawings.
   (A) Circular Features are Indicated by the centre lines
   (B) A visible line has precedence over a hidden line
   (C) The faces perpendicular to the direction of viewing are seen as edge views
   (D) In Isometric projection, an isometric scale is used

72. Select the correct option.
The isometric projection of a circle is
(A) Ellipse (B) Parabola
(C) Hyperbola (D) Circle

73. Light Year is the unit of
(A) time (B) distance
(C) speed of light (D) intensity of light

74. In the graph of displacement versus time shown below, which is correct.

(A) the body is at rest
(B) the body has some initial speed
(C) the body moves with constant speed
(D) the body moves with constant velocity

75. A man is standing on a boat in still water. If he walks in the boat towards the shore, the boat will
(A) move away from the shore (B) remain stationary
(C) move towards the shore (D) Sink

76. Relative Humidity is the percentage of the
(A) absolute humidity value to the amount of humidity actually present
(B) increase of humidity/absolute humidity
(C) amount of humidity actually present to the absolute humidity
(D) None of these

77. With conventional symbols, the Lens formula is given by
(A) $\dfrac{1}{v} - \dfrac{1}{u} = \dfrac{1}{f}$ (B) $\dfrac{1}{u} - \dfrac{1}{v} = \dfrac{1}{f}$
(C) $\dfrac{1}{v} + \dfrac{1}{u} = \dfrac{1}{f}$ (D) $u + v = f$

78. A magnifying glass comprises a simple
(A) Convex lens (B) Convex mirror
(C) Concave lens (D) Concave mirror

79. Which of the following property is generally NOT shown by metal ?
    (A) Electrical conduction   (B) Sonorous in nature
    (C) dullness   (D) ductility

80. The state in which molecular attractions are very strong is
    (A) Solid   (B) Liquid
    (C) Gas   (D) Vapour

81. Which of the following acids is present in sour milk ?
    (A) Glycolic Acid   (B) Lactic Acid
    (C) Citrus Acid   (D) Tartaric Acid

82. The atomic number of an element is determined by
    (A) the number of electrons in one atom
    (B) the number of neutrons in one atom
    (C) the valency of the element
    (D) the number of protons in one atom

83. Elements belonging to the same group have similar chemical properties because
    (A) they are all metallic elements
    (B) they have similar electronic configuration
    (C) atomic number increases on moving down the group
    (D) None of these

84. Which of the following alloys contains Tin ?
    (A) Brass   (B) Solder
    (C) Duralumin   (D) Steel

85. In humans, bile juice is secreted by
    (A) pancreas   (B) small intestine
    (C) esophagus   (D) liver

86. Which of the following is connected with transport of water in plants ?
    (A) Phloem   (B) Xylem
    (C) Epidermis   (D) Cambium

87. Nephrons are connected with
    (A) Respiratory System
    (B) Nervous System
    (C) Circulatory System
    (D) Excretory System

88. Sight of delicious food usually makes mouth watery, it is a
    (A) Hormonal response
    (B) Neural response
    (C) Optic response
    (D) Olfactory response

89. Jaundice is a disease of
    (A) Kidney
    (B) Pancreas
    (C) Liver
    (D) Duodenum

90. Deficiency of Vitamin C causes
    (A) rickets
    (B) beriberi
    (C) scurvy
    (D) night blindness

91. The Radcliffe Commission was appointed to
    (A) Solve the problem of minorities in India
    (B) Give effect to the Independence Bill
    (C) Delimit the boundaries between India and Pakistan
    (D) Enquire into the riots in East Bengal

92. The Governor General of India at the time of foundation of Indian National Congress was ?
    (A) Lord Chelmsford
    (B) Lord Dalhousie
    (C) Lord Dufferin
    (D) Lord Canning

93. Who was the advocate at the famous trials of three INA Soldiers ?
    (A) Bhulabhai Desai
    (B) Asaf Ali
    (C) Subhash Chandra Bose
    (D) C. Rajagopalachari

94. The Consolidated Fund of India is a fund in which
    (A) All taxes except Income Tax collected by the Union as well as State Governments are deposited
    (B) All money received by or on behalf of the Government of India is deposited
    (C) The Union as well as State Governments make equal contribution to this fund
    (D) Savings of Union and State Governments are deposited

