

Servicesinpak.com



<https://servicesinpak.com/>

## Leading Platform for Online Test Preparation

### Converting Dreams into Realty

Become a commissioned Officer, Doctor, Engineer, Fighter Pilot, Soldier, Airman, Sailor, Medical assistant, etc.

**Pak Army** (PMA, TCC, LCC, AFNS, AMC, ICTO, SSC), **Pak Air Force** (Airmen, Airwomen, GD(Pilot, Aeronautical Engineer, AD, IT, Log, Account, Admin, SSC etc), **Pak Navy** (Sailors, marines, FMT, PN Cadet, SSC), **ASF** etc.

**For Top Quality and Best Test Preparation** [Contact us](#) OR [visit our website](#) (links are click able).

[servicesinpak.com](https://servicesinpak.com)

WhatsApp No: 03213756393

WhatsApp No: 03265375874

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

WhatsApp channel: [View and Follow Now](#)

Servicesinpak.com

## AFNS Past Paper 2025 PDF 09

### AFNS Sep 2025 Test MCQs (Very Important)

✍ 1. Atomic radius across a period:

Atomic radius trend across a period →

- a) Increases
- b) Decreases ☒
- c) Remains constant
- d) First increases then decreases

Explanation: Across a period, effective nuclear charge increases, pulling electrons closer → smaller radius.

✍ 2. Oxidation of secondary alcohol gives:

- a) Aldehyde
- b) Ketone ☒
- c) Carboxylic acid
- d) Ester

Explanation: Secondary alcohols oxidize to ketones.

✍ 3. Standard electrode potential of SHE is:

- a) +1 V
- b) 0 V ☒
- c) -1 V
- d) 2.3 V

Explanation: By convention, SHE (Standard Hydrogen Electrode) is taken as 0 V.

✍ 4. Colligative property related to vapor pressure lowering:

- a) Osmotic pressure
- b) Relative lowering of vapor pressure ☒
- c) Boiling point elevation
- d) Freezing point depression

Explanation: Vapor pressure lowering depends only on number of solute particles.

✍ 5. Haber process catalyst is:

- a) Platinum
- b) Iron with promoters ☒
- c) Copper
- d) Nickel

Explanation: Catalyst = Iron; Promoters =  $K_2O$ ,  $Al_2O_3$ .

✎ 6. Aldol condensation occurs between:

- a) Alkane & alkene
- b) Alcohol & ester
- c) Aldehyde/ketone with  $\alpha$ -hydrogen ☒
- d) Carboxylic acid & alcohol

Explanation: Needs  $\alpha$ -hydrogen for enolate formation.

✎ 7. Gas causing acid rain:

- a)  $O_2$
- b)  $N_2$
- c)  $SO_2$  /  $NO_2$  ☒
- d) CO

Explanation: These gases form  $H_2SO_4$  /  $HNO_3$  in atmosphere.

✎ 8. Uranium isotope in nuclear reactors:

- a) U-234
- b) U-235 ☒
- c) U-238
- d) U-239

Explanation: U-235 is fissile fuel for nuclear reactors.

☒ English

✎ 9. Synonym of "Expand":

- a) Enlarge ☒
- b) Reduce
- c) Narrow
- d) Decline

Explanation: Expand = Enlarge, grow.

✎ 10. Antonym of "Hostile":

- a) Aggressive
- b) Angry
- c) Friendly ☒
- d) Rude

Explanation: Hostile = unfriendly  $\rightarrow$  opposite = friendly.

✎ 11. One who can speak many languages:

- a) Translator
- b) Polyglot ☒
- c) Linguist
- d) Interpreter

Explanation: Polyglot = speaker of many languages.

 12. Correct preposition: He is interested \_\_\_\_ science.

- a) on
- b) with
- c) about
- d) in ☒

Explanation: Correct usage = interested in something.

 13. Correct spelling:

- a) Neccessary
- b) Nesesary
- c) Necessary ☒
- d) Necesery

Explanation: Correct spelling = "Necessary".

 14. Words that imitate sounds:

- a) Hyperbole
- b) Onomatopoeia ☒
- c) Metaphor
- d) Alliteration

Explanation: Example: buzz, hiss, bang.

 Physics

 15. Unit of Force is:

- a) Joule
- b) Pascal
- c) Newton ☒
- d) Watt

Explanation: 1 Newton = 1 kg·m/s<sup>2</sup>.

 16. Formula  $v = f\lambda$  relates to:

- a) Energy
- b) Frequency, wavelength & velocity ☒
- c) Pressure
- d) Acceleration

Explanation: Wave equation.

 17. Critical angle relates to:

- a) Reflection
- b) Total internal reflection ☒

- c) Diffraction
- d) Dispersion

Explanation: At critical angle, refracted ray =  $90^\circ$ .

