



DR. A. QADEER SCHOLARSHIP EXAM

GSI SHAHEEN DHANBAD
(Global School Of India Campus)



SESSION 2026-27

Date: _____

Total Marks: 400

Class IX Science - English Medium

Do not open this Test Booklet until you are asked to do so.

Important Instructions:

1. **The Answer Sheet is inside this Test Booklet**, take out the Answer Sheet and fill in the particulars carefully with blue/black ball point pen only.
2. The test is of 2 hour's duration and the Test Booklet contains 100 multiple-choice questions (four options with a single correct answer) from (Physics-20) (Chemistry-20) (Mathematics-20) (Biology-20) (Mental Ability-20) Candidates are advised to read all questions in each subject before they start attempting the question paper.
3. Each question carries 4 marks. For each correct response, the candidate will get 4 marks, for wrong answer -1 marks.
4. Use Blue/Black Ball point Pen only for writing particulars on this pages/marking response on Answer sheet.
5. Rough work is to be done in the space provided for this purpose in the Test Booklet itself.
6. On completion of the test candidate must hand over the test sheet and Answer Sheet (OMR) to the Invigilator before leaving the Room/Hall.
7. Candidates should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your Roll No. anywhere else except in the specified space in the Test Booklet/Answer Sheet.
8. Use of white fluid for correction NOT permissible on the Answer Sheet.
9. Each candidate must show on demand his/her Admit card to the Invigilator.
10. No candidate, without special permission of the centre Superintendent & Invigilator, would leave his/her seat.
11. Candidates should not leave the Examination Hall Without handing over their Test Paper & Answer sheet to the Invigilator on duty and sign (with time) the Attendance Sheet.
13. Use of Electronic/Manual Calculator is prohibited.
14. Candidates are governed by all Rules and Regulations of the examination with regards to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per the Rules and Regulations of this examination.
15. **No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.**

Name of the Candidate (In Capitals): _____ Class: _____

Roll Number: _____

In Word: _____

Centre of Examination (In Capitals): _____

Candidate's Signature: _____ Invigilator's Signature: _____

SECTION-A : CHEMISTRY

- Which metal is stored in kerosene oil?
 (a) Na (b) Mg (c) Ca (d) None of these
- Strong acid+Weak base \longrightarrow Y+ H₂O+Heat the substance Y is
 (a) Neutral salt (c) Basic salt
 (b) Acidic salt (d) Double salt
- Electrolysis of water is
 (a) Physical change (b) Chemical change
 (c) Both 1 and 2 (d) None of these
- To study the decreasing order of reactivity of metals an experiment is done by adding different metals to the aqueous solution of various salts.

From the data observed, the decreasing order of reactivity of metals is

Metal	ZnSO _{4(aq)}	FeSO _{4(aq)}	CuSO _{4(aq)}	Al ₂ (SO ₄) _{3(aq)}
Zn	—	Displaced	Displaced	No reaction
Fe	No reaction	—	Displaced	No reaction
Cu	No reaction	No reaction	—	No reaction
Al	Displaced	Displaced	Displaced	—

- (a) Al > Cu > Fe > Zn (c) Al > Zn > Fe > Cu
 (b) Al > Zn > Cu > Fe (d) Al > Fe > Cu > Zn.
- Which gas is evolved when potassium carbonate is treated with dilute HCl?
 (a) Hydrogen (H₂) (b) Sulphur dioxide (SO₂)
 (c) Carbon monoxide (CO) (d) Carbon dioxide (CO₂)
- Column (I) contains inorganic compounds and column (II) contains their uses.

Column (I)		Column (II)
(i) SO ₂		(a) In cold drinks
(ii) CO ₂		(b) In glass formation
(iii) CaO		(c) As bleaching agent in sugar industry
(i) (ii) (iii)		
(1) b a c		
(2) a b c		
(3) c a b		
(4) c b a		

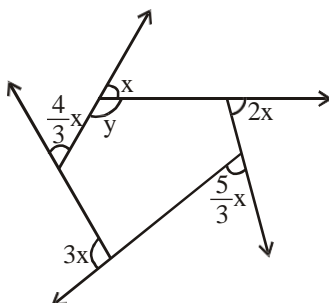
same. Some are more reactive than others. Metals along which hydrogen are arranged in order of their reactivity in a series called activity series.

