21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-III (Science)

F.M. : 100
Time : 1hrs.

Instructions :

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1. In your joint family, you live with your grandfather, uncle, uncle's wife, their sons & your parents. Who is the oldest in your family ?
   (a) Father (b) Mother (c) Uncle (d) Grandfather
2. My father is the son of my
   (a) uncle (b) unty (c) grandfather (d) none
3. The plants which are called shrubs are
   (a) same to the trees in size (b) smaller than the trees
   (c) greater than the trees (d) none
4. The plant group called creepers, mostly
   (a) grow with a support (b) grow underground
   (c) grow along the ground (d) none
5. Plants suck up water and minerals from the
   (a) rain (b) soil (c) air (d) none
6. Which one of the following is the oil giving plant?
   (a) pea (b) mustard (c) cabbage (d) none
7. Which one of the following is not a cereal?
   (a) wheat (b) maize (c) rice (d) none
8. In a leaf, mid-rib is
   (a) not a main vein (b) a main vein (c) a veinlet (d) none
9. The part of a plant called the food factory is,
   (a) root (b) stem (c) leaves (d) none
10. Leaves are green in colour due to the presence of
    (a) sunlight (b) chlorophyll (c) starch (d) none
11. We know that, plants
    (a) take their food from animals (b) manufacture their own food
    (c) absorb their food from man (d) none
12. During the photosynthesis, plants need,
    (a) water, air and oil (b) water, sunlight and clay
    (c) water, air and sunlight (d) none

13. The root which we eat is,
(a) potato (b) ginger (c) carrot (d) none

14. Which one of the flowing is not a root?
(a) carrot (b) potato (c) raddish (d) none

15. Birds can fly with the help of,
(a) fins (b) legs (c) wings (d) none

16. Choose a wrong statement
(a) fishes can swim (b) ants can crawl
(c) Mosquitoes can walk fast (d) none

17. Choose the most appropriate one
(a) fishes use their eyes to swim (b) fishes use their head to swim
(c) fishes use their fins to swim (d) none

18. Choose the appropriate statement
(a) birds can walk fast (b) ants can crawl (c) fish can fly (d) none

19. Ducks have
(a) round and pointed beak (b) broad and flat beak
(c) strong and curved beak (d) none

20. Which is the correct statement ?
(a) Chess is a four player game (b) Chess is a two player game
(c) Chess is a three player game (d) none

21. Who is the present Education Minister of Manipur ?
(a) Biren (b) Basanta (c) Bishworjit (d) none

22. In a society, we should respect
(a) only Doctors (b) Engineers
(c) only Lawyers (d) All types of occupation

23. When a baby is six months old, she/he needs to eat,
(a) vegetable only (b) cereals and fruits
(c) meat and vegetable (d) none

24. Which of the following is a herbivore ?
(a) vulture (b) bear (c) deer (d) none

25. Carnivores have
(a) short, blunt and pointed teeth (b) long, sharp and pointed teeth
(c) long, blunt and flat teeth (d) none

26. Choose the animal, which is not having teeth among the following
(a) Horse (b) Goat (c) Lizard (d) none

27. Which one of the following do not suck food ?
(a) bee (b) butterfly (c) frog (d) none

28. The important materials used to make the unusual house at floating phumdi found at Loktak Lake are
(a) clay and bamboo (b) wood and reeds
(c) grass, reeds and bamboo (d) none

29. Which animal of the following need the least water ?
(a) cow (b) goat (c) camel (d) none

30. The hump on the back of a camel is used to store
(a) food only (b) food and water (c) water only (d) none

31. The thick stems of a cactus plant store
(a) water (b) oil (c) air (d) none

32. Collection of rain water for future use is called,
(a) water cultivation (b) rain water storage
(c) rain water harvesting (d) all the above

33. Which of the following is the function of ear ?
(a) taste (b) hear (c) speak (d) none

34. Which of the following is the most sensitive organ ?
(a) hand (b) leg (c) nose (d) none

35. For washing clothes, what is the best water ?
(a) pond water (b) lake water
(c) rain water (d) underground water

36. All the time, we
(a) eat (b) drink (c) breathe (d) work

37. Nest is the home of
(a) Tiger (b) Lion (c) Zebra (d) None

38. Our house saves us from
(a) heat (b) rain (c) cold (d) all the above

39. Which of the following animals is odd ?
(a) Cow (b) Cat (c) Horse (d) Buffalo

40. Sun rises from the
(a) South (b) North (c) West (d) none

41. Which of the following is the biggest ?
(a) Earth (b) Moon (c) Sun (d) Satellite

42. Water content of human body is
(a) 30% (b) 50% (c) 70% (d) none

43. Living beings need,
(a) water only (b) food only
(c) both water and food (d) none

44. We should wash our hands
(a) only before meals (b) only after meals
(c) before and after meals (d) none

45. We should obey
(a) our teachers only (b) our parents only
(c) our brothers & sisters (d) all the above

46. Plants absorb water directly from
(a) ponds (b) rivers (c) lakes (d) none

47. Children learn from
(a) Teacher (b) Mother (c) Father (d) all the above

48. Plastic bags should not be thrown in
(a) drains (b) fields (c) ponds (d) all the above

49. We should brush our teeth,
(a) once in a day (b) twice in a day
(c) thrice in a day (d) none

50. Musical chairs is a game played by
(a) only two persons (b) only one person
(c) a group of people (d) none

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Class-IV (Science)

F.M. : 100
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Instructions :

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1. The growing period of a child inside the mother's body before being born is,
   (a) 10 months (b) 12 months (c) 9 months (d) none
2. Maldives is
   (a) a river (b) an ocean (c) an island (d) none
3. In Manipur, Patriot's Day is observed on
   (a) 14th Nov. (b) 15th Aug. (c) 13th Aug. (d) none
4. Which one of the following is an outdoor game ?
   (a) Chess (b) Ludo (c) Kabadi (d) none
5. Which one of the following is not an outdoor game ?
   (a) Cricket (b) Hockey (c) Football (d) none
6. Which one of the following is not a fighting game ?
   (a) Judo (b) Boxing (c) Kung-fu (d) none
7. The person who sews, and repair our clothes is called
   (a) stitcher (b) tailor (c) clother (d) none
8. The occupation of tailoring can be done by
   (a) man only (b) woman only (c) both man & woman (d)none
9. A person who sells medicines is known as
   (a) Doctor (b) Nurse (c) Pharmacist (d) none
10. A person who sells meat is called
    (a) Cutterr (b) butcher (c) seller (d) none
11. At the time of invention aeroplane could carry only
    (a) one person (b) two persons (c) three persons (d) none
12. Aeroplane was invented on
    (a) 15th Dec. 1903 (b) 17th Dec. 1903 (c) 10th Dec. 1905 (d) none

13. Wilburt Wright was born on
(a) 30th April, 1867 (b) 16th April, 1867 (c) 15th April, 1867 (d) none

14. A person who repair and makes shoes is called
(a) Tailor (b) Butcher (c) Cobbler (d) none

15. Female elephants move with their calves in herds of
(a) 10 to 20 (b) 20 to 30 (c) 15 to 25 (d) none

16. The living groups of lion is called
(a) herds (b) prides (c) bunches (d) none

17. The group name of fishes is called
(a) herd (b) troop (c) shoal (d) none

18. The group name of monkeys is called
(a) pride (b) troop (c) herd (d) none

19. Termites live in their house called
(a) terminology (b) termit house (c) termitary (d) none

20. An elephant uses its ear to
(a) protect from enemy (b) keep the body cool
(c) save from wind (d) none

21. Bats use their big ears to
(a) find prey (b) escape from enemies
(c) hearing (d) all the above

22. Ears of birds are so small, but they are
(a) powerless (b) powerful (c) very weak (d) none

23. Which one of the following do not possess external ear ?
(a) Bears (b) Cats (c) Frogs (d) none

24. The animal which do not have body hair is
(a) Cows (b) Cats (c) Snakes (d) none

25. Those animals which do not lay eggs but give birth to young ones are called
(a) amlae (b) producers (c) mammals (d) none

26. Camels have
(a) thick hairs (b) little hairs (c) long hairs (d) none

27. In a hive, bees live together in about
(a) 500 to 80,000 (b) 500 to 8000 (c) 50,000 to 80,000 (d) none

28. Bee produces a chemical known as
(a) phenols (b) phenylls (c) pheromones (d) none

29. During the time of famine, people eat a root called
(a) chessnut (b) cassava (c) eating root (d) none

30. The root which we eat is
(a) turnip (b) potato (c) ginger (d) none

31. The calyx is the outermost whorl composed of
(a) petals (b) stamens (c) sepals (d) none

32. The ovules of a flower are present
(a) inside the anther (b) inside the ovary (c) outside the ovary (d) none

33. The stigma of a flower is present on the
(a) stamens (b) petals (c) carpels (d) none

34. Which one of the following is not an agent of pollination ?
(a) wind (b) bird (c) insects (d) none

35. The sugary liquid produced by plants to attract the bees is called
(a) honey (b) aroma (c) nectar (d) none

36. The branch of Science which deals with processing and production of flower is known as
(a) agriculture (b) floriculture (c) pisciculture (d) none

37. Cutting down of trees in large scale is known as
(a) afforestation (b) deforestation (c) environmentation (d) none

38. The fruits of pine are
(a) edible (b) not edible (c) sour (d) none

39. Dairy workers gather milk and produce
(a) sugar (b) glucose (c) cheese (d) none

40. Milk teeth begin to fall as a child attains
(a) 12 yrs. (b) 10 yrs. (c) 6 yrs. (d) none

41. An adult (person) has
(a) 3 types of teeth (b) 2 types of teeth (c) 4 types of teeth (d) none

42. At the age of three children have
(a) 15 teeth (b) 20 teeth (c) 25 teeth (d) none

43. The strong, sharp claws of eagles are known as,
(a) colons (b) Talons (c) Nanons (d) none

44. The number of toes present in a bird is
(a) 2 (b) 3 (c) 4 (d) 5

45. Varanasi is situated on the bank of the
(a) Godavari river (b) Tapti river (c) Ganga river (d) none

46. Nambul river finally fall into the
(a) Waithou lake (b) pumland lake (c) Loktak lake (d) none

47. Which one of the following does not make nest of its own ?
(a) crow (b) kite (c) cuckoo (d) none

48. Cows live in
(a) coop (b) dens (c) shed (d) none

49. Spiders make their
(a) nest (b) web (c) net (d) none

50. Rats live safely in the
(a) nest (b) gap of wood (c) burrows (d) none

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Class-V (Science)

F.M. : 100
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Instructions :

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1. People who keep on moving for their livelihood are called
   (a) Roamer (b) Shelter (c) Nomads (d) none
2. The partition of India into India and Pakistan took place in
   (a) 1987 (b) 1967 (c) 1947 (d) none
3. Sagol Kangjei is played with
   (a) 10 players in each side (b) 12 players in each side
   (c) 7 players in each side (d) none
4. Which one of the following is the indigenous game of India ?
   (a) Table Tennis (b) Judo (c) Hockey (d) none
5. The game "Judo" is originated from
   (a) China (b) Japan (c) Korea (d) none
6. The martial art named "Karate" originated from
   (a) Manipur (b) China (c) India (d) none
7. The traditional game "Hiyang Tannaba" of Manipur is held in the month of
   (a) December (b) March (c) October (d) none
8. "Kang" is an indoor game played
   (a) on a tree (b) on a mud floor (c) on a cemented floor (d) none
9. Manipuri style of wrestling is played between
   (a) one male & one lady (b) two male rivals (c) two lady rivals (d) none
10. All kinds 0f labour is regarded as dignified in the present age, in
    (a) India only (b) America only
    (c) every progressive countries (d) none

11. Insects have
(a) one type of eyes (b) two types of eyes (c) three types of eyes (d) none

12. Animals find their food with the help of their
(a) eyes only (b) sense organs (c) nose only (d) none

13. Simple eyes of insects can detect changes of
(a) sound (b) smell (c) day & night (d) none

14. Compound eyes of insects are made up of
(a) two simple eyes (b) three simple eyes
(c) thousands of small eyes (d) none

15. Eagles can see four times as far as
(a) we can (b) a dog can (c) a snake can (d) none

16. Water can be lifted from bore-holes by sinking tubes into the earth , such device is called
(a) earthwells (b) tubewells (c) deepwells (d) none

