PREVIOUS YEAR PAPER

DSSSB PGT Physics (Female) 2021 — 29 June 2021, sitting 1

DSSSB PGT · 29 June 2021

217 of the paper's 300 questions · +1 for a correct answer, −0.25 for a wrong one · 180 minutes

Left out of the original paper: 83 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

Questions from the Delhi Subordinate Services Selection Board's paper of 29 June 2021. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/dsssb-pgt/previous-year-papers/dsssb-pgt-2021-physics-female-29-jun-1/

Mental Ability

1. From the given responses, find the missing term in the series.
J10T, N14S, R18R, V22Q, ?

(a) Z26P
(b) G9N
(c) V23P
(d) D5N

Answer: (a)

2. From the given responses, find the missing letter cluster in the series.
DaC, FeI, HiO, JmU, ?

(a) LQw
(b) pLC
(c) QIv
(d) LqA

Answer: (d)

3. In the following question, select the odd word from the given alternatives.

(a) Nitrogen
(b) Water
(c) Salt
(d) Baking powder

Answer: (a)

4. Select the related word from the given alternatives.
Bacteriophobia : Bacteria : : ? : Darkness

(a) Lygophobia
(b) Cardiophobia
(c) Pyrophobia
(d) Hydrophobia

Answer: (a)

5. In the following question, select the related letters from the given alternatives.
FHBJ : LPDT : : EKCG : ?

(a) IWNF
(b) JVFN
(c) VJFN
(d) JFVN

Answer: (b)

6. In a certain code language, 'POCKET' is written as 'QQFOJZ'. How will 'FEMALE' be written as in that language?

(a) HHDNBF
(b) DDANBD
(c) GGPEQK
(d) BBDNED

Answer: (c)

7. A family went out for a walk. Daughter walked before the father. Son was walking behind the mother and ahead of father. Who walked last?

(a) Son
(b) Father
(c) Mother
(d) Daughter

Answer: (b)

8. In a row of children, Deepa is 9th from the left end and Kajal is 13th from the right end. If their positions are interchanged, Deepa becomes 17th from the left. What is the new position of Kajal from the right end of the row?

(a) 22
(b) 25
(c) 27
(d) 33

Answer: (a)

9. In the question below, there are two statements followed by four conclusions given in options. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow(s) from the given statements.
Statements:
All months are Septembers.
All months are Octobers.

(a) Some Octobers are Septembers
(b) All Septembers are Octobers
(c) All Octobers are months
(d) All Septembers are months

Answer: (a)

10. In the question below, there are three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow(s) from the given statements.
Statements:
1. All keys are locks.
2. All locks are screws.
3. All doors are keys.
Conclusions:
I. All screws are keys.
II. Some locks are keys.

(a) If only conclusion I follows

(b) If only conclusion II follows

(c) If either conclusion I or II follows

(d) If neither conclusion I nor II follows

Answer: (b)

11. In the question given, relations between different elements are shown in the statements. These statements are followed by two conclusions. Find out which of the given conclusions follow(s) the given statements and select the correct alternative from the given choices.
Statements:
$O > Z \geq L > Y$; $U = Y > H \geq P$
Conclusions:
I. $Z > H$
II. $P \geq U$

(a) Only conclusion I is true

(b) Only conclusion II is true

(c) Either conclusion I or II is true

(d) Neither conclusion I nor II is true

Answer: (a)

12. Which of the mathematical signs should be interchanged in the below equation to make it mathematically correct?
$440 \times 10 - 330 + 100 \div 5 = 214$

(a) + and ÷

(b) - and ÷

(c) × and ÷

(d) + and ×

Answer: (c)

13. Find the missing number in a series given below.
4, 10, 22, 46, ?

(a) 56

(b) 66

(c) 76

(d) 94

Answer: (d)

16. A boy starts walking towards west, he turns right and again he turns right and then he turns left at last. Towards which direction is he walking now?

(a) West
(b) North
(c) South
(d) East

Answer: (b)

General Awareness

21. The festival of Kumbh mela is organised in India every _____ years.

(a) 12
(b) 6
(c) 2
(d) 4

Answer: (a)

22. Where are the famously known Elephanta Caves located in India?

(a) Odisha
(b) Rajasthan
(c) Maharashtra
(d) Karnataka

Answer: (c)

23. Union Territory of Ladakh got the large[illegible]lar [illegible]oject set up under the Centre's _____ initiative at Leh IAF centre in November 2020, to provid[illegible]ainable energy alternative to fossil fuel and traditional methods of energy generation.

(a) Make in India
(b) Skill India
(c) Smart Cities
(d) Digital India

Answer: (a)

24. Which of the following financial institutions is also known as International Bank for Reconstruction and Development (IBRD)?

(a) International Monetary Fund (IMF)
(b) World Bank
(c) Asian Development Bank (ADB)
(d) European Investment Bank (EIB)

Answer: (b)

25. Which of the below-mentioned states was the first one to implement "Kudumbashree", a women-oriented community-based poverty reduction programme?

(a) Tamil Nadu
(b) Kerala
(c) Karnataka
(d) Andhra Pradesh

Answer: (b)

26. What temperature is known as the lowest temperature at which a substance can catch fire?

(a) Ignition Temperature
(b) Fire Temperature
(c) Oxidization Temperature
(d) Flaming Temperature

Answer: (a)

27. What number of kingdom classifications was initially proposed by R.H. Whittaker in the year 1969?

(a) 3
(b) 5
(c) 7
(d) 12

Answer: (b)

28. Who was the first woman in the world to reach the summit of Mt. Everest?

(a) Edmund Hillary
(b) Tenzing Norgay
(c) Junko Tabei
(d) Bachendri Pal

Answer: (c)

29. What is the name of the small strip of land that connects the North America and the South America?

(a) Isthmus of Panama
(b) Suez Canal
(c) Adam's Bridge
(d) Bermuda Strip

Answer: (a)

30. Where did Buddha attain enlightenment?

(a) Kusinagara
(b) Sarnath
(c) Lumbini
(d) Bodh Gaya

Answer: (d)

31. Where was the Muslim League established in the year 1906?

(a) Lucknow
(b) Dhaka
(c) Lahore
(d) Calcutta

Answer: (b)

32. How many sessions were organized by the Constituent Assembly while discussing the draft Constitutions before finalizing the Constitution of India?

