SHREE VASISHTHA VIDHYALAYA
ENGLISH MEDIUM (CBSE)

Class-XI (Science-CUET)

"Illuminate Your Mind, Excel with Purpose"

Dear CUET Aspirants (Grades XI & XII),

As the festival of lights approaches, Shree Vasishtha Vidhyalaya extends warm wishes for a joyous, peaceful, and purposeful Diwali.

May this season fill your hearts with positivity and your minds with clarity and determination.

This festive break offers a wonderful opportunity to blend celebration with learning — to reflect, recharge, and refocus on your CUET journey.

Use this time meaningfully to:

- **Revisit Core Concepts:** Strengthen your understanding of key topics and practise mock papers for better accuracy and confidence.
- **Enhance Reading & Reasoning:** Dedicate time daily to comprehension, vocabulary, and logical thinking exercises.
- **Explore Digital Learning:** Access our Digital Library – Vasishtha Learning Space for curated study materials and interactive resources:

🔗 https://vasishthalearningspace.my.canva.site/vasishtha-digital-library

Recommended platforms:

- **SWAYAM:** https://swayam.gov.in
- **AI for All (Ministry of Education):** https://ai-for-all.in/
- **Adopt Smart Study Habits:** Maintain a light yet consistent study schedule, stay organized, and take mindful breaks.
- **Celebrate Responsibly:** Choose eco-friendly ways to celebrate — light diyas, spread joy, and protect the environment.

Let this Diwali inspire you to shine through knowledge, discipline, and self-growth.

Remember — every small step taken today brings you closer to your CUET goals tomorrow.

Wishing all our CUET students a bright, eco-conscious, and enriching festive season.

May the light within you lead to success and fulfilment.

With warm regards,
Shree Vasishtha Vidhyalaya

Happy Learning !
Happy Diwali !

Assignment (2025 26)
STD-11 Science (CUET)

Please Note:

1. **Students are requested to complete the holiday homework in their school notebooks.**
2. **The school will reopen on Thursday, 6th November 2025. for all students (Classes XI-XII), as mentioned in the almanac.**

ENGLISH

1. Every one of the players ___ chosen for the team.
   a) are b) is c) were d) have been
2. 2.She said, "I will come", ___ she?
   a) will b) won't c) shall d) won't she
3. 3.If I ___ rich, I would travel the world.
   a) were b) was c) am d) will be
4. 4.He knows ___ secret.
   a) her b) she c) hers d) herself
5. 5.Neither the teacher nor the students ___ aware of the rule.
   a) was b) were c) is d) have
6. 6.I prefer ___ coffee in the morning.
   a) drinking b) to drink c) drink d) drank
7. 7.John asked me ___ the door.
   a) to open b) open c) opening d) opened
8. 8.She ___ English since she was a child.
   a) learns b) has learned c) had learned d) is learning
9. 9.By next year, they ___ their new office.
   a) will complete b) will have completed c) have completed d) completed
10. 10.The cake, as well as the cookies, ___ on the table.
    a) is b) are c) were d) have been
11. 11.If you had told me earlier, I ___ have helped you.
    a) would b) will c) would have d) will have
12. 12.She is the one ___ won the prize.
    a) which b) whom c) who d) whose
13. 13.He hardly ___ any mistakes in his essay.
    a) make b) makes c) made d) making
14. 14.The train ___ before I reached the station.
    a) leaves b) had left c) left d) has left
15. 15.I haven't seen him ___ Monday.
    a) since b) for c) from d) until
16. 16.She insisted ___ at home that day.
    a) to stay b) staying c) stay d) stayed
17. 17.The doctor told me ___ less salt.
    a) to eat b) eating c) eat d) eaten
18. He is older ____ I am.
    a) then b) than c) that d) as
19. I regret ___ you that I cannot help.
    a) to inform b) informing c) inform d) informed
20. Because of ___ weather, the match was postponed.
    a) the bad b) bad c) worse d) the worse
21. Either my brother or my friends ___ going on a trip.
    a) is b) are c) was d) were

22. I would rather you ___ earlier.
a) arrive b) arrived c) will arrive d) had arrived

23. Hardly ___ when the bell rang.
a) I sat down b) had I sat down c) I had sat down d) had sat I down

24. He made me ___ the work.
a) to do b) do c) doing d) did

25. I could ___ better if I tried.
a) do b) did c) have done d) doing

26. None of them ___ guilty.
a) is b) are c) were d) have been

27. The more you learn, ___ you become.
a) more wise b) wiser c) most wise d) more wisely

28. She sings as ___ a nightingale.
a) beautiful b) beautifully c) beauty d) more beautifully

29. If he ___ earlier, he would have caught the train.
a) left b) had left c) has left d) would leave

30. It is high time you ___ about your future.
a) think b) thought c) will think d) will have thought

31. They demanded that the offender ___ punished.
a) be b) is c) was d) will be

32. Neither of the options ___ acceptable.
a) is b) are c) were d) have been

33. She looks ___ than her sister.
a) smart b) smarter c) smartest d) as smart

34. That is the man ___ helped me.
a) which b) who c) whom d) whose

35. He suggested ___ earlier.
a) to arrive b) arriving c) arrive d) arrival

36. The book is full ___ interesting stories.
a) of b) with c) in d) about

37. I prefer tea ___ coffee.
a) than b) to c) over d) instead

38. He doesn't know ___ to do.
a) what b) which c) whom d) that

39. I was not only tired ___ also hungry.
a) but b) but also c) and d) moreover

40. She is capable ___ solving the problem.
a) of b) to c) for d) with

41. Everybody ___ to submit their work on time.
a) have b) has c) are d) were

42. The old man walked slowly, ___ he reached safely.
a) so that b) because c) so d) hence

43. She had hardly eaten ___ she felt sick.
a) when b) before c) that d) but

44. If it ___ tomorrow, we will cancel the picnic.
a) rains b) rained c) will rain d) would rain

45. I ___ him since college.
a) know b) have known c) had known d) will know

46. The committee ___ a decision yesterday.
a) took b) takes c) has taken d) had taken

47. He drives ___ others.
a) more careful b) more carefully c) most carefully d) carefully

48. She is ___ honest person I know.

a) a b) the c) an d) no article

49. If you had called me, I ___ there.

a) am b) were c) would be d) would have been

50. He demanded to know why she ___ late.

a) was b) is c) had been d) would be

PHYSICS

1. A particle moves along a straight line with velocity $v = 3t^2 + 2t$ m/s. Its acceleration at $t = 2$ s is:

A) 4 m/s² B) 10 m/s² C) 14 m/s² D) 16 m/s²

2. Two vectors of magnitudes 5 units and 12 units are at 90° to each other. Magnitude of their resultant is:

A) 7 B) 13 C) 17 D) 12

3. A car increases speed from 36 km/h to 72 km/h in 10 s. Acceleration:

A) 1 m/s² B) 2 m/s² C) 3 m/s² D) 4 m/s²

4. The relative velocity of two objects moving in opposite directions with speeds 20 m/s and 30 m/s is:

A) 10 m/s B) 30 m/s C) 50 m/s D) 60 m/s

5. Displacement is:

A) A scalar B) A vector C) Same as distance D) Always positive

6. Two vectors of equal magnitude have a resultant equal to zero. Angle between them:

A) 0° B) 90° C) 120° D) 180°

7. A particle moves in a straight line with uniform acceleration. Its velocity is given by $v = 5t–2$.

Acceleration:

A) 2 m/s² B) 5 m/s² C) -2 m/s² D) 0

8. A car decelerates uniformly from 20 m/s to 5 m/s in 3 s. Magnitude of deceleration:

A) 5 m/s² B) 3 m/s² C) 2.5 m/s² D) 1.5 m/s²

9. Magnitude of vector sum of two vectors of magnitudes 3 N and 4 N at right angle:

A) 5 N B) 7 N C) 1 N D) 12 N

10. A particle travels along x-axis with displacement $x = 2t^2–3t + 1$. Its velocity at t = 2 s:

A) 2 m/s B) 3 m/s C) 5 m/s D) 7 m/s

11. A body weighs 50 N on Earth. Weight on a planet with half gravity:

A) 25 N B) 50 N C) 75 N D) 100 N

12. Newton's third law is **not applicable** for:

A) Two stationary bodies B) Rocket motion C) Floating body D) All forces

13. A force of 10 N acts on a 2 kg body. Acceleration:

A) 2 m/s² B) 5 m/s² C) 10 m/s² D) 20 m/s²

14. Momentum of a body is zero. Net force on it:

A) Zero B) Non-zero C) Depends on mass D) Cannot say

15. A 5 kg body is accelerated at 4 m/s². Force applied:

A) 9 N B) 20 N C) 25 N D) 45 N

16. Impulse has dimensions:

A) $[MLT^{-2}]$ B) $[MLT^{-1}]$ C) $[M L^2 T^{-2}]$ D) $[M L^2 T^{-1}]$

17. Which is scalar?

A) Force B) Work C) Momentum D) Displacement

18. Two bodies of masses 2 kg and 3 kg move towards each other with 4 m/s and 2 m/s. Relative velocity:

A) 2 m/s B) 6 m/s C) 8 m/s D) 12 m/s

19. In perfectly inelastic collision of equal masses moving with equal and opposite velocity, velocity of combined mass:

A) v B) 0 C) 2v D) v/2

20. A body is at rest under no force. Its momentum after 5 s:

A) 0 B) Increases C) Decreases D) Cannot determine

21. Kinetic energy of 2 kg body moving at 3 m/s:

A) 6 J B) 9 J C) 18 J D) 3 J

22. Work done by gravity on body falling freely:

A) Zero B) mgh C) mg^2h D) 2mgh

23. Potential energy is:

A) Scalar B) Vector C) Always negative D) None

24. Work done when a force of 10 N moves a body 5 m at 60° to displacement:

A) 25 J B) 50 J C) 10 J D) 5 J

25. Power is:

A) Work/time B) Force × distance C) Force × velocity D) Both A and C

26. Energy conservation is valid:

A) Only in elastic collision B) Isolated system C) Only in gravity D) All cases

27. A spring of constant k is stretched by x. Energy stored:

A) kx B) $\frac{1}{2} k x^2$ C) $2 kx^2$ D) k^2x

28. Work done by friction:

A) Positive B) Negative C) Zero D) Depends

29. A 5 kg body moves at 10 m/s. Kinetic energy:

A) 250 J B) 50 J C) 125 J D) 500 J

30. A force does zero work on a body. Which is correct?

A) Displacement zero B) Force perpendicular to displacement C) Body at rest D) Any of above

31. Gravitational force between two masses m_1 and m_2 at distance r:

A) Gm_1m_2/r^2 B) $Gm_1m_2r^2$ C) $G(m_1+m_2)/r^2$ D) None

32. Acceleration due to gravity g:

A) Constant on Earth surface B) Varies with altitude C) Varies with latitude D) All

33. Escape velocity from Earth depends on:

A) Mass of Earth B) Radius of Earth C) Mass of object D) Both A and B

34. Satellite in circular orbit: Centripetal acceleration:

A) v/r B) v^2/r C) r/v^2 D) None

35. A planet has radius R and mass M. g = ?

A) GM/R^2 B) GMR^2 C) GM^2/R^2 D) G/R^2

36. Gravitational potential energy:

A) mgh B) -GMm/r C) $\frac{1}{2} m v^2$ D) None

37. Orbital velocity of satellite is proportional to:

A) $\sqrt{(GM/r)}$ B) $\sqrt{(r/GM)}$ C) GM/r^2 D) $2\pi r$

38. Two bodies fall freely from same height. Ratio of velocities after t s:

A) 1:1 B) $\sqrt{2}$:1 C) Depends on mass D) Cannot determine

39. Work done by gravity along horizontal displacement:

A) Positive B) Negative C) Zero D) Cannot say

40. Period of satellite orbiting at distance r:

A) $2\pi\sqrt{(r^3/GM)}$ B) $2\pi\sqrt{(GM/r^3)}$ C) $\sqrt{(r^3/GM)}$ D) $\sqrt{(GM/r^3)}$

CHEMISTRY

A. Investigatory Project:

1. Estimation of Caffeine in Tea or Coffee.
2. Analysis of Food Adulterants.
3. Natural pH Indicators from Plant Extracts.
4. Rate of Evaporation of Liquids.

5. Electrochemical Cell Using Fruit Juices.
6. Chloride Content in Milk.
7. Esterification: Making Banana Oil.
8. Soap Foam Capacity.

