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CAREER INSTITUTE PVT.LTD.

ROLL. NO.

SCORE BOOSTER TEST SERIES

PHASE - I

TARGET NEET 5TH MAY 2024

Physics - 50		Chemistry - 50	Biology - 100
Mark : 720	Group : PCB	Time : 3 Hrs.20 Min.	Date : 11/12/2023

Question Booklet Version	Roll No.	Question Booklet Sr. No
P (Write this number on your Answer Sheet)		

This is to certify that, the entries of NEET-2024 Roll No. and Answer Sheet No. have been correctly written and verified.

Candidate's Signature

Invigilator's Signature

(CT TEST-01) : SYLLABUS

PHYSICS : - MOTION IN A STRAIGHT LINE

CHEMISTRY : - GOC (IUPAC + ISOMERISM + ELECTRONIC EFFECT)

BIOLOGY : - THE LIVING WORLD + ANIMAL KINGDOM

Sr. No.	Subject(s)	Section(s)	No. Of Question(s)	Mark(s) * (Each Question Carries 04 (Four) Marks)	Type Of Question(s)
1	Physics	Section A	35	140	MCQ (Multiple Choice Questions)
		Section B	15	40	
2	Chemistry	Section A	35	140	
		Section B	15	40	
3.	Botany	Section A	35	140	
		Section B	15	40	
4	Zoology	Section A	35	140	
		Section B	15	40	
		Total Marks		720	

Note: Correct option marked will be given (4) marks and Incorrect option marked will be minus one (-1) mark. Unattempted/Unanswered Questions will be given no marks.

PHYSICS

SECTION-A

01. An athlete completes one round of a circular track of radius R in 20 s with constant speed. What will be his displacement at the end of 1 minute 10 second? **[NCERT Pg. 40]**

(1) Zero (2) 2R
(3) $2\pi R$ (4) $7\pi R$

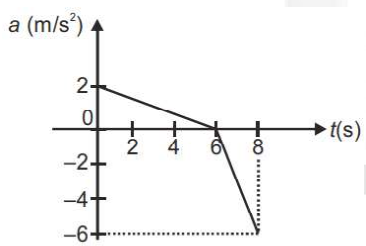
02. Free fall of an object (in vacuum) is a case of motion with

(1) uniform velocity (2) uniform acceleration
(3) variable acceleration (4) constant momentum

03. The displacement of a body along x-axis depends on time as $\sqrt{x} = t + 1$. The the velocity of body

(1) Increases with time
(2) Decreases with time
(3) Independent of time
(4) None of these

04. The acceleration (a)-time (t) graph of a particle moving in a straight line is as shown in figure. At time t = 0, the velocity of particle is 10 m/s. What is the velocity at t = 8 s? **[NCERT Pg. 45]**



(1) 2 m/s (2) 4 m/s
(3) 10 m/s (4) 12 m/s

05. A particle moves for 20 seconds with velocity 3 m/s and then velocity 4 m/s for another 20 seconds and finally moves with velocity 5 m/s for next 20 seconds. What is the average velocity of the particle

(1) 3 m/s (2) 4 m/s
(3) 5 m/s (4) Zero

06. Match the pair

	Column I		Column II
A.	Cause increase in velocity	1.	Linear motion
B.	Negative acceleration	2.	Zero
C.	Motion exhibited by body moving in a straight line	3.	Distance
D.	Area under a speed time graph	4.	Acceleration
E.	Velocity of an upward throwing body at the peak point	5.	Reterdation

(1) A-4; B-5; C-1; D-3; E-2
(2) A-2; B-1; C-3; D-4; E-5
(3) A-5; B-2; C-3; D-1; E-4
(4) A-2; B-4; C-1; D-3; E-5

07. A particle has an initial velocity of $3\hat{i} + 4\hat{j}$ and an acceleration of $0.4\hat{i} + 0.3\hat{j}$. Its speed after 10 s is

(1) 10 units (2) $7\sqrt{2}$ units
(3) 7 units (4) 8.5 units

08. The position of a body moving in a straight line is $x = (2t^2 + 2t + 9)$, where x is in metre and t is in second. The velocity $v\left(v = \frac{dx}{dt}\right)$ of the body at t = 1 s is **[NCERT Pg. 43]**

(1) 6 m/s (2) 8 m/s
(3) 4 m/s (4) 2 m/s

09. A car moving with a speed of 40 km/h can be stopped by applying brakes after atleast 2 m. If the same car is moving with a speed of 80 km/h, what is the minimum stopping distance

(1) 8 m (2) 2 m
(3) 4 m (4) 6 m

SPACE FOR ROUGH WORK

10. Assertion : Magnitude of average velocity is equal to average speed.
Reason : Magnitude of instantaneous velocity is not equal to instantaneous speed.
(1) Both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
(2) Both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
(3) Assertion is correct but Reason is incorrect.
(4) Assertion is incorrect and Reason is correct.

11. Two cars A and B are moving with same speed of 45 km/hr along same direction. If a third car C coming from the opposite direction with a speed of 36 km/hr meets two cars in an interval of 5 minutes, the distance of separation of two cars A and B should be (in km)
(1) 6.75 (2) 7.25
(3) 5.55 (4) 8.35

12. A body is falling from height h it takes 8 s to reach the ground. The time it takes to cover the first one fourth of height is **[NCERT Pg. 50]**
(1) 4 s (2) 6 s
(3) 2 s (4) 5 s

13. A body starts to fall freely under gravity. The distances covered by it in first, second and third second are in ratio
(1) 1 : 3 : 5 (2) 1 : 2 : 3
(3) 1 : 4 : 9 (4) 1 : 5 : 6

14. The correct statement from the following is
(1) A body having zero velocity will not necessarily have zero acceleration.
(2) A body having zero velocity will necessarily have zero acceleration.
(3) A body having uniform speed can have only uniform acceleration.
(4) A body having non–uniform velocity will have zero acceleration.

15. Which of the following is a one dimensional motion? **[NCERT Pg. 39]**
(1) Landing of an aeroplane
(2) Moon revolving around the earth
(3) Motion of wheels of moving car
(4) Train running on a straight track

16. Which of the following four statements is false.
(1) A body can have zero velocity and still be accelerated.
(2) A body can have a constant velocity and still have a varying speed.
(3) A body can have a constant speed and still have a varying velocity.
(4) The direction of the velocity of a body can change when its acceleration is constant.

17. When a car is stopped by applying brakes, it stops after travelling a distance of 100 m. If speed of car is halved and same retarding acceleration is applied then it stops after travelling a distance of **[NCERT Pg. 50]**
(1) 25 m (2) 50 m
(3) 75 m (4) 100 m

18. The velocity of body moving along the x-axis is given by $v = (4t - 2.5t^2)$ cm/s. Its acceleration after 3s is
(1) 1.5 cm/s^2 (2) –11 cm/s^2
(3) 4 cm/s^2 (4) 5 cm/s^2

19. Assertion : A body falling freely may do so with constant velocity.
Reason : The body falls freely, when acceleration of a body is not equal to acceleration due to gravity.
(1) Both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
(2) Both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
(3) The Assertion is correct but Reason is incorrect.
(4) The Assertion is incorrect and Reason is correct.

20. Velocity of a body moving with uniform acceleration of 3m/s^2 is changed through 30m/s in certain time. Average velocity of body during this time is 30m/s. Distance covered by it during this time is
(1) 300 m (2) 200 m
(3) 400 m (4) 250 m

SPACE FOR ROUGH WORK

21. A body thrown up with some initial velocity reaches a maximum height of 50m. Another body with double the mass thrown up with double the initial velocity will reach a maximum height of

(1) 100 m (2) 200 m

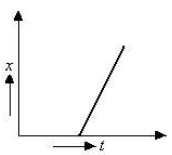
(3) 400 m (4) 50 m

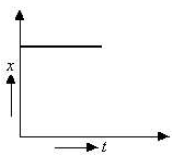
22. A body is dropped from the top of a tower. Simultaneously, another body is projected vertically up . If they meet with equal speed 'V', then initial speed of the body projected upwards is

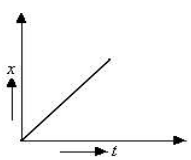
(1) V (2) $\sqrt{2}V$

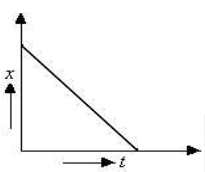
(3) V/4 (4) 2V

23. Which of the following cannot be the distance time graph?

(1) 

(2) 

(3) 

(4) 

24. The distance travelled by a particle starting from rest and moving with an acceleration $\frac{4}{3}ms^{-2}$ in the third second is **[NEET-2008]**

(1) 6 m (2) 4 m

(3) $\frac{10}{3}$m (4) $\frac{19}{3}$m

25. A particle moves in a straight line with a constant acceleration. It changes its velocity from 10 ms^{-1} to 20 ms^{-1} while passing through a distance 135 m in t second. The value of t is **[NEET-2008]**

(1) 10 (2) 1.8

(3) 12 (4) 9

26. The displacement of a particle, starting from rest (at t = 0) is given by $s = 6t^2 - t^3$
The time in seconds at which the particle will obtain zero velocity again is **[Manipal -2008]**