95. Which part of the Indian Constitution reflects the mind and ideals of the framers ?
   (A) Preamble
   (B) Fundamental Rights
   (C) Directive Principles
   (D) Emergency Provisions

96. How long can a Presidential Ordinance remain in force ?
   (A) One year
   (B) Two months
   (C) Till the President revokes it
   (D) Six months

97. The most effective farming method for returning minerals to the soil is
   (A) Contour ploughing
   (B) Terracing
   (C) Crop rotation
   (D) Furrowing

98. Winter rains in North-Western India are caused by
   (A) Western Disturbances
   (B) South West Monsoon
   (C) South Easterly Disturbances
   (D) Easterly Disturbances

99. Kaziranga National Park is in
   (A) Uttar Pradesh
   (B) Tamil Nadu
   (C) Assam
   (D) Kerala

100. The concept of joint sector implies cooperation between
   (A) Public Sector and Private Sector Industries
   (B) State Government and Central Government Enterprises
   (C) Domestic and Foreign Industries
   (D) Cooperation between two Government Departments

101. Which of the following is an apex financing agency for the institutions providing investment and production credit for promoting the various developmental activities in rural areas ?
   (A) RBI
   (B) NABARD
   (C) SIDBI
   (D) IMPEX

102. UNDP has aim
   (A) to provide technical assistance to stimulate economic and social development
   (B) to promote International Trade
   (C) to promote cooperation on Environmental Problems
   (D) to help establish Child Health and Welfare Services

103. UBER Cup is related to
     (A) International Badminton (Men)
     (B) International Volleyball (Men)
     (C) International Volleyball (Women)
     (D) International Badminton (Women)

104. Which Country of Africa which was highly affected by disease Ebola has
     been declared Ebola-free by WHO ?
     (A) Sierre Leone   (B) Liberia
     (C) Nigeria   (D) Guinea

105. India's First Bank exclusively for Women is
     (A) Mahila Kalyan Bank (B) Bhartiya Mahila Bank
     (C) Bharti Bank   (D) SIDBI

106. First Sportsperson to be conferred with Award "Bhart Ratna"
     (A) Sachin Tendulkar   (B) Dhyan Chand
     (C) Balbir Singh   (D) Vijay Amritraj

107. Next Asian Games in 2018 shall be held in
     (A) Seoul   (B) Bangkok
     (C) Kualalumpur   (D) Jakarta

108. Who was recently sworn in as President of Afghanistan ?
     (A) Abdullah Abdullah   (B) Hamid Karzai
     (C) Ashraf Ghani   (D) B. Rabbani

109. Who among the following did not win a medal in Asian Games 2014 ?
     (A) Yogeshwar Dutt   (B) Sushil Kumar
     (C) Abhinav Bindra   (D) Jitu Rai

110. What among the following is planned to be developed under "Sansad
     Adarsh Gram Yojana" of Central Government.
     (A) Village   (B) Smart Cities
     (C) River Cleaning   (D) Roads

111. Popular TV programme "Satyamev Jyate" is anchored by
     (A) Salman Khan   (B) Akshay Kumar
     (C) Amitabh Bachchan   (D) Aamir Khan

112. What is common amongst Mahesh Bhupathi, Ivan Lendl, Roger Federer ?
     (A) They are all Arjun Award winners
     (B) They all International Tennis players
     (C) They are all Social Activists
     (D) They are all Asian Games medal winners

113. Which of the following pairs was announced recently as Joint Noble Peace Prize winner.
     (A) Kailash Satyarthi and Malala
     (B) Amartya Sen and Benazir
     (C) Morkel and Hosni Mubarak
     (D) Anwar Sadat and Begin

114. Who is called the Father of Hindi Theatre of India ?
     (A) Raja Harish Chandra   (B) Dada Sahib Phalke
     (C) Bhartendu Harishchandra   (D) Prithvi Raj Kapoor

115. Match Col. A (Dance type) and Col B (State).

Col. A		Col. B	
P	Bihu	1.	Gujarat
Q	Garba	2	U P
R	Tamasha	3	Assam
S	Nautanki	4	Maharashtra