B. Exercise questions of Chemical Equilibrium.

MCQ

1. A redox reaction involves:

a) Only oxidation b) Only reduction
c) Both oxidation and reduction d) Neither oxidation nor reduction

2. Oxidation is defined as:

a) Gain of electrons b) Loss of electrons
c) Gain of protons d) Loss of neutrons

3. Which of the following undergoes reduction?

a) Loss of hydrogen b) Gain of oxygen
c) Gain of electrons d) Loss of electrons

4. Which species is the oxidizing agent?

a) One that gains electrons b) One that loses electrons
c) One that gets oxidized d) One that provides hydrogen

5. In the reaction: $Zn + Cu^{2+} \rightarrow Zn^{2+} + Cu$, which is reduced?

a) Zn b) Cu^{2+} c) Zn^{2+} d) Cu

6. Oxidation number of O in H_2O_2 is:

a) –2 b) –1 c) 0 d) +1

7. The oxidation number of hydrogen in NaH is:

a) +1 b) –1 c) 0 d) +2

8. In $KMnO_4$, the oxidation number of Mn is:

a) +2 b) +4 c) +7 d) +5

9. Oxidation number of sulphur in H_2SO_4 is:

a) +4 b) +6 c) –2 d) 0

10. In ClO_3^-, the oxidation number of Cl is:

a) +3 b) +5 c) +7 d) +1

11. Which of the following is a redox reaction?

a) $NaOH + HCl \rightarrow NaCl + H_2O$ b) $Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$
c) $AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$ d) $BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + 2NaCl$

12. Which reaction shows both oxidation and reduction?

a) $CaCO_3 \rightarrow CaO + CO_2$ b) $H_2 + Cl_2 \rightarrow 2HCl$
c) $Ag^+ + Cl^- \rightarrow AgCl$ d) $NaOH + HNO_3 \rightarrow NaNO_3 + H_2O$

13. Disproportionation reaction involves:

a) Oxidation only b) Reduction only
c) Both oxidation and reduction in same species d) No redox process

14. Which is a disproportionation reaction?

a) $Cl_2 + 2NaOH \rightarrow NaCl + NaClO + H_2O$ b) $H_2 + I_2 \rightarrow 2HI$
c) $Zn + Cu^{2+} \rightarrow Zn^{2+} + Cu$ d) $Na + Cl_2 \rightarrow NaCl$

16. In the reaction: $2Fe^{2+} + Cl_2 \rightarrow 2Fe^{3+} + 2Cl^-$, Fe^{2+} is:

a) Oxidized b) Reduced c) Unchanged d) Catalyst

17. Electrons flow in a redox reaction from:

a) Cathode to anode b) Anode to cathode
c) Salt bridge to electrode d) Oxidant to solvent

18. In a galvanic cell, oxidation occurs at the:

a) Cathode b) Anode c) Both electrodes d) Electrolyte

19. The reducing agent in a redox reaction:

a) Gains electrons b) Is reduced c) Loses electrons d) Is a catalyst

20. In an electrolytic cell, electrons flow from:

a) Cathode to anode b) Anode to cathode c) Salt bridge to electrolyte d) None of these

21. Which one is not a redox process?

a) Combustion b) Photosynthesis c) Respiration d) Precipitation

22. Thermodynamics is the study of:

a) Motion b) Energy changes c) Atomic structure d) Chemical bonding

23.The SI unit of heat is:

a) Calorie b) Joule c) Kelvin d) Watt

24.Which of the following is a state function?

a) Work b) Heat c) Temperature d) Path

25.Which of the following is not a state function?

a) Internal energy b) Enthalpy c) Work d) Pressure

26.The First Law of Thermodynamics is a statement of:

a) Conservation of momentum b) Conservation of energy

c) Conservation of mass d) Conservation of work

27.Internal energy change (ΔU) is given by:

a) $q + w$ b) $q - w$ c) $w - q$ d) $q \times w$

28.Work done on the system is taken as:

a) Positive b) Negative c) Zero d) Depends on process

29.Which of the following is an extensive property?

a) Temperature b) Pressure c) Density d) Volume

30. The enthalpy of an element in its standard state is:

a) 0 kJ/mol b) 1 kJ/mol c) 273 kJ/mol d) 25 kJ/mol

BIOLOGY

1. A zoologist finds an organism with radial symmetry and tissue level of organization. Which of the following phyla does it belong to?

   (a) Annelida (b) Cnidaria (c) Arthropoda (d) Platyhelminthes

2. An animal discovered in deep sea is diploblastic, has tentacles, and exhibits extracellular digestion in gastrovascular cavity. Identify its phylum.

   (a) Porifera (b) Coelenterata (c) Platyhelminthes (d) Annelida

3. During embryonic development, an animal shows three germ layers but no body cavity. This animal is:

   (a) Coelomate (b) Acoelomate (c) Pseudocoelomate (d) Hemocoelomate

4. Which one of the following is the correct sequence of complexity in animal body organization?

   (a) Organ → Tissue → Cell → Organ system

   (b) Cell → Tissue → Organ → Organ system

   (c) Tissue → Cell → Organ → Organ system

   (d) Cell → Organ → Tissue → Organ system

5. A marine biologist observes an organism with radial symmetry in larval stage but bilateral symmetry as an adult. Which phylum could it belong to?

   (a) Arthropoda (b) Mollusca (c) Echinodermata (d) Annelida

Porifera to Coelenterata (11–20)

6. Sponges differ from Cnidarians because sponges:

   (a) Have cnidoblasts (b) Have cellular level of organization

   (c) Show radial symmetry (d) Have gastrovascular cavity

7. Canal system in Porifera helps in:
(a) Circulation of blood (b) Food gathering and respiration
(c) Reproduction (d) Excretion only
8. Which of the following organisms contributes to coral reef formation?
(a) Spongilla (b) Sycon (c) Gorgonia (d) Obelia
9. Which statement is correct regarding cnidoblasts?
(a) They help in locomotion (b) They help in digestion
(c) They help in defense and prey capture (d) They help in reproduction
10. The skeleton of sponges is made of:
(a) Chitin (b) Spicules or spongin fibres (c) Calcium carbonate only (d) Silica only

Platyhelminthes, Aschelminthes, Annelida (21–30)

11. Flame cells are characteristic of:
(a) Platyhelminthes (b) Nematoda (c) Annelida (d) Mollusca
12. An organism is bilaterally symmetrical, dorsoventrally flattened, triploblastic and acoelomate. It belongs to:
(a) Aschelminthes (b) Annelida (c) Platyhelminthes (d) Arthropoda
13. Roundworms differ from flatworms in:
(a) Symmetry (b) Germ layers (c) Digestive system (d) Nervous system
14. The circulatory system of earthworm is:
(a) Open type (b) Closed type (c) Absent (d) Water vascular type
15. Which of the following is a hermaphrodite?
(a) Cockroach (b) Earthworm (c) Housefly (d) Mosquito