11. Which of the following is most reactive
(a) Sodium (b) Potassium (c) Calcium (d) Magnesium
12. Which of the following can displace Iron from FeSO_4 solution?
(a) Zinc (b) Copper (c) Silver (d) None of these
13. Coke is
a) almost pure form of carbon
b) used in the manufacture of steel
c) obtained during destructive distillation of coal
(d) all are correct
- The substance which vapourise during burning, gives flames. For example, kerosene oil and molten wax rise through the wick and are vapourised during burning and form flames. Charcoal, on the other hand, does not vapourise and so it does not produce a flame. There are three different zones of a flame- dark zone, luminous zone and non-luminous zone.
A chemical process in which a substance reacts with oxygen to give off heat is called combustion.
14. Goldsmiths use _____ of a flame for melting gold and silver
(a) outermost zone (b) middle zone (c) innermost zone (d) any zone can be used
15. Middle zone is also known as
(a) zone of partial combustion (c) yellow zone
(c) moderately hot zone (d) All are correct
16. Which of the following is a chemical property of matter?
(a) Melting point (b) Hardness (c) Density (d) Reactivity with oxygen
17. Which of the following is an example of a covalent bond?
(a) Sodium chloride (NaCl) (b) Magnesium oxide (MgO)
(c) Calcium chloride (CaCl_2) (d) Hydrogen (H_2)
18. What is the atomic number of an element with 6 protons and 6 electrons?
(a) 1 (b) (c) 4 (d) 8
19. Which model of the atom is known as the “plum pudding model”?
(a) Dalton’s model (b) Rutherford’s model (c) Bohr’s model (d) Thomson’s model
20. Which of the following elements has an atomic number of 6?
(a) Hydrogen (b) Carbon (c) Nitrogen (d) Oxygen

SECTION-B : MATHEMATICS

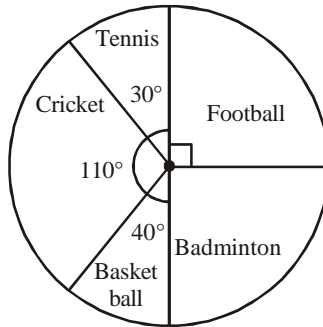
21. If $4^{-x} = 16$, then x is
(a) 2 (b) -2 (c) 0 (d) 4
22. The value of $\sqrt[3]{343} \times \sqrt[3]{-64}$ is
(a) 28 (b) -28 (c) 18 (d) -18
23. The dimensions of a photograph are 30 cm × 20 cm. Find the length of the wooden frame needed to frame the photograph
(a) 600 cm (b) 50 cm (c) 100 cm (d) 500 cm

24. The cube root of 27^2 is
 (a) 27 (b) 9 (c) 3 (d) None
25. Square of an even number is
 (a) An even number (b) An odd number
 (c) Sometimes even sometimes odd (d) None of these
26. By what number should $1\frac{2}{3}$ be divided to get $\frac{2}{3}$?
 (a) $2\frac{2}{3}$ (b) $1\frac{2}{3}$ (c) $\frac{4}{9}$ (d) $2\frac{1}{2}$
27. In the following options, the measures of three angles are given. Which of these can form a triangle ?
 (a) $45^\circ, 61^\circ, 73^\circ$ (b) $63^\circ, 37^\circ, 80^\circ$
 (c) $30^\circ, 20^\circ, 125^\circ$ (d) $59^\circ, 72^\circ, 61^\circ$
28. How many metres of a carpet 60 cm wide will be required to cover the floor of a room which is 18 metres long and 15 metres broad?
 (a) 320 m (b) 360 m (c) 420 m (d) 450 m
29. The given rational numbers are $\frac{2}{3}, \frac{7}{8}, \frac{4}{5}, \frac{2}{9}$. The sum of the greatest and the smallest rational number is
 (a) $\frac{47}{63}$ (b) $\frac{3}{40}$ (c) $-\frac{22}{15}$ (d) $-\frac{12}{27}$
30. Write $3^{12}, 2^{15}, 5^6$ in the ascending order.
 (a) $5^6, 2^{15}, 3^{12}$ (b) $5^6, 3^{12}, 2^{15}$
 (c) $2^{15}, 5^6, 3^{12}$ (d) $2^{15}, 3^{12}, 5^6$
31. Find y in the following figure.