(a) 9
(b) 7
(c) 12
(d) 11

Answer: (d)

33. Who served as the first ever Chairman of the Constituent Assembly before the appointment of Dr. Rajendra Prasad?

(a) Dr Sachidanand Sinha
(b) Dr BR Ambedkar
(c) Pt. Jawaharlal Nehru
(d) Dr AK Ayyar

Answer: (a)

34. How many schedules were there in the original t of the Constitution of India?

(a) 8
(b) 9
(c) 10
(d) 12

Answer: (a)

35. Who is the only woman in the world to have received multiple Nobel Prizes?

(a) Mother Teresa
(b) Jane Addams
(c) Marie Skłodowska Curie
(d) Aung San Suu Kyi

Answer: (c)

36. Who wrote the book "Untouchable"?

(a) Mahatma Gandhi
(b) BR Ambedkar
(c) Mulk Raj Anand
(d) Khushwant Singh

Answer: (c)

37. Where is the headquarters of The Board of Control for Cricket in India located?

(a) Bangalore
(b) Mumbai
(c) New Delhi
(d) Pune

Answer: (b)

38. Which woman tennis player recently emerged as the winner of the Australian Open 2021?

(a) Naomi Osaka
(b) Serena Williams
(c) Maria Sharapova
(d) Martina Navratilova

Answer: (a)

39. Whose Birth Anniversary shall be celebrated as Parakram Diwas on 23rd January each year?

(a) Netaji Subhas Chandra Bose
(b) Bhagat Singh
(c) Jawaharlal Nehru
(d) Lal Bahadur Shastri

Answer: (a)

40. Which country's military contingent participated i e Indian Republic Day Parade on 26th January 2021?

(a) France
(b) United Kingdom
(c) Bhutan
(d) Bangladesh

Answer: (d)

Arithmetic Ability

44. Find the maximum number of students among whom 63 pens and 98 copies can be distributed in such a way that each student gets the same number of pens and the same number of copies.

(a) 2
(b) 5
(c) 3
(d) 7

Answer: (d)

46. 4 years ago, the average age of a family of 6 members was 32 years. The present average age is also 32 years after including a child into a family.
Find the age of the child.

(a) 12 years

(b) 7 years

(c) 6 years

(d) 8 years

Answer: (d)

47. 40 percent of a number is equal to four-seventh of another number. What is the ratio between the first number and the second number respectively?

(a) 4:7

(b) 5:7

(c) 7:4

(d) 10:7

Answer: (d)

48. In an examination, 68 percent of candidates passed in mathematics and 62 percent of the candidates passed in statistics. While 40 percent passed in both the subjects. If 30 candidates failed in both these subjects, then the total number of candidates were:

(a) 600

(b) 180

(c) 450

(d) 300

Answer: (d)

49. By selling a book for Rs.1512 a retailer got 5.5 percent loss after allowing a discount of 10 percent. What is the marked price if he wants to get 20 percent profit after allowing a discount of 20 percent?

(a) Rs.2400

(b) Rs.2500

(c) Rs.2200

(d) Rs.1920

Answer: (a)

50. A vessel contains 54 litres mixture of honey, milk and water in the ratio of 3:4:5 respectively. 1.5 litres of honey and 2 litres of milk is added to this mixture. Find the new ratio of honey, milk and water in the vessel.

(a) 5:4:3

(b) 5:6:7

(c) 6:8:9

(d) 4:5:6

Answer: (c)

51. 5 years from now, the ratio of ages of A, B and C will be 3:5:2. The sum of their present ages is 125 years, what is the present age of C?

(a) 20 years
(b) 28 years
(c) 23 years
(d) 25 years

Answer: (c)

52. In what time will Rs.1250 amount to Rs.1475 at 6 percent per annum?

(a) 2 years
(b) 3 years
(c) 4 years
(d) 5 years

Answer: (b)

53. Find the time taken by a boatman to travel a distance of 150 km downstream where downstream speed of boatman is 250 percent of upstream speed of boatman. Speed of stream is 15 km/hr.

(a) 4 hours
(b) 3 hours
(c) 5 hours
(d) 6 hours

Answer: (b)

54. A person travels equal distances with speeds of [illegible] km/hr, 4 km/hr and 5 km/hr and takes a total time of 47 minutes. The total distance (in km) is:

(a) 2
(b) 3
(c) 4
(d) 5

Answer: (b)

55. A group of 'm' men can do a certain work in 20 days. If there were 3 less men in the group, then it would have taken 4 more days to complete the same work. How long would a group of (m – 6) men take to do the work?

(a) 28 days
(b) 36 days
(c) 30 days
(d) 32 days

Answer: (c)

56. If the numerical value of the perimeter of an equilateral triangle is $4\sqrt{3}$ times its area, then find the length of each side of the triangle.

(a) 1 unit

(b) 3 unit

(c) 4 unit

(d) 2 unit

Answer: (a)

General English

61. In the following question, four sentences are given out of which three sentences are grammatically incorrect while one is correct. Find out which sentence is grammatically correct and select the appropriate option.

(a) Cyber fraudsters keeps finding new ways to scam people.

(b) The only way to beats the cybercriminals is to be alert and to be aware.

(c) The State Bank of India (SBI) has a warning for there customers.

(d) The post also has a link to reliable details on EMI Deferment Scheme offered by SBI.

Answer: (d)

62. Identify the segment in the sentence which contains the grammatical error If there is no error, select No error as option.
Education helps us understand and tolerate difference and so holds out the promise that we can live together harmoniously.

(a) Education helps us understand and tolerate differences

(b) and so holds out the promise

(c) that we can live together harmoniously

(d) No error

Answer: (d)

65. Select the most appropriate option to fill in the blank.
People can advise me, he said, _____ at the end of the day I make the decisions about my health.

(a) and

(b) but

(c) so

(d) as

Answer: (b)

66. Select the most appropriate option to fill in the blank.
A low-carb diet _____ your carbohydrate intake - such as those found in grains, legumes, pulses, bread, starchy vegetables, and fruits.

(a) frames

(b) outlines

(c) limits

(d) enlarges

Answer: (c)

67. Rearrange the following sentences in their correct order to form a meaningful paragraph.
P. He launched and promoted the local produce- Bamboo Flower rice as an 'economically profitable' product.
Q. As the nation goes vocal for local, Chief Minister of Tripura, Biplab Kumar Deb took a step ahead.
R. The extraction of this rice takes years to cultivate as bamboo flowers in the form of a short grain rice.
S. Bamboo Rice also known as Mulayari is actually the seed of a dying bamboo shoot, which is produced at the end of its life span.

(a) PQRS
(b) RQPS
(c) QPSR
(d) SRQP

Answer: (c)

68. Rearrange the following sentences in their correct order to form a meaningful paragraph.
(P) Tom's weakest subject was Chinese.
(Q) So, for the past half a year, his mother had engaged a private tutor to give him supplementary lessons to brush up on his Chinese.
(R) This was his first major national examination and they both did not know what to expect.
(S) Mrs Tan was feeling a lot of stress because her son's examination was approaching.