(1) 2 (2) 4

(3) 6 (4) 8

27. Two cars P and Q start from a point at the same time in a straight line and their positions are represented by $x_p(t) = (at + bt^2)$ and $x_Q(t) = (ft - t^2)$. At what time do the cars have the same velocity? **[NEET-2016]**

(1) $\frac{a-f}{1+b}$ (2) $\frac{a+f}{2(b-1)}$

(3) $\frac{a+f}{2(1+b)}$ (4) $\frac{f-a}{2(1+b)}$

28. If the velocity of a particle is $v = At + Bt^2$, where A and B are constants, then the distance travelled by it between 1s and 2s is **[NEET-2017]**

(1) $\frac{3}{2}A + \frac{7}{3}B$ (2) $\frac{A}{2} + \frac{B}{3}$

(3) $\frac{3}{2}A + 4B$ (4) 3A + 7B

29. A body is projected vertically up with a velocity v and after some time it returns to the point from which it was projected. The average velocity and average speed of the body for the total time of flight are

(1) $\vec{v}$ / 2 and v / 2 (2) 0 and v/2

(3) 0 and 0 (4) $\vec{v}$ / 2 and 0

30. B_1, B_2 and B_3 are three balloons ascending with velocities v, 2v and 3v, respectively. If a bomb is dropped from each when they are at the same height, then

(1) Bomb from B_1 reaches ground first

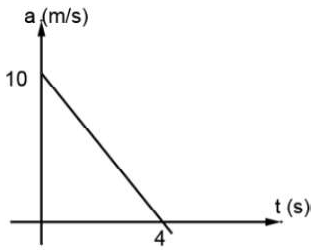
(2) Bomb from B_2 reaches ground first

(3) Bomb fom B_3 reaches ground first

(4) They reach the ground simultaneously

SPACE FOR ROUGH WORK

31. The acceleration-time graph of a particle moving along a straight line is as shown in figure. At what time the particle acquires its initial velocity?



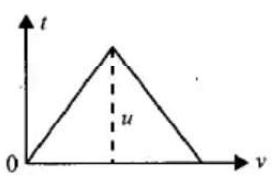
(1) 12s (2) 5s
(3) 8s (4) 16s

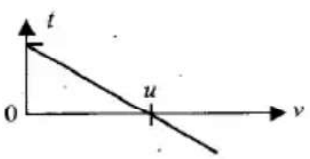
32. A bus is moving with a velocity 10 ms^{-1} on a straight road. A scooterist wishes to overtake the bus in 100 s. If the bus is at a distance of 1 km from the scooterist, with what velocity should the scooterist chase the bus?
(1) 50 ms^{-1} (2) 40 ms^{-1}
(3) 30 ms^{-1} (4) 20 ms^{-1}

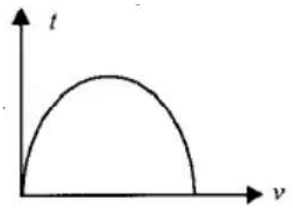
33. A train 100 m long travelling at 40 ms^{-1} starts overtaking another train 200 m long travelling at 30 ms^{-1}. The time taken by the first train to pass the second train completely is
(1) 30 s (2) 40 s
(3) 50 s (4) 60 s

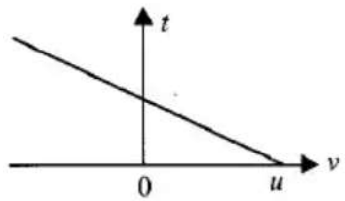
34. A ball is released from the top of a tower of height h. It takes time T to reach the ground. What is the position of the ball (from ground) after time T/3?
(1) h/9 m (2) 7h/9 m
(3) 8h/9 m (4) 17h/18 m

35. An object is thrown up vertically. The velocity-time graph for the motion of the particle is

(1) 

(2) 

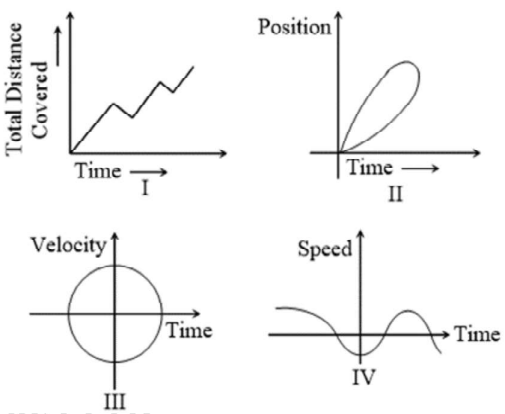
(3) 

(4) 

SECTION-B

ATTEMPT ANY 10 OF THE FOLLOWING SECTION

36. Which of the following graphs can not possibly represent one dimensional motion of a particle



(1) I and II (2) II and III
(3) II and IV (4) All four

37. A particle experiences a constant acceleration for 50 second after starting from rest. If it travels a distance s_1 in first 25 second and distance s_2 in the next 25 sec, then

(1) $s_1 = s_2$ (2) $s_1 = \frac{s_2}{3}$

(3) $s_1 = \frac{s_2}{2}$ (4) $s_1 = \frac{s_2}{4}$

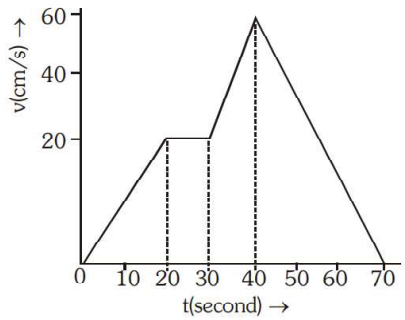
SPACE FOR ROUGH WORK

38. A stone is thrown vertically upward. On its way up it passes point A with speed of v, and point B, 3m highter than A, with speed V/2 The maximum height reached by stone above point B is :

(1) 1 m (2) 2 m

(3) 3 m (4) 5 m

39. The velocity versus time curve of a moving point is as given below. The maximum acceleration and displacement are respectively :-



(1) 1 cm/s^2, 1700 cm (2) 2 cm/s^2, 17 m

(3) 3 cm/s^2, 1700 cm (4) 4 cm/s^2, 17 m

40. A particle of unit mass undergoes one-dimensional motion such that its velocity varies according to

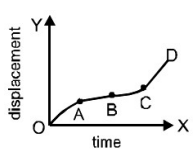
$v(x) = \beta x^{-2n}$

where β and n are constants and x is the position of the particle. The acceleraion of the particle as a function of x, is given by :

(1) $-2n\beta^2 x^{-4n-1}$ (2) $-2\beta^2 x^{-2n+1}$

(3) $-2n\beta^2 x^{-4n+1}$ (4) $-2n\beta^2 x^{-2n-1}$

41. The graph between the displacement x and time t for a particle moving in a straigh line is shown in figure. During the interval OA, AB, BC and CD, the acceleration of the particle is :



	OA	AB	BC	CD
(1)	+	0	+	+
(2)	–	0	+	0
(3)	+	0	–	+
(4)	–	0	–	0

42. Preeti reached the metro station and found that the escalator was not working. She walked up the stationary escalator in time t_1. On other days, if she remains stationary on the moving escalator, then the escalator takes her up in time t_2. The time taken by her to walk up on the moving escalator will be **[NEET-2017]**

(1) $\frac{t_1 + t_2}{2}$ (2) $\frac{t_1 t_2}{t_2 - t_1}$

(3) $\frac{t_1 t_2}{t_2 + t_1}$ (4) $t_1 - t_2$

43. A car moves from x to y with a uniform speed v_u and returns to y with a uniform speed v_d. The average speed for this round trip is **[AIPMT (Prelims)-2007]**

(1) $\frac{v_u + v_d}{2}$ (2) $\frac{2v_u v_d}{v_d + v_u}$

(3) $\sqrt{v_u v_d}$ (4) $\frac{v_d + v_u}{v_d + v_u}$

44. Motion of a particle is given by equation

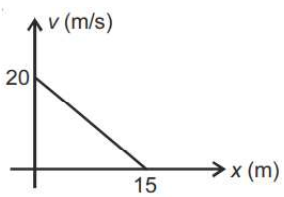
$s = (3t^3 + 7t^2 + 14t + 8)$ m

The value of acceleration of the particle at t = 1 s is

(1) 10 m/s^2 (2) 32 m/s^2

(3) 23 m/s^2 (4) 16 m/s^2

45. A particle is moving along a straight line such that its velocity varies with position as shown in figure, then the acceleration of the particle at x = 10 m is



(1) –4.6 m/s^2 (2) –6.8 m/s^2

(3) –8.9 m/s^2 (4) –10.6 m/s^2

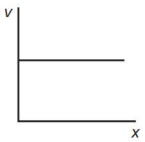
SPACE FOR ROUGH WORK

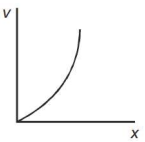
46. A ball is allowed to fall from rest from height h. If it travels $\frac{9}{25}$th of total height in last second of its fall then ball will hit ground with speed ($g = 10\ m/s^2$)

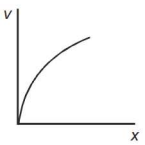
(1) 30 m/s (2) 35 m/s

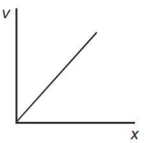
(3) 45 m/s (4) 50 m/s

47. The acceleration 'a' of a particle moving along x-axis is given as a = 2x. Assume all SI units. The velocity-position (v-x) graph is best represented by