✍ 18. Resistivity depends on:

- a) Material & temperature ☒
- b) Current
- c) Length only
- d) Voltage

Explanation: Resistivity is material property affected by T.

✍ 19. Electron was discovered by:

- a) Rutherford
- b) Bohr
- c) J.J. Thomson ☒
- d) Chadwick

Explanation: Thomson's cathode ray experiment.

✍ 20. First law of thermodynamics:

- a) Entropy always increases
- b) Heat = Work
- c) Energy conservation ☒
- d) Pressure is constant

Explanation: Energy can't be created/destroyed.

✍ 21. Kinetic energy of 2 kg mass with  $v=10$  m/s:

- a) 50 J
- b) 100 J ☒
- c) 200 J
- d) 20 J

Explanation:  $KE = \frac{1}{2}mv^2 = \frac{1}{2} \times 2 \times 100 = 100$  J.

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

Regards

✍ 22. Lens formula is based on:

- a) Pressure & volume
- b) Focal length & distances ☒
- c) KE & PE
- d) Angle & height

Explanation: Lens formula =  $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ .

 Biology

 23. Organelle with its own DNA:

- a) Ribosome
- b) Mitochondria ☒
- c) Lysosome
- d) ER

Explanation: Mitochondria & chloroplasts have DNA.

 24. Site of RBC production:

- a) Liver
- b) Bone marrow ☒
- c) Kidney
- d) Spleen

Explanation: Hematopoiesis occurs in bone marrow.

 25. Chromosomes in human gamete:

- a) 46
- b) 44
- c) 23 ☒
- d) 24

Explanation: Haploid gametes contain 23 chromosomes.

 26. Enzyme acting on starch:

- a) Lipase
- b) Amylase ☒
- c) Protease
- d) Cellulase

Explanation: Amylase converts starch → maltose.

 27. Darwin's theory is based on:

- a) Artificial selection
- b) Natural selection ☒
- c) Mutation
- d) Hybridization

Explanation: Survival of the fittest.

 28. Transport of food in plants:

- a) Xylem
- b) Phloem ☒
- c) Cambium
- d) Cortex

Explanation: Phloem translocates sugars.

 29. HIV causes:

- a) TB
- b) AIDS ☒
- c) Malaria
- d) Influenza

Explanation: HIV → Acquired Immune Deficiency Syndrome.

 30. Tissue in xylem:

- a) Dermal
- b) Vascular ☒
- c) Ground
- d) Epidermal

Explanation: Xylem = vascular tissue.

 Reasoning

 31. Next term in series: 4, 8, 16, 32, ?

- a) 48
- b) 64 ☒
- c) 128
- d) 96

Explanation: Each term  $\times 2$ .

 32. 35% of 240 = ?

- a) 60
- b) 70
- c) 84 ☒
- d) 96

Explanation:  $0.35 \times 240 = 84$ .

 33. 5 men complete work in 10 days, 10 men will take:

- a) 2 days
- b) 5 days ☒
- c) 10 days
- d) 15 days

Explanation: Work  $\propto 1/\text{men}$  → half men = double time.

 34. Father is  $3 \times$  son's age. Son=12 → Father=?

- a) 30
- b) 33
- c) 36 ☒
- d) 40

Explanation:  $3 \times 12 = 36$ .

 35. Odd one out: Square, Circle, Rectangle, Banana

- a) Square
- b) Circle
- c) Rectangle
- d) Banana ☒

Explanation: Three are shapes, Banana is not.

 36. Series: A1, C3, E5, G7, ?

- a) I9 ☒
- b) J8
- c) H10
- d) K11

Explanation: Letters increase by 2, numbers by 2  $\rightarrow$  I9.

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: info@servicesinpak.com

Regards

 37. If CAT = 24, then DOG = ?

- a) 25
- b) 26 ☒
- c) 28
- d) 30

Explanation: CAT ( $3+1+20=24$ ), DOG ( $4+15+7=26$ ).

 38. All doctors are educated. Ali is a doctor  $\rightarrow$  Ali is?

- a) Uneducated
- b) Teacher
- c) Educated ☒
- d) Patient

Explanation: Logical deduction.

 1.  $2 + 2 \div 2 = ?$

- a) 2
- b) 3
- c) 4
- d) 6

 Answer: 3 ☒

 Explanation: BODMAS rule  $\rightarrow$  First divide  $\rightarrow 2 \div 2 = 1$ , then add  $\rightarrow 2 + 1 = 3$ .

✎ 2. When momentum = kinetic energy, velocity = ?

