NEET UG (2025)

SHORT PRACTICE TEST - 01

DURATION: 60 Minutes **M.MARKS : 192**

Topics Covered

Physics:	Basic Maths & Calculus (Mathematical Tools)(Complete Chapter)
Chemistry:	Some Basic Concept of Chemistry (Complete Chapter)
Botany:	Cell - The Unit of Life : What is a Cell ? Discovery of the Cell, Cell Theory, Overview of Cell, Types of cell, Structure Prokaryotic cell, Prokaryotic cells
Zoology:	Structural Organization in Animals :Tissues, Animal Tissues, Epithelium Tissue, Cell Junctions, Connective Tissue

General Instructions:

1. Immediately fill in the particulars on this page of the test booklet.
2. The test is of **60 minutes** duration.
3. The test booklet consists of **48** questions. The maximum marks are **192**.
4. All questions are compulsory.
5. There is only one correct response for each question.
6. Each correct answer will give **4** marks while **1** Mark will be deducted for a wrong MCQ response.
7. No student is allowed to carry any textual material, printed or written, bits of papers, pager, mobile phone, any electronic device, etc. inside the examination room/hall.
8. On completion of the test, the candidate must hand over the Answer Sheet to the Invigilator on duty in the Room/Hall. However, the candidates are allowed to take away this Test Booklet with them.
9. **Do not fold or make any stray mark on the Answer Sheet (OMR).**

OMR Instructions:

1. Use blue/black dark ballpoint pens.
2. Darken the bubbles completely. Don't put a tick mark or a cross mark where it is specified that you fill the bubbles completely. Half-filled or over-filled bubbles will not be read by the software.
3. Never use pencils to mark your answers.
4. Never use whiteners to rectify filling errors as they may disrupt the scanning and evaluation process.
5. Writing on the OMR Sheet is permitted on the specified area only and even small marks other than the specified area may create problems during the evaluation.
6. Multiple markings will be treated as invalid responses.
7. **Do not fold or make any stray mark on the Answer Sheet (OMR).**

Name of the Student (In CAPITALS) : _____

Roll Number : _____

OMR Bar Code Number : _____

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

SECTION-(I) PHYSICS

1. cos 2A is equal to

(1) $1 - 2\sin^2 A$

(2) $2\cos^2 A - 1$

(3) $\cos^2 A - \sin^2 A$

(4) All

2. $(1 + x)^3$ find the value, if $x << 1$.

(1) $1 + x$

(2) $1 - 3x$

(3) $1 + 3x$

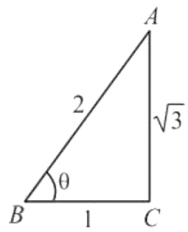
(4) $1 + 3x + 3x^2 + x^3$

3. The sum of the series $1 + 1/4 + 1/16 + 1/64 + \cdots \infty$ is:

(1) 8/7 (2) 6/5

(3) 5/4 (4) 4/3

4. Find the angle $\angle ABC$



(1) 0°

(2) 60°

(3) 30°

(4) 45°

5. Convert angle from radian to degree $\frac{\pi}{3}$ rad:

(1) 60°

(2) 30°

(3) 45°

(4) 0°

6. $\int e^{5x} dx$

(1) $e^{5x} + C$

(2) $e^{5x} \cdot \frac{5x^2}{2} + C$

(3) $\frac{e^{5x}}{5} + C$

(4) $e^x + C$

7. The greatest value of the function $8\sin\theta - 6\cos\theta$ is:

(1) 10

(2) 12

(3) 20

(4) 15

8. If a, $a + d$, $a + 2d$, …… $a + (n - 1)d$ here a = first term, d = common difference, then sum of n terms S_n is

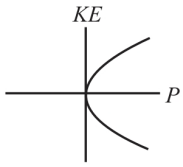
(1) $\frac{n}{2}[2a + (n-1)d]$

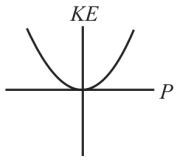
(2) $\frac{n}{2}[1^{st}\text{ term} + n^{th}\text{ term}]$

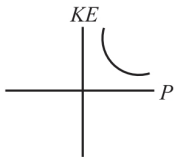
(3) Option (1) and (2)

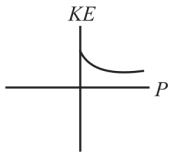
(4) $\frac{n}{2}[2a + (n+1)d]$

9. If $KE = \frac{P^2}{2m}$, then draw graph between KE and P.

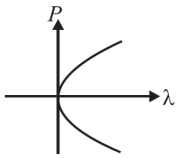
(1) 