Arthropoda, Mollusca, Echinodermata (31–40)

16. Which of the following organisms has green glands for excretion?
(a) Prawn (b) Cockroach (c) Octopus (d) Earthworm
17. In cockroach, blood does not help in:
(a) Transportation of nutrients (b) Transportation of gases
(c) Transportation of hormones (d) Distribution of digested food
18. Which statement is true for Arthropoda?
(a) They have jointed appendages and chitinous exoskeleton (b) They have closed circulation
(c) They have radula for feeding (d) They show water vascular system
19. Which is the respiratory organ in Pila?
(a) Trachea (b) Book lungs (c) Gills and pulmonary sac (d) Skin
20. Which phylum has an exclusively marine habitat, radial symmetry in adults, and water vascular system?
(a) Echinodermata (b) Mollusca (c) Annelida (d) Arthropoda

Protochordates & Chordates (41–50)

21. Which of the following is a characteristic of chordates?
(a) Pharyngeal gill slits, notochord, dorsal hollow nerve cord
(b) Notochord, ventral nerve cord, jointed legs
(c) Dorsal nerve cord, radial symmetry, cnidoblasts
(d) Segmented body, pseudocoelom, flame cells
22. Notochord in Amphioxus is:
(a) Absent (b) Present throughout life
(c) Present only in larval stage (d) Replaced by vertebral column
23. Heart of fishes is:
(a) Two-chambered (b) Three-chambered (c) Four-chambered (d) Five-chambered
24. Amphibians are regarded as first terrestrial vertebrates because:
(a) They have double circulation (b) They lay shelled eggs
(c) They have limbs adapted for locomotion on land (d) They are viviparous
25. Which of the following characters is absent in reptiles?
(a) Poikilothermy (b) Dry and scaly skin (c) Cleidoic eggs (d) Cutaneous respiration

26. Which is the correct pair?
(a) Crocodile – Three chambered heart (b) Bird – Pneumatic bones
(c) Mammal – Cold blooded (d) Frog – Four chambered heart
27. Which among the following is viviparous?
(a) Platypus (b) Echidna (c) Human (d) Ostrich
28. Birds are called glorified reptiles because:
(a) They have scales on hind limbs
(b) They evolved from reptiles and have feathers as modifications of scales
(c) They are oviparous
(d) They have air sacs
29. Which one of the following is a connecting link between reptiles and mammals?
(a) Platypus (b) Duck (c) Crocodile (d) Archaeopteryx
30. Which feature is exclusive to mammals?
(a) Homeothermy (b) Hair and mammary glands
(c) Four-chambered heart (d) Internal fertilization
31. While dissecting a cockroach, a student finds structures called Malpighian tubules. Their function is:
(a) Respiration(b) Excretion(c) Circulation(d) Reproduction
32. A parasitic worm is bilaterally symmetrical, pseudocoelomate, unsegmented, and has a cuticle. It belongs to:
(a) Annelida (b) Aschelminthes (c) Platyhelminthes (d) Arthropoda
33. Which of the following has water vascular system for locomotion, food capture and respiration?
(a) Starfish (b) Cockroach (c) Prawn (d) Pila
34. Which of the following pairs is correctly matched?
(a) Octopus – Book lungs (b) Cockroach – Trachea
(c) Starfish – Radula (d) Earthworm – Trachea
35. Which feature is found only in chordates?
(a) Bilateral symmetry (b) Segmentation (c) Notochord (d) Coelom
36. Which of the following organisms shows both intra- and extracellular digestion?
(a) Earthworm (b) Hydra (c) Tapeworm (d) Cockroach
37. Cyclostomes differ from fishes in:
(a) Being jawless and scaleless (b) Possessing paired fins
(c) Having cartilaginous skeleton (d) Having a two-chambered heart
38. Frogs can respire through:
(a) Skin, lungs, and buccal cavity (b) Gills and skin (c) Trachea only (d) Lungs only
39. Which of the following has a four-chambered heart?
(a) Crocodile (b) Frog (c) Lizard (d) Turtle
40. Which vertebrate group is characterized by double circulation and homeothermy?
(a) Amphibia (b) Reptilia (c) Aves (d) Pisces
41 Which animal possesses a radula?
(a) Cockroach (b) Octopus (c) Starfish (d) Earthworm
42. Which of the following has a canal system for circulation of water?
(a) Sycon (b) Leech (c) Hydra (d) Tapeworm
43. Which of the following organisms has nephridia as excretory organs?
(a) Earthworm (b) Cockroach (c) Starfish (d) Ascaris
44. Which of the following is a coelomate with a segmented body, closed circulatory system and nephridia?
(a) Cockroach (b) Earthworm (c) Tapeworm (d) Ascaris
45. The exoskeleton of insects is made up of:
(a) Chitin (b) Cellulose (c) Calcium carbonate (d) Silica
46. Which of the following is an oviparous mammal?
(a) Platypus (b) Kangaroo (c) Bat (d) Human
47. Which of the following is not a cold-blooded animal?
(a) Fish (b) Amphibian (c) Bird (d) Reptile

48.Which class of vertebrates has both lungs and gills during different stages of life?

(a) Pisces (b) Amphibia (c) Reptilia (d) Mammalia

49.Which of the following organisms has a three-chambered heart?

(a) Frog (b) Bird (c) Human (d) Crocodile

50.Which of the following features is found in mammals but not in any other vertebrate group?

(a) Viviparity and mammary glands (b) Warm-blooded nature

(c) Internal fertilization (d) Four-chambered heart

MATHEMATICS

1. If $a, 4, b$are in arithmetic progression and $a, 2, b$are in geometric progression, then $a, 1, b$are in

(A) A.P. (B) G.P. (C) H.P. (D) None of these

2. The nth term of a G.P. with first term $a$and common ratio $r$is

(A) ar^n (B) ar^{n-1} (C) $(ar)^{n-1}$ (D) none of these

3. The sum $S = \frac{1}{1\cdot2} + \frac{1}{2\cdot3} + \frac{1}{3\cdot4} + \cdots + \frac{1}{n(n+1)}$equals

(A) $n(n+1)$ (B) $\frac{n}{n+1}$ (C) $\frac{2n}{n+1}$ (D) None of these

4. Consider the G.P. 5,10,20, ... If the sum of $n$terms is 1275, then $n =$

(A) 6 (B) 7 (C) 8 (D) 9

5. The harmonic mean and geometric mean of two positive numbers are 10 and 12 respectively. Their arithmetic mean is

(A) $\frac{25}{3}$ (B) $\sqrt{120}$ (C) 11 (D) 14.4

6. The third term of a G.P. is 9, and the product of its first five terms is

(A) 3^5 (B) 3^9 (C) 3^{10} (D) 3^{12}

7. The series $1 - \frac{1}{1!} + \frac{1}{2!} - \frac{1}{3!} + \frac{1}{4!} - \cdots$converges to

(A) e (B) $2e$ (C) $\frac{1}{e}$ (D) e^2

8. If the nth term of an AP is given by $5n + 1$, the sum of the first $n$terms is

(A) $\frac{n}{2}$ (B) $\frac{n}{2}(7 + 4n)$ (C) $\frac{n}{2}(7 + 5n)$ (D) none of these