(a) PSQR
(b) QSPR
(c) RPSQ
(d) SRPQ

Answer: (d)

69. Select the most appropriate synonym of the given word.
INTRIGUE

(a) Bore
(b) Burrow
(c) Sink
(d) Attract

Answer: (d)

70. Select the most appropriate antonym of the given word.
VESTIBULE

(a) Lay
(b) Endow
(c) Lodge
(d) Exit

Answer: (d)

71. Select the correctly spelt word.

(a) Porportionate
(b) Proprotionate
(c) Proportionate
(d) Proprotionte

Answer: (c)

72. Select the wrongly spelt word.

(a) Salry
(b) Sacrifice
(c) Sacrilegious
(d) Schedule

Answer: (a)

73. Select the most appropriate meaning of the given idiom/ phrase.
Hit the nail on the head

(a) An ideal situation
(b) Be accurately right about something
(c) Make a problem worse
(d) To get upset

Answer: (b)

74. Select the alternative which best expresses the meaning of the idiom/phrase bold in the sentence.
The effort to trace the culprit was a wild goose chase.

(a) Fruitful hunting
(b) Futile search
(c) Ideal seeking
(d) Genuine effort

Answer: (b)

75. Select the word which means the same as the group of words given.
Form of society in which the Mother or Female is head of the family.

(a) Monarchy
(b) Matriarchy
(c) Patriarchy
(d) Hierarchy

Answer: (b)

76. Why did Hamlet want to kill his uncle Claudius?

(a) because Claudius was a vicious king of Denmark
(b) because his mother was killed by Claudius
(c) because his uncle Claudius murdered his father
(d) because he wanted to get married to Ophelia

Answer: (c)

77. Why did Hamlet lament on his mother's lack of loyalty?
(a) because she abandoned Hamlet and punished him many times
(b) because she expelled fiancé Ophelia from her empire
(c) because she did not liked Hamlet's uncle Claudius to be the king
(d) because she married his uncle Claudius, after the death of Hamlet's father
Answer: (d)

78. Why did Claudius and Polonius spy on Hamlet?
(a) because they wanted to find sudden change in Hamlet's behaviour
(b) because they wanted to know what hamlet's friends are conspiring against them
(c) because they were very much feared from the ghost of Hamlet's father
(d) because they wanted to expel Hamlet and his mother from the their empire
Answer: (a)

79. Which of the following best expresses the opposite meaning to the given word "Summon"?
(a) send for
(b) call for
(c) convoke
(d) discharge
Answer: (d)

Discipline1

101. In β- decay ,the nucleus emits-
(a) electron
(b) proton
(c) neutron
(d) positron
Answer: (a)

102. Neutrino is a particle emitted in ?
(a) α-decay
(b) β-decay
(c) γ decay
(d) δ decay
Answer: (b)

103. Plane angle is defined as the ratio of ?
(a) Length of arc to the radius
(b) The intercepted area of a spherical surface to the square of its radius
(c) Area of the circle to the radius
(d) Length of the arc to the square of the radius
Answer: (a)

104. To measure 0.0001 m length accurately one what can be use?

(a) Metre scale
(b) Screw gauge
(c) Spherometer
(d) Vernier Callipers

Answer: (d)

105. The error which is associated with the resolution of the instrument is known as _____.

(a) Absolute error
(b) Least count error
(c) Relative error
(d) Random error

Answer: (b)

107. The accuracy in measurement of mass 9.89 g is ± 0.01 g .Then the relative error in 9.89g is:

(a) ±1 percent
(b) ± 10 percent
(c) ± 0.1 percent
(d) ± 0.01 percent

Answer: (c)

110. The relation between Ergs(erg) and electron volt(is?

(a) 1 erg = 0.625 × 10 10 eV
(b) 1 erg = 0.625 × 10 -10 eV
(c) 1 erg = 0.625 × 10 12 eV
(d) 1 erg = 0.625 × 10 -12 eV

Answer: (c)

111. Gravity is an example of?

(a) Conservation of energy
(b) Conservative energy
(c) Conservative force
(d) Kinetic force

Answer: (c)

113. The spring is said to the stiff when the value of spring constant is _____.

(a) Less
(b) Moderate
(c) High
(d) Zero

Answer: (c)

114. A car is moving with a speed of 5 ms -1 on a smooth road and its mass is 10 quintal. It collides with a wall and the wall is mounted with a spring of spring constant 6.25 × 10 3 Nm -1 . Find the maximum compression of the spring.

(a) 3.00 meter

(b) 1.00 meter

(c) 2.00 meter

(d) 4.00 meter

Answer: (c)

115. If during a collision, the initial velocities and final velocities of both the bodies are along the same straight line then it is called:

(a) Direct collision

(b) Head on collision

(c) Head to head collision

(d) Natural collision

Answer: (b)

116. Impulsive force is:

(a) Small force acts in a short time

(b) Large force acts in a longtime

(c) Small force acts in a long time

(d) Large force acts in a short time

Answer: (d)

117. Action and reaction forces act on what?

(a) The same body only

(b) The same body but different position

(c) The different bodies

(d) The same body or different body

Answer: (c)

118. Equilibrium of a particle in mechanics refers to the situation when the particles are in _____.

(a) Translational equilibrium only

(b) Rotational equilibrium only

(c) Conditional equilibrium only

(d) Both translational and rotational equilibrium

Answer: (d)

119. Find the maximum value of acceleration of the bus if a mass of 3 kg lying on the floor of the bus will remain stationary (Given the co efficient of static friction is 0.15):

(a) 0.5 ms -2

(b) 2.0 ms -2

(c) 1.5 ms -2

(d) 2.5 ms -2

Answer: (c)

120. Suppose that a projectile is launched with velocity V that makes an angle θ with the horizontal axis. What is the time of flight of the projectile ? o o

(a) V sin θ /g o o

(b) g sin θ / V o o

(c) 2V cos θ /g o o

(d) 2V sin θ /g o o

Answer: (d)

Discipline2

121. A boy throws a stone at a speed of 28 ms -1 .The stone makes 30 o angle with the horizontal surface. Find the maximum height of the stone from the ground.

(a) 10.0 meter

(b) 8.0 meter

(c) 12.0 meter

(d) 6.0 meter

Answer: (a)

122. We don't have to specify the direction of _____.

(a) A null vector

(b) Unit vector

(c) Radius vector

(d) Displacement vector

Answer: (a)

124. Which of the following is a scalar quantity

(a) Angular frequency

(b) Angular velocity

(c) Angular momentum

(d) Linear momentum

Answer: (a)

125. Which statement is false for a "rigid body" ?

(a) It has perfectly definite shape

(b) The shape is unchangeble

(c) All particles of the body are moving together

(d) The rigid body is not in pure translational motion

Answer: (d)

126. In pure translational motion at any instant of time all particles of the body have _____.

(a) Different velocity

(b) Different momentum

(c) Same velocity

(d) Same momentum

Answer: (c)

127. The example of rotation where axis may not be fixed?

(a) A spinning top only

(b) A ceiling fan only

(c) A potter's wheel only

(d) Spinning top and potters wheel

Answer: (a)

128. What is the position of the centre of mass for two particles of equal masses?

(a) It lies near each mass

(b) It lies at perperdicular distance from either of the mass

(c) It lies between any point of the masses

(d) It lies exactly midway between the masses

Answer: (d)