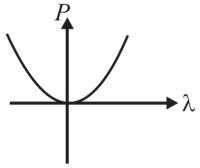
(2) 

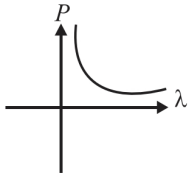
(3) 

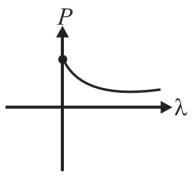
(4) 

10. If linear momentum $P = \frac{h}{\lambda}$, then what will be graph between P and λ.

(1) 

(2) 

(3) 

(4) 

11. If $y = \sin 4t$, then value of dy/dt is:

(1) $4\sin 4t$

(2) $\cos 4t/4$

(3) $4\cos 4t$

(4) $-4\cos 4t$

12. Find the value of $(64)^{2/3}$

(1) 4

(2) 16

(3) 32

(4) 64

SECTION-(II) CHEMISTRY

13. If the concentration of glucose ($C_6H_{12}O_6$) in blood is 0.9 g L^{-1}, what will be the molarity of glucose in blood?
(molecular weight of $C_6H_{12}O_6$ = 180)
(1) 5 M (2) 50 M
(3) 0.005 M (4) 0.5 M

14. An organic compound contains 78% (by wt.) carbon and remaining percentage of hydrogen. The right option for the empirical formula of this compound is:
[Atomic wt. of C is 12, H is 1]
(1) CH_2 (2) CH_3
(3) CH_4 (4) CH

15. The weight of AgCl precipitated when a solution containing 5.85 g of NaCl is added to a solution containing 3.4 g of $AgNO_3$ is;
(Atomic wt. of Ag = 108)
$AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$
(1) 28 g (2) 9.25 g
(3) 2.870 g (4) 58 g

16. The number of atoms in 4.24 g of NH_3 is approximately _____ .
(1) 1×10^{23} (2) 2×10^{23}
(3) 4×10^{23} (4) 6×10^{23}

17. The number of moles of methane required to produce 11g CO_2(g) after complete combustion is:
(Given molar mass of methane in $gmol^{-1}$: 16)
$CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$
(1) 0.75 (2) 0.5
(3) 0.35 (4) 0.25

18. The simplest formula of a compound containing 50% of element X (atomic mass 10) and 50% of element Y (atomic mass 20) is;
(1) XY (2) X_2Y
(3) XY_3 (4) X_2Y_3

19. Which of the following contains the highest number of molecules?
(1) 2.8 g of CO (molecular wt. of CO = 28)
(2) 3.2 g of CH_4 (molecular wt. of CH_4 = 16)
(3) 1.7 g of NH_3 (molecular wt. of NH_3= 17)
(4) 3.2 g of SO_2 (molecular wt. of SO_2 = 64)

20. For the reaction 2P + Q → R, 8 moles of P and 5 moles of Q will produce:
(1) 8 moles of R (2) 5 moles of R
(3) 4 moles of R (4) 13 moles of R

21. The equation : $2Al_{(s)} + \frac{3}{2}O_2 \rightarrow Al_2O_{3(s)}$ shows that;
(1) 2 moles of Al reacts with $\frac{3}{2}$ moles of O_2 to produce $\frac{7}{2}$ moles of Al_2O_3
(2) 2 g of Al reacts with $\frac{3}{2}$ g of O_2 to produce one mole of Al_2O_3
(3) 2 moles of Al reacts with $\frac{3}{2}$ litres of O_2 to produce 1 mole of Al_2O_3.
(4) 2 moles of Al reacts with $\frac{3}{2}$ moles of O_2 to produce 1 mole of Al_2O_3

22. Given below are two statement: one is labelled as Assertion (A) and the other is labelled as Reason (R):
Assertion (A): The reactant which is present in lesser amount limits the amount of product formed is called limiting reagent.
Reason (R): Amount of product formed does not depend upon the amount of reactants taken.
In the light of the above statements, choose the correct answer from the options given below:
(1) Both **Assertion (A)** and **Reason (R)** are true and **Reason (R)** is the correct explanation of Assertion (A).
(2) Both **Assertion (A)** and **Reason (R)** are true but **Reason (R)** is not the correct explanation of Assertion.
(3) **Assertion (A)** is true and **Reason (R)** is false.
(4) **Assertion (A)** is false and **Reason (R)** is true.