(1) 

(2) 

(3) 

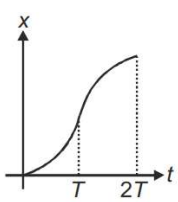
(4) 

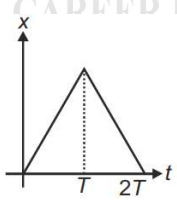
48. A balloon is rising vertically up at constant speed 10 m/s. A stone is dropped from it when the balloon is at a height of 40 m. Total distance covered by the stone before reaching the ground is (take $g = 10\ m/s^2$)

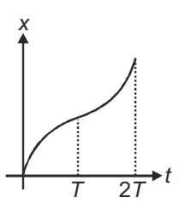
(1) 40 m (2) 45 m

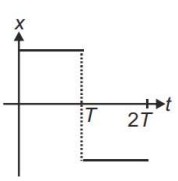
(3) 50 m (4) 60 m

49. A particle starts from rest and accelerates constantly with a m/s^2 for T second and then retards uniformly with same rate till it comes to rest. The position time (x-t) graph of the particle is best represented by **[NCERT Pg. 45]**

(1) 

(2) 

(3) 

(4) 

50. A ball is allowed to fall from top of a building. If t_1 is time taken to fall first $\frac{1}{4}$th of its height and t_2 is time taken to fall last $\frac{1}{4}$th of its height then, t_2/t_1 is

(1) $\frac{\sqrt{3-2}}{1}$ (2) $\frac{\sqrt{3}-\sqrt{2}}{1}$

(3) $\frac{\sqrt{2-3}}{1}$ (4) $\frac{2-\sqrt{3}}{1}$

CHEMISTRY

SECTION-A

51. Functional group is responsible for **[NCERT Pg. No. 340]**

(1) Physical Property (2) Chemical Property

(3) Density (4) Both (1) & (2)

52. Correct statement for Homologous Series is – **[NCERT Pg. No. 340]**

(1) They have same functional group

(2) They are represented by a general formula and each successive member is differ by 'CH_2' unit

(3) Members of homologeous series is known as homologues

(4) All of these

53. Which of the following is correctly matched ? **[NCERT Pg. No. 339]**

(1) $CH_3COC_6H_5$ Acetophenone

(2) $C_6H_5NH_2$ Aniline

(3) $C_6H_5OCH_3$ Anisole

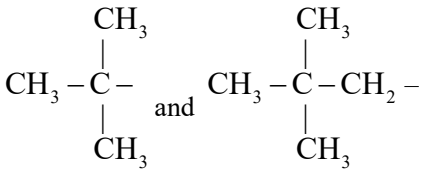
(4) All of these

54. Number of CH_3 units present in Neopentyl and tert Butyl group is respectively **[NCERT Pg. No. 341]**

(1) 5 , 4 (2) 3 ,4

(3) 3,3 (4) 4 , 3

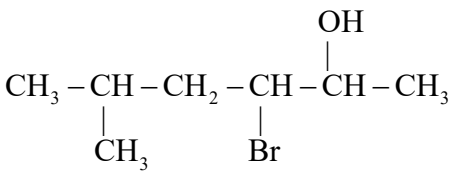
SPACE FOR ROUGH WORK

55.  and group are

[NCERT Pg. No. 341]

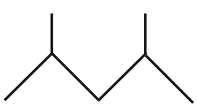
(1) Neobnutyl and Neopentyl
(2) Tert-Butyl and neopentyl
(3) Tert-Butyl and neopentyl
(4) Neo-Butyl and tert-pentyl

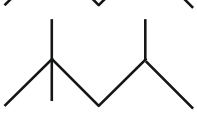
56. IUPAC name of **[NCERT Pg. No. 344]**

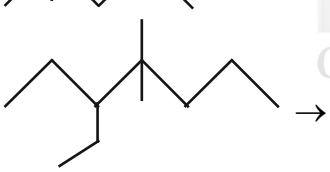


(1) 3-Bromo-5-methylhexan-2-ol
(2) 2-Hydroxy-3-bromo-5-methylhexane
(3) 2-Hydroxy-3-bromo-5-methylhexane
(4) 3-Bromo-2-hydroxy-5-methyl hexane

57. Which of the following compounds with their IUPAC name is correctly matched? **[NCERT Pg. No. 343]**

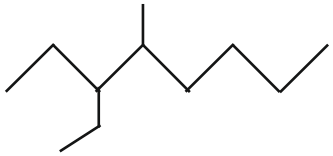
(1)  → 2 , 4 - Dimethylpentane

(2)  → 2 , 2 , 4 - Trimethylpentane

(3)  →

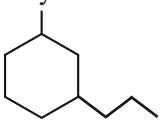
3-Ethyl-4,4-dimethylheptane

(4) All of the above

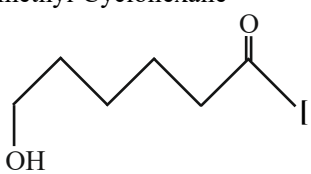
58. IUPAC name of  is –

[NCERT Pg. No. 343]

(1) 3-Methyl-6-ethyloctane
(2) 6-Ethyl-3-methyloctane
(3) 3-Ethyl-4-methyloctane
(4) 6-Methyl-3-ethyloctane

59. IUPAC name of  **NCERT Pg. No. 343]**

(1) 1-propyl-3-methyl hexane
(2) 1-Methyl-3-propyl hexane
(3) 1-Methyl-3-propylcyclohexane
(4) 1-propyl-3-methyl Cyclohexane

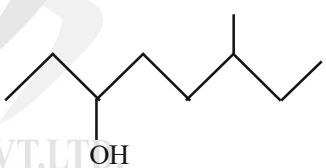
60. IUPAC name of 

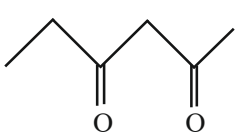
NCERT Pg. No. 344]

(1) 7-Hydroxyheptan-2-one
(2) 7-Hydroxy-2-oxoheptane
(3) 1-Hydroxy-6-oxoheptane
(4) 6-oxoheptan-1-ol

61. Which of the following is incorrectly match?

[NCERT Pg. No. 344]

(1)  6-Methyl octan-3-ol

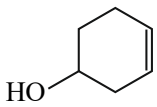
(2)  Hexan-2,4-dione

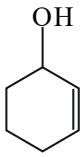
(3)  5-oxohexanoic acid

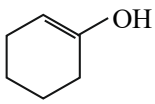
(4)  Hexa-3 , 5 -dien-1-yne

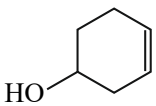
SPACE FOR ROUGH WORK

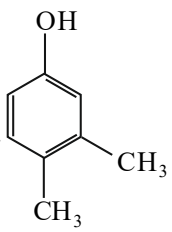
62. The correct structure of cycloyhex-2-en-1-ol **[NCERT Pg. No. 346]**

(1) 

(2) 

(3) 

(4) 

63. IUPAC name of  **[NCERT Pg. No. 347]**

(1) 3,4-Dimethylphenol
(2) 1-Hydroxy-3,4-dimethyl benzene
(3) 1,2-Dimethyl phenol
(4) 4,5-Dimethylphenol

64. In the given molecules **[NCERT Pg. No. 335]**

(a) $CH_2 = C = O$ (b) $CH_3 - CH = CH_2$

(c) $(CH_3)_2 CO$ (d) $CH_2 = CH - CN$

(e) C_6H_6

(1) (a) and (d) has sp^2 and sp hybridised carbon
(2) (b) and (c) has sp^2 and sp^3 hybridised carbon
(3) (e) has only sp^2 carbon
(4) All of these

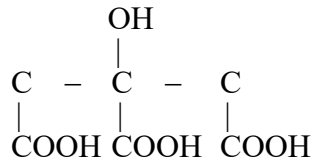
65. Which of the following IUPAC name is correct ? **[NCERT Pg. No. 345]**

(1) 2-Dimethylpentane
(2) 2,5,7-Trimethyl octane
(3) 2-Chloro-4-methylpentane
(4) But-1-yn-4-ol

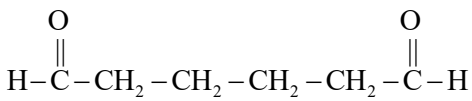
66. Which of the following is correctly matched **[NCERT Pg. No. 345]**

(1) 2,2,4-Trimethylpentane 

(2) 2-Hydroxy propane-1,2,3-tricarboxylic acid



(3) Hexanedial



(4) All of these

67. Which of the following is pair of stereo isomers? **[NCERT Pg. No. 348]**

(1) Geometrical and metamerism
(2) Optical and metamerism
(3) Position and metamerism
(4) Geometrical and optical

68. $CH_3 - CH_2 - CH_2 - OH$ and $CH_3 - O - CH_2 - CH_3$ are **[NCERT Pg. No. 349]**