17. Spiders have good sense of
(a) sight (b) hearing (c) smell (d) none

18. Sharks have good sense of
(a) hearing (b) sight (c) smell (d) none

19. Squirrels have great sense of
(a) hearing only (b) smell only (c) smell and hearing (d) none

20. Earthworms help farmers by making the soil
(a) damage (b) fertile (c) hardy (d) none

21. The process of treating skins of dead animals to make them more strong is called
(a) screening (b) foaming (c) tanning (d) none

22. Pears are obtained from the sea animals called
(a) Corals (b) Oyster (c) Pieses (d) none

23. People who illegally hunt birds or animals are called
(a) hunter (b) killer (c) poacher (d) none

24. The state animal of Manipur is
(a) Nongin (b) Sangai (c) Parrot (d) none

25. The uniqueness of Keibul Lamjao National Park is because its
(a) Sinking park (b) floating park (c) watery park (d) none

26. Our state animal “Sangai” is found in
(a) Delhi (b) Assam (c) Manipur (d) none

27. The bird “Nongin” is found mainly in
(a) Tamenglong district (b) Ukhrul district
(c) Senapati (d) none

28. There are many identified Tiger rerves in our country, but Elephant reserves is
(a) 35 (b) 25 (c) 20 (d) none

29. Vegetative propagation is done for
(a) cabbage (b) potato (c) mustard (d) none

30. The process by which all the living beings reproduce their own kind is called
(a) multiplication (b) explanation (c) reproduction (c) none

31. Mushrooms can be reproduced from their
(a) leaves (b) spores (c) roots (d) none

32. Fern plant can be reproduced from the
(a) seed only (b) spores (c) branch only (d) none

33. The plant which can be multiplied by using their root is
(a) potato (b) carrot (c) ginger (d) none

34. Which one of the following is not a stem ?
(a) ginger (b) potato (c) radish (d) none

35. The embryo of a seed becomes a new
(a) root (b) branch (c) plant (d) leaf

36. The growth of a baby plant from a seed is called
(a) growing (b) living (c) germination (d) none

37. The outer hard covering of a seed is called
(a) seed envelope (b) seed guard (c) seed coat (d) none

38. The plumule of a seed will produce
(a) the root (b) the stem (c) the soil (d) none

39. The process of spreading seeds to different places is called
(a) contribution of seed (b) roaming of seed (c) dispersal of seed (d) none

40. The seed which is not dispersed by water is
(a) seeds of Thangjing (b) coconut (c) seed of water lily (d) none

41. In big cities, the municipal corporations set up zones of trees called
(a) green zone (b) green house (c) green belt (d) none

42. The World Environment Day is observed every year on
(a) 5th December (b) 15th June (c) 15th June (d) None

43. Those farmers who migrate from one place to another for cultivation are known as
(a) Tenant farmers (b) subsistence farmers
(c) big farmers (d) marginal farmers

44. The Bengal famine occurred in August
(a) 1955 (b) 1945 (c) 1965 (d) none

45. The saliva changes starch into
(a) sugar (b) glucose (c) energy (d) none

46. In hot regions of Rajasthan the houses are made of thick
(a) wooden wall (b) brick wall (c) earth wall (d) none

47. The house named igloos are made of
(a) bricks (b) stones (c) ice-bergs (d) none

48. All worker ants are
(a) males (b) females (c) males & females (d) none

49. A bee colony has
(a) one queen (b) two queens (c) three queens (d) none

50. Which one of the following is not a natural disaster ?
(a) flood (b) fire (c) earthquake (d) none

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Class-VI (Science)

Instructions :

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1. The process of conversion of water vapour into its liquid state is called
   (a) evaporation (b) condensation (c) sedimentation (d) none
2. Separation of sugar from tea can be done with,
   (a) filtration (b) decantation (c) evaporation (d) none
3. Choose the reversible change from the following
   (a) ripening of mango (b) souring of milk (c) cooking of food (d) none
4. In a flower, the ovules are present
   (a) outside the ovary (b) inside the ovary (c) inside the anther (d) none
5. Usually, plants manufacture their foods at their
   (a) stems (b) leaves (c) roots (d) none
6. Plants with weak stem that cannot stand upright but spread on the ground are called
   (a) climbers (b) herbs (c) shrubs (d) none
7. Midrib of a leaf runs prominently at the
   (a) margin of the leaf (b) middle of the leaf
   (c) apex of the leaf (d) none
8. Deficiency of Vitamin-C causes a disease known as
   (a) Anaemia (b) Goitre (c) Scurvey (d) none
9. Silk fibre is drawn from the cocoon of
   (a) earthworm (b) silkworm (c) ringworm (d) none
10. Ginning of cotton was traditionally done
    (a) by animals (b) by machine (c) by hand (d) none
11. The process of making yarn from fibre is called
    (a) weaving (b) knitting (c) ginning (d) none

12. Which one of the following is not a synthetic fibre ?
(a) nylon (b) wool (c) polyester (d) none

13. Which of the following substance is insoluble in water ?
(a) salt (b) sugar (c) chalk powder (d) none

14. Which is the opaque material among the following ?
(a) glass (b) wood (c) oiled paper (d) none

15. Which one of the following is not from the animals ?
(a) milk (b) eggs (c) mustard oil (d) none

16. The animals which eat both plants and animals are called
(a) carnivores (b) omnivores (c) man eater (d) none

17. Bees store the nectar for their use
(a) for 6 month only (b) for 1 month only (c) all through the year (d) none

18. Which one of the following is not a carnivore ?
(a) dog (b) cat (c) deer (d) none

19. Vitamins help in protecting our body against
(a) pain (b) hunger (c) diseases (d) none

20. Our body uses calcium for bone and teeth formation with the help of
(a) Vitamin-C (b) Vitamin-D (c) Vitamin-B (d) none

21. At the time of birth the human skeleton is composed of around
(a) 205 bones (b) 503 bones (c) 305 bones (d) none

22. At the chest of human body, the total number of ribs present is
(a) 12 (b) 44 (c) 24 (d) none

23. Earthworm moves with the help of
(a) legs (b) skin (c) muscle (d) none

24. A cockroach has two pairs of
(a) eyes (b) legs (c) wings (d) none

25. The bones of birds are
(a) solid and thin (b) hollow and light (c) hard and big (d) none

26. Camels excrete small amount of
(a) sweat (b) urine (c) dung (d) none

27. Which of the following is not a characteristics of a living organism ?
(a) needs food (b) needs air (c) grows (d) none

28. The main function of long hairs of yaks is
(a) to protect from enemies (b) to keep them warm
(c) to keep them cool (d) none

29. Which one of the following organism do not have gills ?
(a) fish `(b) whale (c) frog (d) none

30. Ovary of a flower is present at the lower portion of
(a) the sepal (b) the petal (c) the pistil (d) none

31. The place where a particular group of organisms live is called its
(a) house (b) nest (c) habitat (d) none

32. Earthworms breathe through their
(a) nostril (b) mouth (c) skin (d) none

33. One kilometer is equal to
(a) $1x10^3$ cm (b) $1x10^3$ mm (c) $1x10^6$ mm (d) none

34. Which of the following is incorrect ?
(a) 1 litre = 1000 ml (b) SI unit of volume is m^3
(c) 1 hour = 3600 seconds (d) none

35. The broad, green part of the leaf is called
(a) Apex (b) petiole (c) lamina (d) none

36. Transpiration takes place at the
(a) roots (b) leaves (c) flowers (d) none

37. The innermost part of a flower is called the
(a) petal (b) sepal (c) pistil (d) none

38. The parts of a pistil are
(a) sepal, petal & petiole (b) arial, apex & carpel
(c) stigma, style & ovary (d) none

39. One metre is equal to the
(a) 10 times of 1 cm (b) 100 times of 1 cm
(c) 1000 times of 1 cm (d) none

40. Which one of the following is the correct relation ?
(a) 1 km = 10^3 cm (b) 1 km = 10^3 m (c) 1 km = 10^3 mm (d) none

41. The SI unit of length is
(a) kilometre (b) centimeter (c) metre (d) none

42. The height of a person is 0.65 metre, then the height of the person in terms of centimetre will be
(a) 6.5 cm (b) 65 cm (c) 650 cm (d) none

43. Which one of the following is not the luminous object ?
(a) Sun (b) Star (c) Moon (d) none

44. Which one of the following is not opaque ?
(a) glass (b) plastic (c) wood (d) none

45. The objects not having its own light is called
(a) luminous (b) opaque (c) non-luminous (d) none

46. An electric cell has
(a) one terminal (b) two terminals (c) three terminals (d) none

47. Those substances through which electric current can pass are called
(a) opaque (b) conductors (c) insulators (d) none

48. A simple device that is used to either break or complete the electric circuit is called
(a) cell (b) battery (c) switch (d) none

49. An electric bulb has
(a) one terminal (b) two terminals (c) four terminals (d) none

50. Light travels in
(a) zig zag line (b) curve line (c) straight line (d) none

21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-VII (Science)

F.M. : 100
Time : 1hrs.

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
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1. The living organisms which make their food themselves are called
   (a) heterotrophs (b) autotrophs (c) cytotrops (d) none
2. The bodies of living organisms are made of tiny units called
   (a) nucleus (b) membranes (c) cells (d) none
3. The green pigment present in the leaves are called
   (a) vessels (b) chlorophyll (c) cytoplasm (d) none
4. The pores present on the surface of leaves are called
   (a) membrane (b) stomata (c) guard cells (d) none
5. During the photosynthesis of plants
   (a) nitrogen is released (b) carbon dioxide is released
   (c) oxygen is released (d) none
6. Chlorophyll is present in the
   (a) roots (b) leaves (c) branches (d) none
7. The process of breakdown of complex food into the simpler forms is called
   (a) ingestion (b) nutrition (c) digestion (d) none
8. The first set of teeth which grows during infancy is called
   (a) white teeth (b) permanent teeth (c) milk teeth (d) none
9. The wind pipe carries air from the nostrils to the
   (a) heart (b) liver (c) lungs (d) none
10. Our human stomach is
    (a) L-shape (b) U-shape (c) J-shape (d) none
11. In the human body, the largest gland is
    (a) pancreas (b) liver (c) kidneys (d) none

12. Bile juice is secreted by the
(a) gall bladder (b) kidneys (c) stomach (d) none

13. The role of bile juice in digestion is to digest the
(a) protein (b) fats (c) carbohydrates (d) none

14. The length of large intestine is about
(a) 2.5 m (b) 0.5 m (c) 1.5 m (d) none

15. Silk fibres come from
(a) moth (b) silkmoth (c) sheep's moth (d) none

16. Pashmina shawls are made from the fur of
(a) Angora goats (b) Tibet goats (c) Kashmiri goats (d) none

17. Sheepsare reared for their
(a) meat (b) wool (c) bone (d) none

18. The process of taking out threads from cocoon for use as silk is called
(a) refining the silk (b) filtering the silk (c) reeling the silk (d) none

19. The instrument which is used to measure the temperature of a body is called
(a) Barometer (b) Calorimeter (c) Thermometer (d) none

20. The normal temperature of human body is
(a) 35^0c (b) 27^0c (c) 37^0c (d) none

21. Generally, the heat is transferred by the process of conduction in
(a) liquids (b) gases (c) solids (d) none

22. Which one of the following is not a conductor ?
(a) copper (b) silver (c) plastic (d) none

23. Usually, sea breeze occurs at the
(a) night time (b) day time (c) both day and night (d) none

24. Wool is
(a) poor conductor of heat (b) good conductor of heat
(c) good conductor of electricity (d) none

25. Heat can flow from one object to another in
(a) one mode (b) two modes (c) three modes (d) none

26. The substance which do not change the colour of red and blue litmus are known as
(a) acidator (b) indicator (c) neutral (d) none

27. The blue litmus can be changed into red by
(a) bases (b) acids (c) neutral substances (d) none

28. Rusting of iron is a
(a) physical change (b) chemical change (c) reversible change (d) none

29. When carbon-dioxide is passed through lime water
(a) magnesium chloride is formed (b) sodium carbonate is formed
(c) calcium carbonate is formed (d) none