130. A pair of forces of equal magnitude but acting in opposite direction with different lines of action is known as:

(a) Moment

(b) Couple

(c) Precession

(d) Centre of mass

Answer: (b)

131. The centre of gravity of a body is that point whe .he total gravitational torque on the body is _____.

(a) Infinite

(b) Maximum

(c) Minimum

(d) Zero

Answer: (d)

132. The moment of inertia of a hollow cylinder of radius R is MR 2 about?

(a) Diameter

(b) Axis of cylinder

(c) Perpendicular axis

(d) Parallel axis

Answer: (b)

134. If d is the depth, R is the radius of the earth and g is the acceleration due to gravity at earth's surface, the g at a depth d, g(d) is:
E

(a) g(d) = g(1 - 2d/R) E

(b) g(d) = g(1 + 2d/R) E

(c) g(d) = g(1 - d/R) E

(d) g(d) = g(1 + d/R) E

Answer: (c)

135. Find the escape speed for moon?

(a) 11.2 km/s

(b) 3.2 km/s

(c) 2.11 km /s

(d) 2.3 km/s

Answer: (d)

136. Find the total energy of a circularly orbiting satellite?

(a) Zero

(b) Postive

(c) Negative

(d) Infinite

Answer: (c)

138. The year of a planet is 29.5 times that of the earth .If the distance between sun and the earth is 1.50 × 10 8 km then find the distance between the planet and the earth?

(a) 1.430 × 10 12 meter

(b) 1.34 × 10 12 meter

(c) 1.43 × 10 14 meter

(d) 1.34 × 10 14 meter

Answer: (a)

139. Escape speed of a body is independent of ____

(a) Gravity

(b) Radius of the earth

(c) Mass of the body

(d) Gravity and radius of the earth

Answer: (c)

140. Accleration due to gravity above the surface of the earth is not dependent on?

(a) Mass of the earth

(b) Radius of the earth

(c) Gravity of the earth

(d) Height

Answer: (a)

Discipline3

141. Which law of kepler can be understood as a consequence of a conservation of an angular momentum which is valid for any central force ?

(a) Law of orbits

(b) Law of areas

(c) Law of periods

(d) Law of semi major axis

Answer: (b)

143. When the frequency of a periodic is small then it is called :

(a) Oscillation
(b) Vibration
(c) Repeating
(d) Damping

Answer: (a)

144. For simple harmonic motion which of the following is true ?

(a) Displacement of the particle varies with distance
(b) Displacement of the particle varies with velocity
(c) Displacement of the particle varies with time
(d) Displacement of the particle varies with amplitude

Answer: (c)

145. The phase constant of simple harmonic motion is dependent on :

(a) Time
(b) Displacement
(c) Frequency
(d) Amplitude

Answer: (a)

146. What is the length of simple pendulum if frequen s 0.5 Hz (g = 9.8 ms -2)?

(a) 1 meter
(b) 2 meter
(c) 3 meter
(d) 4 meter

Answer: (a)

148. Which of the following is not a mechanical wave ?

(a) Light wave
(b) Sound wave
(c) Water wave
(d) Seismic wave

Answer: (a)

149. SI unit of angular wave number is-

(a) Radian
(b) rad m -1
(c) rad s -1
(d) ms -1

Answer: (b)

150. Gamma is the ratio of two specific heats .What is value of gamma for air ?

(a) 1

(b) 2

(c) 2.4

(d) 1.4

Answer: (d)

151. How much negative charge is present in 500 g of water?

(a) 1.34 × 10 7 C

(b) 2.68 × 10 7 C

(c) 1.34 × 10 6 C

(d) 3.68 × 10 7 C

Answer: (b)

153. Which statement is false in case of Coulomb's law?

(a) It is true when both charges are positive

(b) It is true when one charge is positive and another is negative

(c) It is true only when both charges are positive

(d) It is true when both charges are negative

Answer: (c)

157. Calculate the total work done in bringing a charge 5 × 10 -7 C from Infinity to a point which is 10 cm away from a charge of 3 × 10 -9 C?

(a) 1.35 × 10 -4 J

(b) 1.6 × 10 -4 J

(c) 1.6 × 10 -5 J

(d) 1.6 × 10 -9

Answer: (a)

158. What is the electrostatic potential energy, when two charges 5 µC and - 3 µC are placed at a distance of 16 cm away from each other ?

(a) 0.8 J

(b) -0.84 J

(c) 0.9 J

(d) -0.95 J

Answer: (b)

159. Which statement is true for electrostatics of conductors ?

(a) Inside a conductor ,electrostatic field has some value

(b) Inside a conductor ,electrostatic field is normal to the surface

(c) The interior of a conductor can have no excess charge in the static situation

(d) Electrastatics potential is not constant throughout

Answer: (c)

160. In a non polar molecule ,the molecule has _____.

(a) No intrinsic dipole moment
(b) Permanent dipole moment
(c) Intrinsic dipole moment
(d) Week dipole moment

Answer: (a)

Discipline4

162. If the area of the cross section of a conductor is halved then its resistance become _____.

(a) zero
(b) half
(c) two times
(d) infinite

Answer: (c)

164. The magnitude of the drift velocity per unit electric field is -

(a) Conductivity
(b) Resistivity
(c) Mobility
(d) Electricity

Answer: (c)

165. The range of resistivity of a material is of 10 -8 Ωm to 10 -6 Ωm. Find the material?

(a) Insulator
(b) Semiconductor
(c) Metals
(d) Resistor

Answer: (c)

166. The resistivity of a semiconductor _____.

(a) decrease with increasing temperatures
(b) decrease with decreasing temperatures
(c) increase with decreasing temperatures
(d) increase with increasing temperatures

Answer: (a)

167. The internal resistance of a dry cell is _____ the common electroytic cell.

(a) less than
(b) much less than
(c) equal
(d) much higher than

Answer: (d)

168. Which instrument has the advantage that it draws no current from the voltage source being measured?

(a) Wheatstone bridge

(b) Meter bridge

(c) Galvanometer

(d) Potentiometer

Answer: (d)

169. Which is not the limitation of ohm's law?

(a) V depends on I non linearly

(b) The relation between V and I depends on the sign of V for the same absolute value of V

(c) The relation between V and I is dependent on R

(d) The relation between V and I is non unique

Answer: (c)

170. Suppose four particles of same mass, present at the vertices of a square of side "a", then the potential energy of the system is- (G- gravity, m- mass)

(a) (-4.2 Gm /a) J

(b) (-5.41 Gm 2 /a) J

(c) (4.2 Gm/a) J

(d) (5.41 Gm 2 /a) J

Answer: (b)

172. 1 gauss = _____ tesla

(a) 10 -4

(b) 10 -6

(c) 10 -3

(d) 10 -2

Answer: (a)

173. The earth's magnetic field is about-

(a) 3.6 × 10 -5 T

(b) 3.9 × 10 -5 T

(c) 3.6 × 10 -6 T

(d) 3.9 × 10 -6 T

Answer: (a)

174. A wire of mass 0.4 kg and length 1.6 m carries a current of 3 A . Around the wire a uniform magnetic field is present .Find the magnitude of magnetic field .