- (a) 40° (b) 120° (c) 140° (d) 130°

32. The pie graph given below shows the different games played by the students of class IX. Study the pie graph and answer questions below.



Which game is played by the least number of students?

- (a) Tennis (b) Basketball
(c) Football (d) Badminton
33. If there are 108 students in the class, how many of them play badminton?
(a) 25 (b) 26
(c) 23 (d) 27
34. In the trapezium ABCD with $AB \parallel CD$, we have
(a) $\angle A + \angle D = 90^\circ$ (b) $\angle A + \angle D = 180^\circ$
(c) $\angle A + \angle D = 360^\circ$ (d) $\angle A + \angle D = 45^\circ$
35. In the isosceles trapezium PQRS with $PQ \parallel RS$ and $QR = PS$, which of the following is correct?
(a) $\angle P + \angle S = 180^\circ$ and $\angle Q + \angle R = 180^\circ$ (c) $PS = QR$ and $PR = QS$
(b) $\angle P = \angle Q$ and $\angle R = \angle S$ (d) All of the above
36. The volume of a spherical shell whose internal and external diameters are 8 cm and 10 cm respectively (in cubic cm) is :
(a) $122 \frac{3}{4} p$ (b) $244 \frac{3}{4} p$ (c) 212 (d) 257
37. If the difference between abscissa of points $(p, -5)$, $(2, 7)$ is 13 units, then p is _____.
(a) 15 or -11 (b) -15 or 11 (c) -15 or -11 (d) 15 or 11
38. If a point C lies between two points A and B such that $AC = BC$, then
(a) $AC = AB$ (b) $AC = \frac{1}{2} AB$ (c) $AB = \frac{1}{2} AC$ (d) $AC = \frac{1}{3} AB$
39. Three angles of a quadrilateral are of magnitudes 80° , 95° and 120° . The magnitude of the fourth angle is
(a) 80° (b) 60° (c) 65° (d) 70°
40. A piece of metal pipe is 77 cm long with inside diameter of the cross section as 4 cm. If its outer diameter is 4.5 cm and the metal weigh 8 gm/cu cm; the weight of pipe is _____.

(a) 2.057 kg

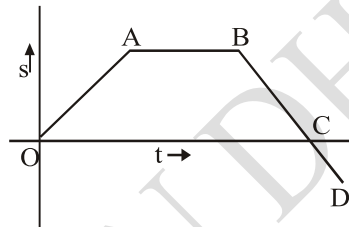
(b) 20.57 kg

(c) 205.7 kg

(d) None of these

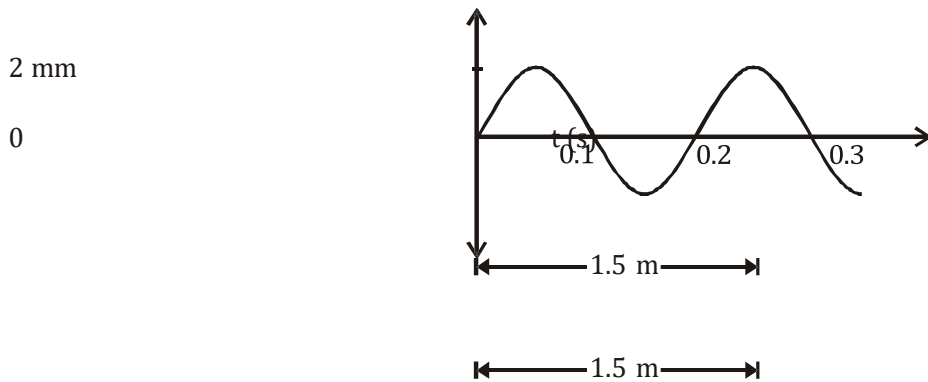
SECTION-C: PHYSICS

41. A boy is sitting in a train looking out the window at another train a few feet away. Both trains have stopped at a station. Slowly, one of the trains starts to move, but the boy cannot tell if it is his train or the other one. What can he do to tell which train is moving?
- Close his eyes.
 - See if a coin falls straight down.
 - Look at the ground outside.
 - Look at the seat across the aisle.
42. The displacement-time graph of a body is shown in the figure below.