9. The 10th term common to both APs 3,7,11, ...and 1,6,11, ...is

(A) 171 (B) 191 (C) 211 (D) None of these

10. In an AP, the 5th term is 20 and the 12th term is 48. The common difference $d$is

(A) 4 (B) 3 (C) 5 (D) 6

11. If the sum of the first $n$terms of a G.P. is $S$and the sum of the first $n - 1$terms is T, then the nth term is

(A) $S - T$ (B) $\frac{S}{T}$ (C) $S + T$ (D) none of these

12. If the sum of an infinite GP is 8 and its first term is 5, then its common ratio $r$is

(A) $\frac{3}{5}$ (B) $\frac{2}{5}$ (C) $\frac{3}{5}$(negative) (D) $-\frac{3}{5}$

13. The sum of the arithmetic series $5 + 9 + 13 + \cdots + 49$is

(A) 351 (B) 535 (C) 324 (D) 435

14. If $a_n = 4n + 6$, then $a_{15} =$

(A) 6 (B) 10 (C) 60 (D) 66

15. Sequence defined by $a_1 = a_2 = 2, a_n = a_{n-1} - 1$for $n > 2$. Then $a_5 =$

(A) 2 (B) -1 (C) 1 (D) 0

16. If for some sequence, $a_{n+1} - 2a_n + a_{n-1} = 0$for all n, then the sequence is

(A) arithmetic (B) geometric (C) harmonic (D) quadratic

17. Let the sum of the first $n$terms of a sequence be $S_n = n^2 + 3n$. Then the nth term $a_n$is

(A) $2n + 3$ (B) $2n + 1$ (C) $2n + 5$ (D) $2n - 1$

18. If the arithmetic mean of $x$and $y$is 10, and harmonic mean of $x$and $y$is 6, then the geometric mean of x and $y$is

(A) 8 (B) $6\sqrt{10/6}$ (C) $\sqrt{xy} = \sqrt{60}$ (D) cannot be determined

19. Suppose an infinite GP has first term 9 and infinite sum 18. Then its common ratio is

(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{2}{3}$ (D) $-\frac{1}{2}$

20. If $a, b, c$are in G.P. and $a, b, d$are in A.P., then

(A) $b^2 = ac$ (B) $2b = a + c$ (C) $d = \frac{a+b+c}{3}$ (D) $d = \frac{2b-a}{2}$

21. In a G.P., the sum of the first 3 terms is 14 and the sum of the first 6 terms is 126. Then that G.P. is

(A) 1,2,4, ... (B) 2,4,8, ... (C) 3,5,7, ... (D) 1,3,9, ...

22. Let the sequence $a_n$satisfy $a_{n+2} = 5a_{n+1} - 6a_n$. If $a_1 = 2$, $a_2 = 5$, then $a_3 =$

(A) 23 (B) 19 (C) 14 (D) 11

23. If the 5th and 9th terms of an AP are 12 and 28 respectively, the common difference is

(A) 4 (B) 3 (C) 5 (D) 2

24. In a harmonic progression, if $a_1 = 2$and $a_2 = 3$, then the third term $a_3$is

(A) $\frac{6}{5}$ (B) $\frac{12}{5}$ (C) $\frac{5}{4}$ (D) none of these

25. If the sum of the first $n$terms of an AP is $3n^2 + 5n$, then the nth term is

(A) $6n + 5$ (B) $6n - 1$ (C) $6n + 2$ (D) $6n + 3$

26. If a line has equation $ax + by + c = 0$, its slope is

(A) $\frac{-a}{b}$ (B) $\frac{a}{b}$ (C) $-\frac{b}{a}$ (D) $\frac{-b}{a}$

27. Two lines are perpendicular if and only if the product of their slopes is

(A) 1 (B) –1 (C) 0 (D) undefined

28. The distance from point $(x_1, y_1)$to the line $ax + by + c = 0$is

(A) $\frac{|ax_1+by_1+c|}{a+b+c}$ (B) $\frac{|ax_1+by_1+c|}{\sqrt{a^2+b^2}}$ (C) $\frac{ax_1+by_1+c}{\sqrt{a^2+b^2}}$ (D) $\sqrt{(x_1-a)^2+(y_1-b)^2}$

29. The equation of the line passing through $(x_1, y_1)$with slope $m$is

(A) $y - y_1 = m(x - x_1)$(B) $y + y_1 = m(x + x_1)$(C) $y = mx + (y_1 - mx_1)$(D) Both (A) and (C)

The x-intercept of line $5x - 3y + 10 = 0$is

(A) -2 (B) $\frac{10}{5} = 2$ (C) $-\frac{10}{5} = -2$ (D) $\frac{10}{3}$

31. The y-intercept of line $4x + 2y - 8 = 0$is

(A) -4 (B) 4 (C) $-\frac{8}{2} = -4$ (D) $\frac{8}{2} = 4$

32. The line that is parallel to $2x - 3y + 5 = 0$and passes through $(1,2)$has equation

(A) $2x - 3y + k = 0$with $k$chosen to pass through $(1,2)$(B) $3x - 2y + k = 0$

(C) $-2x + 3y + k = 0$ (D) $2x + 3y + k = 0$

33. The line passing through $(3,4)$and perpendicular to $3x + 4y - 12 = 0$is

(A) $4x - 3y + k = 0$ (B) $-4x + 3y + k = 0$

(C) $3x + 4y + k = 0$ (D) $-3x + 4y + k = 0$

34. The midpoint of the line segment joining $(2, -1)$and $(4,3)$is

(A) (3,1) (B) (6,2) (C) $(\frac{6}{2}, \frac{2}{2}) = (3,1)$ (D) (3,2)

