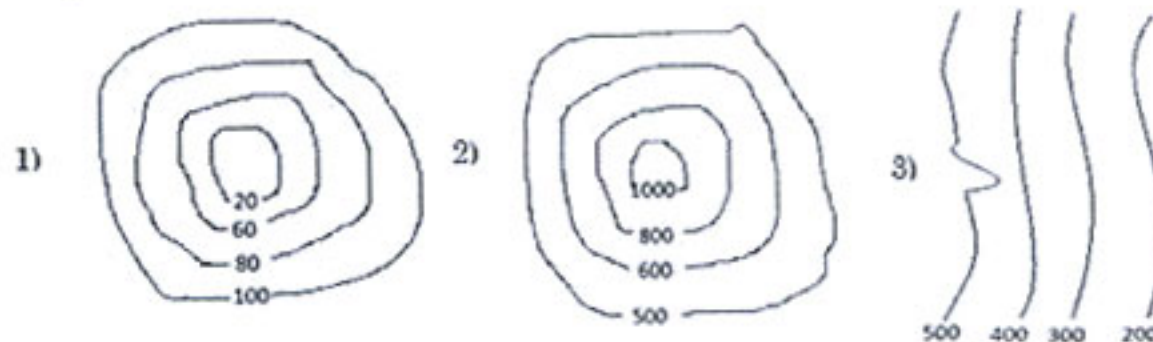


110. A man drives a car and reaches his destination in 4 hours. Had he increased his speed by 10 km/hr, he would have reached in 3 hours, 12 minutes. What distance did the man cover?
 (A) 80 km (B) 120 km (C) 160 km (D) 210 km

111. Match the following -

1. Lysosomes	a. PowerHouse
2. DNA	b. Chromosomes
3. Mitochondria	c. Suicide bags

- (A) 1-a, 2-c, 3-b (B) 1-c, 2-b, 3-a (C) 1-b, 2-c, 3-a (D) 1-c, 2-a, 3-b
112. In C.G.S system, the unit of strain is:
 (A) cm/kg (B) m/kg (C) no unit (D) None of these
113. A hardened steel file is used for removing metal or giving good finish to metals. Arrange the files in the increasing order of smoothness.
 (1) Rough file (2) Bastard file (3) Second cut file (4) Smooth file
 (A) 4, 3, 2, 1 (B) 1, 2, 3, 4 (C) 2, 1, 3, 4 (D) 4, 3, 1, 2
114. Which of the following software is generally used for managing large number of activities of a civil engineering project?
 (A) MS Eng (B) MS Project (C) SQL Projects (D) d Base Project
115. The chemical reaction between cement and water is:
 (A) Hydration (B) Chlorination (C) Calcination (D) None of these
116. Arya samaj was founded by-
 (A) Raja Ram Mohan Roy (B) Gopal Krishna Gokhale (C) Swami Dayanand Saraswati (D) Anne Besant
117. In potable water, the dissolved oxygen is stipulated as-
 (A) $<6\mu\text{g/l}$ (B) $>6\mu\text{g/l}$ (C) $<6\text{mg/l}$ (D) $>6\text{mg/l}$
118. A clock is placed on the floor upside down at 9 O'clock. If the minute hand is pointing South East, the hour hand would be pointing-
 (A) North east (B) North west (C) South east (D) South west
119. In a car race course, the race starts in North East direction. The road starts curving in a circular path after 5 km. After $3/4$ th of the circle the road is straight. In which direction would the cars be running on this straight road?
 (A) North west (B) South west (C) South east (D) Insufficient data
120. The process of 'Upsetting' pertains to-
 (A) Casting (B) Forging (C) Turning (D) Milling
121. Consider following contours:

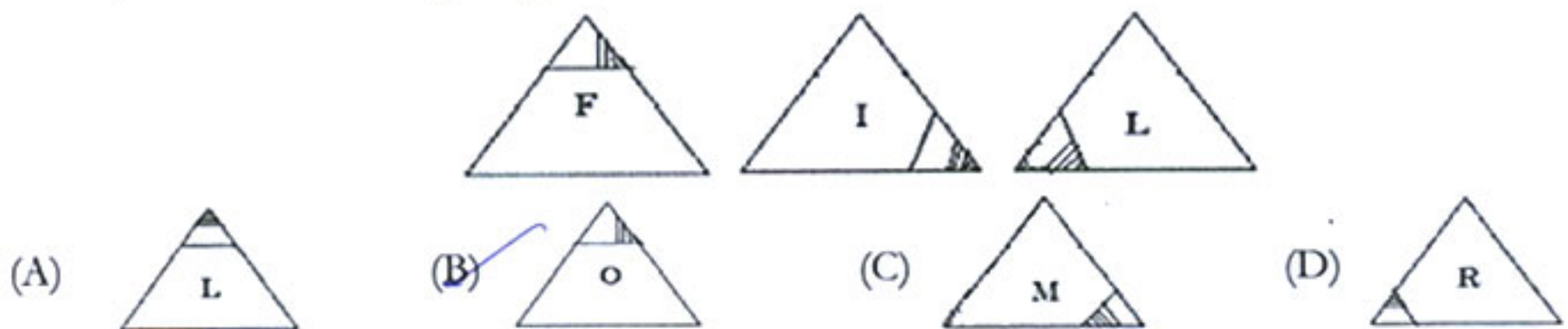


Match the following a) Hill b) Pond c) Slope

- (A) 1-b, 2-a, 3-c (B) 1-a, 2-b, 3-c (C) 1-a, 2-c, 3-b (D) 1-c, 2-b, 3-a

122. India's first war of Independence (related to Meerut mutiny) was in:
 (A) 1835 (B) 1857 (C) 1892 (D) 1905
123. Perform the subtraction operation of binary digits 1001 - 10. The result is:
 (A) 1010 (B) 101 (C) 100 (D) 111
124. An electrical appliance has a yoke, stator winding, rotor, commutator, carbon brush. The appliance could be a-
 (A) DC motor (B) AC induction motor (C) AC generator (D) Both (B) and (C)
125. The linkage of atoms of the same elements into longer chains is called:
 (A) Sublimation (B) Catenation (C) Affiliation (D) Linkage
126. How many Fundamental Rights are guaranteed by the Constitution of India?
 (A) 7 (B) 3 (C) 5 (D) 6
127. Value of π (approx. value 3.14) is :
 (A) Terminating decimal (B) Recurring decimal
 (C) Non-terminating non-repeating decimal (D) Indeterminate
128. If h is the depth of water held by a dam and A is the cross section area of the water and t is the thickness of wall of the dam, then the maximum pressure on the wall of the dam will depend upon:
 (A) A, h & t (B) A & h (C) h & t (D) h

129. Complete the series logically.



130. Raja Ravi Varma was famous for:
 (A) His struggle against the British (B) Music & Singing (C) Paintings (D) Hindu reforms
131. What are capacitor banks in the context of electricity supply to a city?
 (A) They add capacitance to the supply so that electricity is stored in case of breakdown (B) These banks are storage spaces so that capacitors are available to maintenance engineers in case of failures
 (C) They balance the inductive component of transformer coils to smoothen the supply (D) They balance the inductive loads to improve the power factor
132. French power declined in India after the battle of-
 (A) Plassey (B) Buxar (C) Talikota (D) Wandiwash
133. A coin is tossed two times. On both occasions, the result is heads. When the coin is tossed a third time, what is the probability of getting a head?
 (A) 1 (B) $\frac{1}{2}$ (C) $\frac{1}{4} \times \frac{1}{2}$ (D) $\frac{3}{4} \times \frac{1}{2}$
134. What is morphology?
 (A) Study of insects (B) Study of Human evolution
 (C) Study of forms and structural features of organisms (D) Study of interdependence of organisms and environment

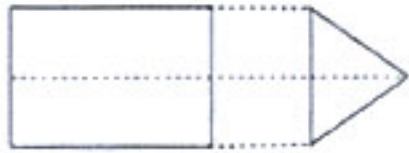
135. Orthogonal projection of an object shows a rectangle of dimensions 5 cm x 10 cm on the X - Y plane and a circle of diameter 10 cm on the Y-Z plane. What is the volume of the object?