30. Rainfall is measured by an instrument called
(a) barometer (b) sonometer (c) rain gauge (d) none
31. All the changes in the weather of a place are caused by the
(a) moon (b) sun (c) star (d) none
32. Warm air is lighter than the
(a) hot air (b) cold air (c) moving air (d) none
33. In Japan, a cyclone is known as
(a) Hurricane (b) Tornado (c) Typhoon (d) none
34. A violent Torando can travel at the speed of about
(a) 500 km/h (b) 300 km/h (c) 200 km/h (d) none
35. The rotting dead matter in the soil is called
(a) clay (b) humus (c) silt (d) none
36. The best top soil for growing plants is called
(a) clay soil (b) sandy soil (c) loamy soil (d) none
37. The water holding capacity is highest in
(a) loamy soil (b) sandy soil (c) clay soil (d) none
38. The percolation rate of water is highest in the
(a) loamy soil (b) sandy soil (c) clay soil (d) none
39. The intake of air rich in oxygen into the body is called
(a) respiration (b) exhalation (c) inhalation (d) none
40. The breathing rate is generally read per
(a) hour (b) minute (c)second (d) none
41. Earthworms breathe through their
(a) nostrils (b) lungs (c) skins (d) none
42. The blood vessels which carry oxygen rich blood from heart to other parts of the body is called
(a) veins (b) arteries (c) capillaries (d) none
43. The circulation of blood was discovered by
(a) Columbus (b) Einstien (c) William Harvey (d) none
44. From the kidneys, the urine goes into the
(a) gall bladder (b) diaphram (c) Urinary bladder (d) none
45. A virtual image larger than the object can be produced by a
(a) concave lens (b) convex mirror (c) plane mirror (d) none
46. The male reproductive parts in a flower are
(a) petals (b) stamens (c) pistil (d) none
47. In sexual reproduction a male and a female gamete fuse to form a
(a) pistil (b) zygote (c) angiosperm (d) none
48. The reproductive part of a plant is the
(a) leaf (b) stem (c) flower (d) none
49. The distance moved by the vehicles can be measured with
(a) a stethoscope (b) an odometer (c) a speedometer (d) none
50. The type of magnet present in the electric bell is
(a) permanent magnet (b) a bar magnet (c) an electromagnet (d) none

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F.M. : 100
Time : 1hrs.

Class-VIII (Science)

Instructions :

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1. Which one of the following is not a kharif crop ?
   (a) paddy (b) maize (c) wheat (d) none
2. The supply of water to crops at regular intervals is called
   (a) concentration (b) irrigation (c) cropping (d) none
3. After harvesting the seed grains need to be separated from the chaff by a process called
   (a) winnowing (b) gathering (c) threshing (d) none
4. The disease causing micro organisms are called
   (a) carriers (b) pathogens (c) harmful (d) none
5. Polio is caused by
   (a) bacteria (b) protozoa (c) virus (d) none
6. Common cold is caused by
   (a) bacteria (b) virus (c) fungi (d) none
7. Which one of the following is the communicable disease ?
   (a) Diabetes (b) Cholera (c) Cancer (d) none
8. Pasteurisation is discovered by
   (a) Alexander (b) Rombus (c) Hennery (d) none
9. Which of the following is an antibiotic ?
   (a) sodium hydroxide (b) alcohol (c) yeast (d) streptomycin

10. The process of conversion of sugar into alcohol is called
    (a) nitrogen fixation (b) moulding (c) fermentation (d) infection
11. The first fully synthetic fibre is
    (a) rayon (b) nylon (c) polyester (d) none
12. Which one is not the thermosetting plastic ?
    (a) melamine (b) polythene (c) bakelite (d) none
13. Rayon is different from synthetic fibres because
    (a) it has silk like appearance (b) it is obtained from wood pulp
    (c) its fibre can be wooven like those of natural fibre (d) none
14. Choose the most reactive metal from the given below
    (a) copper (b) zinc (c) iron (d) none
15. In general, metallic oxides are
    (a) acidic in nature (b) basic in nature (c) neutral in nature (d) none
16. Which of the following can be beaten into thin sheets ?
    (a) phosphorus (b) zinc (c) oxygen (d) none
17. Coke is a pure form of
    (a) oil (b) stone (c) carbon (d) none
18. Natural gas (CNG) is used as a fuel for transport because, it produces
    (a) high smoke (b) less pollution (c) less power (d) none
19. The process in which a substance react with oxygen to give off heat and light is called
    (a) reaction (b) evolution (c) combustion (d) none
20. The lowest temperature at which a substance catches fire is called its
    (a) burning temperature (b) combusting temperature
    (c) ignition temperature (d) none
21. The non-luminous zone of a flame has the
    (a) lowest temperature (b) highest temperature
    (c) moderate temperature (d) none
22. The calorific value of a fuel is expressed in
    (a) kilo joule per kg (b) kilo joule per gm (c) kilo joule per lb (d) none
23. The fuel with the highest calorific value is
    (a) coal (b) LPG (c) hydrogen (d) none

24. Which is not the milch animal ?

(a) eagle (b) goat (c) cow (d) none

25. Removal of cattles that are not healthy and with low milk yield from the farm is called

(a) selection (b) screening (c) weeding (d) none

26. The father of white revolution in India is

(a) Dr. Ambedkar (b) Dr. Homio Bhaba (c)Dr. V. Kurein (d) none

27. The scientific name of Pengba is

(a) Labeo bata (b) Acantopsis (c) Glytothorax (d) none

28. The rearing of bees for honey is called

(a) peciculture (b) apiculture (c) sericulture (d) none

29. Weeds are controlled by using certain chemicals called

(a) pesticides (b) harvecides (c) weedicides (d) none

30. The single celled organisms are called

(a) monocellular (b) unicellular (c) millicellular (d) none

31. The green coloured plastids are called

(a) leucoplasts (b) chromoplasts (c) chloroplasts (d) none

32. The process of fusion between the egg and the sperm is called

(a) immunization (b) fermentation (c) fertilization (d) none

33. Menstruation occurs once in about

(a) 20 to 28 days (b) 28 to 30 days (c) 25 to 35 days (d) none

34. Chromosomes present in the nucleus of cells of human being is

(a) 46 pairs (b) 13 pairs (c) 23 pairs (d) none

35. In humans, the vocal sound is produced by the

(a) tongue (b) larynx (c) vocal cord (d) none

36. In humans throat consist of

(a) two vocal cords (b) three vocal cords (c) one vocal cord (d) none

37. Sound can’t travel through the

(a) liquids (b) solids (c) vacuum (d) none

38. The human audible frequencies is roughly from

(a) 200 to 2000 Hz (b) 25 to 25,000 Hz (c) 20 to 20,000 Hz (d) none

39. The process of depositing a layer of any desired metal on another material by means of electricity is called

(a) electrolysis (b) electroplating (c) electrocution (d) none

40. The unit of frequency is expressed in

(a) decibel (b) hertz (c) amplitude (d) none

41. The force per unit area is called

(a) loudness (b) pressure (c) pushing (d) none

42. If the amplitude of vibration is large, the sound is

(a) feeble (b) shrill (c) loud (d) none

43. The passage of an electric current through a solution causes

(a) lightning effect (b) chemical effect (c) magnetic effect (d) none

44. Current flows through an electrolyte, due to

(a) movement of electrons (b) movement of ions

(c) movement of water molecules (d) none

45. The loudness of sound depends on its

(a) frequency (b) amplitude (c) oscillation (d) none

46. Rolling friction is

(a) greater than the sliding friction (b) same to the sliding friction

(c) smaller than the sliding friction (d) none

47. The force exerted by a charged body on another charged or uncharged body is known as

(a) electromagnetic force (b) electrostatic force

(c) frictional force (d) none

48. Objects fall towards the earth because it pulls them. This force is called

(a) activial force (b) dignified force (c) gravitational force (d) none

49. Choose the correct statement

(a) cell wall is not found in plant cells

(b) vacuoles in animal cells are much smaller

(c) cell membrane is found in the plant cells

(d) none

50. The testes produce the male gametes called

(a) eggs (b) sperms (c) zygote (d) none

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Class-IX(Science)

F.M. : 100
Time : 1hrs.

Instructions :

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1. Water at 0^0C changes into ice with temperature remaining unchanged. The process
   a) absorps heat b) releases heat
   c) neither absorps nor releases heat d) is irreversible.
2. Which of the following can not be considered a form of matter?
   a) atom b) moisture c) dust d) none.
3. Because of which of the following, temperature remains constant when a substance changes from one form to another?
   a) loss of heat b) absorption of heat
   c) latent heat d) lattice energy.
4. The most suitable conditions for liquefaction of a gas are
   a) increase temperature & decrease pressure
   b) increase pressure & decrease temprature
   c) decrease temperature & decrease pressure
   d) increase temperature & increase pressure.
5. When a spoonful of salt is dissolved in a bucketful of water, volume of water does not increase because
   a) salt is solid and water is liquid b) salt reacts with water
   c) there are no spaces between the particles of matter d) there are spaces between the particles of matter
6. Which of the following is likely to diminish its size when kept for a long time in open air ?
   a) a block of camphor b) a naphthalene ball
   c) ammonium chloride crystals d) all the above.

7. A non-metal yet a good conductor is

a) aluminium b) silicon c) graphite d) gold.

8. Which of the following contains maximum number of molecules?

a) 1g CH_4 b) 1g H_2 c) 1g N_2 d) 1g CO_2.

9. The formula of a compound is AB, if A is divalent then the valency of A is

a) 0 b) 1 c) 2 d) 3.

10. Which of the following represent a correct formula ?

a) CaCl b) $CaNO_3$ c) $Ca_3(PO_4)_2$ d) $Ca(SO_4)_2$

11. Choose the incorrect statement

a) Isotopes contain equal number of protons

b) Isobars contain equal number of neutrons

c) Electrons & protons have equal but opposite charges

d) None of the above.

12. Which of the following has completely filled shells?

a) Na^+ b) Ne c) Mg^{2+} d) all the above.

13. An atom is electrically neutral because the charge on

a) neutron is zero b) eletron is negative

c) protron is positive d) electron and proton are equal and opposite.

14. The symbol of an element is As. Its name is

a) Astatine b) Arsenic c) Antimony d) Silver.

15. The latin name of Antimony is

a) Stannum b) Argentum c) Stibium d) Plumbum.

16. Which of the following is incorrect statement?

a) The atomic mass of Hydrogen is 1u b) The molecular mass of NaCl is 35.5u

c) The formula mass of NaCl is 35.5u d) None.

17. Which of the following is a balanced chemical equation?

a) $C(s) + O_2(g) \rightarrow CO_2(g)$ b) $Mg(s) + 2HCl(aq) \rightarrow MgCl_2(aq) + H_2(g)$

c) $N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$ d) All the above.

18. An object of mass 2kg is sliding on a frictionless horizontal table with a constant velocity of 4m/s, the force required to keep the object moving with the same velocity is

a) 0N b) 2N c) 8N d)32N.

19. Action and Reaction always

a) act on the same body in opposite direction b) act in different bodies in opposite direction

c) have same magnitude and direction d) are not related.

20. The speed of a car weighing 1500kg increases from 36km/h to 72km/h uniformly. What will be the change in momentum of the car?
    a) 15000kgm/h b) 1500kgkm/s c) 15000 kgm/s d) None.
21. If a living cell is imersed in a saturated solution of salt it will
    a) swell up b) burst c) shrink d) remain unchanged.
22. In a prokaryotic cell, which of the following is/are not absent
    a) mitochondria b) chloroplasts c) golgi bodies d) chromosome.
23. Oxysomes are present in
    a) lysosomes b) chromosomes c) mitochondria d) nucleus.
24. Choose the odd term
    a) karyokinesis b) cytokinesis c) amitosis d) osmosis.
25 Which of the following is not a connective tissue?
    a) ligament b) epethelium c) tendon d) blood.
26. The type of cell not found in Xylem is
    a) Trachieds b) Vessels c) Parenchyma d) Sieve tubes
27. Occurrence of varience in organisms is due to
    a) amitosis b) mitosis c) meiosis d) all the above
28. Which of the following is incorrectly matched in Taxonomic classification?
    a) Phylum - Chordata b) Species - Primates
    c) Genus - Hominidae d) Species - Homosapiens
29. A microscopic organism with chlorophyll like a plant and muscle fibres like an animal is
    a) Amoeba b) Parmacium c) Euglena d) Mushroom.
30. Unicellular, eukaryotic organisms while some are multicellular. These are characteristics of kingdom
    a) Monera b) Protista c) Fungi d) Planta.
31. Plants included in Thallophyta have
    a) true roots b) no Xylem tissue c) true leaves d) no chloroplasts
32. More than 90% of all plants on earth are included in
    a) Gymnosperms b) Bryophytes c) Angiosperms d) Pteridophytes.
33. Fishes are included in the class
    a) Cyclostoma b) Placodermi c) Osteichthyes d) all the above.
34. A bacterium that produces toxins in the small intestine after the contaminated food is eaten,is
    a) staphylococus aureus b) Clostridium perfringens
    c) Mycobacterium tuberculosis d) none.
35. Salmonella typhi is
    a) a virus b) a protozoan c) a bacterium d) a fungus.
36. Chronic malaria is not caused by
    a) P. falciparum b) P. vivax c) P. ovale d) none.