35. A point dividing the segment joining $(1,1)$and $(4,7)$internally in ratio 2:1 is

(A) $(\frac{2\cdot4+1\cdot1}{3}, \frac{2\cdot7+1\cdot1}{3})$ (B) $(\frac{4+2}{3}, \frac{7+1}{3})$ (C) (2,3) (D) (3,5)

36. The slope of a line inclined at an angle $\theta$with the positive x-axis is

(A) $\sin\theta$(B) $\cos\theta$(C) $\tan\theta$(D) $\cot\theta$

37. A line is vertical if its slope is

(A) 0 (B) undefined (C) 1 (D) –1

38. Two lines are parallel when

(A) their slopes are equal (B) their slopes differ by 1

(C) their slopes product is –1 (D) their slopes sum to zero

39. The angle αbetween two lines with slopes $m_1$and $m_2$satisfies

(A) $\tan\alpha = \frac{m_1-m_2}{1+m_1m_2}$ (B) $\tan\ \alpha = \frac{m_2-m_1}{1+m_1m_2}$

(C) $\tan\ \alpha = \frac{m_1+m_2}{1-m_1m_2}$ (D) $\tan\ \alpha = \frac{m_1-m_2}{1-m_1m_2}$

40. If the lines $y = 2x + 3$and $y = -\frac{1}{2}x + 1$are given, they are

(A) perpendicular (B) parallel (C) neither (D) coincident

41. The general equation of a line passing through $(x_1, y_1)$and $(x_2, y_2)$is

(A) $(y - y_1)(x_2 - x_1) = (x - x_1)(y_2 - y_1)$

(B) $(y - y_2)(x_1 - x_2) = (x - x_2)(y_1 - y_2)$

(C) Either (A) or (B)

(D) None of these

42. The distance between two parallel lines $ax + by + c_1 = 0$and $ax + by + c_2 = 0$is

(A) $\frac{|c_1-c_2|}{\sqrt{a^2+b^2}}$ (B) $\frac{c_1+c_2}{\sqrt{a^2+b^2}}$ (C) $\frac{|c_1+c_2|}{\sqrt{a^2+b^2}}$ (D) $\frac{|c_1-c_2|}{a+b}$

43. The joint equation of two lines passing through the origin with slopes $m_1$and $m_2$is

(A) $y^2 - (m_1 + m_2)xy + m_1m_2x^2 = 0$

(B) $x^2 - (m_1 + m_2)xy + m_1m_2y^2 = 0$

(C) $y^2 - (m_1 + m_2)xy + m_1m_2y^2 = 0$

(D) $x^2 - (m_1 + m_2)xy + m_1m_2x^2 = 0$

44. If a pair of lines is given by $ax^2 + 2hxy + by^2 = 0$, their slopes are

(A) roots of $am^2 + 2hm + b = 0$

(B) roots of $bm^2 + 2hm + a = 0$

(C) $\frac{-2h\pm\sqrt{4h^2-4ab}}{2a}$

(D) $\frac{-2h\pm\sqrt{4h^2-4ab}}{2b}$

45. If two lines represented by $x^2 - 3xy + 2y^2 = 0$are given, then the slopes are

(A) 1 and 2 (B) 1 and ½ (C) 2 and ½ (D) –1 and –2

46. The acute angle between the lines represented by $3x^2 - 5xy + 2y^2 = 0$is given by

(A) $\tan^{-1}(1)$ (B) $\tan^{-1}(2)$ (C) $\tan^{-1}(3)$ (D) $\tan^{-1}(\frac{1}{2})$

47. In the equation $ax^2 + 2hxy + by^2 = 0$, if $h^2 = ab$, then the lines are

(A) parallel (B) perpendicular (C) coincident (D) making zero angle

48. The angle bisectors of the lines $ax^2 - by^2 = 0$are

(A) $y = x$and $y = -x$ (B) $y = \pm\sqrt{\frac{a}{b}}x$ (C) $y = \pm\sqrt{\frac{b}{a}}x$ (D) $y = \pm x$

49. The combined equation of the pair of lines that equally bisect the axes is

(A) $x^2 - y^2 = 0$ (B) $xy = 0$ (C) $x^2 + y^2 = 0$ (D) $x^2 - 2xy + y^2 = 0$

50. The line passing through intersection of $L_1: x - 2y + 1 = 0$and $L_2: 2x + y - 3 = 0$and parallel to $x + y = 0$is

(A) $x - 2y + 1 + \lambda(x + y) = 0$ (B) $2x + y - 3 + \lambda(x + y) = 0$

(C) combination of both (D) none

51. The equation of the line which makes intercepts $a$and $b$on the axes is

(A) $\frac{x}{a}+\frac{y}{b} = 1$ (B) $ax + by = 1$ (C) $bx + ay = 1$ (D) $\frac{y}{a}+\frac{x}{b} = 1$

52. If a line divides the intercepts on axes in the ratio 1:2, and passes through (3,4), its equation is

(A) $\frac{x}{3}+\frac{y}{6}=1$ (B) $\frac{x}{6}+\frac{y}{3}=1$

(C) $\frac{x}{a}+\frac{y}{b}=1$ with $a:b=1:2$ and passing through (3,4) (D) none of these

53. The line through (1,2) and (4,5) has slope

(A) 1 (B) $\frac{3}{3}=1$ (C) 2 (D) $\frac{5-2}{4-1}=1$

54. The equation of the perpendicular from (x_1,y_1) to line $ax+by+c=0$ is

(A) $a(x-x_1)+b(y-y_1)=0$ (B) $b(x-x_1)-a(y-y_1)=0$

(C) $a(x_1-x)+b(y_1-y)=0$ (D) $b(x_1-x)-a(y_1-y)=0$

55. The foot of the perpendicular from (x_1,y_1) to the line $ax+by+c=0$ has coordinates

(A) $\left(x_1-a\frac{ax_1+by_1+c}{a^2+b^2}, y_1-b\frac{ax_1+by_1+c}{a^2+b^2}\right)$ (B) $(x_1+a\frac{ax_1+by_1+c}{a^2+b^2}, y_1+b\frac{ax_1+by_1+c}{a^2+b^2})$

(C) $\left(x_1-b\frac{ax_1+by_1+c}{a^2+b^2}, y_1-a\frac{ax_1+by_1+c}{a^2+b^2}\right)$ (D) $(x_1+b\frac{ax_1+by_1+c}{a^2+b^2}, y_1+a\frac{ax_1+by_1+c}{a^2+b^2})$