- (A) 5000 cm³ (B) $\pi \cdot 5^3$ (C) $\frac{\pi \cdot 10^3}{4}$ (D) 2500 cm

136. A man said to a lady "Rishi's mother is the only child of your father". How is the lady related to Rishi?

- (A) Mother (B) Sister (C) Wife (D) Daughter

137. Consider the following orthogonal projections of an object.



This object is a-

- (A) Tetrahedron (B) Conical cylinder (C) Prism (D) Trapezium

138. Match the following:

1. Rectifier	a. Power electronics, Motor speed control, Battery charging, Phase control
2. Transistor	b. Rectifiers, Wave clipper circuits
3. SCR	c. Amplifiers, Switches

- (A) 1-a, 2-c, 3-b (B) 1-b, 2-a, 3-c (C) 1-b, 2-c, 3-a (D) 1-c, 2-a, 3-b

139. An interpretation of the Indian Constitution is based on the spirit of the-

- (A) Fundamental rights (B) Fundamental duties (C) Preamble (D) Directive principles

140. Earthquakes cause damage when-

- (A) Stress exceeds the strain of materials (B) Stress exceeds the strength of materials
(C) Strain exceeds the strength of materials (D) Strength exceeds the strain of materials

141. In September 2014, which state was affected by flood?

- (A) Karnataka (B) Madhya Pradesh (C) Gujarat (D) Jammu & Kashmir

142. A merchant is mixing two qualities of rice, one which he procures at ₹ 70/Kg and second at ₹ 40/Kg in the ratio of 7 : 3 respectively. At what price should he sell the mixture to earn a profit of 20%?

- (A) ₹ 73.20/Kg (B) ₹ 74/Kg (C) ₹ 74.6/Kg (D) ₹ 75.4/Kg

143. The average score of girls in a class is 75 marks. The average scores of boys in the class is 65 marks. If the average of the class is 68.75 marks, what is the ratio of boys to girls in the class?

- (A) 2 : 5 (B) 5 : 2 (C) 3 : 5 (D) 5 : 3

144. Out of the following, which is NOT a type of welding?

- (A) AC Arc (B) DC Arc
(C) MIG (D) All of these are different types of weldings

145. A map mentions the scale 1 cm=1 km.

The scale is in the ratio:

- (A) 1 : 10³ (B) 1 : 10⁴ (C) 1 : 10⁵ (D) 1 : 10⁶

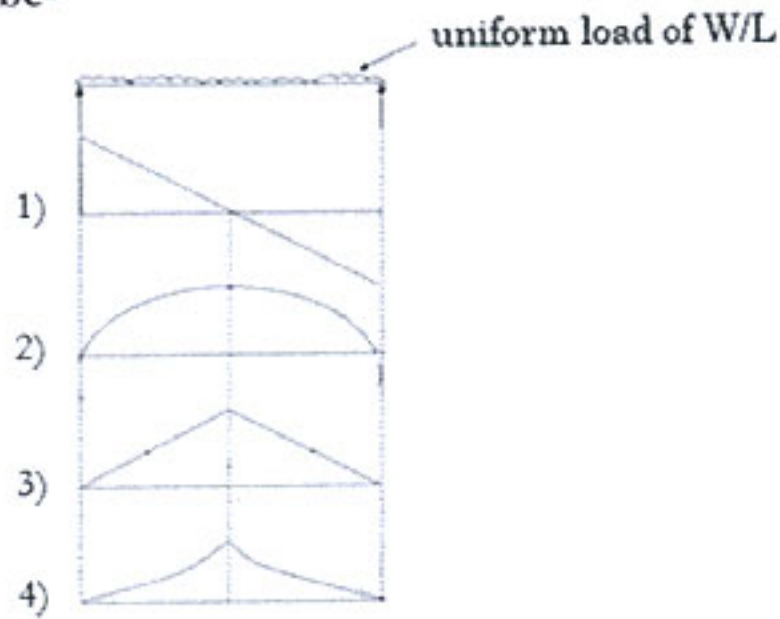
146. Plants get water through roots because of:

- (A) Viscosity (B) Elasticity (C) Gravity (D) Surface tension

147. In a circuit in which resistance, capacitance and inductance are in series, the impedance would be-

- (A) $\frac{V}{\sqrt{R^2 + (X_L - X_C)^2}}$ (B) $\sqrt{R^2 + (X_L - X_C)^2}$ (C) $i\sqrt{R^2 + (X_L - X_C)^2}$ (D) $\frac{1}{\sqrt{R^2 + (X_L - X_C)^2}}$

148. In the case of a uniformly distributed load on a simply supported beam, the bending moment diagram would be-



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

149. The first Indian railway train journey between Bombay and Thane was in the year-

- (A) 1857 (B) 1853 (C) 1818 (D) 1854

150. Glycerol can be represented by chemical formula:

- (A) $C_2H_5O_2$ (B) C_3H_7OH (C) C_3H_5OH (D) $C_3H_8O_3$