37. In 1905 Nobel Prize for medicine was given to

a) Robert Frost b) Robert Boyle c) Robert Koch d) A. Flamming.

38. A stone is released from the top of a tower of height 19.6m. The final velocity of the stone just before hitting the ground will be (take $g = 9 \cdot 8 m/s$)

a) $384 \cdot 6 m/s$ b) 196m/s c) $19 \cdot 6 m/s$ d) $9 \cdot 8 m/s$.

39. Two particles are placed at some distance. If the masses of each particle is doubled and distance shortened by half, the value of gravitational force between them will be

a) 1/4 times b) 4 times c) 1/2 times d) unchanged.

40. On increasing the temperature, the speed of sound in air

a) increases b) decreases c) remains unchanged d) none

41. Musical instruments are adjusted with one another before starting a concert. What factor of sound is being adjusted?

a) amplitude b) frequency c) loudness d) intensity.

42. Speed of a wave is 380m/s and its frequency is 1900Hz. The wavelength of the given wave is

a) 20m b) 380m c) $0 \cdot 2 cm$ d) $0 \cdot 2 m$.

43. A saline solution contains 50g of salt in 450g of water. The mass by mass percentage concentration of the solution is

a) $10 \cdot 7\%$ b) $0 \cdot 1\%$ c) 10% d) 9%.

44. Calculate the mass of Aluminium prsent in 51g of Al_2O_3 (Atomic mass of Al=27) is

a) 54g b) 27g c) 18g d) 36g.

45. Which of the following is an incorrect relation of motion?

a) $s = ut + \frac{1}{2}at^2$ b) $v = u + at$ c) $v^2 - u^2 = 2as$ d) none.

46. A body of mass 10kg at rest is accelerated at $10 m/s^2$ in 10sec.

What is the momentum of the body?

a) 10kgm/s b) 100kgm/s c) $1000 kgm/s^2$ d) 1000kgm/s.

47. Three stones of masses $m_1 > m_2 > m_3$ are dropped from a tower at the same time.

Assumming no disturbance the time taken by the stones $t_1, t_2,$ and t_3 will be

a) $t_1 > t_2 > t_3$ b) $t_3 > t_2 > t_1$ c) $t_3 = t_2 = t_1$ d) not related .

48. Choose the odd one in terms of their SI units

a) Work b) Energy c) Heat d) Power.

49. The work done by a machine at the rate of 1000 watts in one hour is expressed as

a) 1000 hp b) 1hp c) 1KWh d) 1J

50. From the soil plants can absorp

a) capillary water only b) hygroscopic water only

c) gravitational water only d) all the above.

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Class-III (Maths.)

F.M. : 100
Time : 1½hrs.

Instructions :

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1. The number just before 9990 is
   (a) 991 (b) 9909 (c) 9988 (d) 9989
2. The sum of the place value and face value of 6 in 5642 is
   (a) 600 (b) 660 (c) 066 (d) 606
3. The sum of the largest 3-digit number and the smallest 3-digit number is
   (a) 1099 (b) 1009 (c) 1900 (d) 1090
4. _____ place lies left to the hundreds place in a number system
   (a) tens (b) thousands (c) ones (d) none
5. Division is the process of repeated
   (a) Multiplication (b) Subtraction (c) Addition (d) none
6. 1840 less than 15349 is equal to
   (a) 12509 (b) 3509 (c) 17149 (d) none
7. By how much the sum of 4382 and 6593 is more than the difference of the numbers?
   (a) 7764 (b) 8764 (c) 4972 (d) none
8. If zero is devided by any non zero number, the quotient is
   (a) that number itself (b) dividend (c) infinity (d) zero
9. If $5 \times 3 = 15$, its division fact is
   (a) $3 \times 5 = 5$ (b) $15 \times 3 = 5$ (c) $15 \div 3 = 5$ (d) none
10. The standard unit of length is
    (a) kilogram (b) kilometre (c) centimetre (d) metre
11. One fourth of a kilogram is equal to
    (a) 750 grams (b) 250 grams (c) 1000 grams (d)500 grams
12. $480ml + 830ml - 26ml =$ _____ ml
    (a) 1483 (b) 1362 (c) 1336 (d) 1284

13. Chaoba drives to school for 1 hour 05 mins and on the way back home he takes 1 hour 15 mins. Find how long did Chaoba drive his car ?
(a) 2 hr 40 min (b) 2 h 50 min (c) 2 h 20 min (d) none

14. 12 weeks and 4 days is equal to
(a) 90 days (b) 84 days (c) 88 days (d) 48 days

15. The weight of a packet is 84 *kg* 430 *g*. Find the weight of such 12 packets.
(a) 84330 *g* (b) 84430 *g* (c) 103*kg*, 160 *g* (d) none

16. A girl runs 620 *m* in 1 minute. Find the distance covered by her in 15 minutes.
(a) 3900 *m* (b) 605 *m* (c) 635 *m* (d) 9300 *m*

17. Convert 3 *kg* 675 *g* into grams
(a) 678 *g* (b) 3575 *g* (c) 3675 *g* (d) none

18. Fill in the blank $490g = 307g +$ _____
(a) 138 *g* (b) 797 *g* (c) 3675 *g* (d) none

19. Kilometre and metre are denoted respectively by the symbols
(a) *"kg"* and *"m"* (b) *"t"* and *"g"* (c) *"km* and *"m"* (d) none

20. To convert grams into kilograms, we have to _____ by 1000.
(a) subtract (b) add (c) devide (d) multiply

21. There are _____ centimetres in one metre.
(a) 100 (b) 10 (c) 1000 (d) 1

22. 9 times _____ is 1800
(a) 100 (b) 20 9c) 200 (d) 2000

23. $2 \times 3 \times 4 =$ _____$\times 2$
(a) 10 (b) 12 (c) 7 (d) 6

24. The _____ of any number and 0 is 0
(a) sum (b) difference (c) product (d) none

25. _____ days = 2 years.
(a) 730 (b) 365 (c) 366 (d) 200

26. $475 \times 2 \times 30 =$ _____$\times 475$
(a) 50 (b) 60 (c) 475 (d) none

27. Number of legs of 20 camels is
(a) 40 (b) 20 (c) 100 (d) 80

28. 3 tens + 4 hundreds + 9 ones gives
(a) 349 (b) 439 (c) 943 (d) 4039

29. How many lines can be drawn passing through two points
(a) infinite (b) two (c) one (d) none

30. A _____ is bounded by four line segments
(a) triangle (b) square (c) cone (d) sphere

31. Football is an example of _____
(a) rectangle (b) square (c) sphere (d) triangle

32. The numbers which are divisible by 5 have its _____ place as 5 or zero.
(a) ones (b) tens (c) hundreds (d) none

33. 567 books are distributed equally to 8 students, then each of them got _____ books and _____ left.

(a) 700 and 7 (b) 70 and 7 (c) 575 and 0 (d) none

34. Find out the correct one

(a) $66 = 10 \times 5 + 6$ (b) $83 = 4 \times 9 + 40$

(c) $74 = 4 \times 15 + 14$ (d) $12 = 3 \times 3 + 2$

35. Three and half dozens of pen are distributed to seven students equally, then how many pens by each student have got?

(a) 6 (b) 60 (c) 16 (d) 50

36. Find the remainder of $64136 \div 8$

(a) 1 (b) 0 (c) 6 (d) 8017

37. How many edges are there in a cube

(a) 16 (b) 8 (c) 12 (d) 6

38. Remainder is always smaller than

(a) 1 (b) divisor (c) product (d) 0

39. 72 students are standing in 6 rows. How many students are there in each row ?

(a) 18 (b) 66 (c) 78 (d) 12

40. Devide the smallest 4-digit number by 10, then the remainder will be

(a) 1 (b) 10 (c) 0 (d) 1111

41. Calculate : $4681 + 92 - 68 - 72,$ the answer is

(a) 4913 (b) 4633 (c) 6433 (d) 3346

42. Tomba earns Rs. 6500 per month, he saves Rs. 1500 per month. What is his monthly expenditure ?

(a) Rs. 8000 (b) rs. 4000 (c) Rs. 5000 (d) none

43. Find the answer : $(4+4+4+4)-(2+2+2+2+2)$

(a) 16 (b) 100 (c) 12 (d) 6

44. Any number plus zero is number _____

(a) itself (b) successor (c) 1 (d) none

45. Any number minus one is its _____

(a) successor (b) 0 (c) predecessor (d) none

46. In a village, there are 465 men, 682 women and 183 children, what is the population of the village?

(a) 2330 (b) 1330 (c) 14330 (d) 3330

47. _____ + 1 = smallest 4-digit number

(a) largest 2-digit number (b) smallest 3-digit number

(c) largest 3-digit number (d) smallest 2-digit number.

48. Half of 50 + 12 dozens =_____

(a) 62 (b) 194 (c) 169 (d) none

49. Besides X, _____ can also be repeated three times in Roman numeral

(a) V (b) I (c) C (d) L

50. The _____ and _____ of 0 is always 0.

(a) successor, place value (b) face value, place value

(c) predecessor, face value (d) none

21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-IV (Maths.)

F.M. : 100
Time : 1½hrs.

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
* *The correct/most appropriate choice should be marked in the answer sheet with a ball point pen only, by darkening the circle. Answer once marked cannot be changed.*
* *If any candidate is found using unfair means of any kind, he or she shall be expelled from the test without any prior warning. Using any calculator/mobile phone/smart watch etc. is strictly prohibited in the exam hall.*
* *Extra sheet will be provided on demand.*
* *The decision of the Assn. with regard to the conduct of exam shall be final & finding to the candidate.*

1. Sum of the smallest and largest number from the following numbers is
98989, 98899, 98988, 98998, 99889

(a) 198878 (b) 198898 (c) 198798 (d) none

2. What number should be subtracted from the smallest 3-digit number to get the largest 2-digit number ?

(a) 991 (b) 91 (c) 90 (d) none

3. How many factors are there of 91 ?

(a) 1 (b) 2 (c) 3 (d) none

4. Find the largest number in $\frac{15}{17}, \frac{15}{18}, \frac{15}{19}, \frac{15}{21}$

(a) $\frac{15}{17}$ (b) $\frac{15}{18}$ (c) $\frac{15}{19}$ (d) $\frac{15}{21}$

5. Tomba's age is 17 years old in 2011. What was his age in 2004 ?

(a) 28 years (b) 37 years (c) 47 years (d) none

6. $0.005 \times 0.09 \times 5 =$ _____

(a) 0.005 (b) 0.00225 (c) 0.025 (d) none

7. A car covered a distance of 522km with 36 litres of petrol. How far can it travel with 14 litres of petrol ?

(a) 223 km (b) 213 km (c) 203 km (d) none

8. Write the correct number to complete the statement $13 \times 100 \times \_\_\_\_\_ = 1300000$

(a) 10 (b) 1000 (c) 10000 (d) none

9. Which one of the following is equivalent to 6.063 ?

(a) 6+0.6+0.3 (b) 6+0.6+0.03 (c) 6+0.06+0.03 (d) none

10. A shopkeeper losses Rs. 120 by selling a radio at Rs. 780. To earn the profit of Rs. 120, for how much he should sell the radio out ?

(a) Rs. 820 (b) Rs. 900 (c) Rs. 720 (d) none

11. Find the sum of two numbers if the first number is 54 and second number when devided by 7 gives 6 as quotient and 2 as remainder.