(1) Position isomers
(2) Functional group isomers
(3) Chain isomers (4) Metamers

69. Minimum number of carbon atoms for an organic compound to show chain isomeism **[NCERT Pg. No. 348]**

(1) 3 (2) 4
(3) 5 (4) 6

70. Minimum number of carbon atoms in parent carbon chain for smallest alkane to show position isomerism **[NCERT Pg. No. 348]**

(1) 3 (2) 4
(3) 5 (4) 6

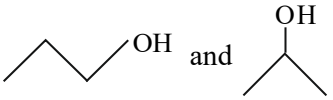
71. Minimum number of carbon atom for any organic compound to show position isomerism **[NCERT Pg. No. 348]**

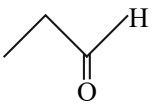
(1) 2 (2) 3
(3) 4 (4) 5

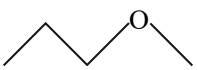
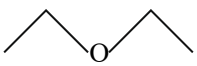
SPACE FOR ROUGH WORK

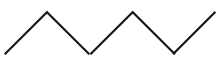
72. Match the column **[NCERT Pg. No. 349]**

Column I

(A)  and

(B)  and 

(C)  and 

(D)  and 

Column I

(P) Chain isomerism
(Q) Metamerism
(R) Functional group isomerism
(S) Position isomerism

(1) (A) $\rightarrow$ S (B) $\rightarrow$ R (C) $\rightarrow$ Q (D) $\rightarrow$ P
(2) (A) $\rightarrow$ P (B) $\rightarrow$ Q (C) $\rightarrow$ R (D) $\rightarrow$ S
(3) (A) $\rightarrow$ P (B) $\rightarrow$ R (C) $\rightarrow$ S (D) $\rightarrow$ Q
(4) (A) $\rightarrow$ Q (B) $\rightarrow$ R (C) $\rightarrow$ S (D) $\rightarrow$ P

73. Primary amine, secondary amine and tertiary amine considered as **[NCERT Pg. No. 349]**
(1) Chain isomerism
(2) Position isomerism
(3) Functional group isomerism
(4) Metemerism

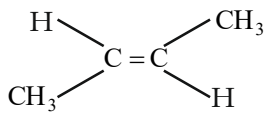
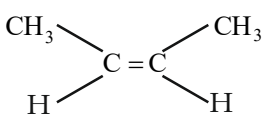
74. Spatial arrangement of atom in space which can be inter convertable by free rotation of any bond is know as **[NCERT Pg. No. 383]**
(1) conformational isomers
(2) Conformers
(3) Rotamers
(4) All of these

75. Minimum dihedral angle (Angle of rotation or angle of tortional) required to convert maximum stable conformation of ethane to minimum stable conformation **[NCERT Pg. No. 384]**
(1) 120^{O} (2) 90^{O}
(3) 60^{O} (4) 180^{O}

76. Dihedral angle in staggered and eclipsed conformation of ethane is respectively **[NCERT Pg. No. 384]**
(1) 0^{O} and 60^{O} (2) 60^{O} and 0^{O}
(3) 0^{O} and 0^{O} (4) 60^{O} and 60^{O}

77. Which of the followibng compound can show GI. **[NCERT Pg. No. 385]**
(1) But-1-ene (2) But-2-ene
(3) 2-Methylbut-2-ene (4) 2,3-Dimethylbut-2-ene

78. Which of the following statement is correct for the given pair of compounds **[NCERT Pg. No. 386]**

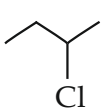
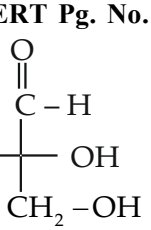
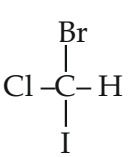
 and 

(1) Boiling point **cis > trans**
(2) Dipole moment **cis > Trans**
(3) Melting point **Trans > Cis**
(4) All

79. The compound which rotates plane polarised light is called as **[NCERT Pg. No. 296]**
(1) optically inactive compound
(2) chiral compound
(3) optically active compound
(4) Both 2 and 3

80. The stereoisomers which are nonsuperimposible mirror image of each other are called as **[NCERT Pg. No. 296]**
(1) Enatiomous (2) Diastereomers
(3) Homomers (4) Metamers

81. Which of the following compound is optically active **[NCERT Pg. No. 296]**

(1) 
(2) 
(3) 
(4) All

SPACE FOR ROUGH WORK

82. Correct statement about enatiomers
[NCERT Pg. No. 297]
(1) It is identical physical property like melting point boiling point, refractive index etc.
(2) They have same magnitude of optical rotation but opposite in direction
(3) If one is dextrorotatory then second is leavorotatory
(4) All

83. Correct statement about reacemic mixture is
[NCERT Pg. No. 297]
(1) Racemic mixture is equimolar mixture of enatiomers
(2) Racemic mixture is optically inactive (zero optical rotation) due to external compansation
(3) Racemic mixture is represented by prefix 'dℓ' or '±' sign before the name
(4) All

84. The reactant molecule which supply carbon to new bond formation is known as – **[NCERT Pg. No. 349]**
(1) Substrate (2) Reactant
(3) Reagent (4) Product

85. Which of the following carbocation is most stable?
[NCERT Pg. No. 356]
(1) $CH_3-\overset{\oplus}{C}H_2$ (2) $CH_3-\underset{\oplus}{\overset{CH_3}{\overset{|}{C}}}H$
(3) $CH_3-\underset{CH_3}{\overset{CH_3}{\overset{|}{\underset{|}{C}}}}\oplus$ (4) $\overset{\oplus}{C}H_3$

SECTION-B

ATTEMPT ANY 10 OF THE FOLLOWING SECTION

86. Which of the following carbocation is most stable?
[NCERT Pg. No. 356]
(1) Methyl carbocation (2) Ethyl carbocation
(3) isopropyl carbocation (4) tert Butylcarbocation

87. Hybridisation of carbon atom of carbocation is –
[NCERT Pg. No. 349]
(1) sp^2 (2) sp^3
(3) sp (4) None of them

88. If one of the electron of the shared pair in a covalent bond goes with each of the bonded atom then
[NCERT Pg. No. 350]
(1) it is known as homolytic bond fission
(2) electron movement is shown by half headed (fish hook) curved arrow.
(3) free radicals are formed
(4) All of these

89. Which of the following is not correct about electrophile?
[NCERT Pg. No. 349]
(1) Electrophiles are electron deficient
(2) Electrophile attacks on electron rich site of nucleophilic centre
(3) $\overset{\oplus}{C}H_3$, $\diagdown\!\!\diagup C=O$, R_3C-X are example of electrophale
(4) $\bar{O}H$, $\overset{\oplus}{C}N$, $H_2\ddot{\underset{\cdot\cdot}{\overset{\cdot\cdot}{O}}}$ are example of eledctrophile

90. Which of the following is an example of electrophile?
[NCERT Pg. No. 349]
(1) R_3N (2) R_2NH
(3) H_2O (4) SO_3

91. Which of the following is a type of permanent effect?
(1) Inductive effect (2) Resonance effect
(3) Electromeric effect (4) Both (1) & (2)

92. in the given groups how many groups show –I effect?
–CN , –COOH , $-NO_2$, –COOR , –OR , $-CH_3$, $-CH_2-CH_3$ **[NCERT Pg. No. 352]**
(1) 2 (2) 3
(3) 4 (4) 5

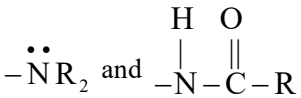
93. When all behaviour of a molecule cannot be explained by a single structure more than one structures are required then the phenomenon is known as
[NCERT Pg. No. 353]
(1) Resonance (2) Hyperconjigation
(3) Inductive effect (4) Electromeric effect

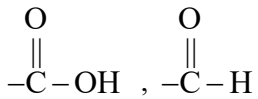
SPACE FOR ROUGH WORK

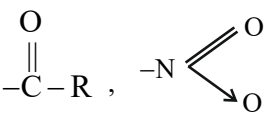
94. The difference of energy between most stable resonating structure and resonance hybrid is **[NCERT Pg. No. 353]**

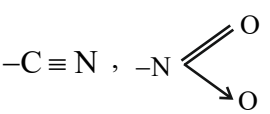
(1) Resonance energy
(2) Resonance stablisation energy
(3) Activation energy
(4) Both (1) and (2)

95. Which of the following will show +R effect? **[NCERT Pg. No. 354]**

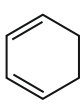
(1)  and

(2) 

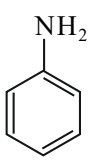
(3) 

(4) 

96. Which of the following molecule has a conjugated system? **[NCERT Pg. No. 353]**

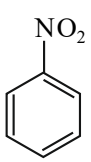
(1) 

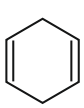
(2) $CH_2 = CH - CH = CH_2$

(3) 

(4) All of the above

97. In which of the following molecule conjugated system is not present **[NCERT Pg. No. 353]**

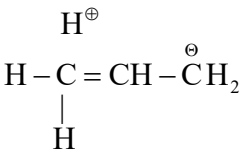
(1) 

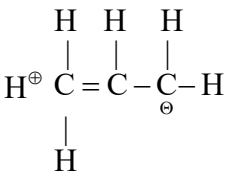
(2) 

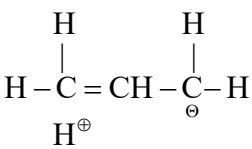
(3) 