(a) 0.65 T

(b) 0.82 T

(c) 0.74 T

(d) 0.93 T

Answer: (b)

175. Find the magnitude of magnetic field when an electron moves in a circular path of radius 26 cm with a speed of 3 × 10 7 m/s. Mass and charge of electron is 9 × 10 -31 kg and 1.6 × 10 -19 C respectively.

(a) 6 × 10 -6 T

(b) 6 × 10 -8 T

(c) 6 × 10 -4 T

(d) 6 × 10 -2 T

Answer: (c)

177. In Balmer Series, line with the longest wavelength, 656.3 nm in the ____ is called H ; the next line with wavelength 486.1 nm in the _____ is α
called H ,
β

(a) Red, blue-green

(b) Red, violet

(c) Violet, blue-green

(d) Blue-green,red

Answer: (a)

179. Weber is a unit of _____.

(a) Magnetic moment

(b) Magnetic induction

(c) Velocity

(d) Magnetic flux

Answer: (d)

Discipline5

181. For hydrogen atom the radius of innermost orbit of electron is 4.5 × 10 -12 m .What is radius of n= 4 orbital ?

(a) 4.5 × 10 -10 m

(b) 4.5 × 10 -12 m

(c) 1.72 × 10 -10 m

(d) 7.2 × 10 -11 m

Answer: (d)

182. Which series lies in the ultraviolet region?

(a) Lyman

(b) Paschen

(c) Brackett

(d) Pfund

Answer: (a)

183. Find the mass of 12 C atom ?

(a) 1.99 × 10 -26 kg

(b) 1.99 × 10 -25 kg

(c) 1.99 × 10 -24 kg

(d) 1.99 × 10 -23 kg

Answer: (a)

184. The element gold has _____isotopes.

(a) 30

(b) 32

(c) 34

(d) 36

Answer: (b)

185. Which statement is false for nuclear force?

(a) The nuclear force between two nucleons falls rapidly to zero as their distance is more than a few femtometers

(b) the nuclear force between neutron -neutron is same

(c) the nuclear force is much less than the coulomb force

(d) the nuclear force is independent on the electric charge

Answer: (c)

187. What element will be formed if thorium -230 und goes alpha decay ?

(a) Radium-226

(b) Radium-234

(c) Uranium-226

(d) Uranium-234

Answer: (a)

189. No electron conduction is possible between the Valence Band and Conduction band when _____.

(a) E < 3 e V g

(b) E < 2 e V g

(c) E >2 e V g

(d) E > 3 e V g

Answer: (d)

190. Which diode is used as voltage regulator?

(a) Zener diode

(b) Photodiode

(c) Light emitting diode

(d) Photovoltic devices

Answer: (a)

191. Which statement is false for LED ?

(a) High operational voltage and less power

(b) Fast action and no warm up time required

(c) Long life and ruggedness

(d) Fast on-off switching capability

Answer: (a)

192. What will be the angle of projection to find the maximum horizontal range by a projectile?

(a) 30 o

(b) 60 o

(c) 45 o

(d) 90 o

Answer: (c)

193. The loss of strength of a signal while propagating through a medium is known as _____.

(a) Modulation

(b) Attenuation

(c) Transducer

(d) Repeater

Answer: (b)

194. To transmit music an approximate bandwidth of _ is required.

(a) 12 kHz

(b) 18 kHz

(c) 20 kHz

(d) 26 kHz

Answer: (c)

195. What is the range of frequency band for uplink in satellite communication?

(a) 3.7- 4.2 GHz

(b) 4.2-5.6 GHz

(c) 5.925-6.425 GHz

(d) 6.5-7.642GHz

Answer: (c)

196. If an antenna radiates electromagnetic waves from a height 40 m then what is the range of transmission of the wave ? Given radius of earth = 6.4 × 10 6 m.

(a) 22.63 km

(b) 21.59 km

(c) 23.45 km

(d) 25.34 km

Answer: (a)

197. One of the types of normal galaxies is:

(a) ventricular

(b) lenticular

(c) septicular

(d) vavioler

Answer: (b)

198. The absolute magnitude (M) of a giant galaxy as suggested by Hubble is- B

(a) M <-20 B

(b) M ≥-40 B

(c) M ≤-20 B

(d) M ≥-20 B

Answer: (c)

200. The surface brightness of the disk at a distance r from the centre and the disk scale length r d , measured along the mid plane of the disk is given by- :

(a) I (r) = I (0) e rrd d d

(b) Id (r) = Id (0) e-r/rd

(c) I (r) = I (0) e -r/rd d d

(d) I (r) = I (0) e r/rd d d

Answer: (c)

Discipline6

201. How many globuler cluster are associ ' wit our galaxy?

(a) about 100

(b) about 150

(c) about 400

(d) about 1000

Answer: (b)

204. When the value of spectral index, α ≤ 0.4 , the spectrum is called _____.

(a) Steep spectrum

(b) High spectrum

(c) Low spectrum

(d) Flat spectrum

Answer: (d)

205. Which classification of active galaxy have no prominent emission lines and the spectrum is dominated by a continuum?

(a) BL Lacertae object

(b) Optically violent variable

(c) Star Burst Galaxies

(d) Seyferet Galaxies

Answer: (a)

208. Which one is false for extensive variable?

(a) Extensive variable indicates the size of the system.

(b) The variable whose values get halved in each part are extensive .

(c) The product of an intensive variable like P and an extensive quantity ΔV is extensive

(d) Pressure,temperature ,and density are extensive variable

Answer: (d)

209. In which process no work is done on or by the gas?

(a) Isochroic process

(b) Isothermal process

(c) Isobaric process

(d) Adiabatic process

Answer: (a)

210. In case of a refrigerator the working substance does not go through which of the following steps?

(a) Sudden expansion of the gas from high to low pressure which cools it and converts it into a vapour -liquid mixture

(b) Heat is absorbed by the surrounding and change liquid to vapour

(c) Heating up the vapour due to external work done on the system .

(d) Release of heat by the vapour to the surroundings bringing it to the initial state and completing the cycle .

Answer: (b)

211. Which statement is true for carnot engine?

(a) A carnot engine is an irreversible engine

(b) Working between hot and cold reservoirs, other engine can have more efficiency than a carnot engine

(c) The efficiency of carnot engine is one

(d) The efficiency of the carnot engine is independent of the nature of the working substance

Answer: (d)

212. Which statement is false for a quasi-static process?

(a) It is an infinitely slow process

(b) The system remains in thermal equilibrium with surrounding

(c) The pressure and temperature of the process are same with the environment

(d) The system remains in mechanical equilibrium with the surroundings

Answer: (c)

216. If a function f(z) is analytic and its derivative is continuous at each point within a simply connected region R, then for every closed path C in R the line integral of f(z) around C is zero. This sentence3 describes:

(a) Laplace's integral Theorem

(b) Cauchy's integral Theorem

(c) Contours Integral Theorem

(d) Fourier's Integral Theorem

Answer: (b)

217. Euler identity is represented as _____.

(a) iθ = cosθ + i sinθ

(b) e θ = sinθ + cosθ

(c) e iθ = sinθ + icosθ

(d) e iθ = cosθ + isinθ

Answer: (d)

218. The real and imaginary parts u(x, y) and v (x, y) of an analytic function f(z) separately satisfy the two dimensional Laplace equation and are known as _____.