(a) 44 (b) 54 (c) 94 (d) 98

12. One dozen of days divided by four gives _____ hours

(a) 72 hrs (b) 82 hrs (c) 92 hrs (d) none

13. The number whose place value and face values are always equal is

(a) 1 (b) 0 (c) 2 (d) none

14. A line segment that joins two points on the circumference of a circle is called

(a) chord (b) arc (c) radius (d) none

15. Which of the following is true

(a) C.P = S.P – Loss (b) S.P = C.P + Loss

(c) S.P = C.P + Profit (d) Profit = C.P – S.P

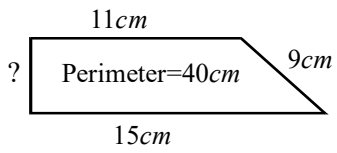
16. The capacity of a syntex is 1000*l*, the capacity of a bucket is 100 *ml*. How many buckets full of water will be required to fill the syntex ?

(a) 5000 (b) 10000 (c) 2000 (d) none

17. What is the length of the missing side ?

(a) 5 *m* (b) 15 *cm*

(c) 5 *cm* (d) none



18. Binoy takes earned leave from 1st January to 30th March in 2012. What is the total number of days he got leave ?

(a) 89 days (b) 90 days (c) 91 days (d) none

19. The smallest prime number and even number is/are

(a) 0 (b) 2 (c) 4 (d) 2 and 4

20. How many one-sixth makes 2 ?

(a) 3 (b) 6 (c) 12 (d) 15

21. 62 hundredths is same as

(a) 0.62 (b) 0.062 (c) 6200 (d) none

22. On order from least to greatest of the numbers 0.99, 0.099, 9.9, 0.9 is

(a) 0.99, 0.099, 9.9, 0.9 (b) 0.99, 9.9, 0.099, 0.9

(c) 9.9, 0.9, 0.99, 0.099 (d) 0.099, 0.9, 0.99, 9.9

23. A closed plane figure with four sides and each side are same in length is called

(a) Hexagon (b) Pentagone (c) Heptagon (d) none

24. 3 hrs 40 minutes equals to

(a) 120 mins (b) 180 mins (c) 220 mins (d) none

25. The area and peremeter of a rectangle of 20 *cm* in length and 15 *cm* in breath is

(a) 70 *cm* and 300 *cm* (b) 300 *sqcm* and 70 *cm*

(c) 90 *sqcm* and 70 *cm* (d) none

26. A man covered 50 *cm* in one step, then the number of steps required to cover one kilometer is

(a) 100 (b) 200 (c) 800 (d) 2000

27. Multiply 89 by 9 and subtract 342 from the product, devide the result by 17. The quotient is

(a) 54 (b) 17 (c) 24 (d) none

28. The sum of first five multiples of 10 is

(a) 250 (b) 300 (c) 100 (d) 150

29. Which of the following fraction is the greatest fraction ?

(a) $\frac{8}{13}$ (b) $\frac{7}{13}$ (c) $\frac{11}{13}$ (d) $\frac{5}{13}$

30. Diameter of a circle with 8 *cm* radius is

(a) 4*cm* (b) 16*cm* (c) 2*cm* (d) none

31. Which one is not correct relationship ?

(a) 100 thousand = 1 lakh (b) 9 KL = 9000 *l*

(c) 10 years = 1 decade (d) 9*m* 9*cm* = 99*cm*

32. $90 + 7 + \frac{9}{100} + \frac{9}{1000} =$ _____?

(a) 9.78 (b) 11.3 (c) 98.88 (d) none

33. What time will it be 3600 seconds after 12 mid night.

(a) 0000 hour (b) 1 a.m. (c) 0002 hrs (d) none

34. Chaoba walks away 3*km* from his home, then he turns back and walk two and half kilometers. How many *km* is Chaoba apart from his home now ?

(a) 2 & half *km* (b) 5 & half *km* (c) 1 & half *km* (d) half *km*

35. How many wheels are there in 12 and half dozens of Auto rickshaw ?

(a) 144 (b) 450 (c) 164 (d) 600

36. Robinson has 72 horses in his firm. He has 6 times as many as his horse as his cow. How many cows Robinson have ?

(a) 16 cows (b) 66 cows (c) 12 cows (d) none

37. Tony has 15 stickers. He wants to put all of them on the cover of his science project. In what way he can put them on the cover with equal number of stickers ?

(a) 3 rows of 5 stickers each (b) 5 rows of 2 stickers each

(c) 3 rows of 6 stickers each (d) 5 rows of 4 stickers each

38. How many 25 paise stamps can you buy for Rs. 200 ?

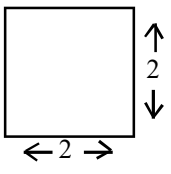
(a) 600 (b) 800 (c) 2000 (d) none

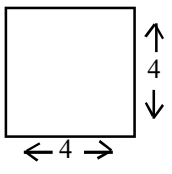
39. The sides of a triangle are 6*cm*, 4*cm* and 5*cm*. The name of the triangle is

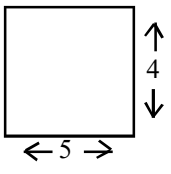
(a) scalene triangle (b) equilateral triangle

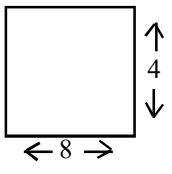
(c) Isoceles triangle (d) none

40. Tinku has a rectangle. The value of the area of his rectangle is half the value of its perimetre. Which of the following is the right figure ?

(a) 

(b) 

(c) 

(d) 

41. Add : $2914909+8430+10+134+644=$

(a) 39,20,127 (b) 29,24,137 (c) 29,24, 127 (d) none

42. Standard unit of time is

(a) minute (b) second (c) day (d) hour

43. The difference of the predecessor and successor of one crore is _____

(a) 2 crore (b) 2 thousand (c) 2 (d) none

44. The given below is the price list of some items in a shop.

Items	Price in Rs. per *kg*
Tomato	28
Onion	36
Potato	30

A man buys 2*kg* of Tomato, $\frac{3}{4}kg$ of onion and 4*kg* of potato, the man gives a 2000 rupee note. How much will the shopkeeper give back to the man ?

(a) 1977 (b) 1797 (c) 977 (sd) non e

45. What is the duration of the time between 4 a.m. and 7 p.m. in a day ?

(a) 16hrs (b) 14hrs (c) 15hrs (d) none

46. Add the smallest and greatest 6 digit numbers that can be formed using the given digits 6, 0, 4, 8, 9, 3.

(a) 12, 91, 119 (b) 22, 91, 129 (c) 92, 11, 384 (d) none

47. How many composite numbers are there between 59 and 79 ?

(a) 12 (b) 14 (c) 15 (d) 13

48. Monalisa can type 155 pages daily. How many pages she can type in the month of November ?

(a) 6650 (b) 5650 (c) 4650 (d) 3650

49. Predeccessor of smallest 10-digit number is

(a) 9999999 (b) 999999999 (c) 9999999999 (d) 999999

50. Addition of $\frac{3}{16}, \frac{4}{16}$ and $\frac{7}{16}$ gives

(a) $\frac{16}{16}$ (b) $\frac{14}{16}$ (c) $\frac{15}{16}$ (d) $\frac{16}{14}$

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ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

F.M. : 100
Time : 1½hrs.

Class-V (Maths.)

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
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1. The difference between the predecessor and the successor of one million is
   (a) 1 (b) 2 (c) 10,00000 (d) 9999999
2. _____ tens make a crore
   (a) 10,000 (b) 10,00,000 (c) 1000 (d) 1,00,00,000
3. $\_\_\_\_\_ \times 2000 = 25,38,000$
   (a) 16921 (b) 25,40,000 (c) 1269 (d) none
4. The successor of 49,99,999 is _____
   (a) 49,99,998 (b) 60,00,000 (c) 50,00,000 (d) none
5. The digit immediate to the left of ten lakhs is
   (a) ten thousand (b) lakh (c) crore (d) none
6. $(45 \times 256 \times 3) \times (10 \times 0) =$ _____
   (a) 6483920 (b) 0 (c) 1 (d) 7483984
7. The sum of all the angles of a quadrilateral is _____.
   (a) 180° (b) 90° (c) 120° (d) 360°
8. We need _____ points to draw a triangle
   (a) 3 collinear (b) 3 non collinear (c) both a& b (d) 2 collinear
9. A common example of a parallel line is
   (a) spokes in a wheel (b) railway track (c) a protractor (d) none
10. _____, _____ and _____ are quadrilaterals
    (a) rectangle, triangle, square (b) square, rectangle, triangle
    (c) rectangle, square, parallelogram (d) rectangle, parallelogram, octagon

11. Two lines are said to be parallel lines if
    (a) they intersect at right angle.
    (b) they meet at a common end point to form an angle
    (c) they do not intersect at any point when extended on both side
    (d) none
12. A pentagon is a polygon with _____
    (a) 4 line segments (b) 9 line segments
    (c) 6 line segments (d) 5 line segments
13. The two hands of a clock at 3.10 forms _____
    (a) an acute angle (b) an obtuse angle (c) a right angle (d) none
14. In a triangle $ABC, \angle A = 30°, \angle B = 60°,$ then the triangle is _____
    (a) an acute angle triangle (b) an isosceles triangle
    (c) a right angle triangle (d) an equilateral triangle
15. Of the following cases, construction of a triangle is not possible ?
    (a) $6cm, 6cm, 10cm$ (b) $5cm, 5cm, 10cm$ (c) $4cm, 5cm, 8cm$ (d) none
16. A triangle with all sides of same length is called _____.
    (a) a scalene $\triangle$ (b) an isosceles $\triangle$ (c) an equilateral $\triangle$ (d) none
17. The diameter of a circle whose radius is $50cm$ is _____
    (a) $80cm$ (b) $1m$ (c) $510cm$ (d) $250cm$
18. An arc is
    (a) any part of the radius (b) any part of the diameter
    (c) any part of the chord (d) any part of the circumstance
19. L.C.M of 13 and 15 is equal with their _____
    (a) addition (b) division (c) product (d) none
20. The least multiple which is common for both 50 and 45 is _____
    (a) 95 (b) 5 (c) 450 (d) 540
21. Find the odd one in the following.
    (a) 63 (b) 45 (c) 81 (d) 71
22. The three numbers whose L.C.M is 900 arc
    (a) 15, 25, 36 (b) 15, 24, 35 (c) 18, 150, 200 (d) 10, 20, 30
23. The greatest prime number between 1 and 100 is
    (a) 93 (b) 99 (c) 97 (d) 89
24. Highest common factor of 90, 45 and 25 is
    (a) 15 (b) 5 (c) 90 (d) 160
25. Which of the following are twin prime ?
    (a) 31 and 37 (b) 7 and 11 (c) 11 and 13 (d) 3 and 7
26. Find out the improper fraction
    (a) $\frac{16}{17}$ (b) $\frac{17}{16}$ (c) $\frac{170}{191}$ (d) $\frac{6}{9}$

27. Mixed fraction for $\frac{60}{19}$ is _____

(a) $3\frac{3}{90}$ (b) $3\frac{3}{19}$ (c) $19\frac{3}{3}$ (d) none

28. $\frac{13}{25}+\frac{11}{10}=$ _____

(a) $\frac{18}{50}$ (b) $\frac{81}{50}$ (c) $\frac{50}{81}$ (d) none

29. A fraction is a part of a

(a) dozon (b) half (c) whole (d) quarter

30. The multiplication of a number and its reciprocal is always _____

(a) zero (b) infinite (c) half the number (d) none

31. Tomba read $\frac{3}{4}$ parts of a book. If the remaining unread page is 25, find the total number of pages of the book.

(a) 1000 (b) 100 (c) 105 (d) 800

32. $\frac{2}{5}+\frac{3}{6}+\frac{9}{10}=$ _____

(a) $\frac{30}{54}$ (b) $\frac{54}{30}$ (c) $\frac{64}{30}$ (d) $\frac{15}{30}$

33. $\frac{2\times10\times100\times1000}{400000000}=$ _____

(a) 0.004 (b) 5 (c) 0.05 (d) 0.005

34. Virat score 65 marks in Maths, 48 marks in Chemistry and 91 in Manipuri. If full mark for each subject is 100. Find his % of mark scored.

(a) 68 (b) 86 (c) 92 (d) 72

35. Find the number whose 45% is 900.

(a) 200 (b) 2000 (c) 405 (d) none

36. Naina was given $1\frac{1}{2}$ piece of cake and Jerina was given $1\frac{1}{3}$ piece of cake. Find the total amount of cake given to both of them.