(4)

98. Which of the following is the correct hyper conjuating structure of propene $CH_3 - CH = CH_2$ **[NCERT Pg. No. 356]**

(1) 

(2) 

(3) 

(4) All of these

99. In the case of hyperconjugation of carbocation C – H bonded electron goes to **[NCERT Pg. No. 355]**

(1) Vacant p-orbital
(2) Half filled p-orbital
(3) π-bonding molecular orbital
(4) π-antibonding molecular orbital

100. Hyper conjugation is also known as **[NCERT Pg. No. 355]**

(1) Nathan baker effect
(2) No. bond resonance effect
(3) electromeric effect
(4) Both (1) & (2)

SPACE FOR ROUGH WORK

BIOLOGY-I

SECTION-A

101. Binomial Nomenclature system is given by ———
[NCERT Page No. 6]
(1) A P De candolle
(2) Carolus Linnaeus
(3) Ernest Mayr
(4) None of these

102. Based on ——————— and ———————, each organism is identified and assigned a correct scientific and name. **(Summary P. No 14)**
(1) Resemblance
(2) District difference
(3) Local name
(4) Both 1 and 2

103. The basic and real lower most unit of classification is
[NCERT Page No. 8]
(1) Genus (2) Species
(3) Family (4) Kingdom

104. Read the data given below, find out how many of them are class, genus and families
(taxonomic categories P.N 9-11)
- Felis, Anacardiacease, felidae, diptera, insecta, carnivora, monocotyledonae, Petunia, Datura, nigrum, melongena, Panthera, Solanaceae, Muscidae
(1) 2 , 4, 4 (2) 3, 3, 4
(3) 4, 2, 4 (4) 2, 3, 5

105. Read the following features.
[NCERT Page No. 44]
a. Bilaterally symmetrical with organ system level of organisation.
b. Triploblastic, coelomate.
c. Segmented body.
d. Circulatory system open type.
e. Mostly Dioecious.
f. Fertilisation is usually internal.
This features are related to which of the following phylum.
(1) Aschelminthes (2) Annelida
(3) Arthropoda (4) Mollusca

106. Select the incorrect match.
[NCERT P.No. 44, 48, 51]
(1) Osteichthyes – Aquarium - Pterophyllum
(2) Arthropoda – Living Fossil – Limulus
(3) Mammalia – Ornithorhynchus – Viviparous
(4) Arthropoda – Gregarious pest – Locusta

107. Read the following statements about cyclostomes and select incorrect one.
[NCERT Page No. 47]
(1) Cyclostomes are marine but migrate for spawning to fresh water. After spawning, within a few days, they die. Their larvae after metamorphosis, returns to ocean.
(2) They have an elongated body bearing 6 – 15 pairs of gill slits for respiration.
(3) Cyclostomes are ectoparasites on some fishes have a sucking and circular mouth with jaw.
(4) Their body is devoid of scales and paired fins.

108. Match the phylum with correct excretory organ and select the correct option.
[NCERT Page No. 42,43,44,44]

A. Annelida	I. Proboscis gland
B. Arthropoda	II. Nephridia
C. Hemichordata	III. Malpighian tubules
D. Platyhelminthes	IV. Excretory tube
E. Aschelminthes	V. Flame Cell

(1) A – III, B – II, C – I, D – V, E – IV
(2) A – IV, B – III, C – I, D – V, E – II
(3) A – II, B – III, C – I, D – V, E – IV
(4) A – II, B – III, C – IV, D – V, E – I

109. Remove odd from following **(P.N. 11)**
(1) Mammals (2) Insecta
(3) Diptera (4) Dicotyledonae

110. Read the statements given below and find out correct one **(P.N11)**
(1) Mangifera is species of mango
(2) Mangifera is genus belongs to class Monocotyledonae
(3) Mangifera indica is scientific name of mango belong to class Dicotyledonae
(4) Both 1 and 2

SPACE FOR ROUGH WORK

111. Mark the incorrect match **[NCERT Page No. 10-11]**

(1) Class - Mammalia
(2) Order - insecta
(3) Family - Convolvulaceae
(4) Species - aestivum

112. a) Families are characterized based on the both vegetative and reproductive characters.
b) Scientific name ensures that each organism has only one name
Choose the correct option given below
(1) Both a and b are correct
(2) a is correct b is incorrect
(3) a is incorrect b is correct
(4) both a and b are incorrect

113. Read the following statements.

[NCERT Page No. 40,41,42,43,44,45]

A. Body of Molluscs is covered by a calcareous shell which is made up of calcium carbonate and chitin.
B. In members of phylum Ctenophora reproduction takes place by only sexual means.
C. Cnidarians have a central gastro-vascular cavity with two separate openings, mouth on hypostome.
D. In Aschelminthes alimentary canal is complete with a well-developed muscular pharynx.
E. Aquatic annelids like Nereus posses lateral appendages, parapodia which helps in locomotion (swimming).
F. The body of arthropods is covered by chitinous exoskeleton and consists of head, thorax and abdomen.
G. Circulatory system in Hemichordates is open type.
H. Body of sponges is supported by a skeleton made up of spicules or spongin fibres.

How many statements is/are incorrect.
(1) 1 (2) 2
(3) 3 (4) 4

114. How many animals from the following belongs to phylum Mollusca and Echinodermata.

[NCERT Page No. 44,45]

Antedon (Sea lily), Pila (Apple snail), Ophiura (Brittle star), Pinctada (Pearl oyster), Sepia (Cuttlefish), Exocoetus (Flying fish), Loligo (Squid), Cucumaria (Sea cucumber), Octopus (Devil fish), Aplysia (Sea- hare), Echinus (Sea urchin), Dentalium (Tusk shell), Asterias (Star fish), Chaetopleura (Chiton), Hippocampus (Sea horse).

(1) Mollusca – 9, Echinodermata – 6
(2) Mollusca – 10, Echinodermata – 5
(3) Mollusca – 8, Echinodermata – 5
(4) Mollusca – 5, Echinodermata – 5

115. Which of the following is not a fundamental characteristic features of phylum Chordata.

[NCERT Page No. 45]

(1) Presence of Notochord.
(2) Absence of post anal part.
(3) Single, Dorsal and hollow nerve cord.
(4) Paired pharyngeal gill slits.

116. The most distinctive feature of echinoderms is the presence of water vascular system which helps in

[NCERT Page No. 45]

(1) Locomotion
(2) Capture and transport of food
(3) Respiration
(4) All of these

117. Identify the correct sequence of taxonomical categories in classification Plants **[NCERT Page No. 10]**

(1) Species → Genus → Order → Class → Family → phylum → Kingdom
(2) Species → Genus → Family → Order → Class → Division → Kingdom
(3) Genus → Species → Order → Family → Class → Division → Kingdom
(4) Species → Genus → Family → Order → Class → Phylum → Kingdom

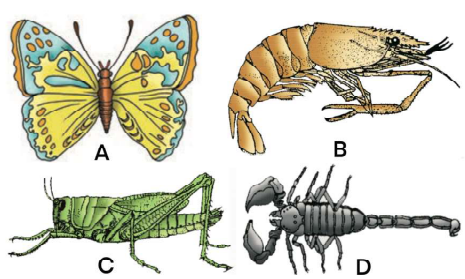
SPACE FOR ROUGH WORK

118. Assertion: All living organisms present past & future are linked to one another
Reasons: Living organism's shares common genetic material but to varying degree [NCERT Page No. **5]**
(1) If both assertion and reason are true and reason is correct explanation of the assertion
(2) If both assertion and reasons are true but reason is not correct explanation of assertion
(3) If assertion is true but reason is false
(4) If both assertion and reasons are false

119. The number of known and described species are in the range of **(P.N 6 Biodiversity)**
(1) 1.7 – 1.8 billion
(2) 1.6-1.7 million
(3) 1.7 – 1.8 million
(4) 1.5-1.6 billion

120. Remove odd from following **[NCERT Page No. 5]**
(1) Metabolism
(2) Consciousness
(3) Reproduction
(4) Cellular organization

121. Identify the given animals and select the correct option. **[NCERT Page No. 44]**



(1) A – Butterfly, B – Locust, C – Prawn, D – Limulus
(2) A–Butterfly, B–Locust, C–Grasshopper, D – Scorpion
(3) A – Butterfly, B – Prawn, C – Locust, D – Limulus
(4) A – Butterfly, B – Prawn, C – Locust, D – Scorpion

122. Body of ……A…… is unsegmented with a distinct ……B……, ……C…… and ……..D…….. **[NCERT Page No. 44]**
(1) A – Arthropods, B – Head, C – Thorax, D – Abdomen.
(2) A – Molluscs, B – Head, C – Muscular foot, D – Visceral hump.
(3) A – Arthropods, B – Head, C – Muscular foot, D – Visceral hump.
(4) A – Molluscs, B – Head, C – Thorax, D – Abdomen.