The part of the graph that represents the body at rest is

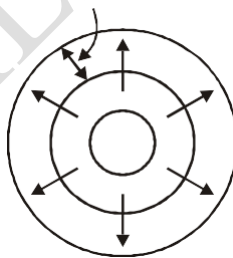
- (a) OA (b) AB (c) BC (d) CD
43. A 350 m long train passes over a 250 m long bridge at a speed of 54 km/h. How long will it take to cross the bridge?
- (a) 40 minutes (b) $\frac{2}{3}$ second
(c) $\frac{2}{3}$ hr (d) $\frac{1}{90}$ hr
44. The following forces act on an object: 13.5 N towards West, 21.2 N towards East, 33.0 N towards East, and 25.3 N towards West. Calculate the net force acting on the object.
- (a) 15.4 N towards West (b) 15.4 N towards East
(c) 23.6 N towards West (d) 23.6 N towards East
45. How could you decrease the pressure exerted on the bottom of a glass of water?
- By pouring more water into the glass
 - By putting the glass on a large surface area
 - By putting the glass on a small surface area
 - By drinking some of the water
46. In these two pictures, where is the water pressure the greatest?



51. Frequency of the wave is:
 (a) 0.1 Hz (b) 10 Hz (c) 5 Hz (d) 20 Hz
52. Amplitude of the wave is:
 (a) 0.2 m (b) 0.02 m (c) 0.002 m (d) 0.004 m
53. Speed of the wave is:
 (a) 5 m/s (b) 10 m/s (c) 2.5 m/s (d) 1 m/s

The speed of periodic wave motion is related to the frequency and wavelength of the waves. We can understand this by considering the simple case of water waves. Imagine that we fix our eyes on a stationary point on the surface of water and observe the waves passing by this point. We can measure how much time passes between the arrival of one crest and the arrival of the next one (the period), and also observe the distance between two consecutive crests (the wavelength). We know that speed is defined as distance divided by time. In this case, the distance is one wavelength and the time is one period, so wave speed = wavelength/period.

Wavelength



Since period is equal to the inverse of frequency, the formula can also be written as Wave speed = wavelength \times frequency

This relationship holds true for all kinds of waves, whether they are water waves, sound waves, or light waves.

54. If a train of length 63 m having 7 freight cars rolls by you at the rate of three cars each second, what is the speed of the train?
 (a) 6 m/s (b) 7 m/s (c) 21 m/s (d) 42 m/s
55. Suppose a sound wave and an light wave have the same frequency. Which has the longer wavelength?
 (a) Sound wave (b) Light Wave
 (c) Both have same wavelength (d) Data insufficient

56. A cricket ball of 0.2 kg moving with a speed of 40 m/s is brought to rest by player in 0.05 s. Find the average force applied by the player.

- (a) -160 (b) 120 (c) 30 (d) 20

57. If the displacement of an object is proportional to square of time, then the object moves with

- (a) Uniform velocity (b) Uniform acceleration
(c) Increasing acceleration (d) Decreasing acceleration

58. A boy is whirling a stone tied with a string in a horizontal circular path. If the string breaks, the stone

- (a) will continue to move in the circular path
(b) will move along a straight line towards the centre of the circular path
(c) will move along a straight line tangential to the circular path
(d) will move along a straight line perpendicular to the circular path away from the boy

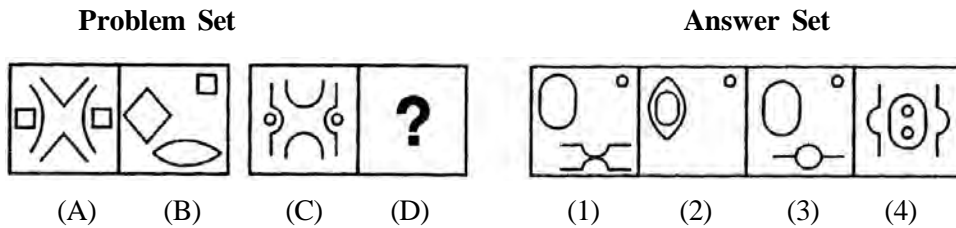
59. If 'g' is the acceleration due to gravity on earth, what is the acceleration due to gravity on another planet having mass and radius twice that of earth?