(a) $\frac{6}{17}$ (b) $2\frac{5}{6}$ (c) $6\frac{2}{5}$ (d) none

37. The product of a fraction and its multiplication inverse is

(a) 0 (b) 1 (c) fraction itself (d) none

38. $5ml =$ _____ % of a litre

(a) 0.005 (b) 0.05 (c) 0.5 (d) none

39. 27.5% of $1kg$ is _____

(a) $27.5g$ (b) $275g$ (c) $2.75g$ (d) $0.275g$

40. Which of the following is equivalent to 0.9% of one lakh

(a) 900 (b) 9 (c) 90 (d) none

41. A book is bought for Rs. 30 and sold for Rs. 25. Find the loss percentage.

(a) 26.7% (b) 16.66% (c) 8% (d) none

42. A dozen of pencils were bought for Rs. 240 and sold for Rs. 30 each. Therefore the profit on each pencil and the total profit is _____ and _____ respectively.

(a) Rs. 10, Rs. 120 (b) Rs. 20, Rs. 120 (c) Rs. 15, Rs. 120 (d) none

43. Where will the hand of a clock stop if it starts at 5 and makes $\frac{3}{4}$ of a revolution clockwise ?

(a) 5 (b) 6 (c) 2 (d) none

44. The length of a rectangular hall is 4 meters less than 3 times the breadth of the hall. What is the length if the breadth is b metres ?

(a) $(4-3b)m$ (b) $(3b-4)m$ (c) $(25\times b)m$ (d) none

45. A room is $4m$ long and $3m$ $50cm$ wide. How many square metres of carpet is needed to cover the floor of the room ?

(a) 14 sqm (b) 16 sqm (c) 18 sqm (d) none

46. What is the distance travelled by Sarita if she takes three complete rounds of a square park of side $70m$.

(a) $940m$ (b) $840m$ (c) $1040m$ (d) none

47. Find the value of $11.06 - 9.847 =$ _____

(a) 1.753 (b) 1.0753 (c) 2.743 (d) none

48. What is the lowest form of the fraction of 13.5 ?

(a) $\frac{135}{100}$ (b) $\frac{100}{135}$ (c) $\frac{27}{2}$ (d) none

49. Add $2\frac{4}{5}+3\frac{5}{6}=$ _____

(a) $7\frac{19}{30}$ (b) $6\frac{19}{30}$ (c) $6\frac{30}{19}$ (d) none

50. A right angle triangle can have _____

(a) one right angle, one acute angle and one obtuse angle

(b) one right angle and two obtuse angle

(c) one obtuse angle and two right angles

(d) one right angle and two acute angles

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H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

F.M. : 100
Time : 1½hrs.

Class-X (Maths.)

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
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1. The value of k when polynomial x^3+3x^2+3x+k is divided by $x+1$ giving remainder 2 is

   (a) 0 (b) 1 (c) 2 (d) 3

2. For any natural numbers n and m 154^n+231^m will be divisible by

   (a) 7 and 11 (b) 7 only (c) 11 only (d) 13

3. The largest number that divides 114 and 217 which leaves the remainder 2 and 7 in each case is

   (a) 98 (b) 14 (c) 9 (d) 88

4. The number of values of x satisfying $|x-2|=3$ is

   (a) 0 (b) 1 (c) 2 (d) 5

5. If $(x-1)$ is a factor of $\sqrt{2}x^2+kx-1$ then the values of $k^2+2\sqrt{2}$ is

   (a) $1+\sqrt{2}$ (b) $3-2\sqrt{2}$ (c) 3 (d) $3+\sqrt{2}$

6. $1234^{13}+999^{13}$ is divisible by

   (a) 2233 (b) 235 (c) 1234 (d) 999

7. If $a^3+b^3+8=6ab$ then

   (a) $a+b+8=0$ (b) $a+b+4=0$ (c) $a+b+6=0$ (d) $a+b+2=0$

8. The graph of $2x+3y=6$ intersect which one of the following equation at only one point

   (a) $4x+6y=12$ (b) $4x+6y=15$ (c) $3x+2Y=6$ (d) none of these

9. If the cost of 5 pens and 4 pencils is equal to the cost of 3 pens and 7 pencils then the ratio of the prices of a pen and a pencil is

   (a) 1:4 (b) 3:2 (c) 4:3 (d) 3:5

10. What is the value of x ?

Statements : (i) $3x+4y=7$ (ii) $6x+8y=10$

Regarding these question and statement, which of the following is correct

(a) statement (i) alone is sufficient to answer the question

(b) statement (ii) alone is sufficient to answer the question

(c) both statement (i) and (ii) are sufficient to answer the question

(d) both statement (i) and (ii) are not sufficient to answer the question

11. If $p+q+1=0$ in the quadratic equation $px^2+qx+1=0$ then one of the roots is

(a) $\frac{1}{q}$ (b) $\frac{1}{p}$ (c) $\frac{1}{p+q}$ (d) $\frac{1}{p-q}$

12. The quadratic equation $px^2+(q-z)x+5=0$ has roots equal in magnitude but opposite in sign.

Then the value of q^3 is

(a) 8 (b) -8 (c) 6 (d) -6

13. If one roots of the equation $x^2-px+q=0$ be twice the other then

(a) $2p^2=9q$ (b) $2q^2=9p$ (c) $9p^2=2q$ (d) $9q^2=2p$

14. The quadratic equation $3px^2-12x+p=0$ has equal roots then the value of $p^2+\sqrt{3}$ is

(a) $3\sqrt{3}$ (b) $\sqrt{3}$ (c) $\sqrt{3}-12$ (d) $12+\sqrt{3}$

15. Had Ram scored 10 more marks in his Mathematics test out of 30 marks, 9 times these marks would have been the square of his actual mark. He got the mark

(a) 6 (b) 10 (c) 15 (d) 18

16. The sum of n terms of an AP is $(3n^2+5n)$. Which of its term is 164 ?

(a) 22^{th} (b) 24^{th} (c) 26^{th} (d) 28^{th}

17. The middle term of AP 2, 6, 10, ..., 146 is

(a) 70 (b) 79 (c) 74 (d) 83

18. The tenth term common to both AP's 3, 7, 11, ... and 1, 6, 11, ... is

(a) 171 (b) 191 (c) 211 (d) none of these

19. The ratio of the perimeter of a triangle formed by joining the mid points of the sides of a given triangle to the perimeter of the given triangle is

(a) 1:4 (b) 1:2 (c) 2:3 (d) 5:4

20. Two towers of height $100m$ and $111m$ stand vertically upright on the surface of ground. If the distance between their feet is $60m$, the distance between their tops is

(a) 61 m (b) 60 m (c) 100 m (d) 111 m

21. The area of an equilateral triangle is $\sqrt{3}$ *sq* unit, then the length of a side is

(a) $\sqrt{3}$ units (b) 3 units (c) $\sqrt{2}$ units (d) 2 units

22. Two concentric circles arc of radii 13*cm* and 5*cm*. The length of the chord of a larger circle which touches the smaller circle is

(a) 12*cm* (b) 24*cm* (c) 6*cm* (d) 18*cm*

23. In the construction of a triangle, if the scale factor is $\frac{3}{5}$ then

(a) the new triangle constructed is greater than the given triangle

(b) the new triangle constructed overlaps the given triangle

(c) the new triangle constructed is congruent to the given triangle.

(d) the new triangle constructed is smaller than the given triangle

24. To draw a pair of tangents to a circle which are inclined to each other at angle of $80°$, it is required to draw tangents at the end points of those two radii of the circle, the angle between them should be

(a) $100°$ (b) $120°$ (c) $60°$ (d) $90°$

25. The value of $6\,\text{Cot}^2\text{A} - 6\,\text{Cosec}^2\,\text{A}+1$ is

(a) -4 (b) 7 (c) 9 (d) -6

26. The value of $\frac{2\tan 30°}{1+\tan^2 30°}$ is

(a) $\sin 30°$ (b) $\sin 60°$ (c) $\cos 45°$ (d) $\cos 60°$

27. The value of $\cos^2 20° + \cos^2 70°$ is

(a) $\sqrt{2}$ (b) 0 (c) 1 (d) none of these

28. If $\tan\theta - \cot\theta = 0,$ then the value of $\sin\theta + \cos\theta$ is

(a) 1 (b) $\frac{1}{\sqrt{2}}$ (c) $\sqrt{2}$ (d) none of these

29. The shadow of a standing tower of height $25\sqrt{3}m$ is found to be 50*m* and 4*m* longer when the sun's elevation changes from $60°$ to $x°$. Then $x°$ is

(a) $45°$ (b) $30°$ (c) $90°$ (d) none of these

30. The angles of elevation of the top of a tower from two points at distances 3*m* and 4*m* from the base and in the same straight line with it are complementary, the height of the tower is

(a) $2\sqrt{3}m$ (b) $3\sqrt{2}m$ (c) 12*m* (d) 7*m*

31. If $1.6m$ tall girl stands at a distance o f $3.2m$ from a lamp-post and cast a shadow of $4.8m$ on the ground the height of the lamp-post is

(a) $\frac{7}{4}m$ (b) $\frac{8}{3}m$ (c) $\frac{5}{2}m$ (d) $\frac{6}{5}m$

32. The ratio of the line joining $(-3,-1)$ and $(-8,-9)$ divided at the point $\left(-5,\frac{-21}{5}\right)$ is

(a) 1:2 (b) 1:3 (c) 4:3 (d) 2:3

33. The area of a triangle is $2sq.$ units and the vertices of the triangle are $(1,-2)$, $(3,4)$ and $(k,3)$ then

(a) $k=2$ (b) $k=3$ (c) $k=4$ (d) $k=6$

34. The points $(a,0),(0,b)$ and $(2,2)$ are collinear if

(a) $\frac{1}{a}+\frac{1}{b}=1$ (b) $\frac{1}{a}+\frac{1}{b}=\sqrt{2}$ (c) $\frac{1}{a}+\frac{1}{b}=2$ (d) $\frac{1}{a}+\frac{1}{b}=3$

35. The radius of a wheel is $0.25cm$ then the number of revolutions it will make to travel a distance of $11km$ is $\left[use,\pi=\frac{22}{7}\right]$

(a) 7000 (b) 1700 (c) 3500 (d) 2800

36. The length of the arc of a sector of a circle with radius π and angle θ (measured in degrees) is

(a) $\frac{\pi\theta r}{360}$ (b) $\frac{\pi\theta r^2}{360}$ (c) $\frac{2\pi\theta r}{180}$ (d) $\frac{2\pi\theta r}{360}$

37. The area of the largest circle circumscribing a square having area $12cm^2$ is

(a) $6\pi cm^2$ (b) $12\pi cm^2$ (c) $3\pi cm^2$ (d) $8\pi cm^2$

38. Three cubes of a metal whose edges are in the ratio 3:4:5 are melted and converted into a single cube whose diagonal is $12\sqrt{3}cm$. The edges of the three cubes are

(a) $3cm,4cm,5cm$ (b) $6m,8cm,10cm$

(c) $18cm,24cm,30cm$ (d) $24cm,32cm,40cm$

39. The diameter of the largest sphere that can be carved out of a cube of $4.2cm$ (edge's length) is

(a) $1.2cm$ (b) $2.1cm$ (c) $4.2cm$ (d) $8.4cm$

40. Water is flowing through a pipe of diameter $14cm$ into a rectangular tank which is $50m$ long and $44m$ wide. The level of the water in the tank is raised by $21cm$ in time 2 hours then speed of the water is

(a) $14km/hr$ (b) $15km/hr$ (c) $20km/hr$ (d) $25km/hr$

41. A bucket is in the form of a frustum of a cone and holds 28.490 litres of water. The radii of the top and bottom are 28*cm* and 21*cm* respectively then the height of the bucket is

$\left[use, \pi = \frac{22}{7}\right]$

(a) $12cm$ (b) $10cm$ (c) $15cm$ (d) $14cm$

42. The abscissa of the point of intersection of the Less than Ogive and More than Ogive of a group frequency distribution gives

(a) third quartile (b) first quartile (c) median (d) none

43. The mean and median of a data are respectively $(x+1)$ and x. The mode of the distribution is

(a) $(x-2)$ (b) $2x$ (c) $3x-2$ (d) $3x$

44. When one of the variate values of a distribution is zero, then

(a) Geometric Mean is applicable

(b) value of Harmonic Mean is finite

(c) Arithmetic Mean is not applicable

(d) Geometric Mean and Harmonic Mean are not applicable

45. In an all India level examination, the concerned authority decided to select only for the best 20% of the total number of the candidates. Then the cut off mark will be

(a) 20^{th} percentile and above (b) below 80^{th} percentile

(c) 8^{th} decile and above (d) third quartile of the distribution

46. A bag contains one red, one black and one white ball. These three balls are selected at random. Then the probability of choosing first ball is red and second ball is black is

(a) $\frac{1}{6}$ (b) $\frac{1}{3}$ (c) $\frac{2}{3}$ (d) $\frac{1}{9}$

47. From a pack of cards two cards are drawn at random (one after another with replacement) then both the cards are found to be Aces. Which of the following is correct.