123. Select the correct match.
[NCERT Page No. 42,43,44]

	Phylum	Features	Examples
(1)	Platyhelminthes	These are mostly endoparasites found in animals including human beings. Hooks and suckers are present in the parasitic forms. All of them absorb nutrients from the host directly through their body surface.	Taenia (Tapeworm), Fasciola (Liver fluke).
(2)	Aschelminthes	They may be freeliving, aquatic and terrestrial or parasitic in plants and animals. Sexes are separate (dioecious), i.e., males and females are distinct. Often males are longer than females.	Ascaris (Roundworm), Wuchereria (Filaria worm), Ancylostoma (Hookworm).
(3)	Annelida	They may be aquatic (marine and fresh water) or terrestrial; free-living, and sometimes parasitic. Their body surface is distinctly marked out into segments or metameres and, hence, the phylum name Annelida.	Nereis, Pheretima (Earthworm), limulus and Hirudinaria (Blood sucking leech).
(4)	Arthropoda	They have jointed appendages (arthros-joint, poda-appendages). Sensory organs like antennae, eyes (compound and simple), statocysts or balancing organs are present They are mostly oviparous. Development may be direct or indirect.	Economically important insects – Apis (Honey bee), Bombyx (Silkworm), Laccifer (Lac insect) Vectors – Anopheles, Culex and Aedes (Mosquitoes)

124. How many examples of the following belongs to Urochordata and Cephalochordata.
Ascidia, Branchiostoma (Amphioxous or lancelet), Doliolum, Salpa
[NCERT Page No. 46]
(1) Urochordata – 2 and Cephalochordata – 2
(2) Urochordata – 1 and Cephalochordata – 3
(3) Urochordata – 3 and Cephalochordata – 1
(4) Urochordata – 2 and Cephalochordata – 1

125. Read the statements given below and find out how many of them are incorrect?

(Properties of living P.N. 4-6)

a) Reproduction cannot be defining property of living organism

b) Self-consciousness is defining property of living organism

c) Photoperiod affects reproduction in all breeding organisms

d) Metabolism is defining property of living organisms

e) Each different type of plant and animal that we see represents a species

(1) Four (2) Three

(3) Two (4) One

126. Convolvulaceae is **[NCERT Page No. 10]**

(1) Order (2) Division

(3) Family (4) None of these

127. Match the column **[NCERT Page No. 9-10]**

a) Genus i) Group of related orders

b) Class ii) Group of related genera

c) Family iii) Group of related species

d) Order iv) Group of related families

(1) a) i, b) ii, c)iii, d iv

(2) a) ii, b) i, c)iii, d iv

(3) a) iv, b) i, c)ii, d iii

(4) a) iii, b) i, c)ii, d iv

128. Biological concept of species is given by ——— **[NCERT Page No. 01]**

(1) A P de condole (2) Ernst Mayr

(3) Charles Darwin (4) T. H Morgan

129. The digestive tract of which of the following has additional chambers, the crop and gizzard. **[NCERT Page No. 49]**

(1) Testuda (2) Pteropus

(3) Columba (4) Hyla

130. Mark the incorrect statement w.r.t Protochordates. **[NCERT Page No. 46]**

(1) Urochordata and Cephalochordata are often referred to as protochordates and are exclusively marine.

(2) In Urochordata, notochord is present only in Adult tail.

(3) Cephalochordata, notochord extends from head to tail region but do not persistent throughout their life.

(4) More than one option are incorrect.

131. Osteichthyes have ..... which are covered by an operculum on each side. **[NCERT Page No. 48]**

(1) 2 pairs of gills (2) 4 gills

(3) 4 pairs of gills (4) 6 – 15 pairs of gills

132. Select the incorrect one. **[NCERT Page No. 48,50,51]**

(1) Mammalia – Macropus (Kangaroo), Pteropus (Flying fox), Aptenodytes (Penguin).

(2) Amphibia – Hyla (Tree frog), Salamandra (Salamander), Ichthyophis (Limbless amphibia).

(3) Chondrichthyes – Scoliodon (Dog fish), Pristis (Saw fish), Carcharodon (Great white shark).

(4) Aves – Pavo (Peacock), Neophron (Vulture), Psittacula (Parrot).

133. Assertion: Cockroach belongs to the class insecta

Reasons: All members of insect have three pairs of jointed legs in their abdomen **[NCERT Page No. 5]**

(1) If both assertion and reason are true and reason is correct explanation of the assertion

(2) If both assertion and reasons are true but reason is not correct explanation of assertion

(3) If assertion is true but reason is false

(4) If both assertion and reasons are false

134. Which of the following suffix used for the unit of classification in the plant indicates a taxonomic category family? **(Exemplar)**

(1) —Ales (2) —aceae

(3) –Ae (4) None

SPACE FOR ROUGH WORK

135. **Assertion :** In aves endoskeleton is fully ossified (bony).
Reason : In aves long bones are hollow with air cavities (pneumatic). **[NCERT Page No. 45]**
(1) Both Assertion and Reason are correct and Reason is a correct explanation for Assertion.
(2) Both Assertion and Reason are correct and Reason is not a correct explanation for Assertion.
(3) Assertion is correct and Reason is incorrect.
(4) Assertion is incorrect and Reason is correct.

SECTION-B

ATTEMPT ANY 10 OF THE FOLLOWING SECTION

136. As we go from species to kingdom in a taxonomic hierarchy the number of common characteristics **[NCERT Page No. 10]**
(1) Will remain same
(2) Will increases
(3) Will decreases
(4) It vary with plants and animals

137. Select the correctly written scientific name of mango which was first describes by Carolus Linnaeus **(NEET 2019)**
(1) *Mangifiera indica* Linn
(2) Mangifera indica
(3) mangifiera Indica *Linn*
(4) Mangifiera Indica

138. Study the four statements given below and select the two correct one out of them **(NEET 2016)**
A. Definition of biological species was given by Ernst Mayr
B. Photoperiod does not affect reproduction in plants
C. Binomial nomenclature system was given by R. H. Whittaker
D. In unicellular organisms reproduction is synonymous with the growth
The two correct statements are
(1) C and D (2) A and D
(3) A and B (4) B and C

139. Match the column I and Column II for the house fly classification and select the correct option using the code given bellow **(NEET 16)**

Column I	Column II
a) Family	i) diptera
b) Order	ii) Arthropoda
c) Class	iii) Muscidae
d) Phylum	iv) insecta

(1) a) iii, b) ii, c)iv, d)i
(2) a) iii, b) i, c)iv, d)ii
(3) a) i, b) ii, c)iii, d)iv
(4) a) ii, b) i, c)iii, d)iv

140. All living organisms are linked to one another because **(Exemplar)**
(1) They have common genetic material of same type
(2) They share common generic material but to varying degree
(3) All have common cellular organization
(4) All of these

141. In binomial nomenclature first component is ——— ——— and second component is ———
(1) Generic name and genus name
(2) Specific epithet and genus
(3) Generic name and specific epithet
(4) Sub Specific epithet and genus

142. Remove odd following
(1) Species (2) Genus
(3) Felidae (4) Order

143. Identify incorrect in respect with binomial nomenclature
(1) Biological name are generally given in latin and written in italics
(2) Author name must be latinised irrespective origin
(3) Biological name has two components
(4) Genus is first component in biological name

SPACE FOR ROUGH WORK

144. Match the column and select the correct option. **[NCERT Page No. 48]**

	Column I		Column II
I	Marine	A	Clarias (Magur)
II	Freshwater	B	Betta (Fighting fish)
II	Aquarium	C	Catla (Katla)
		D	Hippocampus (Sea horse)
		E	Labeo (Rohu)
		F	Exocoetus (Flying fish)
		G	Pterophyllum (Angel fish)

(1) I – D, E II – A, F, C III – B, G
(2) I – D, G II – A, C. III – B, E, F
(3) I – D, E II – A, E, C III – B, F
(4) I – D, F II – A, C, E III – B, G

145. Cnidarians which exist in both forms exhibit alternation of generation (Metagenesis), i.e., polyps produce medusae asexually and medusae form the polyps sexually is **[NCERT Page No. 41]**
(1) Obelia (2) Physalia
(3) Aurelia (4) (1) and (2)

146. Read the following statement w.r.t Sponges and select incorrect one. **[NCERT Page No. 40]**
(1) Primitive unicellular animals and have cellular level of organisation.
(2) Sexes are not separate (hermaphrodite).
(3) Sponges reproduce asexually by fragmentation and sexually by formation of gametes.
(4) Fertilisation is internal and development is indirect.

147. Match the column and select the correct option. **[NCERT Page No. 41,42,46,47]**

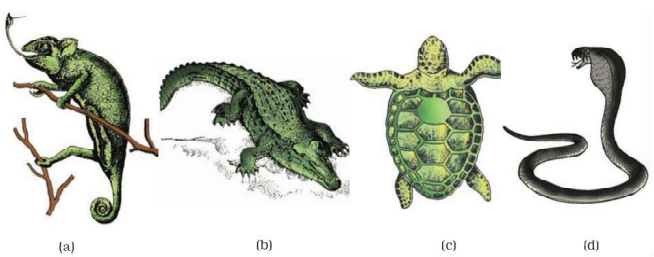
	Column I		Column II
A	Cyclostomes	I	Meandrina
B	Cnidaria	II	Salpa
C	Porifera	III	Fasciola
D	Platyhelminthes	IV	Myxine
E	Urochordata	V	Sycon

(1) A – IV, B – I, C – V, D – III, E – II
(2) A – IV, B – II, C – V, D – III, E - I
(3) A – V, B – I, C – IV, D – III, E - II
(4) A – III, B – I, C – V, D – IV, E - II

148. **Assertion** – Hemichordata was earlier considered as a sub-phylum under phylum Chordata. But now it is placed as a separate phylum under non-chordata.
Reason – Hemichordates have a rudimentary structure in the collar region called stomochord, a structure similar to notochord. **[NCERT Page No. 45]**
(1) Both Assertion and Reason are correct and Reason is a correct explanation for Assertion.
(2) Both Assertion and Reason are correct and Reason is not a correct explanation for Assertion.
(3) Assertion is correct and Reason is incorrect.
(4) Assertion is incorrect and Reason is correct.

