

RRB-JE (2015)

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| <p>1. Control volume refers to
(A) A fixed region in space
(B) A specified mass
(C) DTQPS
(D) QBATR</p> <p>2. All of the following are intensive properties EXCEPT
(A) Mass
(B) Density
(C) Pressure
(D) Temperature</p> <p>3. Fourier's law of heat conduction gives the heat flow for
(A) Irregular surfaces
(B) Non-uniform temperature surfaces
(C) One dimensional cases only
(D) Two dimensional cases only</p> <p>4. Absorptivity of a body is equal to its emissivity
(A) For a polished body
(B) Under thermal equilibrium
(C) At one particular temperature
(D) At shorter wave lengths</p> <p>5. A two stroke engine can be identified by
(A) Cooling system
(B) Lubrication system
(C) Absence of valves
(D) Piston size</p> <p>6. A four strokem four cylinder SI engine has a swept volume of 450 CC and compression ratio is 8. The clearance volume of each cylinder is equal to
(A) 48 CC (B) 55 CC
(C) 65 CC (D) 70 CC</p> <p>7. Piston rings are usually made of
(A) Cast iron (B) Aluminium
(C) Babbitt (D) Carbon steel</p> <p>8. In submerged arc welding, an arc is produced between a
(A) Carbon electrode and the work
(B) Metal electrode and the work
(C) Bare metal electrode and the work
(D) Two tungsten electrodes and the work</p> <p>9. Weld spatter is
(A) A flux
(B) A filler material used in gas welding
(C) A filler material used in soldering
(D) A welding defect</p> | <p>10. Investment casting uses pattern made of
(A) Metal
(B) Wood
(C) Plastic
(D) Wax</p> <p>11. Slag inclusion in casting is a
(A) Internal defect
(B) Moulding defect
(C) Surface defect
(D) Superficial defect</p> <p>12. Knurling is an operation
(A) of cutting smooth collars
(B) of under cutting
(C) done without use of coolant
(D) of generally roughing the surface for hand grip</p> <p>13. The process in which the edge of the sheet is folded over itself to increases the stiffness of the part, is called
(A) Dimpling
(B) Hemming
(C) Spinning
(D) Peen forming</p> <p>14. The usual value of the helix angle of a drill isd
(A) 20°
(B) 30°
(C) 45°
(D) 60°</p> <p>15. Effective resisstance of two wires when connected in series and in parallel are 25 ohms and 6 ohms respectively. The resistances of two wires is
(A) 10 ohms and 15 ohms
(B) 20 ohms and 30 ohms
(C) 5 ohms and 10 ohms
(D) 10 ohms and 20 ohms</p> <p>16. A closed path made by several branches of network is known as
(A) branch
(B) loop
(C) circuit
(D) junction</p> <p>17. Brushes of DC machines are usually made up of
(A) carbon (B) mild steel
(C) cast iron (D) aluminium</p> |
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| <p>18. Small DC motors having upto 5 H.P. usually have
(A) 2 poles
(B) 4 poles
(C) 6 poles
(D) 8 poles</p> <p>19. Humming sound produced in a transformer is usually due to
(A) load fluctuations
(B) oil used in the transformer
(C) magnetostriction
(D) mechanical vibrations</p> <p>20. Which of the following is a widely used insulating and cooling transformer liquid?
(A) mineral oil
(B) water
(C) heavy water
(D) mercury</p> <p>21. The difference between synchronous speed and actual speed of a motor is called
(A) lag
(B) regulation
(C) slip
(D) backlash</p> <p>22. Which of the following motor is self starting?
(A) Split motor
(B) Shaded pole motor
(C) Reluctance motor
(D) Hysteresis motor</p> <p>23. Water hammer pressure is relieved by
(A) penstock
(B) draft tube
(C) turbine
(D) surge tank</p> <p>24. TIG Welding stands for
(A) Temperature Insulated Gas Welding
(B) Tungsten Inert Gas Welding
(C) Thermally Induced Gas Welding
(D) Tungsten Insulated Gas Welding</p> <p>25. The type of modulation used in the T.V. picture transmission is
(A) amplitude modulation
(B) phase modulation
(C) frequency modulation
(D) modulation is not needed</p> <p>26. The process of extracting the signal from the modulated wave is called
(A) modulation
(B) detection
(C) amplification
(D) resonance</p> | <p>27. An OR gate has 4 inputs. One input is high and the other three are low. The output
(A) is high
(B) is low
(C) is alternately high and low
(D) may be high or low depending on inputs</p> <p>28. Decimal 43 in hexadecimal is
(A) 2B
(B) B2
(C) 2C
(D) C2</p> <p>29. A JFET is
(A) a current controlled device
(B) a low input resistance
(C) a voltage controlled device
(D) is always forward biased</p> <p>30. Which type of gain is achieved using CB configuration
(A) current
(B) voltage
(C) resistance
(D) power</p> <p>31. In a vacuum diode, emission of electrons happens due to
(A) electric field
(B) magnetic field
(C) heating
(D) electron bombardment</p> <p>32. Which of the following cannot actually move?
(A) free electrons
(B) ions
(C) holes
(D) majority carriers</p> <p>33. The mean value of half wave rectified sine wave is
(A) 0.707
(B) 0.637
(C) 0.5
(D) 0.318</p> <p>34. A silicon controlled rectifier is a
(A) Unijunction device
(B) Device with two junctions
(C) Device with three junctions
(D) Device with four junctions</p> <p>35. The unit of elastic modulus and pressure
(A) Stress, shear modulus and pressure
(B) Strain, shear modulus and force
(C) Shear modulus, stress and force
(D) Stress, strain and pressure</p> |
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| <p>36. Relative density of a compacted dense sand is approximately equal to