(a) the probability is $\frac{1}{221}$ (b) both events are independent

(c) the probability is $\frac{7}{12}$ (d) none of these

48. If mutually exclusive events *A, B* and *C* with probabilities $P(A) = \frac{1}{3}$ and $P(B) = \frac{2}{7}$

(a) $P(C) = \frac{13}{21}$ (b) $P(C) = \frac{8}{21}$ (c) $P(C) = \frac{19}{21}$ (d) $P(C) = \frac{2}{21}$

49. Pairs of natural number whose LCM is 78 and HCF is 13 is

(a) 58 and 13 (b) 26 and 91 (c) 39 and 26 (d) 65 and 390

50. If $A = 4k+2$ and $B = 4k-a$ for any natural number *k*, then HCF of *A* and *B* is

(a) 4 (b) 3 (c) 2 (d) 1

21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-VI (Maths.)

F.M. : 100
Time : 1½hrs.

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
* *The correct/most appropriate choice should be marked in the answer sheet with a ball point pen only, by darkening the circle. Answer once marked cannot be changed.*
* *If any candidate is found using unfair means of any kind, he or she shall be expelled from the test without any prior warning. Using any calculator/mobile phone/smart watch etc. is strictly prohibited in the exam hall.*
* *Extra sheet will be provided on demand.*
* *The decision of the Assn. with regard to the conduct of exam shall be final & finding to the candidate.*

1. Choose the correct statement
   (a) Multiplication and division are associative for whole numbers.
   (b) Subtraction and addition are associative for whole numbers
   (c) Multiplication and addition are associative for whole numbers
   (d) Division and subtraction are associative for whole numbers

2. Choose the false statement on the number line.
   (a) Addition corresponds to moving to the right
   (b) Subtraction corresponds to moving to the left
   (c) Multiplication corresponds to making jumps of equal distance starting from zero
   (d) none of the above

3. $6\times10^5+9\times10^4+5\times10^3+6\times10^{-2}+2\times10^{-1}$ is equal to
   (a) 6950000.26 (b) 69500.26
   (c) 695000.62 (d) 695000.26

4. What is the value of $37\frac{1}{2}\%$ of x ?
   (a) $\frac{5x}{2}$ (b) $\frac{3x}{8}$ (c) $\frac{4x}{25}$ (d) $\frac{15x}{4}$

5. Which of the following statement is correct ?
   (a) A line has its mid point (b) A ray has its mid point
   (c) A line segment has its mid point (d) all the above

6. How much $x-y$ is short of $x+y$?

(a) $2x$ (b) $2y$ (c) $-2x$ (d) $-2y$

7. Which of the following is not an equation with a variable ?

(a) $5\times4-8=2x$ (b) $\frac{4x}{3}=2x$ (c) $20=5y$ (d) $7-x=5$

8. Mala is 4 years older than Rita. Rita is 4 years older than Rashi. And Rashi is 4 years older than Bina. But Bina's age is only half of Mala's age. What is the age of Rashi?

(a) 20 years (b) 24 years (c) 12 years (d) 16 years

9. When a bottle full of honey was weighed, its weight was one kilogram. When the bottle was weighed with half the honey, its weight was 600*gm*. What is the weight of bottle ?

(a) 100*gm* (b) 200*gm* (c) 300*gm* (d) 400*gm*

10. When it was asked to write 2502381 according to International System of Numeration, Rohit wrote it as 2,502,381. Rohan wrote it as 2502,381. Who was correct ?

(a) Rohit (b) Rohan (c) Both of them (d) none

11. Mani bought a new car which costs 4,76,837 rupees. When his brother asked the cost, he round off the cost to the nearest thousands. What cost did Mani told to his brother ?

(a) 5,00,000 (b) 4,77,000 (c) 4,76,000 (d) 4,76,800

12. If $12276\div155=79.2,$ the value of $122.76\div15.5$ will be

(a) 7.092 (b) 7.92 (c) 79.02 (d) 79.2

13. The value of 2.53×0.154 is the same as

(a) $253\times.00154$ (b) 25.3×1.54

(c) $253\times.0154$ (d) $\cdot253\times.0154$

14. How many $\frac{1}{8}$, s are there in $37\frac{1}{2}$?

(a) 300 (b) 500 (c) 400 (d) none of these

15. I was 14 years old before 14 years, what will be my age after 14 years ?

(a) 14 years (b) 28 years (c) 42 years (d) none of these

16. Choose the correct statement

(a) Multiplication is distributive over addition for natural numbers

(b) Addition and multiplication, both are associative for whole numbers

(c) Multiplication is commutative for both natural number and whole numbers

(d) All the above

17. When a student was asked how old he was, he replied "take my age three year hence, multiply it by 3 and then subtract three times my age three years ago" How old is he ?

(a) 25 yrs (b) 20 yrs (c) 18 yrs (d) 22 yrs

18. In the numerals 0 to 99 which is the least repeated digit ?

(a) 9 (b) 0 (c) 1 (d) none of these

19. Which one is not correct ?

(a) Kilo shows 1000 times larger (b) Deci shows 10 times larger

(c) Centi shows 100 times smaller (d) Milli shows 1000 times smaller

20. Choose the correct : 41177 can be approximated to

(a) 41000 (b) 41100 (c) 41170 (d) all the above

21. How many different English alphabet letters used to write the Roman numerals ?

(a) 9 (b) 7 (c) 11 (d) 5

22. Which is not the expansion form of 105×107

(a) $100 \times 100 + 5 \times 100 + 100 \times 7 + 5 \times 7$ (b) $10000 + 500 + 700 + 35$

(c) $(100 + 500) \times 100 + (100 + 7) \times 100 + 35$ (d) none of the above

23. On a number line, from the position at -3 you moves 5 steps to the left then 13 steps to the right and then 4 steps to the left again. What is the position right now ?

(a) -1 (b) $+3$ (c) $+1$ (d) none of these

24. Choose the wrong statement.

(a) the smallest positive integer is $+1$ (b) the smallest negative integer is -1

(c) different two integers can have same difference (d) none of the above

25. The 7^{th} digit of $(202)^3$ is

(a) 2 (b) 4 (c) 8 (d) 6

26. What is the total sum of the numbers from -23 upto $+25$?

(a) 2 (b) 48 (c) 49 (d) none of the above

27. Successor of -125 is less than predecessor of $+125$ by

(a) 0 (b) 250 (c) 2 (d) 248

28. Which of the following statement is true ?

(a) The whole number 0 has no predecessor.

(b) There are ten whole numbers between 11 and 21

(c) The successor of a two digit number is always a two digit number

(d) The predecessor of a two digit number is never a single digit

29. "Whole numbers are closed under addition and multiplication". This property is known as

(a) closer property (b) commutative property

(c) bi-closure property (d) none of the above

30. Choose the true statement

(a) every positive integer is larger than every negative integer

(b) zero is greater than every positive integer

(c) zero is smaller than -3

(d) none of the above

31. The rule which gives the number of match sticks required to make the match stick pattern L is

(a) $2n$ (b) $3n$ (c) $4n$ (d) $5n$

32. Which of the following statement is true ?

(a) greatest negative integer is the presceding number of -2

(b) -10 is to the right of -8 on a number line

(c) -11 is larger than -10

(d) different between the successor of -13 and the predecessor of -11 is zero

33. The side of a regular pentagon is *"l"*. Its perimeter is

(a) $6l$ (b) $3l$ (c) $4l$ (d) $5l$

34. The algebraic expression for "2 times x from which 1 is subtracted" is

(a) $1-2x$ (b) $2(x-1)$ (c) $2x-1$ (d) $2-x$

35. Take any number then divide it by 2. If the result is whole, add a 0 (zero) at the end. If it is not, ignore the remainder and add a 5 at the end. This is a rule of

(a) multiply by 5 (b) dividing by 5 (c) multiply by 7 (d) dividing by 3

36. Which of the following has greater perimeter ?

(a) a regular pentagon with side $15cm$ long

(b) a rectangle with length $23cm$ and breadth $12cm$ long

(c) a square with side $18cm$ long

(d) a regular octagon with side $11cm$ long

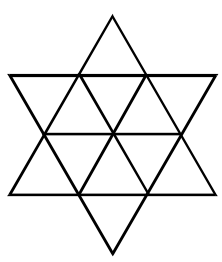
37. There is a rectangular field with $80\times120 sq.m$ dimension. At the four corners, there are four square shape ponds with side of $10m$ length each. What is the area of the field without the ponds ?

(a) $9600 sq.m$ (b) $10,000 sq.m$ (c) $9200 sq.m$ (d) $9400 sq.m$

38. If Brinda's present age is "x" years, what was her age 12 years back ?

(a) $x+12$ (b) $x-12$ (c) $x\times12$ (d) none of the above

39. How many triangles are there in the figure ?



(a) 20 (b) 32

(c) 18 (d) 24

40. In a queue, the position of Manithoi is 11 when counted from left. But when counted from right his position is 7. Then how many children are there in the queue ?

(a) 18 (b) 17

(c) 16 (d) can not determine

41. Ratan wants to cover the floor of a room 3*m* wide and 4*m* long by square tiles. If each square file is of 0.5*m* then how many tiles will required to cover the floor ?

(a) 48 (b) 52 (c) 46 (d) 125

42. What is the area of the largest triangle that can be filled into a rectangle of length *"l"* units and width *"b"* units ?

(a) $\frac{lb}{3}$ (b) $\frac{2lb}{3}$ (c) $\frac{3lb}{4}$ (d) $\frac{lb}{2}$

43. For any integer a,b and c $(a-b)-c \neq a-(b-c)$ unless

(a) $a=0$ (b) $b=0$ (c) $c=0$ (d) $a=b=c$

44. Simplified value of $1-2+3-4+5-6+.....+19-20$

(a) 0 (b) –9 (c) –10 (d) –11

45. Half the perimeter of a rectangular filed is 350*m*. What is the sum of the length and breadth of the field ?

(a) 175*m* (b) 700*m* (c) 350*m* (d) none of the above

46. If $3x-14=2(6-5x)$, then the value of x is

(a) –2 (b) 3 (c) 1 (d) 2

47. What part of $\frac{3}{48}$ is $\frac{1}{2}$?

(a) $\frac{4}{9}$ (b) $\frac{3}{8}$ (c) 12 (d) $1\frac{1}{3}$

48. The three angles of a triangle are $2x-10°$, $2x+10°$ and $x+5°$, then the smallest angle will be

(a) 30° (b) 40° (c) 60° (d) 35°

49. Some boys were playing. They arranged themselves in the following way: Two boys in front of one boy, one boy behind another boy, one boy in the middle. How many boys participated in the game?

(a) 3 (b) 4 (c) 13 (d) none of the above

50. 24 is divided into two parts such that 7 times the first part added to 5 times the second part makes 146. The first part is second part makes 146. The first part is

(a) 11 (b) 13 (c) 16 (d) 17

21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-VII (Maths.)

F.M. : 100
Time : 1½hrs.