- (a) $\frac{g}{2}$ (b) 2g (c) $\frac{g}{4}$ (d) 4g

60. A cube of butter of side 2 cm has a density 860 kg/m³ what is its mass?

- (a) 9.31 g (b) 7.50 g (c) 6.88g (d) 1.72g

68. In the following question consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3 and 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by choosing a suitable figure (D) from the Answer Set.



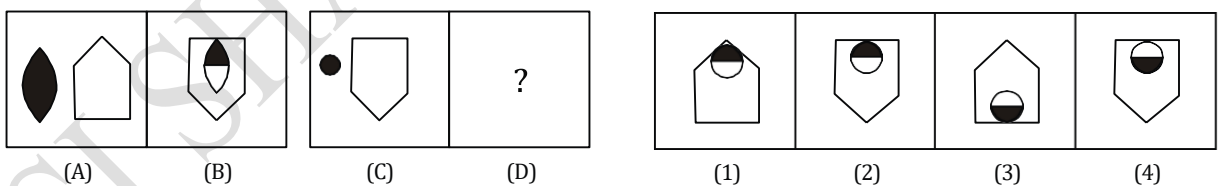
69. In a certain code STATION is denoted by URCKMP then BRING is denoted in the same code by

- (a) CSKLH
- (b) DSGLH
- (c) KSKPH
- (d) None of these

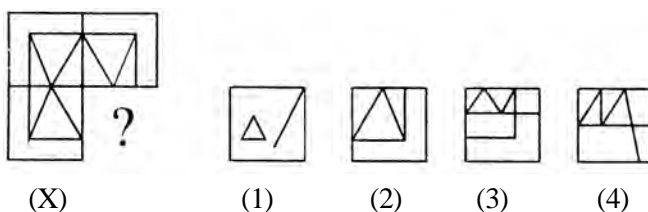
70. If at 12'o clock, minute hand and hour hand are facing towards North, then in which direction the minute hand is facing at 4 : 40 ?

- (a) 30° West of South
- (b) 60° West of South
- (c) 30° East of South
- (d) 60° East of South

71. In the following question consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3 and 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by choosing a suitable figure (D) from the Answer Set.



72. In the given question, a part of the figure is missing. Find out from the given options (1, 2, 3, 4) the right figure to fit in the missing figure.



73. If $2 + 2 = 8$, $3 + 5 = 24$, $2 + 5 = 14$, $3 + 4 = 21$ then $5 + 7$ is:

- (a) 50 (b) 60
(c) 70 (d) 80

74. At 5'O clock, the hour hand of a wrist watch is towards North direction, find the direction of the minute hand at 7 : 17 : 30.

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

75. Find the missing term (?)

$$11\frac{1}{9}, 12\frac{1}{2}, 14\frac{2}{7}, 16\frac{2}{3}, ?$$

- (a) $8\frac{1}{3}$ (b) $19\frac{1}{2}$
(c) 20 (d) $22\frac{1}{3}$

76. Which number should come in place of question mark (?)



- (a) 18 (b) 13 (c) 30 (d) -30

77. If each vowel of the word WEBPAGE is substituted with next letter of the English alphabetical series, and each consonant is substituted with the letter preceding it, which of the following letters will appear thrice?

- (a) G (b) F (c) Q (d) V



- (a) (b) (c) (d)

79. How many numbers amongst the numbers 9 to 54 are there which are exactly divisible by 9 but not by 3?

- (a) 8 (a) 6 (a) 5 (d) Nil

80. In the question given below, use the following notations:

A"B means 'add B to A'

A'B means 'subtract B from A'.

A @ B means 'divide A by B'.

A * B means 'multiply A by B'.

Now, answer the following question.

The time taken by two running trains in crossing each other is calculated by dividing the sum of the lengths of two trains by the total speed of the two trains. If the length of the first train is L_1 , the length of the second train is L_2 , the speed of the first train is V_1 and the speed of the second trains is V_2 , which of the following expressions would represent the time taken?