 (A) 0.4
 (B) 0.95
 (C) 0.50
 (D) 1.10</p> <p>37. Which one of the following is the mode of failure in a fillet weld material?
 (A) Tension
 (B) Shear
 (C) Bearing
 (D) Crushing</p> <p>38. Kinematic viscosity of gases on increase of temperature
 (A) Decreases
 (B) Increases
 (C) Remains the same
 (D) First decreases then increases</p> <p>39. Benchmark is established by
 (A) Hypsometry
 (B) Barometric levelling
 (C) Spirit levelling
 (D) Trigonometrical levelling</p> <p>40. A critical path has
 (A) Zero float
 (B) Minimum float
 (C) Maximum float
 (D) Infinite float</p> <p>41. A sample of cement is said to be sound when it does not contain free
 (A) Lime
 (B) Silica
 (C) Iron oxide
 (D) Alumina</p> <p>42. The tensile strength of concrete is approximately what percent of compressive strength of concrete
 (A) 50%
 (B) 20%
 (C) 10%
 (D) 5%</p> <p>43. The eddy viscosity for turbulent flow is
 (A) A function of temperature only
 (B) A physical property of the fluid
 (C) Dependent on the flow
 (D) Independent of the flow</p> <p>44. The type of surveying which requires least office work is
 (A) Tacheometry
 (B) Trigonometrical levelling
 (C) Plane table surveying
 (D) Theodolite surveying</p> | <p>45. The ratio of volume of voids to the total volume of soil mass is called
 (A) Air content
 (B) Porosity
 (C) Percentage air voids
 (D) Voids ratio</p> <p>46. Which is the purest form of iron?
 (A) Cast iron
 (B) Wrought iron
 (C) Mild steel
 (D) High carbon steel</p> <p>47. Commonly used instruments in power system measurement are
 (A) induction
 (B) moving coil or iron
 (C) rectifier
 (D) electrostatic</p> <p>48. Damping of the Ballistic galvanometer is made small to
 (A) get first deflection large
 (B) make the system oscillatory
 (C) make the system critically damped
 (D) get minimum overshoot</p> <p>49. The rectifier instrument is not free from
 (A) temperature error
 (B) wave shape error
 (C) frequency error
 (D) both wave and frequency error</p> <p>50. Alternating current is measured by
 (A) induction ammeter
 (B) permanent magnet type ammeter
 (C) electrostatic ammeter
 (D) moving iron repulsion type voltmeter</p> <p>51. Most sensitive galvanometer is
 (A) elastic galvanometer
 (B) vibration galvanometer
 (C) Duddlb galvanometer
 (D) spot ballistic galvanometer</p> <p>52. The suspended solids present in surface water can be determined by
 (A) gravimetric test
 (B) colourimetric test
 (C) titrimetric test
 (D) spectrophotometric test</p> <p>53. The disease caused by mercury is known as
 (A) itai-itai
 (B) blue baby disease
 (C) minimata
 (D) skin disease</p> |
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54. Length to width ratio of rectangular sedimentation tank should be
 (A) 3 : 4
(B) 3 : 1
 (C) 4 : 1
 (D) 1 : 5
55. The average concentration of ozone in troposphere is
 (A) 0.3 ppm
(B) 0.05 ppm
 (C) 0.5 ppm
 (D) 0.1 ppm
56. A condition of sudden permanent aural damage resulting from an intense short term exposure of noise is called
(A) acoustic trauma
 (B) annoyance
 (C) temporary threshold shift
 (D) permanent threshold shift
57. The acidity in the atmosphere is basically caused due to emission of SO_x and NO_x. The percentage contribution of SO_x and NO_x in the formation of acidity is
 (A) 80% and 20% respectively
(B) 70% and 30% respectively
 (C) 50% and 50% respectively
 (D) 60% and 40% respectively
58. Which of the following is not a valid category of impact printers?
 (A) Chain printers
 (B) Line printers
 (C) Band printers
(D) Ink-jet printers
59. Which of the following is not true about PROM?
 (A) Random access memory
 (B) Programmable read only memory
 (C) Non-volatile memory
(D) Sequential access memory
60. Which of the following components of CPU is responsible to direct the system to execute instructions?
 (A) Arithmetic and Logic Unit (ALU)
(B) Control Unit (CU)
 (C) Registers
 (D) Random Access Memory (RAM)
61. BCD stands for _____
(A) Binary Coded Decimal
 (B) Binary Code Display
 (C) Bidirectional Coded Data
 (D) Binary Coded Data
62. The binary representation of 144.5 is _____
 (A) (10010000.01)₂
 (B) (10010001.11)₂
(C) (10010000.10)₂
 (D) (10011001.11)₂
63. Considering X as a binary variable, the Boolean expression X.0 is equivalent to
 (A) X
 (B) 1
(C) 0
 (D) X'
64. The 2's compliment of the binary number (10000000)₂ is
 (A) (01111111)₂
 (B) (10101010)₂
(C) (10000000)₂
 (D) (01010101)₂
65. Linux is a/an _____
 (A) Application software
 (B) Word processor
 (C) Database management system
(D) System software
66. Class 'B' IP addresses use _____ bits for Host ID.
 (A) 8
(B) 16
 (C) 24
 (D) 32
67. Which of the following is not a Web browser?
 (A) Netscape Navigator
 (B) Safari
(C) HTML
 (D) Chrome
68. The meaning of R.F. is
 (A) Reducing fraction
(B) Representative fraction
 (C) Reduction factor
 (D) Representative factor
69. If a line is parallel to both H.P. and V.P., its true length will be seen in
(A) Both front and top views
 (B) only in side view
 (C) only in front view
 (D) only in top view
70. Planes which are inclined to both the horizontal and vertical planes are known as
 (A) auxiliary planes
 (B) profile planes
 (C) reference planes
(D) oblique planes