23. An element, X has the following isotopic composition:
^{200}X **:** 90%, ^{199}X : 8.0%, ^{202}X : 2.0%
The weighted average atomic mass of the naturally occurring element X is closest to:
(1) 201 amu (2) 202 amu
(3) 199 amu (4) 200 amu

24. Match **List-I** with **List-II** to find out the **correct** option.

List-I		**List-II (No. of atoms)**	
A.	20 u of He	I.	$5N_A$
B.	100 g of He	II.	5
C.	5 g - atom of He	III.	$2\ N_A$
D.	2 mol of He	IV.	$25\ N_A$

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

SECTION-(III) BOTANY

25. _____ first saw and described a live cell.
(1) Anton Von Leeuwenhoek
(2) Robert Brown
(3) Matthias Schleiden
(4) Theodore Schwann

26. Match the **List-I** with **List-II.**

List-I (Cells)		**List-II (Cell shape)**	
A.	Mesophyll cells	I.	Elongated
B.	Nerve cell	II.	Amoeboid
C.	Tracheid	III.	Round and oval
D.	White blood cells	IV.	Branched and long

Choose the **correct** answer from the options given below:
(1) A-III, B-II, C-IV, D-I
(2) A-III, B-IV, C-I, D-II
(3) A-II, B-I, C-IV, D-III
(4) A-II, B-III, C-I, D-IV

27. Which of the following are in the form of vesicles, tubules, and lamellae in bacteria?
(1) Cell wall (2) Flagella
(3) Inclusion bodies (4) Mesosomes

28. Identify the organelle that is found in both prokaryotes and eukaryotes.
(1) Chloroplast (2) Golgi bodies
(3) ER (4) Ribosomes

29. Given below are two statements.
Statement I: Matthias Schleiden, a British Zoologist, examined a large number of plants.
Statement II: Schleiden observed that all plants are composed of different kinds of cells which form the tissues of the plant.
In the light of the above statements, choose the *most appropriate* answer from the options given below.
(1) Statement I is correct but Statement II is incorrect.
(2) Statement I is incorrect but Statement II is correct.
(3) Both Statement I and Statement II are correct.
(4) Both Statement I and Statement II are incorrect.

30. Chromatophores that contains pigments are present in;
(1) all prokaryotes.
(2) some prokaryotes like cyanobacteria.
(3) all plant cells.
(4) all animal cells.

31. In prokaryotic cells, ribosomes are;
(1) 70S.
(2) 80S.
(3) 60S + 40S.
(4) 50S + 40S.

32. Many bacteria have small circular DNA outside the genomic DNA. These smaller DNA are called;
(1) mesosome. (2) fimbriae.
(3) plasmid. (4) pili.

33. Given below are two statement: one is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: Anything less than a complete structure of a cell can ensure independent living.
Reason R: Unicellular organisms are capable of independent existence and performing essential functions of life.
In the light of the above statements, choose the **correct** answer from the options given below:
(1) A is true but R is false.
(2) A is false but R is true.
(3) Both A and R are true and R is the correct explanation of A.
(4) Both A and R are true but R is NOT the correct explanation of A.

34. Of all the parts of bacterial flagellum, which one is the longest?
(1) Filament (2) Hook
(3) Basal body (4) Fimbriae

35. Which of the given surface structures of bacteria do **not** play a role in motility?
A. Fimbriae
B. Flagella
C. Pili
Choose the *most appropriate* answer from the options given below:
(1) A, B and C
(2) C only
(3) A and C only
(4) B only

36. Glycocalyx in bacteria could be a loose sheath called the;
(1) capsule.
(2) slime layer.
(3) cell wall.
(4) cell membrane.

SECTION-(IV) ZOOLOGY

37. Which of the following options is **correct** w.r.t the location of squamous epithelium?

(1) Air sacs of lungs
(2) Intestine
(3) Fallopian tube
(4) Nephrons

38. Given below are two statements: one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A): Adipose tissues are found beneath the skin.

Reason (R): The cells of adipose tissue are specialised to store proteins.

In the light of the above statements, choose the **correct** answer from the options given below.

(1) Both A and R are true and R explains A.
(2) Both A and R are true and R does not explain A.
(3) A is true but R is false.
(4) Both A and R are false.

39. Solid and pliable intercellular material that resists compression occurs at all of the following locations **except**;

(1) between bones of limbs in adults.
(2) tip of nose.
(3) outer ear joints.
(4) bones.