- a) 1 m/s
- b) 2 m/s
- c) 4 m/s
- d) 8 m/s

👉 Answer: 2 m/s ✓

✎ Explanation: Momentum =  $mv$ , KE =  $\frac{1}{2}mv^2 \rightarrow$  set equal  $\rightarrow mv = \frac{1}{2}mv^2 \rightarrow v = 2$ .

✎ 3. Lyman series lies in:

- a) Visible 🌈
- b) UV ☀️
- c) IR 🔥
- d) Microwave 📡

👉 Answer: UV ✓

✎ Explanation: Lyman series transition ends at  $n=1$  (ground state)  $\rightarrow$  energy is very high  $\rightarrow$  falls in UV region.

✎ 4. Unit of mutual induction:

- a) Tesla
- b) Henry
- c) Weber
- d) Farad

👉 Answer: Henry ✓

✎ Explanation: Inductance (self or mutual) is measured in Henry (H).

✎ 5. Boyle's law graph is:

- a) Straight line
- b) Hyperbola
- c) Parabola
- d) Circle

👉 Answer: Hyperbola ✓

✎ Explanation:  $PV = \text{constant} \rightarrow$  inverse relationship  $\rightarrow$  graph of P vs V is hyperbola.

✎ 6. Voltage leads current in:

- a) RC circuit
- b) RL circuit
- c) RLC circuit
- d) Pure resistor

👉 Answer: RL circuit ✓

✎ Explanation: In inductive circuit, voltage leads current by  $90^\circ$ .

 7. Phase difference in 3-phase current:

- a)  $90^\circ$
- b)  $120^\circ$
- c)  $180^\circ$
- d)  $60^\circ$

 Answer:  $120^\circ$  ☒

 Explanation: 3-phase supply has 3 alternating voltages, each separated by  $120^\circ$  phase difference.

 8. Which travels with speed of light?

- a) Electrons
- b) Protons
- c) Photons
- d) Neutrons

 Answer: Photons ☒

 Explanation: Photons are particles of light  $\rightarrow$  they always move with speed of light ( $3 \times 10^8$  m/s).

 9. Max height of projectile at:

- a)  $0^\circ$
- b)  $30^\circ$
- c)  $45^\circ$
- d)  $90^\circ$

 Answer:  $90^\circ$  ☒

 Explanation: At  $90^\circ$ , projectile goes vertically upward, so maximum height achieved.

 10. If radius doubles, terminal velocity becomes:

- a) 2 times
- b) 3 times
- c) 4 times
- d) 8 times

 Answer: 4 times ☒

 Explanation: Terminal velocity  $\propto r^2 \rightarrow$  if radius doubles, velocity increases by  $2^2 = 4$ .

 Chemistry

 11. Gas released in bacterial photosynthesis:

- a)  $O_2$
- b)  $CO_2$
- c) Sulphur
- d) Nitrogen

 Answer: Sulphur ☒

 Explanation: Purple/green sulfur bacteria use  $H_2S$  instead of  $H_2O$ , releasing Sulphur instead of Oxygen.

 12. Color of Vanadium (+3):

- a) Blue
- b) Yellow
- c) Green
- d) Violet

 Answer: Green ☒

 Explanation: Transition metals form colored ions →  $V^{3+}$  ion is green.

 13. Boric acid is not used in:

- a) Eye lotion 
- b) Food preservative 
- c) Antiseptic 
- d) Soda bottles 

 Answer: Soda bottles ☒

 Explanation: Boric acid is used as antiseptic and in eye lotion, but not for soda bottles.

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: info@servicesinpak.com

Regards

 14. Cobalt belongs to:

- a) s-block
- b) p-block
- c) d-block
- d) f-block

 Answer: d-block ☒

 Explanation: Cobalt (atomic no. 27) is a transition element → belongs to d-block.

 Biology

 15. Disease by spores from feces:

- a) Malaria
- b) Histoplasmosis
- c) Cholera
- d) TB

 Answer: Histoplasmosis ☒

 Explanation: Caused by fungus Histoplasma, often from bird/bat droppings.

 16. Amino acid with H as side chain:

- a) Alanine

- b) Glycine
- c) Valine
- d) Proline

👉 Answer: Glycine ✓

🌟 Explanation: Glycine is the simplest amino acid → side chain is just H atom.

✍ 17. pH of Pepsin:

- a) 1
- b) 2
- c) 6
- d) 7

👉 Answer: 2 ✓

🌟 Explanation: Pepsin works best in acidic medium (pH 1.5–2) in stomach.

✍ 18. pH of Salivary Amylase

- a) 2
- b) 5
- c) 6–7
- d) 9

👉 Answer: 6–7 ✓

🌟 Explanation: Saliva is slightly acidic to neutral → enzyme works best at pH 6.8.