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71. In first - angle projection system, the right hand side view of an object is drawn
 (A) right of the elevation
 (B) above the elevation
(C) left of the elevation
 (D) below the elevation
72. A square lamina is perpendicular to the H.P. and parallel to V.P.. Its horizontal trace will be
 (A) perpendicular to the reference line
(B) parallel to the reference line
 (C) inclined to the reference line
 (D) a point
73. A 0.5 kg ball is accelerated from rest to 12 m/s in 0.30 s. The force applied on the ball during its motion is
(A) 20 N
 (B) 6.0 N
 (C) 40 N
 (D) 3.6 N
74. The acceleration due to gravity near the surface of Earth (radius R) is proportional to
 (A) R
 (B) 1/R
 (C) R²
(D) 1/R²
75. A ball of mass 10 kg is moving with a velocity 5 m/s. The kinetic energy of the ball is
 (A) 50 J
(B) 125 J
 (C) 250 J
 (D) 25 J
76. The end of a string is vibrated up and down once every 1.5 s and waves propagate at 6 m/s along the string. The wavelength of the waves is
 (A) 4.0 m
(B) 9.0 m
 (C) 0.25 m
 (D) 1.5 m
77. An object is placed somewhere between the focus and centre of curvature of a concave mirror.
 Which of the following best describes the image formed?
(A) Real, inverted and magnification greater than one
 (B) Real, inverted and magnification less than one
 (C) Virtual, upright and magnification greater than one
 (D) Virtual, upright and magnification less than one.
78. Two 1.5 V batteries in series power a transistor radio. The batteries hold a total charge of 270 C. If the radio has a resistance of 100 Ω, the batteries will last
 (A) 5.0 hours
(B) 2.5 hours
 (C) 1.25 hours
 (D) 33 hours
79. What is the value of X in the following equation ;
 $4 \text{NH}_3 + X \text{O}_2 \rightarrow 4\text{NO} + 6\text{H}_2\text{O}$
 (A) 2
 (B) 3
 (C) 4
(D) 5
80. During the electrolytic refining of copper using copper sulphate as an electrolyte
(A) Impure copper is made the anode
 (B) Impure copper is made the cathode
 (C) (ii) only
 (D) (iii) only
81. The electronic configuration of an element is 2, 8, 1. To which of the following elements will it be similar?
(A) 2, 1
 (B) 2, 8, 4
 (C) 2, 7
 (D) 2, 8, 7
82. A solution containing 80 grams of sodium hydroxide (molecular mass = 40) completely neutralizes another solution containing 98 grams of an acid "A" (molecular mass = 98). The charge on the anion part of "A" is
 (A) -1
(B) -2
 (C) -3
 (D) -4
83. Which of the following is a saponification reaction?
 (A) $\text{CH}_3\text{COOH} + \text{NaOH} \rightarrow \text{CH}_3\text{COONa} + \text{H}_2\text{O}$
 (B) $2\text{CH}_3\text{COOH} + 2\text{Na} \rightarrow 2\text{CH}_3\text{COONa} + \text{H}_2$
 (C) $2\text{CH}_3\text{CH}_2\text{OH} + 2\text{Na} \rightarrow 2\text{CH}_3\text{COONa} + \text{H}_2$
(D) $\text{CH}_3\text{COOCH}_3 + \text{NaOH} \rightarrow \text{CH}_3\text{COONa} + \text{CH}_3\text{OH}$
84. Which of the following is a molecule of an element?
 (A) Neon (g)
(B) Chlorine (g)
 (C) Sulphur dioxide (g)
 (D) Water (l)