(a) Logarithmic function

(b) Harmonic functions

(c) Differentiable function

(d) Memorphic function

Answer: (b)

219. The complete group of symmetry for diatomic molecules do not contain the element of the following?

(a) Axial rotational symmetry about the line joining the atoms

(b) The reflection symmetry in any plan other than vertical passing through the line of atoms

(c) Two fold rotational symmetry about any horizontal axis passing the centre of the molecule

(d) Reflection symmetry in a horizontal plane passing through the centre of the molecule .

Answer: (b)

220. A group of elements can be split into subsets such that all the elements are conjugate to each other, the similarity transformation being done by some element of the group itself, but no two elements belonging to two different subsets are conjugate to each other. Such subsets are called :

(a) Cyclic group

(b) Symmetric group

(c) Classes of the group

(d) Permutation gropup

Answer: (c)

Discipline7

221. Which is not a basic property of similar matrix?

(a) A matrix is similar to itself

(b) A is similar to B if and only if B is similar to A

(c) If A is similar to B and B is similar to C then, A may not be similar to C

(d) Similar matrices have the same characteristic polynomial and hence exactly the same eigen values including multiplicities .

Answer: (c)

222. When the two operations of complex conjugation and transposition are carried out one after another on a matrix ,the resulting matrix is called :

(a) Transposition conjugate

(b) Hermitian conjugate

(c) Complex conjugate

(d) Simple conjugate

Answer: (b)

223. The sum of the diagonal element of a matrix is called the _____ of the matrix.

(a) Eigen value

(b) Trace

(c) Inverse

(d) Transpose

Answer: (b)

224. The alpha radiation is not used in radiotherapy cause:

(a) It is unable to penetrate human skin

(b) It is not easily available

(c) It is toxic to human tissues

(d) It is extremely costly

Answer: (a)

225. The temperature range covered by an iron -constantan thermocouple is _____ to _____.

(a) -220 o C to 1300 o C

(b) 0 o C to 1700 o C

(c) -200 o C to 760 o C

(d) 100 o C to 500 o C

Answer: (c)

227. According to the second law of thermodynamics the entropy of the universe :

(a) Can decrease

(b) Can never decrease

(c) Can be zero

(d) Can be infinity

Answer: (b)

228. Which is the frame of reference in which Newton's first law holds true?

(a) Internal frame

(b) Uniform frame

(c) Intersticial frame

(d) Inertial frame

Answer: (d)

229. The principle of relativity is :

(a) The speed of light has same constant value in all inertial frames of reference

(b) The speed of light should be the same in all uniformly moving systems

(c) The laws of physics are the same in all inertial frames of reference

(d) The laws of physics are different in all inertial frames of reference

Answer: (c)

230. Which of the following is an example of a particle that travels at the speed of a light?

(a) Electron

(b) Positron

(c) Photon

(d) Proton

Answer: (c)

232. Quasars can be observed in many parts of the e .romagnetic spectrum except

(a) Radio

(b) Infrared

(c) Visible ray

(d) Gamma rays

Answer: (c)

233. Which of the following is not a notable consequence of the uncertainty principle?

(a) The path of particle is not defined in quantum physics

(b) Electrons do not exist inside the nucleus .

(c) Atomic oscillators pass a certain amount of energy known as Zero point energy ,even at absolute zero temperature

(d) The position of particle is defined in quantum physics

Answer: (d)

237. Which statement is false for a spherically symmetric potential?

(a) It depends only upon the radial coordinate r

(b) It is independent of the polar coordinate φ

(c) It depends on the polar coordinate

(d) It depends only upon the radial coordinate r and It is independent of the polar coordinate φ

Answer: (c)

Discipline8

241. What will be the ratio of acceleration of an electron and a proton,if they are placed in a uniform electric field?

(a) zero
(b) One
(c) In a ratio of proton and electron masses
(d) In a ratio of electron and proton masses

Answer: (c)

242. The relative biological effectiveness (RBE) of fast neutron is _____.

(a) 10
(b) 8
(c) 5
(d) 4

Answer: (a)

243. AVF cyclotrons produce energies beyond _____for protons .

(a) 400 MeV
(b) 600 MeV
(c) 800 MeV
(d) 1000 MeV

Answer: (b)

244. Which one is not a fundamental force in natur

(a) Gravitational force
(b) Electroweak force
(c) Strong force
(d) Frictional force

Answer: (d)

245. The relative strength of electromagnetic force is in the order of _____.

(a) (10 -2)
(b) (10 -3)
(c) (10 -4)
(d) (10 -5)

Answer: (a)

248. Which one is not a feature of motion under central conservative forces?

(a) The total kinetic energy is constant
(b) The angular momentum about the centre of force is constant both in magnitude and direction
(c) The total potential energy is not constant
(d) The particle always moves in a plane perpendicular to the direction of the angular momentum

Answer: (c)

249. What will happen, if proton is projected perpendicular to magnetic field?

(a) No magnetic field effect on the motion of proton

(b) Proton will move in same direction but will get momentum

(c) Proton will continue to move in the same direction but will never gain momentum

(d) It will turn in semicircle

Answer: (d)

250. If the eccentricity is less than one, then the conic section is

(a) Parabola

(b) Hyperbola

(c) Ellipse

(d) Circle

Answer: (c)

251. Which of the following is an example of non-ohmic resistance?

(a) Copper wire

(b) Carbon resistor

(c) Diode

(d) Wire of tungsten

Answer: (c)

253. When an object is inverted in space with respec' a point (within it) and still remains invariant is known as _____ symmetry

(a) Inversion

(b) Rotational

(c) Translational

(d) Reflection

Answer: (a)

254. Which type of crystal system is present in potassium dichromate?

(a) Triclinic

(b) Monoclinic

(c) Orthorhombic

(d) Trigonal

Answer: (a)

255. The relation between crystal scattering factor (f), geometrical structure factor (F) and lattice structure factor (S) is : c c

(a) F = f × S c c

(b) F = f /S c c

(c) S = F × f c c

(d) S = 2F/f c c

Answer: (b)

256. Which method is particularly useful in determining the orientation of a single crystal ?

(a) Powder method

(b) Laue method

(c) Bragg method

(d) Ewald method

Answer: (b)

257. At high temperatures heat capacity is independent of temperature and for all solid it is equal to: [R- equal to universal gas constant]

(a) 3 R

(b) 2R

(c) 5R

(d) 4R

Answer: (a)

258. Which one of the following is not an assumption of Drude -Lorentz theory about metals ?

(a) Valance electrons behave as free electrons and can move all around the volume of the metal

(b) Negatively charged ions located at the lattice sites offers a uniform potential and influence the motion of free electrons

(c) The interaction between free electrons themselves is too small and can be ignored

(d) Free electrons behave as molecules of an ideal gas and obey kinetic theory of gases and the Maxwell Baltzman distribution law

Answer: (b)

259. Lorenz number for sodium metal is

(a) 2.17 × 10 -8 W Ωk -2

(b) 2.25 × 10 -8 W Ωk -2

(c) 2.34 × 10 -8 W Ωk -2

(d) 2.37 × 10 -8 W Ωk -2

Answer: (a)

Discipline9

262. _____ is not a type of amplifier according to circuit configuration.