✍ 19. CO<sub>2</sub> removed in Glycolysis:

- a) 0
- b) 1
- c) 2
- d) 4

👉 Answer: 0 ✓

🌟 Explanation: Glycolysis (glucose → pyruvate) occurs in cytoplasm → no CO<sub>2</sub> released.

✍ 20. Cells in stomach for secretion:

- a) Nerve cells
- b) Epithelial cells
- c) Muscle cells
- d) RBCs

👉 Answer: Epithelial cells ✓

🌟 Explanation: Stomach lining has epithelial cells that secrete mucus, enzymes, HCl

✍ 21. Photosystem I absorbs at:

- a) 400 nm
- b) 500 nm
- c) 680 nm

d) 700 nm

👉 Answer: 700 nm ✓

🌟 Explanation: Photosystem I = P700 → absorbs light at 700 nm.

✍ 22. Plants absorb light in range:

a) 200–400 nm

b) 380–750 nm

c) 600–900 nm

d) 1000–1500 nm

👉 Answer: 380–750 nm ✓

🌟 Explanation: Visible light spectrum absorbed by chlorophyll is 380–750 nm.

✍ 23. Master gland:

a) Thyroid

b) Pituitary

c) Adrenal

d) Pineal

👉 Answer: Pituitary ✓

🌟 Explanation: Pituitary controls other glands → called master gland.

✍ 24. Length of DNA double helix turn:

a) 1.7 nm

b) 2.0 nm

c) 3.4 nm

d) 5.0 nm

👉 Answer: 3.4 nm ✓

🌟 Explanation: One complete turn of DNA helix = 3.4 nm

✍ 25. One-third of 120:

a) 20

b) 30

c) 40

d) 60

👉 Answer: 40 ✓

🌟 Explanation:  $120 \div 3 = 40$ .

✍ 26. Louis Pasteur vaccines for:

a) Malaria

b) Anthrax, Rabies, Cholera

c) TB, Polio

d) Smallpox, Measles

👉 Answer: Anthrax, Rabies, Cholera ✓

🌟 Explanation: Pasteur made vaccines for anthrax, rabies, cholera.

✍ 27. Idiom: "A gust of anger claimed her."

- a) She was calm
- b) A fit of fury attacked her
- c) She got tired
- d) She was happy

👉 Answer: A fit of fury ✓

🌟 Explanation: "Gust of anger" = sudden attack of anger.

✍ 28. Half-filled rotating cup filled to brim →

- a) Water stays
- b) Water spills out
- c) Water rises
- d) Water condenses

👉 Answer: Water spills out ✓

🌟 Explanation: On rotation, centrifugal force pushes liquid outward → spills out.

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

Regards

### 📁 ACADEMIC MCQs

1. Trend of atomic radius across period

- A) Increases
- B) Decreases ✓
- C) Remains same
- D) Doubles

👉 Explanation: Across a period, nuclear charge increases → electrons pulled closer → radius decreases. 🌟

2. Oxidation of secondary alcohol gives

- A) Aldehyde
- B) Ketone ✓
- C) Carboxylic acid
- D) Ester

👉 Explanation: Secondary alcohol oxidizes to ketone, while primary alcohol gives aldehyde. ✍

3. Standard electrode potential of SHE

- A) +1 V
- B) 0 V ✓

C) -1 V

D) +2 V

📖 Explanation: By definition, the Standard Hydrogen Electrode (SHE) is assigned 0 volt. ⚡

4. Catalyst used in Haber's process

A) Nickel

B) Iron with  $\text{Al}_2\text{O}_3$  ✓

C) Copper

D) Platinum

📖 Explanation: Haber process uses Fe catalyst with promoters like  $\text{Al}_2\text{O}_3$ ,  $\text{K}_2\text{O}$ . 🌀

5. Aldol condensation occurs between

A) Alcohols

B) Aldehyde/ketone with  $\alpha$ -hydrogen ✓

C) Carboxylic acids

D) Amines

📖 Explanation: Aldol condensation requires carbonyl compound having  $\alpha$ -hydrogen. 🌀

6. Gases responsible for acid rain

A)  $\text{O}_2$  and  $\text{CO}_2$

B)  $\text{SO}_2$  and  $\text{NO}_x$  ✓

C)  $\text{CH}_4$  and  $\text{NH}_3$

D) Ar and Ne

📖 Explanation:  $\text{SO}_2 + \text{NO}_2$  react with water  $\rightarrow \text{H}_2\text{SO}_4$  &  $\text{HNO}_3$  acids  $\rightarrow$  acid rain. ☁

7. Uranium isotope used in reactors

A) U-238

B) U-235 ✓

C) U-234

D) U-239

📖 Explanation: U-235 is fissile isotope used in nuclear reactors. ☢

8. Unit of Force

A) Joule

B) Newton ✓

C) Pascal

D) Watt

📖 Explanation: Force = mass  $\times$  acceleration  $\rightarrow$  SI unit Newton ( $\text{kg}\cdot\text{m}/\text{s}^2$ ).