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101. In two vessels A and B, the milk and water are in the ratio of 3 : 4 and 2 : 3 respectively. The ratio in which these are mixed to obtain new mixture which contains milk and water in the ratio 20 : 29 is
 (A) 6 : 5
 (B) 7 : 9
(C) 2 : 5
 (D) 3 : 5
102. A person cycles from one place to another in 100 minutes. If his speed is 18 km/h, the distance between two places is
 (A) 20 km
(B) 30 km
 (C) 15 km
 (D) 25 km
103. A train 200 m long is moving at 68 km/h. The time in seconds, it will take to pass another train 150 m long which is moving at 50 km/h in the same direction from the moment they meet is
 (A) 40
 (B) 50
 (C) 60
(D) 70
104. A and B can do a piece of work in 24 days. If efficiency of A is double than B, then in how many days B alone can do the same work?
 (A) 72 (B) 60
 (C) 36 (D) 30
105. In how many days R alone can do the same work?
 (A) 70 **(B) 60**
 (C) 45 (D) 30
106. The averages of first six even whole numbers is
(A) 5
 (B) 6
 (C) 7
 (D) 8
107. The average weight of 100 students is 46 kg. The average weight of girls is 40 kg. If the number of girls is 40, the average weight of boys in kilograms is
 (A) 40
 (B) 45
(C) 50
 (D) 60
108. The common difference of an AP in which $a_{18} - a_{13} = 45$ is
 (A) -9
(B) 9
 (C) -5
 (D) 5
109. The tenth term of the GP 3, 1, $\frac{1}{3}$, ... is
 (A) 3^{-10}
 (B) 3^{-9}
(C) 3^{-8}
 (D) 3^9
110. A ladder 15 m long just reaches the top of a vertical wall. If the ladder makes an angle of 60° with the wall, the distance of the foot of the ladder from the wall is
 (A) 7.5 m
 (B) $5\sqrt{3}m$
 (C) $10\sqrt{3}m$
(D) $\frac{15\sqrt{3}}{2}m$
111. From a point on the bridge across a river the angles of depression of the bank on the opposite side of the river are 60° and 45° respectively. If the bridge is at a height of 4m from the bank, the width of the river is
(A) $\frac{4(3 + \sqrt{3})}{3}m$
 (B) $4(\sqrt{3} + 1)m$
 (C) $\frac{2(1 + \sqrt{3})}{3}m$
 (D) $2(2\sqrt{3} + 1)m$
112. If $(X - 1)$ is a factor of $x^4 + x^3 - 2x^2 + ax + 1$, then a is equal to
 (A) 1
(B) -1
 (C) 2
 (D) -2
113. One of the factors of $(49x^2 - 1) + (1 + 7x)^2$ is
 (A) $7 + x$
 (B) $7 - x$
(C) $14x$
 (D) $7x - 1$
114. All values of k for which $2x^2 + kx + 8 = 0$ has real roots is
 (A) $-8 \leq k \leq 8$
(B) $8 \leq k \leq -8$
 (C) $-2\sqrt{2} \leq k \leq 2\sqrt{2}$
 (D) $2\sqrt{2} \leq k \leq -2\sqrt{2}$