(a) Grounded base

(b) Grounded emitter

(c) Ground collector

(d) Base emitter

Answer: (d)

263. Which of the following is not an advantage of negative feedback?

(a) It decreases the band width

(b) It improves the stability of amplifier gain

(c) It reduces distrotion

(d) It increases the input impedence

Answer: (a)

264. The differentiator circuit is obtained by replacing R (Input Resistance) of an inverting amplifier by a _____.
I

(a) Transistor

(b) Diode

(c) Rectifier

(d) Capacitor

Answer: (d)

265. Which one of the following is not a characteristic of IC LM 380?

(a) It has internally fixed gain of 50

(b) Total harmonic distrotion is higher than 0.2%

(c) Output is also short circuit proof

(d) It can work on a wide range of supply voltage from 5 to 22v

Answer: (b)

266. Which is not a performance parameter associated with voltage regulator?

(a) Input regulation

(b) Load stability

(c) Temperature stability

(d) Ripple rejection

Answer: (b)

267. In metal, relaxation time of electron:

(a) Increases with temperature

(b) decreases with increase in temperature

(c) does not depend upon temperature

(d) suddenly changes at 400 K

Answer: (b)

268. Which statement is false for the sclera of the eyeball of human?

(a) It is an opaque, fibro-elastic capula

(b) It is soft

(c) It protects the inner part of the eye

(d) It withstands the intraocular pressure in the eye

Answer: (b)

269. At the very centre of the retina is a small yellowish depression, called fovea which contains_____.

(a) Rods and cones both

(b) only rods

(c) only cones

(d) neither rods nor cones

Answer: (c)

270. What is the refractive index of cornea?

(a) 1.33

(b) 1.34

(c) 1.38

(d) 1.4

Answer: (c)

271. The intensity of the polarised light reaching the detector is given by

(a) I (θ) = cos 2 θ

(b) I (θ) =I(0) cos 2 θ

(c) I (θ) = sin 2 θ

(d) I (θ) =I(0) sin 2 θ

Answer: (b)

273. Which is not a suitable difference between Bipr[illegible] and Lloyd's mirror fringes?

(a) In biprism, the complete pattern of fringes is [illegible]tained. In Lloyd's mirror ordinarily, only a few fringes on one side of the central fring[illegible]

(b) In biprism, the fringes are circular but in [illegible]d's mirror fringes are oval in shape.

(c) In biprism, the central fringe is bright, while in Lloyd's mirror it is dark.

(d) The central fringe in biprism is less sharp than that in Llyod's mirror.

Answer: (b)

274. A Lloyd's mirror produces a/an:

(a) Chromatic fringe

(b) Achromatic fringe

(c) Multichromatic fringe

(d) Double chromatic fringe

Answer: (b)

276. The Michelson interferometer is used as _____

(a) Light source

(b) Monochromatic source

(c) Common light source

(d) Extended Monochromatic source

Answer: (d)

278. The area of each Fresnel half period zone is nearly equal to _____.

(a) πb

(b) πλ

(c) bλ

(d) πbλ

Answer: (d)

279. The diffraction pattern of a circular aperture consists of concentric rings with a central bright disc. The first dark ring appears when :

(a) sinθ =1.22λ/D

(b) sinθ = 2.12λ/D

(c) sinθ = 1.34 λ/D

(d) sinθ = 2.22 λ/D

Answer: (a)

280. The central maximum in double slit pattern is _____times brighter than that in single slit pattern .

(a) Double

(b) thrice

(c) fourth

(d) fifth

Answer: (c)

Teaching Methodology

281. Which of the following is not a quality of a [illegible] Physics teacher?

(a) Inquisitive, creative and curious

(b) Patient and resourceful

(c) Average knowledge in math

(d) Attentive to details

Answer: (c)

282. Which of the following is not a responsibility of a Physics-teacher?

(a) Preparing stimulating lessons.

(b) Noticing student's physical strength and weakness

(c) Identify and analyzing student needs.

(d) Setting and grading assessment of students.

Answer: (b)

283. One of the advantages of project work of physics is:

(a) It is time-consuming

(b) They are not directly examinable

(c) It promotes interdisciplinary activities

(d) Its lack of rewards for the teacher

Answer: (c)

284. Which of the following is not included in Dr. Madeline Hunter's research about what effective teachers usually include in their lessons?

(a) Purpose
(b) Input
(c) Detailed introduction
(d) Independent practice

Answer: (c)

285. Which of the following methods can a Physics teacher apply to ensure progressive teaching?
1. Using new edition of textbooks
2. Attend a number of seminars organized for teachers

(a) Only 1
(b) Only 2
(c) Both 1 and 2
(d) Neither 1nor 2

Answer: (c)

286. According to the Blooms's Mastery Learning Strategy students who score _____ marks or more are considered at mastery level.

(a) 0.7
(b) 0.75
(c) 0.8
(d) 0.85

Answer: (d)

287. _____ is known as 'father of observa oı omy'.

(a) Aristotle
(b) Kepler
(c) Aryabha a
(d) Galileo

Answer: (d)

288. Which is not a suitable-criteria for evaluation of a physics textbook?

(a) Correctness of the content
(b) Appropriateness of language
(c) Paper quality should be better
(d) Promoting students thinking about phenomena experience and knowledge

Answer: (c)

289. Which of the following should not ever be done by a teacher?

(a) Being sympathetic to students
(b) Make fun of his colleagues in the presence of his pupils to earn the later's trust
(c) Must maintain a distance with his students, though being friendly
(d) Praise the student time and again for his/her abilities/good-work

Answer: (b)

290. Consider the following skills –
1. Communication skills
2. Safety skills
3. Psychomotor skills
Which of the above are required in a Physics teacher?