149. The body is externally and internally divided into segments with a serial repetition of at least some organs. **[NCERT Page No. 43]**
(1) Metagenesis e.g. Earthworm
(2) Metamerism e.g. Aplysia
(3) Metamorphosis e.g. Frog
(4) Metamerism e.g. Earthworm

150. Observe the given figure and select the correct statement. **[NCERT Page No. 49]**



(1) a is calotes belongs to reptilia have creeping or crawling type of locomotion.
(2) b is crocodile belongs to reptilia and have three chamber heart.
(3) c is testuda belongs to reptilia and have dry skin without scales.
(4) d is Naja, poisonous snake shed their skin as skin cast.

SPACE FOR ROUGH WORK

SECTION-A

151. ———————— characters are considered in modern taxonomic studies
(1) External and internal structure
(2) Cell structure, Developmental process
(3) Ecological information
(4) All of these

152. ———————— branch takes in account evolutionary relationship between organisms.
(1) Classification
(2) Systematics
(3) Evolutionary biological studies
(4) Morphology

153. Practical significance of taxonomy is
(1) Study living forms
(2) Study living and nonliving forms
(3) Identification of unknown species
(4) Both 1 and 3

154. Read the statements given below and find out how many of them are correct?
a) Consciousness enables organisms to be aware of their surrounding
b) Metabolism is almost found in all organisms except some fungi
c) In living organisms growth is from inside
d) Living organisms exhibits characteristics in which reproduction is not defining property
e) Metabolism is not found in nonliving things
(1) Five (2) Four
(3) One (4) Two

155. Which of the following are homiothermous and have four chamber heart. **[NCERT Page No. 51]**
(1) Testuda (2) Bufo
(3) Crocodile (4) Balaenoptera

156. Statement A – The adult echinoderms are bilaterally symmetrical but larvae are radially symmetrical.
Statement B - Digestive system is complete with mouth on the lower (ventral) side and anus on the upper (dorsal) side. **[NCERT Page No. 45]**
(1) Both statements A and B are correct.
(2) Both statements A and B are incorrect.
(3) Statement A is correct and Statement B is incorrect.
(4) Statement A is incorrect and Statement B is correct.

157. Cnidoblasts are used for **[NCERT Page No. 41]**
(1) Anchorage (2) Defense
(3) Capture of prey (4) All of these

158. Select the incorrect one. **[NCERT Page No. 41]**
(1) Physalia - Portuguese man-of-war
(2) Adamsia - Jelly fish
(3) Pennatula - Sea-pen
(4) Gorgonia - Sea-fan

159. The category between order and phylum
(1) Division (2) Family
(3) Genus (4) Class

160. In binomial nomenclature genus name of species starts with
(1) Small letter
(2) Capital letter
(3) it may vary with type of organism
(4) none of these

161. Read the statements given below and find out incorrect one
(1) number and type of living organism on planet earth is bio-diversity
(2) new organisms are continuously identified as we explore new areas
(3) scientific name changes from place to place with same country
(4) taxa represents categories at very different level

162. Match the column I and Column II for the wheat classification and select the correct option using the code given bellow **[NCERT Page No. 11]**

Column I	Column II
e) Family	i) Poales
f) Order	ii) Angiospermae
g) Class	iii) Poaceae
h) Division	iv) Monocotyledonae

(1) a) iii, b) ii, c)iv, d)i
(2) a) iii, b) i, c)iv, d)ii
(3) a) i, b) ii, c)iii, d)iv
(4) a) ii, b) i, c)iii, d)iv

SPACE FOR ROUGH WORK

163. Read the following statement.

[NCERT Page No. 38]

A. Sponges are mostly asymmetrical, i.e., any plane that passes through the centre does not divide them into equal halves.

B. When any plane passing through the central axis of the body divides the organism into two identical halves, it is called radial symmetry. Coelenterates, ctenophores and echinoderms.

C. Animals like annelids, arthropods, molluscs, hemichordate and Chordates etc., where the body can be divided into identical left and right halves in only one plane, exhibit bilateral symmetry.

(1) A and B are correct and C is incorrect.
(2) A and C are correct and B are incorrect.
(3) A, B and C all are correct.
(4) B is correct and A and C are incorrect.

164. Which of the following have electric organ.

[NCERT Page No. 48]

(1) Torpedo (2) Carcharodon
(3) Trygon (4) Pristis

165. How many animals from the following are marine.

Balanoglossus, Spongilla, Asterias, Hydra, Pterpus, Loligo, Ancylostoma, Ascidia.

[NCERT Page No. 41,43,45,46,51]

(1) 2 (2) 3
(3) 4 (4) 5

166. Select the correct option.

[NCERT Page No. 48,49,51]

A	Skin posses hairs	B
Amphibia	C	Hyla
Reptilia	Skin is dry and Cornified	D

(1) A – Aves, B – Macropus
(2) C – Moist skin without scales, D – Icthyophis
(3) B – Equus, D – Calotes
(4) A – Mammalia, C – Moist skin with scales

167. Monkey Gorilla and gibbons are belongs to order —— and placed in class ——

(P.N 10 categories)

(1) Carnivora , aves
(2) Primata, mammalia
(3) Carnivora , primata
(4) Mammalia, Primata

168. Assertion: Increase in mass and increase number of individuals are twin characteristics of growth
Reasons: Mule, sterile worker bees do not reproduce

[NCERT Page No. 3]

(1) If both assertion and reason are true and reason is correct explanation of the assertion
(2) If both assertion and reasons are true but reason is not correct explanation of assertion
(3) If assertion is true but reason is false
(4) If both assertion and reasons are false

169. Identify the incorrect statement form following regarding binomial nomenclature system

(Nomenclature)

(1) Biological names are generally in Latin and written in italics
(2) Biological name when hand written it must be in italics format
(3) First word in a biological name represents genus while second is specific epithet
(4) Genus name starts capital letter while specific epithet start with small letter

170. Find out the incorrect statement from following

(Taxonomic categories)

(1) *Solanum* is genus of potato belongs to order Polynomiales
(2) *Panthera and Felis* are species belongs to order carnivora
(3) Order carnivora includes family Felidae, canidae
(4) *Datura Solanum Petunia* genera are placed in family solanaceae

SPACE FOR ROUGH WORK

171. Match the column and select the correct option. **[NCERT Page No. 40,42,44,45]**

A. Porifera	i. Water vascular system
B. Ctenophora	ii. Hooks and suckers
C. Platyhelminthes	iii. Jointed appendages
D. Arthropoda	iv. Radula
E. Mollusca	v. Comb plates
F. Echinodermata	vi. Water canal system

(1) A – vi, B – v, C – ii, D – iii, E – iv, F – i
(2) A – i, B – v, C – iii, D – iv, E – ii, F – vi
(3) A – i, B – v, C – ii, D – iii, E – iv, F – vi
(4) A – vi, B – iv, C – iii, D – ii, E – v, F – i

172. Statement A – Mammals are found in variety of habitats, polar ice caps, dessert, mountain, forests, grassland and dark caves.
Statement B – Mammals have two pairs of limbs, adopted for walking, running, climbing, burrowing, swimming or flying. **[NCERT Page No. 50]**
(1) Both statements A and B are correct.
(2) Both statements A and B are incorrect.
(3) Statement A is correct and Statement B is incorrect.
(4) Statement A is incorrect and Statement B is correct.