📖

9. Relation between velocity, frequency, wavelength

A)  $v = \lambda f$

- B)  $v = f/\lambda$   
C)  $v = f\lambda$  ✓  
D)  $v = \lambda^2/f$

👉 Explanation: Wave velocity = frequency  $\times$  wavelength. 🧠

10. Resistivity depends on

- A) Length only  
B) Area only  
C) Material & Temperature ✓  
D) Pressure

👉 Explanation: Resistivity is a property of material and varies with temperature. 🧠

11. Discoverer of electron

- A) Rutherford  
B) J.J. Thomson ✓  
C) Bohr  
D) Dalton

👉 Explanation: J.J. Thomson discovered electron using cathode ray tube. 🧠

12. 1st law of thermodynamics

- A) Heat flows cold  $\rightarrow$  hot  
B) Energy can be created  
C) Energy conservation ✓  
D) Entropy always increases

👉 Explanation: Energy cannot be created/destroyed, only transformed. 🧠

13. K.E. of 2 kg body at 10 m/s

- A) 20 J  
B) 50 J  
C) 100 J ✓  
D) 200 J

👉 Explanation:  $KE = \frac{1}{2}mv^2 = \frac{1}{2}(2)(100) = 100 \text{ J}$ . ⚡

14. Organelle with its own DNA

- A) Ribosome  
B) Mitochondria ✓  
C) Lysosome  
D) Golgi body

👉 Explanation: Mitochondria & chloroplasts have their own DNA & ribosomes. 📄

15. Site of RBC production

- A) Liver

- B) Bone marrow ☒
- C) Kidney
- D) Heart

👉 Explanation: RBCs are formed in red bone marrow (erythropoiesis). 💧

16. Chromosomes in human cells

- A) 23
- B) 92
- C) 46 ☒
- D) 44

👉 Explanation: Humans have 46 chromosomes (23 pairs). 🦋

17. Enzyme acting on starch

- A) Pepsin
- B) Amylase ☒
- C) Lipase
- D) Trypsin

👉 Explanation: Amylase breaks down starch into maltose. 📖

18. Darwin's theory based on

- A) Mutation
- B) Natural selection ☒
- C) Use & disuse
- D) Genetic drift

👉 Explanation: Darwin proposed survival of fittest via natural selection. 🦋

19. Transport of food in plants

- A) Xylem
- B) Phloem ☒
- C) Stomata
- D) Cuticle

👉 Explanation: Phloem transports sugars via translocation. 🦋

20. HIV causes

- A) TB
- B) AIDS ☒
- C) Malaria
- D) Typhoid

👉 Explanation: HIV attacks immune cells → leads to AIDS. 🦋

21. Xylem is

- A) Nerve tissue
- B) Vascular tissue ☒
- C) Muscle tissue

D) Connective tissue

👉 Explanation: Xylem conducts water & minerals in plants. 🧠

📖 ENGLISH

1. Synonym of Expand

A) Enlarge ☒

B) Contract

C) Reduce

D) Minimize

👉 Explanation: Expand = Enlarge, opposite of contract. 📖

2. Antonym of Hostile

A) Angry

B) Aggressive

C) Friendly ☒

D) Violent

👉 Explanation: Hostile means unfriendly; antonym = friendly. 🤝

3. One who speaks many languages

A) Bilingual

B) Polyglot ☒

C) Translator

D) Interpreter

👉 Explanation: Polyglot = speaks multiple languages. 🌐

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: info@servicesinpak.com

Regards

4. He is interested \_\_\_\_ science

A) at

B) in ☒

C) on

D) with

👉 Explanation: Correct preposition with "interested" is "in". ✍️

5. Correct spelling

A) Neccessary

B) Necessary

C) Necessary ☒

D) Neccessery

👉 Explanation: Correct spelling is "Necessary". ✍️

6. Words imitating sounds

- A) Simile
- B) Onomatopoeia ☒
- C) Metaphor
- D) Irony

👉 Explanation: Onomatopoeia = words like buzz, hiss, bang. 🔔

7. Logic: All doctors are educated. Ali is a doctor. Therefore Ali is

- A) Uneducated
- B) Educated ☒
- C) Engineer
- D) Teacher

👉 Explanation: Logical conclusion → Ali is educated. 🧠

### ■ VERBAL + LOGICAL REASONING

1. Series: 4, 8, 16, 32, ?

- A) 48
- B) 60
- C) 64 ☒
- D) 72

👉 Explanation: Each term  $\times 2 \rightarrow$  next = 64. 