56. If a line is equidistant from the axes (i.e. distance from x-axis = distance from y-axis), then its equation is

(A) $x\pm y+c=0$ (B) $x-y=0$ or $x+y=0$

(C) $y=x+c$ (D) $y=-x+c$

57. The line through $(0,a)$ and $(b,0)$ has equation

(A) $\frac{x}{b}+\frac{y}{a}=1$ (B) $ax+by=0$ (C) $bx+ay=1$ (D) $\frac{x}{a}+\frac{y}{b}=1$

58. The line making an angle α with the x-axis and having distance p from the origin is

(A) $x\cos\alpha+y\sin\alpha=p$ (B) $x\sin\alpha+y\cos\alpha=p$

(C) $x\cos\alpha-y\sin\alpha=p$ (D) $x\cos\alpha+y\sin\alpha=-p$

59. The equation in intercept form is invalid when the line passes through the origin because

(A) a or b becomes zero in $\frac{x}{a}+\frac{y}{b}=1$ (B) slopes become infinite

(C) both intercepts zero (D) none

60. The equation of a line which makes intercepts a and b on the axes and whose one intercept is zero (i.e. passes through origin) is

(A) $y=\frac{b}{a}x$ (B) $\frac{x}{a}+\frac{y}{b}=1$ with one of a or b $\to\infty$ (C) $\frac{x}{a}+\frac{y}{b}=0$ (D) $y-\frac{b}{a}x=0$

61. If a line cuts equal intercepts on the axes, its equation is

(A) $x+y+c=0$ (B) $x-y+c=0$ (C) $\frac{x}{a}+\frac{y}{a}=1$ (D) $x+y=1$

62. The locus of the midpoints of all chords of the line $l:\frac{x}{a}+\frac{y}{b}=1$ which pass through a fixed point is a line.

True or False?

(A) True (B) False (C) Sometimes (D) Cannot say

63. The angle between the lines $x\cos\alpha+y\sin\alpha=p$ and $x\sin\alpha+y\cos\alpha=p$ is

(A) 2α (B) α (C) $90°-\alpha$ (D) $90°+\alpha$

64. If the origin is equidistant from two parallel lines, their equations may be written as

(A) $ax+by+c=0$ and $ax+by-c=0$

(B) $ax+by+c=0$ and $cx+dy+e=0$

(C) $ax+by+c=0$ and $-ax-by+c=0$

(D) $ax+by+c=0$ and $ax+by+d=0$

65. If the line $y=mx+c$ touches the circle $x^2+y^2=r^2$, then the condition is

(A) $c^2=r^2(1+m^2)$ (B) $c^2=r^2(1-m^2)$ (C) $c=r\sqrt{1+m^2}$ (D) $c=r(1+m^2)$

66. The chord of contact of tangents drawn from (x_1,y_1) to the circle $x^2+y^2=r^2$ is

(A) $xx_1+yy_1=r^2$ (B) $xx_1-yy_1=r^2$ (C) $xx_1+yy_1=r^2$ (D) $xx_1+yy_1=r$

67. The equation of a line parallel to $ax + by + c = 0$and at distance $d$from it is

(A) $ax + by + c \pm d\sqrt{a^2 + b^2} = 0$ (B) $ax + by + c \pm d = 0$

(C) $ax + by + c \pm d\sqrt{a^2 + b^2} = 0$ (D) $ax + by + (c \pm d\sqrt{a^2 + b^2}) = 0$

68. The slope of the line which is the reflection of line $y = mx + c$in the x-axis is

(A) $-m$ (B) m (C) $\frac{1}{m}$ (D) $-\frac{1}{m}$

69. If two lines are represented by $L_1: a_1x + b_1y + c_1 = 0$and $L_2: a_2x + b_2y + c_2 = 0$, then the angle between them is given by

(A) $\tan\theta = \left|\frac{a_1b_2 - a_2b_1}{a_1a_2 + b_1b_2}\right|$ (B) $\tan\theta = \left|\frac{b_1a_2 - b_2a_1}{a_1a_2 + b_1b_2}\right|$

(C) $\tan\theta = \left|\frac{a_1b_2 - a_2b_1}{b_1b_2 + a_1a_2}\right|$ (D) $\tan\theta = \left|\frac{b_2a_1 - b_1a_2}{a_1a_2 + b_1b_2}\right|$

70. The locus of a point which moves such that the sum of perpendicular distances from two fixed lines is constant, is generally

(A) a line (B) a pair of lines (C) a conic (D) a circle

71. If the slopes of two lines are in the ratio 2:3, and they pass through the origin, their combined equation may be

(A) $3x^2 - 2xy = 0$ (B) $2x^2 - 3xy = 0$ (C) $x^2 - 6xy = 0$ (D) $y^2 - 6xy = 0$

72. The line passing through $(a, 0)$and $(0, b)$is

(A) $bx + ay - ab = 0$ (B) $x/a + y/b = 1$ (C) $bx + ay = ab$ (D) equal to (B) and (C)

73. The locus of a point whose difference of distances from two fixed lines is constant is

(A) a pair of lines (B) a hyperbola (C) a parabola (D) an ellipse

74. The line through $(1,2)$parallel to $x + 2y = 3$is

(A) $x + 2y + k = 0$passing through $(1,2)$ (B) $x - 2y + k = 0$

(C) $2x + y + k = 0$ (D) $-x + 2y + k = 0$

75. If a line makes an angle of $45°$with the x-axis and passes through the point $(2,3)$, its equation is

(A) $y - 3 = \tan 45°(x - 2)$ (B) $y = x + 1$ (C) $y - 3 = (x - 2)$ (D) All of the above

GENERAL STUDIES

1. What is the approximate **population of India** (2024 estimate)?

A. 1.1 billion B. 1.3 billion C. 1.5 billion D. 1.7 billion

2. Which Indian state has the **highest population density** as per latest data?

A. Uttar Pradesh B. Bihar C. West Bengal D. Kerala

3. Who wrote *"The Discovery of India"*?

A. Rabindranath Tagore B. Jawaharlal Nehru C. R.K. Narayan D. M. K. Gandhi

4. "Annihilation of Caste" is by which author?