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115. The sum and product of the roots of the equation $-5x^2 + 2x - 10 = 0$ are respectively
 (A) $-\frac{2}{5}, 2$ (B) $2, -\frac{2}{5}$
 (C) $\frac{2}{5}, 2$ (D) $-\frac{2}{5}, -2$
116. Which statement is not true for a game of Badminton?
 (A) Total points to be scored are 21
 (B) If both sides score upto game point, the winner needs two clear
 (C) The game never ends in a draw
(D) Total points to be scored are 15
117. Paralympics is a multisport event involving those athletes who are
 (A) only visually challenged
 (B) only hearing impaired
 (C) just mentally challenged
(D) with a range of physical disability
118. Whose saying 'Earth has enough for man's need but not enough for man's greed' is often being quoted by speakers on Environment?
 (A) Independent India's first Prime Minister
 (B) The second President of India
 (C) The Environmentalist, Madhav Gadgil
(D) The father of our nation
119. The country called 'Land of the Rising Sun' is
 (A) China
 (B) Norway
(C) Japan
 (D) Sweden
120. The term 'collegium system' was recently seen in the newspapers. With which field is this term associated?
 (A) Education
(B) Judiciary
 (C) Politics
 (D) Constitution
121. One of the following is not an objective of the Mid-day Meal scheme in school launched by the government. Select from options given below
 (A) Provide full nutritional support to children at the Primary stage of education
 (B) Encourage disadvantaged section of the society to attend school regularly and concentrate on studies
 (C) Improve the nutritional status of children in the primary section
(D) Bridge the gender and social category gaps in schools at the primary level itself
122. Which one out of the values of the Indian constitution means 'having complete freedom and being the supreme authority'?
 (A) Socialism
 (B) Secularism
(C) Sovereignty
 (D) Liberty
123. There are two forms of government, presidential and parliamentary. Which type of government do India, US and England have?
 (A) India - Parliamentary, England - Parliamentary, US - Parliamentary
 (B) India - Presidential, England - Parliamentary, US - Presidential
(C) India - Parliamentary, England - Parliamentary, US - Presidential
 (D) All three countries have Presidential form
124. If you were to measure the strength of a current which instrument would you look for?
 (A) Voltmeter
 (B) Thermometer
(C) Ammeter
 (D) Barometer
125. Another term for genetic engineering is
(A) Recombinant DNA technology
 (B) Polymerase Chain Reaction
 (C) DNA Fingerprinting
 (D) DNA Typing
126. Which function of the body is not carried out by long bones?
 (A) Providing support to legs
 (B) Formation of blood
(C) Making the neck rotate to body bend on the sides
 (D) Serving as platform for attachment of muscles
127. Which disease does Quinine cure and from which plant is it obtained?
(A) Malaria; Cinchona
 (B) Blood Pressure; Rawolfia
 (C) Tuberculosis; Nicotiana
 (D) Jaundice; Hibiscus
128. The artificial satellites cannot be used for
 (A) Relaying Radio, TV and Telephone signals
 (B) Weather forecasting
(C) Monitoring atmospheric pollution
 (D) Exploring solar system