173. Read the following statements about mammals.
A. Heart is four – chambered.
B. Respiration is by lungs
C. Sexes are separate and fertilisation is external.
D. They are viviparous with few exceptions (platypus) and development is direct.
E. They are homoiothermous
F. Different types of teeth are present in the jaw (homodont). **[NCERT Page No. 51]**
(1) Only C is incorrect.
(2) C and F are incorrect
(3) D and E are incorrect
(4) Only F is incorrect

174. **Chelone, Aptenodytes, Corvus, Testudo, Delphinus, Balaenoptera, Chameleon, Calotes, Macaca, Crocodilus, Equus.**
How many examples are belongs to Reptilia, Aves and Mammalia. **[NCERT Page No. 49,50,51]**

	Reptilia	Aves	Mammalia
(1)	5	2	4
(2)	4	3	4
(3)	6	2	3
(4)	5	3	3

175. In majority of higher plant and animal's growth and reproduction are **[NCERT Page No. 4]**
(1) Mutually exclusive
(2) Mutually inclusive
(3) Both mutually exclusive and inclusive
(4) It vary with type of organism

176. In binomial nomenclature second word denoting specific epithet it starts with **[NCERT Page No. 7]**
(1) Capital letter
(2) Small letter
(3) Both can be used
(4) This type of rule is do not exist

177. In binomial nomenclature Author is _____ **[NCERT Page No. 7]**
(1) Person who have given nomenclature system
(2) Person who first describes species
(3) Person who gave ICBN and ICZN
(4) None of these

178. Term taxonomy is coined by _____ **[NCERT Page No. 7]**
(1) Ernest mayr (2) A.P De condole
(3) Robert brown (4) R.H Whittaker

179. Read the following statement about reptiles. **[NCERT Page No. 49]**
A. Body is covered by dry and cornified skin, epidermal scales or scutes.
B. Snakes and lizards shed their scales as skin cast.
C. They are oviparous and development is indirect.
D. Heart is usually three-chambered, but four-chambered in crocodiles.
E. Tympanum absent.
F. They have external ear openings.
G. The class name refers to their creeping or crawling mode of locomotion.
How many statements are correct.
(1) 2 (2) 3
(3) 4 (4) 5

SPACE FOR ROUGH WORK

180. Water canal or transport system helps in **[NCERT Page No. 40]**
(1) Food gathering (2) Respiratory exchange
(3) Removal of waste (4) All of these

181. Which of the following bears eight external rows of ciliated comb plates which helps in locomotion. **[NCERT Page No. 42]**
(1) Ctenophora (Pleurobrachia and Ctenoplana)
(2) Porifera (Sycon and Euspongia)
(3) Coelenterata (Jelly fish and Pennatula)
(4) Echinodermata (Asterias and Echinus)

182. Read the following statements.
A. They are marine animals with streamlined body.
B. Skin is covered with cycloid/ctenoid scales.
C. Fertilisation is usually external.
D. The skin is tough, containing minute placoid scales.
E. Air bladder is present which regulates buoyancy.
F. Due to the absence of air bladder, they have to swim constantly to avoid sinking.
G. In males pelvic fins bear claspers.
Which of the following statements are correct for Chondrichthyes and Osteichthyes. **[NCERT Page No. 47,48]**
(1) Chondrichthyes – A, D, F, G Osteichthyes – B, C, E
(2) Chondrichthyes – A, B, F, G Osteichthyes – C, D, E
(3) Chondrichthyes – D, F, G Osteichthyes – A, B, C, E
(4) Chondrichthyes – A, D, E, F, G Osteichthyes – B, C

183. Taxonomic unit phylum in the classification of animal is equivalent to the which hierarchial level in the classification of plant **(Exemplar)**
(1) Class (2) Division
(3) Order (4) Family

184. **Assertion –** Urochordates and Cephalochordates are chordates but they are invertebrates.
Reason – Urochordates and cephalochordates have notochord but vertebral column is not formed in them. **[NCERT Page No. 46]**
(1) Both Assertion and Reason are correct and Reason is a correct explanation for Assertion.
(2) Both Assertion and Reason are correct and Reason is not a correct explanation for Assertion.
(3) Assertion is correct and Reason is incorrect.
(4) Assertion is incorrect and Reason is correct.

185. Read the following statement find the true and false statement and select appropriate option.
A. The animals in which the body cavity is absent are called coelomates, e.g., platyhelminthes.
B. Members of porifera are commonly known as sponges. They are generally marine and mostly asymmetrical animals.
C. Some of the cnidarians, e.g., corals have a skeleton composed of calcium carbonate.
D. Planaria possess low regeneration capacity. **[NCERT Page No. 40,42,41]**

	A	B	C	D
(1)	T	T	T	F
(2)	T	F	F	T
(3)	F	T	T	F
(4)	F	F	T	T

SECTION-B

ATTEMPT ANY 10 OF THE FOLLOWING SECTION

186. Remove odd from following **[NCERT Page No. 9]**
(1) Nigrum (2) Melongena
(3) Leo (4) Panthera

187. Assertion: cat and dog are placed in two different families such as felidae and canidae
Reasons: dog is domestic animal and cat is wild animal **[NCERT Page No. 9]**
(1) If both assertion and reason are true and reason is correct explanation of the assertion
(2) If both assertion and reasons are true but reason is not correct explanation of assertion
(3) If assertion is true but reason is false
(4) If both assertion and reasons are false

188. Lion, tiger, leopard, dog and cat are belong to ——— ——— order
(1) Insecta (2) Diptera
(3) Carnivora (4) Primata

189. ——————— organisms we observe budding
(1) Yeast (2) Hydra
(3) Bacteria (4) Both 1 and 2

190. Systema naturae title is used by which of the following author for his book **[NCERT Page No. 08]**
(1) Hugo De varies (2) T.H Morgan
(3) Mendel (4) Linnaeus

191. Which the following is common for the lion, tiger and leopard? **[NCERT Page No. 9]**
(1) Species (2) Genus
(3) Morphological features
(4) Brain size

192. All organisms from prokaryotic to eukaryotic can **[NCERT Page No. 5]**
(1) Sense
(2) Show metabolism
(3) Show photosynthesis
(4) Both 1 and 2

193. Rangeela observe triploblastic animal without Coelom or body cavity. The animal he observe belongs to which phylum. **[NCERT Page No. 42]**
(1) Platyhelminthes (2) Annelida
(3) Coelenterata (4) Ctenophora

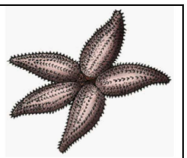
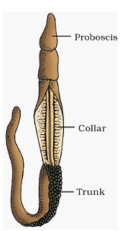
194. Read the following statement.
A. Phylum mollusca is the second largest phylum.
B. In Moluscs feather like gills present in mantle cavity which have only respiratory function.
C. The body of Aschelminthes is circular in cross-section, hence called roundworms.
D. In molluscs mouth contains file like rasping organ for feeding, called Radula.
E. Members of phylum aschelminthes are coelomates.
[NCERT Page No. 43,44]
(1) A, C and D are correct.
(2) A, B, C and D are correct.
(3) A, C, D and E are correct.
(4) A, B, C, D and E are correct.

195. Select the incorrect match. **[NCERT Page No. 48,49,50,51]**

(1)	Amphibia	Amphibians can live in aquatic as well as terrestrial habitats.
(2)	Reptilia.	Their body is covered by dry and cornified skin, epidermal Scales or scutes.
(3)	Aves.	Respiration is by lungs. Air sacs connected to lungs supplement respiration.
(4)	Mammalia	Same types of teeth are present in the jaw (Heterodont).

196. Which of the following pair of animal posses choanocytes. **[NCERT Page No. 40]**
(1) Euspongia and Physalia
(2) Pennatula and Sycon
(3) Sycon and Euspongia
(4) Aurelia and Euspongia

197. Which of the following is correct. **[NCERT Page No. 45,48]**

(1)	Echinodermata (Ophiura)	Water vascular system, radially symmetrical and excretory system absent.	
(2)	Osteichthyes (Hippocampus)	Marine and Endoskeleton is made up of bone.	
(3)	Hemichordata (Saccoglossus)	Body is made up of anterior proboscis, a collar and a long trunk.	
(4)	Osteichthyes (pristis)	Air bladder and operculum present. Mostly oviparous and fertilisation is internal	

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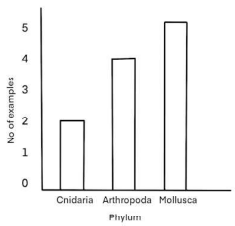
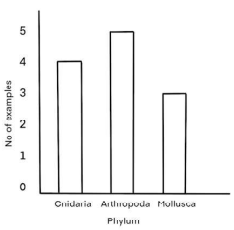
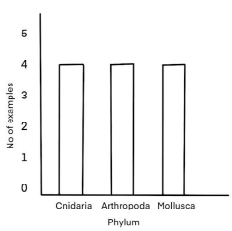
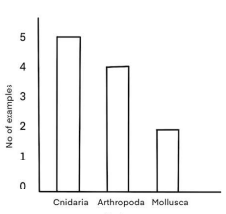
198. **Limulus, Aplysia, Hydra, Scorpion, Aurelia, Cuttle fish, Locusta, Obelia, Culex, Meandrina, Chiton, Laccifer.** How many examples belongs to Coelenterata, Arthropoda and Mollusca and select the appropriate graph representing their number.

[NCERT Page No. 41,44,45]

(1) 

(2) 

(3) 

(4) 

199. **Assertion –** Notochord is an ectodermally derived rod-like structure formed on the dorsal side during embryonic development in some animals.
Reason – Notochord absent in non-chordates and present in chordates.

[NCERT Page No. 39]

(1) Both Assertion and Reason are correct and Reason is a correct explanation for Assertion.
(2) Both Assertion and Reason are correct and Reason is not a correct explanation for Assertion.
(3) Assertion is correct and Reason is incorrect.
(4) Assertion is incorrect and Reason is correct.

200. Select the correct option.

[NCERT Page No. 40,42,45]

	Column I	Column II	Column III
(1)	Sycon	Tissue level	Porifera
(2)	Antedon	Bilateral symmetry	Mollusca
(3)	Aplysia	Cnidoblast cell	Cnidaria
(4)	Pleurobrachia	Bioluminescence	Ctenophora

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