A. B.R. Ambedkar B. Mahatma Gandhi C. Vinoba Bhave D. Jawaharlal Nehru

5. 21st June is celebrated as:

A. International Day of Yoga B. World Population Day

C. International Day of Peace D. World Environment Day

6. 26 December is observed as:

A. Major Dhyan Chand National Day B. International Day of Epidemic Preparedness

C. Tamil Language Day D. National Farmers Day

7. Which UN agency is responsible for children's education and welfare globally?

A. UNESCO B. UNICEF C. WHO D. ILO

8. The World Health Organization (WHO) is headquartered in which city?

A. Geneva B. New York C. London D. Paris

9. The International Monetary Fund (IMF) is part of which organization cluster?

A. UN system B. World Bank Group

C. Bretton Woods institutions D. ASEAN

10. Which award is conferred by the Government of India for literary works in various Indian languages?

A. Jnanpith Award B. Booker Prize C. Pulitzer Prize D. Hugo Award

11. Who among the following won the **Nobel Peace Prize 2024**?

A. A renowned environmentalist B. A global human rights activist

C. A scientist working on medicine D. (You may check current data)

12. Which international organization runs the **World Food Programme (WFP)**?

A. UNDP B. WHO C. FAO D. United Nations

13. Which book is authored by Arundhati Roy?

A. The God of Small Things B. Midnight's Children

C. The White Tiger D. Train to Pakistan

14. 8th March is celebrated globally as:

A. World Water Day B. International Women's Day

C. World Health Day D. Earth Day

15. The **World Bank** was established in which year?

A. 1944 B. 1945 C. 1946 D. 1950

16. Which UN body deals with international labour standards and rights?

A. UNESCO B. ILO C. WHO D. UNHCR

17. The **Padma Vibhushan** is awarded to:

A. Only artists B. Only scientists

C. Persons of exceptional and distinguished service in any field

D. Only military personnel

18. "Midnight's Children" — the Booker of Bookers — was written by:

A. Salman Rushdie B. Vikram Set C. Amitav Ghosh D. Kiran Desai

19. 24th October is globally observed as:

A. World Tourism Day B. United Nations Day

C. World Development Information Day D. World Habitat Day

20. Which UN agency is responsible for agricultural and food issues?

A. UNICEF B. FAO C. WHO D. IOM

21. The **Pulitzer Prize** is associated with which country?

A. United Kingdom B. United States C. France D. Germany

22. The **Commonwealth Secretariat** is headquartered in:

A. London B. New Delhi C. Wellington D. Sydney

23. Who wrote *"Gitanjali"*?

A. Rabindranath Tagore B. Sarojini Naidu

C. Kazi Nazrul Islam D. Bankim Chandra Chatterjee

24. 5th June is observed as:

A. World Environment Day B. Green India Day

C. World Oceans Day D. Global Recycling Day

25. The **Nobel Prize in Economics** is officially called:

A. Nobel Prize in Political Economy

B. Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel

C. Nobel Memorial Prize in Economics

D. Economists' Nobel

26. Who was the first Governor-General of independent India?

A. C. Rajagopalachari B. Lord Mountbatte C. Lord Wavell D. Rajendra Prasad

27. The **Battle of Plassey** was fought in:
A. 1757 B. 1764 C. 1773 D. 1784

28. Who founded the **Ahom Kingdom** in Assam?
A. Sukapha B. Borphukans C. Rudra Singha D. Suphakphaa

29. The **Maurya Empire** reached its peak under:
A. Chandragupta Maurya B. Bindusara C. Ashoka D. Brihadratha

30. The **first Indian woman** to become President of India was:
A. Indira Gandhi B. Pratibha Patil C. Sarojini Naidu D. Sucheta Kriplani

31. Which is the **longest river** in India (by length within India)?
A. Ganges B. Yamuna C. Godavari D. Brahmaputra

32. The **Eastern Ghats** run along which coast?
A. East coast B. West coast C. Northern border D. Central plateau

33. The **Thar Desert** is primarily located in:
A. Rajasthan B. Gujarat C. Punjab D. Haryana

34. **Siachen Glacier** is located in:
A. Ladakh B. Himachal Pradesh C. Uttarakhand D. Arunachal Pradesh

35. The **Himalaya** range is youngest among:
A. Fold mountains B. Block mountains C. Volcanic mountains D. Residual mountains

36. Which Indian state has the **longest coastline**?
A. Gujarat B. Andhra Pradesh C. Tamil Nadu D. Maharashtra

37. The **Indus Valley Civilization** major site Harappa is located in present-day:
A. India B. Pakistan C. Afghanistan D. Nepal

38. The **Dravidian architectural style** is most associated with:
A. Northern India B. Eastern India C. Southern India D. Western India

39. **Chandragupta, I** belonged to which dynasty?
A. Maurya B. Gupta C. Mughal D. Chola

40. Which river flows through **Rajasthan** and empties into the Gulf of Kutch?
A. Sabarmati B. Luni C. Mahi D. Tapi

41. The **Nicobar Islands** are located in which sea?
A. Andaman Sea B. Arabian Sea C. Bay of Bengal D. Indian Ocean

42. Who built the **Ellenborough Pillar**?
A. British East India Company B. Lord Ellenborough
C. Lord Curzon D. Lord Canning

43. The **Karakorum Pass** lies between India and:
A. Pakistan B. China C. Nepal D. Myanmar

44. The **Vindhya Range** separates:
A. North and South India B. East and West India
C. Central and Eastern India D. North and East India

45. The **Rashtrakutas** dynasty had its capital at:
A. Pataliputra B. Kanchipuram C. Manyakheta D. Ujjain

46. What is the capital of Australia and its currency?
A. Sydney — Australian Dollar B. Canberra — Australian Dollar
C. Melbourne — Aussie Pound D. Brisbane — Australian Dollar

47. Capital of Brazil and currency:
A. Brasília — Real B. Rio de Janeiro — Real
C. São Paulo — Dollar D. Brasília — Peso

48. Capital and currency of Japan:

A. Tokyo — Yen
B. Kyoto — Yen
C. Osaka — Yen
D. Tokyo — Yuan

49. Capital and currency of South Africa:

A. Cape Town — Rand
B. Pretoria — Rand
C. Johannesburg — Dollar
D. Pretoria — Dollar

50. Capital and currency of Canada:

A. Vancouver — Canadian Dollar
B. Toronto — Canadian Dollar
C. Ottawa — Canadian Dollar
D. Montreal — US Dollar

NOTE:

- Students need to complete the subject specific assignments as per the instructed norms.
- **Submission date for all assignments is 12th November, 2025, Wednesday.**
- These assignments are a part of the Internal Assessments and will be marked for the same. It is mandatory for the students to complete the assignments and submit it to the concerned teachers.
- Students are requested to clarify any doubts about the assignments during regular classes.

May the auspicious glow of Diwali Illuminate your Life with joy, prosperity, good health and hosting success.