40. Match the **List-I** with **List-II** to find out the **correct** option.

List-I		List-II	
A.	Goblet cells	I.	Multicellular gland
B.	Exocrine gland	II.	Unicellular gland
C.	Endocrine gland	III.	Oil secretion
D.	Salivary gland	IV.	Hormone secretion

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

41. How many types of cell junctions is/are found in the epithelium and other animal tissues?

(1) One
(2) Two
(3) Three
(4) Four

42. Read the following statements.

A. Blood is a fluid connective tissue.
B. Bones provide structural frame to the body.
C. Areolar tissue serves as a support framework for epithelium.
D. Tendons attach bones to bones.
E. Dense irregular tissue is present in the skin.

Choose the option with **correct** statements.

(1) A, B, C and E only
(2) A and E only
(3) A and C only
(4) B, D and E only

43. Choose the **correct** option with respect to the given tissue and its major function.

Tissue		Major function
(1)	Squamous epithelium	Protection
(2)	Compound epithelium	Secretion
(3)	Cuboidal epithelium	Absorption
(4)	Glandular epithelium	Diffusion

44. _____ is a group of similar cells along with intercellular substances that perform a specific function.

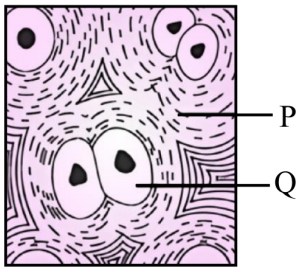
Choose the most appropriate option which fills the blank **correctly.**

(1) Organ
(2) Tissue
(3) Organism
(4) Organ system

45. Which of the following connective tissues does **not** have fibre secreting cells?

(1) Bone
(2) Cartilage
(3) Blood
(4) Ligaments

46. Identify the **correct** labelling of the diagram given below.



	P	Q
(1)	Collagen fibres	Osteocyte
(2)	Elastic fibres	Fibroblast
(3)	Elastic fibres	Macrophage
(4)	Collagen fibres	Chondrocyte

47. Read the below given statements and choose the **correct** option.

A. The nuclei are present at the base.
B. They are composed of a single layer of tall and slender cells.
C. Free surface may have microvilli.
D. They are found in the lining of stomach.

(1) Compound epithelium
(2) Simple squamous epithelium
(3) Simple columnar epithelium
(4) Simple cuboidal epithelium

48. Given below are two statements.

Statement I: Adhering junctions perform cementing to keep neighbouring cells together.

Statement II: All cells in epithelium are held together with little intercellular material.

In the light of the above statements, choose the most appropriate answer from the options given below.

(1) Statement I is incorrect but Statement II is correct.
(2) Both Statement I and Statement II are correct.
(3) Both Statement I and Statement II are incorrect.
(4) Statement I is correct but Statement II is incorrect.

NEET UG (2025)

SHORT PRACTICE TEST - 01

DURATION : 60 Minutes | **DATE : 09/06/2024** | **M. MARKS : 192**

Answer Key

PHYSICS		CHEMISTRY		BOTANY		ZOOLOGY	
1.	(4)	13.	(3)	25.	(1)	37.	(1)
2.	(3)	14.	(2)	26.	(2)	38.	(3)
3.	(4)	15.	(3)	27.	(4)	39.	(4)
4.	(2)	16.	(4)	28.	(4)	40.	(3)
5.	(1)	17.	(4)	29.	(2)	41.	(3)
6.	(3)	18.	(2)	30.	(2)	42.	(1)
7.	(1)	19.	(2)	31.	(1)	43.	(3)
8.	(3)	20.	(3)	32.	(3)	44.	(2)
9.	(2)	21.	(4)	33.	(2)	45.	(3)
10.	(3)	22.	(3)	34.	(1)	46.	(4)
11.	(3)	23.	(4)	35.	(3)	47.	(3)
12.	(2)	24.	(4)	36.	(2)	48.	(2)