- a) $(L_1 + L_2) * (V_1 + V_2)$
b) $(L_1 + L_2) @ (V_1 + V_2)$
c) $[(L_1 + L_2) @ (V_1 + V_2)] * 60$
d) $(L_1 + L_2) @ (V_1 + V_2)$

SECTION-C : BIOLOGY

81. Which of the following is not a vector borne disease?

- (a) Common cold (b) Malaria (c) Dengue (d) Sleeping sickness

82. Factor not essential for photosynthesis is

- (a) O_2 (b) CO_2 (c) H_2O (d) Chlorophyll

83. Which of the following structures present in a cell is/are not bounded by a membrane?

- (a) Nucleolus (b) Ribosomes (c) Centriole (d) All of the above

84. Antibiotics can be obtained from

- (a) Bacteria (b) Fungi (c) Protozoan (d) Both 1 and 2

85. Choose odd option from the following.

- (a) Pitcher plant (b) Sundew plant (c) Venus fly trap (d) Lichen

86. Protein coat of a virus enclosing its genetic material is known as

- (a) Vector (b) Capsid (c) Gene (d) None of the above

87. Which one of the following statement about mycoplasma is wrong?

- (a) They cause diseases in plants.
- (b) They are also called PPLO.
- (c) They are always aerobic.
- (d) They are resistant to Penicillin.

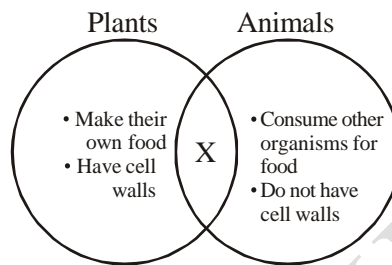
88. Adjacent cells in a plant tissue are held together by middle lamella which is mainly made up of

- (a) Cellulose
- (b) Calcium & Magnesium pectate
- (c) Hemicellulose
- (d) Lignin & Suberin

89. Which of the following nutrient is essential for synthesis of chlorophyll in plants?

- (a) Na
- (b) Ca
- (c) Fe
- (d) Mg

90. The Venn diagram given below shows plant and animal characteristics.



Which characteristic shared by plants and animals belongs in the space marked X?

- (a) Locomotion
- (b) Multicellular
- (c) Photosynthetic
- (d) Producer

Viruses are microscopic entity. They however, reproduce only inside the cells of the host organism, which may be a bacterium, plant or animal. Common ailments like cold, influenza (flu) and most coughs are caused by viruses. They have characteristics of both living and non-living. Serious diseases like polio and chicken pox are also caused by viruses. Diseases like dysentery and malaria are caused by protozoans which are unicellular eukaryotic animals whereas typhoid and tuberculosis (TB) are caused by bacteria which are unicellular prokaryotic organisms.

91. Which among the following is considered as connecting link between living and non-living?

- (a) Bacteria
- (b) Fungi
- (c) Protozoa
- (d) Virus

92. Malaria, Influenza and TB respectively are caused by

- (a) Protozoan, Virus and Fungi
- (b) Protozoan, Virus and Bacteria
- (c) Bacteria, Virus and Protozoan
- (d) Virus, Bacteria and Fungi

93. Unicellular eukaryotic cell is of

- (a) Bacteria
- (b) Protozoan
- (c) Virus
- (d) Mushroom

In any cell, nucleus control cellular activities and ribosomes are the sites of protein synthesis. Mitochondria are called power house or ATP mills as they are sites for ATP formation which is used in various metabolic activities or functions of the cell. Lysosomes are bags of digestive enzymes which destroy worn out cells and foreign material.

94. Which cells are likely to possess the highest numbers of mitochondria?

- (a) Hair cells
- (b) Skin surface cells

(c) Red blood cells

(d) Muscle cells

95. Consider the following statements :

a) Lysosomes are called as 'suicide bags' of a cell

b) The fold of inner membrane of mitochondria increases the area for ATP generating chemical reactions.

c) Ribosome helps in formation of plasma membrane. Which of the following statements is/are correct?

(a) 1 & 2

(b) 2 & 3

(c) 1 only

(d) 1, 2 & 3

96. Bacteria do not possess.

(a) DNA

(b) RNA

(c) Nucleus

(d) Lipids

97. A non-living structure of cell is

(a) Cell wall

(b) Plasma membrane

(c) Cytoplasm

(d) Nucleus

98. Protoplasm excluding nucleus is called

(a) Cytoplasm

(b) Endoplasm

(c) Ectoplasm

(d) Protoplasm

99. What is the exclusive marine phylum?

(a) Echinodermata

(b) Porifera

(c) Cnidarians

(d) Protozoa

100. Eukaryotic cells devoid of ER are

(a) Liver cells

(b) Kidney cell

(c) Leucocyte

(d) Mature erythrocytes

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