|    |
|----|
| 12 |
| 34 |

2. 35% of 240

- A) 70
- B) 84 ☒
- C) 90
- D) 100

👉 Explanation:  $35/100 \times 240 = 84$ . ✨

3. Work-time: 5 men = 10 days, 10 men = ?

- A) 20 days
- B) 5 days ☒
- C) 15 days
- D) 10 days

👉 Explanation: Double men → half time = 5 days. 🧑‍💼

4. Age: Father =  $3 \times$  son (son=12)

- A) 24
- B) 30
- C) 36 ☒
- D) 40

👉 Explanation:  $12 \times 3 = 36$  years. □

5. Odd one out: Square, Circle, Rectangle, Banana

- A) Square
- B) Circle
- C) Rectangle
- D) Banana ☒

👉 Explanation: First 3 are shapes; Banana is fruit. 🐼

6. Series: A1, C3, E5, G7, ?

- A) H8
- B) I9 ☒
- C) J10
- D) K11

👉 Explanation: Letters +2, Numbers +2 →

I9. 

|   |   |
|---|---|
| A | B |
| C | D |

7. If CAT = 24, then DOG = ?

- A) 22
- B) 24
- C) 26 ☒
- D) 28

👉 Explanation:  $C(3)+A(1)+T(20)=24$ ,  $D(4)+O(15)+G(7)=26$ . 🐼

## 🧠 Biology

1. Type of lipids in plasma membrane?

- A) Steroids
- B) Phospholipids ☒
- C) Waxes
- D) Glycolipids

👉 Explanation: Plasma membrane is made of phospholipid bilayer → controls transport.



2. Which drug suppresses immune system to prevent organ damage?

- A) Antibiotics
- B) Vaccines
- C) Corticosteroids ☒
- D) Antacids

👉 Explanation: Corticosteroids are immunosuppressants used in organ transplant cases.



3. Polio virus lives in?

- A) Large intestine
- B) Blood
- C) Stomach & small intestine ☒

D) Lungs

👉 Explanation: Poliovirus multiplies in intestine → enters bloodstream. 🧠

4. Chlorophyll a differs from chlorophyll b by which group?

A) Ethyl group

B) Methyl group ✓

C) Hydroxyl group

D) Carboxyl group

👉 Explanation: Chlorophyll-a has a  $-CH_3$  group, chlorophyll-b has  $-CHO$ . 🌿

5. Long neck of giraffe is feature of?

A) Darwinism

B) Lamarckism ✓

C) Mutation theory

D) Natural selection

👉 Explanation: Lamarck → “use & disuse” → giraffe neck became longer. 🦒

6. Electrons from ferredoxin are handed over to?

A) ATP synthase

B) Cytochrome complex ✓

C) PSII

D) Water

👉 Explanation: In photosynthesis, ferredoxin passes  $e^-$  to cytochrome complex. 📱

7. Plants producing seeds but no fruits?

A) Angiosperms

B) Bryophytes

C) Gymnosperms ✓

D) Algae

👉 Explanation: Gymnosperms → naked seeds, no fruits. 🌲

## 🌀 Physics

1. Projectile has same range for?

A)  $10^\circ$  &  $70^\circ$

B)  $10^\circ$  &  $80^\circ$  ✓

C)  $100^\circ$  &  $40^\circ$

D)  $20^\circ$  &  $30^\circ$

👉 Explanation:  $\theta$  &  $(90^\circ - \theta)$  give same range. 🌀

2. Area of hysteresis loop gives?

A) Magnetic field

B) Current

C) Energy dissipated per cycle ☒

D) Flux

👉 Explanation: Hysteresis loss = energy lost per cycle. 

3. In metallic conductors, conduction occurs due to?

A) Holes

B) Electrons ☒

C) Both holes & electrons

D) Ions

👉 Explanation: Metals → free electrons move → current flows. ⚡

4. If resultant of two vectors each magnitude A is also A, angle = ?

A) 0°

B) 60°

C) 90°

D) 120° ☒

👉 Explanation: By law of cosines, resultant = A when angle = 120°. 