SECTION-(I) PHYSICS

1. **(4)**

$\cos 2A = \cos^2 A - \sin^2 A$

$= 1 - 2\sin^2 A = 2\cos^2 A - 1$

2. **(3)**

$(1+x)^3 = 1 + 3x + 3x^2 + x^3$

$x << 1,$

$= 1 + 3x$

3. **(4)**

$$S_\infty = \frac{a}{1-r} = \frac{1}{1-1/4} = \frac{4}{3}$$

4. **(2)**

$$\tan\theta = \frac{\sqrt{3}}{1}$$

$\theta = 60°$

5. **(1)**

$$\frac{\pi}{3} \times \frac{180}{\pi} = 60°$$

6. **(3)**

$$\int e^{5x} dx = \frac{e^{5x}}{5} + C$$

7. **(1)**

$$-\sqrt{8^2 + (-6)^2} \le 8\sin\theta - 6\cos\theta \le \sqrt{8^2 + (-6)^2}$$

$-10 \le 8\sin\theta - 6\cos\theta \le 10$

then greatest value = 10

8. **(3)**

9. **(2)**

$$KE = \frac{P^2}{2m}$$

$$\boxed{KE \propto P^2}$$

"graph will be parabolic'.

10. **(3)**

$$P = \frac{h}{\lambda}$$

$$\boxed{P \propto \frac{1}{\lambda}}$$

Gram will be hypberbola.

11. **(3)**

$y = \sin 4t$

$$\boxed{\frac{dy}{dt} = 4\cos 4t}$$

12. **(2)**

$$(64)^{2/3} = \left((64)^{1/3}\right)^2 = (4)^2 = 16$$

SECTION-(II) CHEMISTRY

13. **(3)**

Mass of glucose in 1L = 0.9 g

Molar mass of glucose = 180 g/mol

$$n = \frac{0.9\,g}{180\,g/mol}$$

$n = 5 \times 10^{-3}$ mol

$$\text{Molarity} = \frac{5\times10^{-3}}{1} = 0.005\,M$$

[New NCERT Class 11th Page No. 14]

14. **(2)**

	C	H
% by w.t.	78	22
mole	$\frac{78}{12} = 6.5$	$\frac{22}{1} = 22$
simplest ratio	1	3

Empirical formula = CH_3

[New NCERT Class 11th Page No. 17]

15. (3)

$AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$

No. of moles of $AgNO_3 = \frac{3.4}{170} = 0.02$

No. of moles of $NaCl = \frac{5.85}{58.5} = 0.1$

Limiting reagent = $AgNO_3$

1 mole of $AgNO_3$ produces 1 mole of AgCl

0.02 mole of $AgNO_3$ will produce 0.02 mole of AgCl

Weight of AgCl produced = $0.02 \times 143.5 = 2.870$ g

[New NCERT Class 11th Page No. 18]

16. (4)

Number of atoms $= \frac{4.24}{17} \times N_A \times 4$

$= 6 \times 10^{23}$

[New NCERT Class 11th Page No. 12]

17. (4)

$CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

$n_{CO_2} = \frac{11g}{44g/mol}$

$= 0.25$ mol

$n_{CO_2} = n_{CH_4} = 0.25 mol$

[New NCERT Class 11th Page No. 12]

18. (2)

Let compound $\rightarrow$ 100 g

50 g $\rightarrow$ X

50 g $\rightarrow$ Y

$n_X = \frac{50}{10} = 5$

$n_Y = \frac{50}{20} = 2.5$

X : Y

5 : 2.5

2 : 1

So, simplest formula of compound = X_2Y

[New NCERT Class 11th Page No. 19]

19. (2)

- No. of molecules $= \frac{2.8}{28} \times N_A = 0.1\ N_A$
- No. of molecules $= \frac{3.2}{16} \times N_A = 0.2\ N_A$
- No. of molecules $= \frac{1.7}{17} \times N_A = 0.1\ N_A$
- No. of molecules $= \frac{3.2}{64} \times N_A = 0.05\ N_A$

[New NCERT Class 11th Page No. 18]

20. (3)

$2P + Q \rightarrow R$

Given 8 moles 5 moles

P is limiting reagent, so 4 moles of R will be produced.

[New NCERT Class 11th Page No. 19]

21. (4)

2 moles of Al reacts with $\frac{3}{2}$ moles of O_2 to produce 1 mole of Al_2O_3.

[New NCERT Class 12th Page No. 20]

22. (3)

The reactant which is present in lesser amount gets consumed after sometime and after that no further reaction takes place whatever be the amount of the other reactant present. Hence, the reactant which gets consumed, limits the amount of product formed and is, therefore, called the limiting reagent.