(a) Only 1 and 2
(b) Only 2 and 3
(c) Only 1 and 3
(d) 1, 2 and 3

Answer: (d)

291. Which of the following is not a type of project-work in Physics?

(a) Experimental
(b) Observational
(c) Survey
(d) Fun

Answer: (d)

292. A Physics-teacher can make use of audio-visual material/aids in the class. How can that help the students?
1. It will enhance the curiosity of the students in the subject
2. It will shift the focus of the students from the subject
3. It will help the students who are slow-learners

(a) Only 1 and 2
(b) Only 2 and 3
(c) Only 1 and 3
(d) 1, 2 and 3

Answer: (c)

293. Who out of the following is associated with the Project method amongst teaching methods?

(a) William Heard Kilpatrick
(b) Hilda Taba
(c) Ralph W. Tyler
(d) Lawrence Stenhouse

Answer: (a)

294. What is the topmost level in the Cone of Experience?

(a) Watch still pictures
(b) Read text
(c) Participate in a hands-on workshop
(d) Listen to lecture

Answer: (c)

295. Which of the following is not a feature of continuous and comprehensive evaluation process in Physics?

(a) Since teaching learning in a school is a continuous process and assessment is an integral part of this process. so it is essential

(b) Teacher uses only a fixed technique of evaluation

(c) Teacher provides feedback on different aspect of learning

(d) It does not mean more frequent tests and examination

Answer: (b)

296. Which of the following is a characteristic of Learner-centred Performance-Based Assessment?

(a) Continuous and comprehensive assessment

(b) Focus is on learning product and outcome

(c) Assessment of learning

(d) Focus is on knowing learning deficit of the learner

Answer: (a)

297. Which of the following approaches is NOT adopted in taking up a project of physics?
1. Performing experiments
2. Using an interesting available data
3. Engagement in exploration

(a) Only 1 and 2

(b) Only 3

(c) Only 2

(d) Neither 1 nor 2 nor 3

Answer: (d)

298. Which of the following is not a technique which could be adopted for presenting and introducing of any new concept related to physics?

(a) Presenting a problem to the student

(b) Carrying out activities and experiment and raising question

(c) Involving students in their homework

(d) Narration stories incident etc

Answer: (c)

299. Which one is not one of the Pillars of Learning given by the International Commission of Education?

(a) Learning to know

(b) learning to do

(c) learning individually

(d) learning to be

Answer: (c)

300. Consider the following –
1. Collaborative learning
2. Brainstorming
3. Homework
Which of the following are teaching learning strategies for life long learning?

(a) Only 1 and 2

(b) Only 2 and 3

(c) Only 1 and 3

(d) 1, 2 and 3

Answer: (a)

Answer key

Answer key from the Delhi Subordinate Services Selection Board's official answer key for this sitting. "—" means the key gave none.

Mental Ability

1	**(a)**	2	**(d)**	3	**(a)**	4	**(a)**	5	**(b)**	6	**(c)**	7	**(b)**	8	**(a)**
9	**(a)**	10	**(b)**	11	**(a)**	12	**(c)**	13	**(d)**	16	**(b)**				

General Awareness

21	**(a)**	22	**(c)**	23	**(a)**	24	**(b)**	25	**(b)**	26	**(a)**	27	**(b)**	28	**(c)**
29	**(a)**	30	**(d)**	31	**(b)**	32	**(d)**	33	**(a)**	34	**(a)**	35	**(c)**	36	**(c)**
37	**(b)**	38	**(a)**	39	**(a)**	40	**(d)**								

Arithmetic Ability

44	**(d)**	46	**(d)**	47	**(d)**	48	**(d)**	49	**(a)**	50	**(c)**	51	**(c)**	52	**(b)**
53	**(b)**	54	**(b)**	55	**(c)**	56	**(a)**								

General English

61	**(d)**	62	**(d)**	65	**(b)**	66	**(c)**	67	**(c)**	68	**(d)**	69	**(d)**	70	**(d)**
71	**(c)**	72	**(a)**	73	**(b)**	74	**(b)**	75	**(b)**	76	**(c)**	77	**(d)**	78	**(a)**
79	**(d)**														

Discipline1

101	**(a)**	102	**(b)**	103	**(a)**	104	[illegible]	05	**(b)**	107	**(c)**	110	**(c)**	111	**(c)**
113	**(c)**	114	**(c)**	115	**(b)**	116	**(d)**	117	**(c)**	118	**(d)**	119	**(c)**	120	**(d)**

Discipline2

121	**(a)**	122	**(a)**	124	**(a)**	125	**(d)**	126	**(c)**	127	**(a)**	128	**(d)**	130	**(b)**
131	**(d)**	132	**(b)**	134	**(c)**	135	**(d)**	136	**(c)**	138	**(a)**	139	**(c)**	140	**(a)**

Discipline3

141	**(b)**	143	**(a)**	144	**(c)**	145	**(a)**	146	**(a)**	148	**(a)**	149	**(b)**	150	**(d)**
151	**(b)**	153	**(c)**	157	**(a)**	158	**(b)**	159	**(c)**	160	**(a)**				

Discipline4

162	**(c)**	164	**(c)**	165	**(c)**	166	**(a)**	167	**(d)**	168	**(d)**	169	**(c)**	170	**(b)**
172	**(a)**	173	**(a)**	174	**(b)**	175	**(c)**	177	**(a)**	179	**(d)**				

Discipline5

181	**(d)**	182	**(a)**	183	**(a)**	184	**(b)**	185	**(c)**	187	**(a)**	189	**(d)**	190	**(a)**
191	**(a)**	192	**(c)**	193	**(b)**	194	**(c)**	195	**(c)**	196	**(a)**	197	**(b)**	198	**(c)**
200	**(c)**														

Discipline6

201	**(b)**	204	**(d)**	205	**(a)**	208	**(d)**	209	**(a)**	210	**(b)**
211	**(d)**	212	**(c)**	216	**(b)**	217	**(d)**	218	**(b)**	219	**(b)**
220	**(c)**										

Discipline7

221	**(c)**	222	**(b)**	223	**(b)**	224	**(a)**	225	**(c)**	227	**(b)**
228	**(d)**	229	**(c)**	230	**(c)**	232	**(c)**	233	**(d)**	237	**(c)**

Discipline8

241	**(c)**	242	**(a)**	243	**(b)**	244	**(d)**	245	**(a)**	248	**(c)**
249	**(d)**	250	**(c)**	251	**(c)**	253	**(a)**	254	**(a)**	255	**(b)**
256	**(b)**	257	**(a)**	258	**(b)**	259	**(a)**				

Discipline9

262	**(d)**	263	**(a)**	264	**(d)**	265	**(b)**	266	**(b)**	267	**(b)**
268	**(b)**	269	**(c)**	270	**(c)**	271	**(b)**	273	**(b)**	274	**(b)**
276	**(d)**	278	**(d)**	279	**(a)**	280	**(c)**				

Teaching Methodology

281	**(c)**	282	**(b)**	283	**(c)**	284	**(c)**	285	**(c)**	286	**(d)**
287	**(d)**	288	**(c)**	289	**(b)**	290	**(d)**	291	**(d)**	292	**(c)**
293	**(a)**	294	**(c)**	295	**(b)**	296	**(a)**	297	**(d)**	298	**(c)**
299	**(c)**	300	**(a)**								