     (A) P-4, Q-1, R-2, S-3   (B) P-3, Q-1, R-4, S-2
     (C) P-3, Q-1, R-2, S-4   (D) P-1, Q-4, R-2, S-3

116. What is the largest possible length of a scale that can be used to measure exactly the lengths 3 m, 5 m 10 cm and 12 m 90 cm ?
     (A) 10 cm   (B) 20 cm
     (C) 25 cm   (D) 30 cm

117. A student was asked to find answer by dividing a number by 3. But, instead of dividing it, he multiplied it by 3 and got 29.7. What was the correct answer ?
     (A) 3.3   (B) 9.3
     (C) 9.8   (D) 9.9

118. After measuring 120 metres of a rope, it was discovered that the metre rod was 3 cm longer. The true length of the rope measured is :
     (A) 116 m 40 cm   (B) 121 m 20 cm
     (C) 123 m   (D) 123 m 60 cm

119. A bag contains three types of coins i.e. one rupee coins, 50 paisa coins and 25 paisa coins totalling 175 coins. If the total value of the coins of each kind be the same, the total amount in the bag is
     (A) ₹75   (B) ₹126
     (C) ₹175   (D) ₹300

120. If $X = Y + \sqrt{\dfrac{4}{Z}}$ then $Z = ?$

(A) $4(X^2 - Y^2)$

(B) $\dfrac{4}{\sqrt{X^2 - Y^2}}$

(C) $4(X - Y)^2$

(D) $\dfrac{4}{(X-Y)^2}$

121. Solve $\sqrt[3]{0.000064} = ?$

(A) 0.4

(B) 0.04

(C) 0.004

(D) 0.0004

122. The average age of 5 members of a committee is the same as it was 3 years ago, because an old member has been replaced by a new member. The difference between the ages of old and new member is

(A) 12 years

(B) 4 years

(C) 8 years

(D) 15 years

123. The product of two positive numbers is 2500. If one is four times the other, then the sum of two numbers is

(A) 25

(B) 125

(C) 225

(D) 250

124. A is 2 years older than B who is twice as old as C. If the total of the ages of A, B, C be 27 years, then how old is B ?

(A) 9 years

(B) 8 years

(C) 10 years

(D) 11 years

125. A bucket contains 2 litres more water when it is filled 80% in comparison when it is filled $66\dfrac{2}{3}$%. What is the capacity of the bucket ?

(A) 10 litres

(B) 15 litres

(C) $66\dfrac{2}{3}$ litres

(D) 20 litres

126. A dealer professing to sell his goods at cost price, uses 900 gm weight for 1 Kg. His gain percent is

(A) 9%

(B) 10%

(C) 11%

(D) $11\dfrac{1}{9}$%

127. The selling price of a table is $\dfrac{4}{3}$ times its cost price. The gain percent is

(A) $20\dfrac{1}{3}$%

(B) $20\dfrac{1}{2}$%

(C) $25\dfrac{1}{4}$%

(D) $33\dfrac{1}{3}$%

128. If A exceeds B by 40% and B is less than C by 20%, then A : C = ?

(A) 3:1

(B) 3:2

(C) 26:25

(D) 28:25

129. X, Y, Z started a business by investing ₹27000, ₹81000 and ₹72000 respectively. At the end of one year, Y's share of total profit was ₹36000. What was the total profit ?
   (A) ₹108000
   (B) ₹116000
   (C) ₹80000
   (D) ₹92000

130. To complete a work, P takes 50% more time than Q. If together they take 18 days to complete the work, how much time shall Q take to do it ?
   (A) 30 days
   (B) 35 days
   (C) 40 days
   (D) 45 days

131. Two pipes can fill a tank in 20 minutes and 30 minutes respectively. If both the pipes are opened simultaneously, then the tank will be filled in
   (A) 10 minutes
   (B) 12 minutes
   (C) 15 minutes
   (D) 25 minutes

132. A man completes 30 km of a journey at 6 km/hr and the remaining 40 km of the journey in 5 hours. His average speed for the whole journey is :
   (A) $6\dfrac{4}{11}$ km/hr
   (B) 7 km/hr
   (C) $7\dfrac{1}{2}$ km/hr
   (D) 8 km/hr

133. A train with a speed of 60 kmph crosses a pole in 30 seconds. The length of the train is
   (A) 500 m
   (B) 750 m
   (C) 900 m
   (D) 1000 m