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129. Of the Slav population scattered in Eastern Europe, those who began the Pan Slav movement to have one state were
(A) Serbians
 (B) Bulgarians
 (C) Romanians
 (D) Polish
130. Who built the Pyramids?
(A) Pharaohs
 (B) Chinese
 (C) Confucians
 (D) Romans
131. The king of Mauryan Empire who in 322 BC uprooted Greeks from Punjab and Nandas from the Gangetic plane was
(A) Chadragupta
 (B) Bindusar
 (C) Ashok
 (D) Mahapadmananda
132. Which method will you use to separate youghurt (Curd) from water contained in it?
 (A) Distillation
 (B) Crystallisation
(C) Filtration
 (D) Decantation
133. Out of two bottles of pickle, one old and one freshly made, the old one can be detected by its smell and taste caused by
(A) Oxidation of oil in the pickle making it rancid
 (B) Invasion of bacteria causing putrefaction
 (C) Reduction in volume of oil in the pickle
 (D) Fermentation by yeast
134. Hair dyes may contain the base
 (A) Sodium Hydroxide
(B) Ammonium Hydroxide
 (C) Calcium Hydroxide
 (D) Potassium Hydroxide
135. A bicycle pump works on the principle :
(A) When volume decreases, pressure increases
 (B) When volume increases, pressure increases
 (C) Air pressure at one point becomes zero
 (D) At one point volume and pressure become equal
136. What is not true of the Thar Desert?
 (A) Has arid and semiarid weather conditions throughout the year
 (B) The flora is mainly cacti and thorny bushes
(C) Water is available in sinduates and streams which are always there even without rainfall
 (D) Rainfall is scanty
137. What is a hotspot?
(A) A region of high endemic biodiversity
 (B) A geographical area with very high exotic bio-diversity
 (C) A region of scanty rainfall
 (D) An area of constant high temperature
138. Give the term for 'Price of one currency in terms of another'.
 (A) Effective exchange rate
(B) Nominal exchange rate
 (C) Spot rate
 (D) Purchasing Power Parity
139. The labour or workforce of a country does not include one of the following
 (A) Employees of Government
 (B) Self employed
 (C) Unemployed
(D) Those of age less than 14 years
140. The terms of trade measure
(A) Ratio of export prices and import prices
 (B) Sum of export prices and import prices
 (C) Difference of export price and import price
 (D) Product of export price and import price
141. Pointing to a portrait, Suresh said, "His father is the husband of my father's only daughter." How is the person in the portrait related to Suresh?
 (A) uncle
(B) nephew
 (C) cousin
 (D) brother
142. The first two numbers on the left of the sign '::' are related in a certain way. The same relationship holds for the second pair of numbers on the right side of the sign '::' of which one is missing. Find the missing one from the alternatives.
 27 : 65 :: 125 : ?
(A) 217
 (B) 237
 (C) 253
 (D) 344
143. The two words on the left side of the sign '::' are related in a certain way. The same relationship holds for the second pair of words on the right side of the sign '::' of which one is missing. Find the missing one from the alternatives.
 School : Student :: Hospital : ?
 (A) Doctor **(B) Patient**
 (C) Nurse (D) Inmates

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144. A team of five is to be selected from among five boys P, Q, R, S, and T and four girls A, B, C and D with the following conditions.

- (A) RTSBA
- (B) TCA PQ
- (C) DTQPS

(D) QBATR

145. Arrange the following words in a meaningful logical sequence and choose the appropriate number sequence from the alternatives.

1. Wall 2. Brick 3. Decoration 4. House 5. Clay 6. Room

- (A) 2, 5, 1, 6, 3, 4
- (B) 5, 2, 1, 6, 3, 4
- (C) 5, 2, 1, 6, 4, 3**
- (D) 5, 1, 2, 6, 4, 3

146. The numbers in each group are related in a certain way. Choose the correct number from among the alternatives that will replace the question mark.

(3[5]4) (5[13]12) (6[?]8)

- (A) 11
- (B) 10**
- (C) 14
- (D) 9

147. In a certain language, '283' means 'trees have leaves'; '758' means 'eaves are green'; and '2495' means 'forests have green bushes'. Which digit means 'forests' in that language?

- (A) 9
- (B) 4
- (C) either 4 or 9**
- (D) either 2 or 9

148. If 'QUESTION' is coded as 'OTEQUSIN', then 'COMPUTER' would be coded as:

- (A) **EUMCOPTR**
- (B) RTPOCMUE
- (C) EUMCRTPO
- (D) CMUERTPO

149. Startign from his school, Vipul moves 5 km to the West, takes a left turn and moves 10 km. He then takes two successive left turns covering 10 km and 15 km respectively. Finally he takes another left turn and covers 10 km. In which direction is he now with respect to his school?

- (A) North-East
- (B) North
- (C) North-West**
- (D) West

150. The numbers in the matrix given below follow a certain trend rowwise and and/or column wise. Study the trend and choose the number which will replace the question mark?

3	8	11
6	4	10
45	80	?

- (A) 108
- (B) 196
- (C) 202
- (D) 221**