[New NCERT Class 11th Page No. 17]

23. (4)

Average atomic mass $= \frac{M_1X_1 + M_2X_2 + M_3X_3}{100}$

where, M = Isotopic mass

X = Percentage of occurrence

Average atomic mass

$= \frac{200 \times 90 + 199 \times 8 + 202 \times 2}{100}$

Average atomic mass ≈ 200 u

[New NCERT Class 11th Page No. 17]

24. (4)

- 20 u of He $= \frac{20}{4} atom = 5 atoms$
- 100 g of He $= \frac{100}{4}$ mol $= 25\ N_A$ atom
- 5 g-atom of He = 5 mol = $5\ N_A$ atom
- 2 mole of He = $2N_A$ atom

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SECTION-(III) BOTANY

25. **(1)**

Anton Von Leeuwenhoek first saw and described a live cell.

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26. **(2)**

Mesophyll cells	Round and oval
Nerve cell	Branched and long
Tracheid	Elongated
White blood cells	Amoeboid

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27. **(4)**

The infoldings of plasma membranes in bacteria are called mesosomes. They are in the form of vesicles, tubules, and lamellae.

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28. **(4)**

Ribosomes are non-membrane bound organelles found in all cells – both eukaryotic as well as prokaryotic.

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29. **(2)**

In 1838, Matthias Schleiden, a German botanist, examined a large number of plants and observed that all plants are composed of different kinds of cells which form the tissues of the plant.

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30. **(2)**

In some prokaryotes like cyanobacteria, there are membranous extensions into the cytoplasm called chromatophores which contain pigments.

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31. **(1)**

Prokaryotic ribosomes are made of two subunits - 50S and 30S units which when present together form 70S.

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32. **(3)**

In bacteria in addition to the genomic DNA (the single chromosome/circular DNA), many bacteria have small circular DNA outside the genomic DNA. These smaller DNA are called plasmids.

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33. **(2)**

Anything less than a complete structure of a cell does not ensure independent living.

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34. **(1)**

Bacterial flagellum is composed of three parts – filament, hook and basal body. The filament is the longest portion and extends from the cell surface to the outside.

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35. **(3)**

Pili and fimbriae are surface structures of the bacteria but do not play a role in motility.

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36. **(2)**

Glycocalyx differs in composition and thickness among different bacteria. It could be a loose sheath called the slime layer in some, while in others it may be thick and tough, called the capsule.

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SECTION-(IV) ZOOLOGY

37. (1)

- Squamous epithelium - Air sacs of lungs.
- Ciliated epithelium - Fallopian tube
- Columnar epithelium - Intestine
- Cuboidal epithelium - Nephrons.

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38. (3)

- Adipose tissues are found beneath the skin.
- The cells of adipose tissue are specialised to store fats.

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39. (4)

- The intercellular material of cartilage is solid and pliable and resists compression.
- Cartilage is present in the tip of nose, outer ear joints, between adjacent bones of the vertebral column, limbs and hands in adults.
- The ground substance of bone is hard and non-pliable and rich in calcium salts and collagen fibres.

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40. (3)

- Goblet cells - Unicellular gland
- Exocrine gland - Oil secretion
- Endocrine gland - Hormone secretion
- Salivary gland - Multicellular gland

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41. (3)

- Three types of cell junctions are found in the epithelium and other animal tissues.
- These are called as tight, adhering and gap junctions.

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42. (1)

- Blood is a fluid connective tissue.
- Bones provide structural frame to the body.
- Areolar tissue serves as a support framework for epithelium.
- Tendons attach skeletal muscles to bones.
- Dense irregular tissue is present in the skin.

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43. (3)

Tissue	Function
Squamous epithelium	Diffusion
Compound epithelium	Protection
Cuboidal epithelium	Absorption
Glandular epithelium	Specialised for secretion

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44. (2)

Tissue is a group of similar cells along with intercellular substances that perform a specific function in multicellular animals.

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45. (3)

In all connective tissues except blood, the cells secrete fibres of structural proteins called collagen or elastin.

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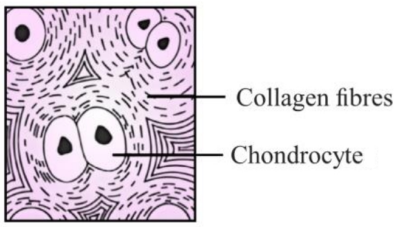
46. (4)



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47. (3)

- The simple columnar epithelium is composed of a single layer of tall and slender cells.
- Their nuclei are located at the base. Free surface may have microvilli.
- They are found in the lining of stomach and intestine.
- They help in secretion and absorption.

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48. (2)

- Adhering junctions perform cementing to keep neighbouring cells together.
- All cells in epithelium are held together with little intercellular material.

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