5. Time period of pendulum in lift moving upward with uniform velocity?

A) Increases

B) Decreases ☒

C) Same

D) Becomes zero

👉 Explanation: Effective g increases →  $T = 2\pi\sqrt{l/g}$  decreases. ⌚

6. In semiconductors, p-side acts as?

A) Cathode

B) Anode ☒

C) Both

D) None

👉 Explanation: P-side (positive) = anode, N-side = cathode. 📄

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

Regards

🔗 Chemistry

1. Cobalt belongs to which block?

A) s-block

B) p-block

C) d-block ☒

D) f-block

👉 Explanation: Cobalt (Co, Z=27) is transition metal in d-block. ❌

2. Which acid is most soluble in water?

A) Acetic acid

B) Propionic acid

C) Formic acid ✓

D) Butanoic acid

👉 Explanation: Formic acid = smallest size, most soluble. 💧

3. Cyclic dimer of acetic acid has how many O atoms?

A) 2

B) 3

C) 4 ✓

D) 6

👉 Explanation: Each acetic acid has 2 O; dimer → 4 oxygen atoms. ✍️

4. Aromatic compounds are?

A) Alcohols

B) Arenes ✓

C) Ketones

D) Amines

👉 Explanation: Arenes (like benzene) follow Huckel's rule, hence aromatic. ❌

🔄 English

1. Fill in the blank: I \_\_\_\_

A) got caught

B) got catch ✓

C) get caught

D) gets caught

👉 Explanation: Correct verb form is got catch. ✍️

2. Opposite of "Wild"

A) Free

B) Natural

C) Tamed ✓

D) Rough

👉 Explanation: Wild = untamed, antonym = tamed. 🐾

3. "He wants to be as rich as he can be." Sentence type?

A) Simple

- B) Compound
- C) Complex ☒
- D) Exclamatory

🔑 Explanation: Dependent + independent clause = complex. ☐

1. Kinetic Energy is a \_\_\_\_ product?

- A) Cross product
- B) Scalar product
- C) Dot product ☒
- D) Vector product

🔑 Explanation: Work and kinetic energy are derived from the dot product of force and displacement, hence scalar. ⚡

2. Impedance is the sum of?

- A) Resistance + Inductive reactance
- B) Capacitive reactance + Inductive reactance ☒
- C) Resistance + Capacitance
- D) Voltage + Current

🔑 Explanation: In AC circuits, Impedance (Z) combines both inductive reactance (XL) and capacitive reactance (XC). 🔧

3. HIV attacks which cells?

- A) Red blood cells
- B) T-helper cells ☒
- C) Neurons
- D) B-cells

🔑 Explanation: HIV virus weakens the immune system by destroying CD4 T-helper cells.



4. Oxidation of Formaldehyde gives?

- A) Methanol
- B) Methane
- C) Formic acid ☒
- D) Acetic acid

🔑 Explanation: Formaldehyde (HCHO) oxidizes to Formic acid (HCOOH).

5. Reduction of Ester with  $\text{LiAlH}_4$  gives?

- A) Carboxylic acid
- B) Alcohol ☒
- C) Aldehyde
- D) Ketone

🔑 Explanation: Strong reducing agent  $\text{LiAlH}_4$  reduces esters into primary alcohols.

6. Plant classification is based on?

- A) Roots only
- B) Flowers only
- C) Morphological & reproductive features ☒
- D) Photosynthesis

👉 Explanation: Plants are classified according to their structural and reproductive characters. 🐾

7. Synonym of "Pain"

- A) Happiness
- B) Sorrow
- C) Anguish ☒
- D) Pleasure

👉 Explanation: "Pain" ≈ suffering, anguish, hurt. ❤️

8. Antonym of "Wild"

- A) Brave
- B) Natural
- C) Tamed ☒
- D) Strong

👉 Explanation: Opposite of wild animals is tamed animals. 🐾

9. Identify the sentence type: "If you work hard, you will succeed."

- A) Simple
- B) Compound
- C) Conditional ☒
- D) Interrogative

👉 Explanation: "If...then..." structure makes it a Conditional sentence. 📖

🔑 Chemistry

1. Which form of Aluminium reacts more vigorously with NaOH solution?

- A) Aluminium ore
- B) Aluminium powder
- C) Aluminium oxide
- D) Aluminium metal foil

👉 Answer: Aluminium powder

🐾 Explanation: Finely powdered aluminium has larger surface area, hence reacts faster with NaOH forming soluble aluminate. ⚡

2. Boron is classified as?

- A) Metal

- B) Non-metal
- C) Metalloid
- D) Noble gas

📌 Answer: Metalloid

🌟 Explanation: Boron shows properties of both metals and non-metals, hence it is a metalloid. 📖

🔗 Biology

3. In Kingdom Animalia, which eukaryotic organism is still placed in Protozoa?

- A) Amoeba
- B) Paramecium
- C) Trypanosoma
- D) Euglena

📌 Answer: Paramecium

🌟 Explanation: Protozoa are unicellular eukaryotes historically grouped with animals due to locomotion & ingestion of food. 🌀

🌟 Explanation: Protozoa are unicellular eukaryotes historically grouped with animals due to locomotion & ingestion of food. 🌀

For Complete preparation/notes/practice tests visit our website:

[servicesinpak.com/afns test preparation/](https://servicesinpak.com/afns-test-preparation/)

WhatsApp No:03213756393

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

Regards

4. Which drug is used to prevent organ rejection?

- A) Insulin
- B) Corticosteroids
- C) Cyclosporin A
- D) Antibiotics

📌 Answer: Cyclosporin A

🌟 Explanation: Cyclosporin A suppresses immune system to avoid graft rejection after organ transplant. 📖

5. The menstrual cycle is controlled by which part of the brain?

- A) Cerebrum
- B) Hypothalamus
- C) Cerebellum
- D) Medulla oblongata

📌 Answer: Hypothalamus

🌟 Explanation: Hypothalamus releases GnRH → stimulates pituitary to release FSH & LH,

regulating cycle. 🔄

6. Which of the following is not a physical method of bacterial control?

- A) Boiling
- B) Filtration
- C) Antibiotics
- D) Radiation

🔑 Answer: Antibiotics

🌟 Explanation: Antibiotics are chemical methods, while others (boiling, filtration, radiation) are physical. 🖋️

### 📖 Physics

7. When white light is incident on water, which color appears more?

- A) Red
- B) Green
- C) Blue
- D) Violet

🔑 Answer: Blue

🌟 Explanation: Water scatters shorter wavelengths (blue) more, hence water often appears bluish. 🌀

8. Mutual induction occurs when?

- A) Current in one coil induces emf in another
- B) Current passes in same coil
- C) Two charges repel each other
- D) Resistance changes with temperature

🔑 Answer: Current in one coil induces emf in another

🌟 Explanation: Faraday's law → A changing current in one coil produces induced emf in nearby coil. 📺

9. Time calculation related to disease protection scenario was basically testing:

- A) Speed & Distance
- B) Work done
- C) Rate × Time relation
- D) Half-life concept

🔑 Answer: Rate × Time relation

🌟 Explanation: Such questions connect time taken vs effect produced (e.g., dose or exposure limit). ⌚

### 📖 English

10. Helping verb of Present Continuous tense is?

- A) Do/Does

- B) Was/Were
- C) Am/Is/Are
- D) Have/Has

👉 Answer: Am/Is/Are

🌟 Explanation: Present Continuous = Subject + am/is/are + verb(-ing). 📝

11. Which of the following is a Simple sentence?

- A) Although she was tired, she kept working.
- B) I went to the market.
- C) She came and he left.
- D) If it rains, we will stay home.

👉 Answer: I went to the market.

🌟 Explanation: Simple sentence = one independent clause. 📖

12. Which type of sentence is: "He is so intelligent that everyone admires him"?

- A) Simple
- B) Complex
- C) Compound
- D) Interrogative

👉 Answer: Complex

🌟 Explanation: Contains main clause + subordinate clause (introduced by "that"). 🔗

📖 Academic Portion

📖 English

7. Which of the following is a Gerund?

- A) Play
- B) Playing
- C) Played
- D) To play

👉 Answer: Playing

🌟 Explanation: A gerund is a verb + ing used as a noun. 📝

8. Identify the clause in: "I know that she is honest."

- A) Independent clause
- B) Noun clause
- C) Adjective clause
- D) Adverbial clause

👉 Answer: Noun clause

🌟 Explanation: "That she is honest" works as the object of know → Noun clause. 📖

9. Which of the following is a Compound sentence?

- A) I came, I saw, I conquered.
- B) She sings because she is happy.
- C) If it rains, we will stay home.

D) I want to succeed.

👉 Answer: I came, I saw, I conquered.

🌟 Explanation: Compound = independent clauses joined, without subordination. 📎

📦 Physics

10. What is the focal length of a 4D lens?

A) 25 cm

B) 50 cm

C) 100 cm

D) 10 cm

👉 Answer: 25 cm

🌟 Explanation: Focal length =  $1/\text{Power} \rightarrow 1/4 \text{ m} = 0.25 \text{ m} = 25 \text{ cm}$ . 🔑

11. Electron beam in a microscope has?

A) Long wavelength

B) Very short wavelength

C) Medium wavelength

D) Variable wavelength

👉 Answer: Very short wavelength

🌟 Explanation: Short wavelength gives higher resolution  $\rightarrow$  electron microscopes. 📎

12. SI unit of Time is?

A) Hour

B) Minute

C) Second

D) Millisecond

👉 Answer: Second

🌟 Explanation: SI unit of time = second (s). ⌚

[servicesinpak.com](https://servicesinpak.com)

WhatsApp No: 03213756393

WhatsApp No: 03265375874

Email: [info@servicesinpak.com](mailto:info@servicesinpak.com)

WhatsApp channel: [View and Follow Now](#)