134. Simple Interest on ₹500 for 4 years at 6.25% per annum is equal to the Simple Interest on ₹400 at 5% per annum for a certain period of time. The period of time is
   (A) 4 years
   (B) 5 years
   (C) $6\dfrac{1}{4}$ years
   (D) $8\dfrac{2}{3}$ years

135. A sum becomes ₹2916 in 2 years at 8% per annum compound interest. The sum is
   (A) ₹2750
   (B) ₹2500
   (C) ₹2625
   (D) ₹2560

136. A circle and a rectangle have the same perimeter. The sides of the rectangle are 18 cm and 26 cm. What is the area of the circle ?
   (A) 88 cm²
   (B) 154 cm²
   (C) 616 cm²
   (D) 1250 cm²
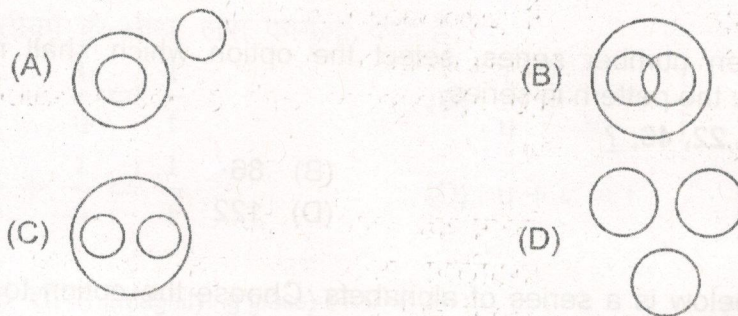
137. The height of a right circular cone is 84 cm and its base radius is 3.5 cm. Its volume is
(A) 3234 cm³
(B) 1078 cm³
(C) 2156 cm³
(D) 2496 cm³

138. If an angle is its own complementary angle, then its measure is
(A) 30°
(B) 45°
(C) 60°
(D) 90°

139. A kite is flying at a height of 75 m from the level ground, attached to a string inclined at 60° to the horizontal. The length of the string is
(A) $50\sqrt{2}$ m
(B) $50\sqrt{3}$ m
(C) $\dfrac{50}{\sqrt{2}}$ m
(D) $\dfrac{50}{\sqrt{3}}$ m

140. For given number series, select the option which shall replace ? to continue the pattern in series.
1, 4, 10, 22, 46, ?
(A) 64
(B) 86
(C) 94
(D) 122

141. Given below is a series of alphabets. Choose the option to replace ? to continue the series.
PMT, OOS, NQR, MSQ, ?
(A) LUP
(B) LVP
(C) LVR
(D) LWP

142. In given letter series, some of the letters are missing which are given in that order in options. Select the correct option.
_bcc_ac_aabb_ab_cc
(A) aabca
(B) abaca
(C) bacab
(D) bcaca

Directions: (Question No. 143 and Question No. 144): Select the analogous option for given words.

143. Prism : Glass : : ?
(A) Shoes : Leather
(B) Shirt : Trousers
(C) Editor : Newspaper
(D) Sailor : Ship

144. Menu : Food : : Catalogue : ?
(A) Rack
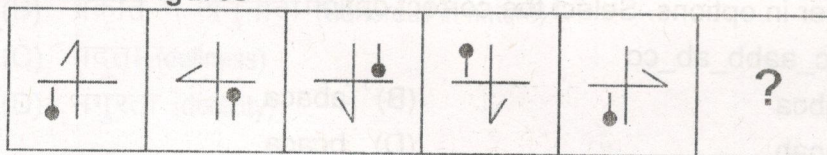(B) Newspaper
(C) Library
(D) Books

145. Select the odd word option.
(A) Gallon
(B) Ton
(C) Quintal
(D) Kilogram

146. A, B, C, D and E are five friends. A is shorter than B but taller than E. C is tallest. D is shorter than B and taller than A. Who has two persons taller and two persons shorter than him/her ?
(A) A
(B) B
(C) E
(D) D

147. You go North, turn right, then right again and then go to the left. In which direction are you now ?
(A) North
(B) South
(C) East
(D) West

Directions: (Question No. 148 & Question No. 149): Choose the option Diagram for given set of words.

148. Machine, Lathe, Mathematics

149. Mercury, Mars, Planets

150. Select the option which continues the pattern in given problem figures.
Problem Figures

Answer Figures