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
* *The correct/most appropriate choice should be marked in the answer sheet with a ball point pen only, by darkening the circle. Answer once marked cannot be changed.*
* *If any candidate is found using unfair means of any kind, he or she shall be expelled from the test without any prior warning. Using any calculator/mobile phone/smart watch etc. is strictly prohibited in the exam hall.*
* *Extra sheet will be provided on demand.*
* *The decision of the Assn. with regard to the conduct of exam shall be final & finding to the candidate.*

1. How many elements are there in a triangle ?

(a) 3 (b) 6 (c) 4 (d) none of the above

2. Which of the following statement is true ?

(a) a triangle can have two right angles

(b) a triangle can have two obtuse angles

(c) a triangle can have two acute angles

(d) a triangle can have all the angles less than $60°$

3. Choose the false statement

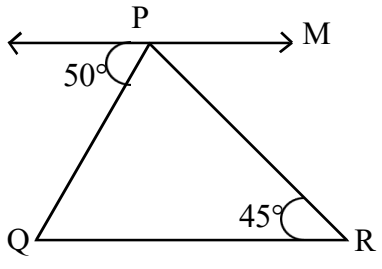
(a) The sum of the lengths of any two sides of a triangle is less than the third side

(b) In a right angled triangle, the square of one side is equal to the sum of the squares of the another two sides

(c) if the Pythagorean property holds, the triangle must be right angled

(d) none of the above

4. In the following figure $m||QR$. Then, the measure of $\angle QPR$ is



(a) $80°$ (b) $85°$

(c) $75°$ (d) $70°$

5. Which of the following can not be the sides of a right triangle ?

   (a) $12cm,\ 12cm,\ 24cm$ (b) $5cm,\ 12cm,\ 13cm$

   (c) $6cm,\ 8cm,\ 10cm$ (d) $3cm,\ 5cm,\ 4cm$

6. If you want to show $\triangle ART \cong \triangle PEN$ with the use of SAS criterion such that $\angle T = \angle N$, $RT=EN$, what more you need to show ?

   (a) $PN=AT$ (b) $PN=AR$ (c) $PN=RT$ (d) none of the above

7. Tomba ate $\frac{3}{5}$ of an orange. The remaining orange was eaten by Mani. What part of the orange was eaten by Mani ?

   (a) $\frac{1}{5}$ (b) $\frac{3}{5}$ (c) $\frac{4}{5}$ (d) none of the above

8. If $1.5x = 0.04y,$ then what is the value of $\frac{y-x}{y+x}$?

   (a) $\frac{70}{77}$ (b) $\frac{73}{77}$ (c) $\frac{75}{77}$ (d) none of the above

9. How much is 12% of 24.2 more than 10% of 14.2% ?

   (a) 0.1484 (b) 14.84 (c) 1.484 (d) 2.762

10. The algebraic expression $x+(x+2)+(x+4)$ represents ;

    (a) sum of three consecutive natural numbers

    (b) sum of three consecutive odd numbers

    (c) sum of three consecutive even numbers

    (d) both (b) and (c)

12. A basket contains 100 apples and 40 mangoes. The fractional number of apples in the basket is

    (a) $\frac{5}{7}$ (b) $\frac{2}{5}$ (c) $\frac{5}{2}$ (d) $\frac{7}{5}$

13. Which of the following statements is wrong ?

    (a) When a positive integer and a negative integer are added, we always get a negative integer

    (b) additive inverse of 8 is -8

    (c) additive inverse of -8 is 8

    (d) For substraction, we add the additive inverse of the integer that is being subtract to the other integer

14. Which of the following is true ?

(a) $(-8)+(-4)>(-8)-(-4)$ (b) $(-8)+(-4)<(-8)-(-4)$

(c) $(-8)+(-4)=(-8)-(-4)$ (d) none of the above

15. $(-1)\times(-1)\times(-1)\times.....(2m+1)$ times where m is a natural number, is equal to

(a) 1 (b) -1 (c) 1 or -1 (d) none of the above

16. The length of a rectangular sheet of paper is $\frac{3}{5}cm$ and the breadth is $\frac{2}{5}cm$. What is the perimeter of the paper ?

(a) $1cm$ (b) $2cm$ (c) $3cm$ (d) $4cm$

17. By what fraction should $\frac{4}{5}$ be multiplied by, to get $\frac{116}{135}$?

(a) $1\frac{4}{25}$ (b) $\frac{25}{29}$ (c) $\frac{24}{25}$ (d) $\frac{29}{35}$

18. What is the place value of 2 in 15.03265 ?

(a) 200 (b) 0.02 (c) 0.002 (d) 0.2

19. Write the statement in the form of an equation : Add 1 to three times n to get 7

(a) $3n+1=7$ (b) $3n-1=7$ (c) $3n+7=1$ (d) none of the above

20. The solution of the equation $0=4+4(m+1)$ is

(a) 1 (b) -1 (c) 2 (d) -2

21. Which of the following statement is true ?

(a) two acute angles can be complementary to each other

(b) two obtuse angles can be complementary to each other

(c) two right angles can be complementary to each other

(d) one obtuse angle and one acute angle can be complementary to each other

22. The two angles $(2n+10)^\circ$ and $(3n-20)^\circ$ are supplementary, then what is the value of n ?

(a) 30 (b) 32 (c) 38 (d) 36

23. Which of the following statement is true ?

(a) two adjacent angles can not be supplementary

(b) two adjacent angles can be complementary

(c) an acute angle can not be adjacent to an obtuse angle

(d) two right angles can not be adjacent angle

24. The teacher tells the class that the highest marks obtained by a student in her class is twice the lowest marks plus 7. If the highest mark is 87, write the algebric equation of the problem.

(a) $2(x+7)=87$ (b) $2(x-7)=87$ (c) $2x+7=87$ (d) $2x-7=87$

25. If $A:B$=2:3 and $B:C=4:5$ then $C:A$ is equal to

(a) 15:8 (b) 12:10 (c) 8:5 (d) 8:15

26. If $\frac{1}{3}$ of the students in a class are Hindu, what percent of the students are non-Hindu ?

(a) $33\frac{1}{3}\%$ (b) $66\frac{1}{3}\%$ (c) $66\frac{2}{3}\%$ (d) $33\frac{2}{3}\%$

27. If apples are bought at the rate of 30 for a rupee, how many apples must be sold for a rupee so as to gain 20% ?

(a) 28 (b) 25 (c) 20 (d) 22

28. Which of the following dimensions of a rectangle have the same perimeter as a rectangle whose dimensions are $5m$ by $3m$?

(a) $10m$ by $8m$ (b) $7m$ by $1m$ (c) $6m$ by $4m$ (d) $8m$ by $2m$

29. If 8% of x = 4% of y, then 20% of x is

(a) 10% of y (b) 16% of y (c) 80% of y (d) none of the above

30. How much money will you invest to get an interest of Rs. 75 in 3 years at the rate of 5% simple interest?

(a) Rs. 750 (b) Rs. 600 (c) Rs. 500 (d) Rs. 450

31. In how many years, a sum of money doubled itself at the rate of 10% per annum on simple interest ?

(a) 10 years (b) 15 years (c) 20 years (d) 25 years

32. If $a\times b>c\times d$ where a, b, c and d are all positive integers, then

(a) $\frac{a}{b}>\frac{c}{d}$ (b) $\frac{a}{c}>\frac{b}{d}$ (c) $\frac{a}{c}>\frac{d}{b}$ (d) $\frac{a}{b}>\frac{d}{c}$

33. Which of the following conditions a triangle can not be drawn directly ?

(a) three sides are given

(b) two sides and angle between them are given

(c) two angles and one side are given

(d) the hypotenuse and a leg in the case of a right angled triangle are given

34. A rectangle, a parallelogram, a square and a triangle has same perimeter, then which figure will posses greatest area ?

(a) triangle (b) square (c) parallelogram (d) rectangle

35. The perimeter of a semi circle is 36*cm*. What is the diameter of the circle ?

(a) 28*cm* (b) 14*cm* (c) 7*cm* (d) 12*cm*

36. The ratio of 15 days to 72 hours is

(a) 5:24 (b) 3:1 (c) 4:3 (d) 5:1

37. A regular hexagon is incribed in a circle of radius *r cm*. What is the perimeter of the regular hexagon ?

(a) 3 *r* (b) 6 *r* (d) 5*r* (d) 9*r*

38. A dukandar uses a 900*gm* weight for measuring a kilogram. His gain per cent is

(a) 9 (b) 10 (c) 11 (d) $11\frac{1}{9}$

39. If *a, b, c, d, e* are five consecutive odd numbers, their average is

(a) $5(a+4)$ (b) $5(a+b+c+d+e)$

(c) $a+4$ (d) none of the above

40. What will be 80 per cent of a number whose 200 percent is 90 ?

(a) 144 (b) 72 (c) 36 (d) 45

41. Additive inverse of $a-b$ is

(a) $a+b$ (b) $b-a$ (c) $-a-b$ (d) none of the above

42. The 20th number of the patern :

$7, 3, -1, -5, -9, \ldots\ldots\ldots\ldots$ is

(a) –69 (b) –75 (c) –51 (d) none of the above

43. In a class test containing 10 questions, 5 marks are awarded for every correct answers and -2 marks are awarded for every incorrect answers. Mira gets two correct and five incorrect answer out of seven questions attempt. What is her total score ?

(a) 3 (b) 0 (c) 7 (d) 1

44. Which integer is the identity under addition

(a) 1 (b) -1 (c) 0 (d) number itself

45. Tomthil studies for $5\frac{2}{3}$ hrs daily. He spends $2\frac{4}{5}$ hrs for his time for Mathematics and Science. How much time does he spend for other subjects.

(a) $2\frac{13}{15}$ hrs (b) $3\frac{12}{13}$ hrs (c) $2\frac{12}{15}$ hrs (d) $3\frac{2}{9}$ hrs

46. What is the correct expansion form of 253.417 ?

(a) $2\times100+5\times100+3\times100+4\times\frac{1}{100}+1\times\frac{1}{1000}+\frac{7}{10000}$

(b) $2\times100+5\times10+3\times1+4\times\frac{1}{10}+1\times\frac{1}{100}+7\times\frac{1}{1000}$

(c) $2\times100+5\times10+3\times1+4\times1+1\times10+7\times100$

(d) $2\times1000+5\times100+3\times10+4\times\frac{1}{10}+1\times\frac{1}{100}+7\times\frac{1}{1000}$

47. In the 4 corners of a square room a ball has been placed. In front of each ball you can see 3 balls each. Then totally how many balls are there in the room ?

(a) 16 (b) 12 (c) 4 (d) none of the above

48. "One fourth of n is 3 more than 2". The simple equation of the above statement is

(a) $\frac{x}{4}-2=3$ (b) $\frac{x}{4}+2=3$ (c) $\frac{x}{2}-4=3$ (d) $\frac{x}{2}+4=3$

49. Virat Kohli scored twice as many runs as Rahul. Together their runs fell two short of a double century. How many runs did Virat Kohli score ?

(a) 132 (b) 198 (c) 164 (d) 66

50. A clock takes 6 seconds to strike 4 O'clock. Then how much time it will take to strike 8 O'clock ?

(a) 12 sec. (b) 14 sec. (c) 16 sec. (d) 24 sec.

21st STATE LEVEL COMPETITION - 2022
ORGD. BY : THE UNITED DEVELOPMENT ASSN. (UDA), KHANGABOK
H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

Class-X (Science)

F.M. : 100
Time : 1hrs.

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
* *The correct/most appropriate choice should be marked in the answer sheet with a ball point pen only, by darkening the circle. Answer once marked cannot be changed.*
* *If any candidate is found using unfair means of any kind, he or she shall be expelled from the test without any prior warning. Using any calculator/mobile phone/smart watch etc. is strictly prohibited in the exam hall.*
* *Extra sheet will be provided on demand.*
* *The decision of the Assn. with regard to the conduct of exam shall be final & finding to the candidate.*

1. Which of the following has largest atomic size ?

   (a) Ne (b) Na (c) Li (d) F

2. An atom of an element has five valence electrons. The most common valency of this element is

   (a) 1 (b) 2 (c) 3 (d) 4

3. Which of the following will displace hydrogen from an acid ?

   (a) Pb (b) Lu (c) Hg (d) Au

4. The oxide of which of the following will be amphoteric ?

   (a) P (b) S (c) Si (d) Mg

5. The electronic configuration of an element is 2, 8, 18, 2. It belongs to which period of the periodic table ?

   (a) 2 (b) 3 (c) 4 (d) none

6. The total no. of elements that can be accommodated in the modern periodic table is

   (a) 120 (b) 103 (c) 119 (d) 118

7. In the NaCl cyrstal, each chloride ion is immediately surrounded by

   (a) 6-chloride ions (b) 6-sodium ions

   (c) 4-chloride ions (d) 4-sodium ions

8. $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$

   In the above reaction identify the substance being oxidised.

   (a) $MnCL_2$ (b) HCl (c) Cl_2 (d) H_2O

9. What happens when lead nitrate reacts with potassium iodide ?

(a) They will not react

(b) Yellow ppt of lead iodide and potassium nitrate (aq) will be produced

(c) H_2 will be liberated

(d) None of the above

10. What type of reaction take place when electricity is passed through pure water

(a) decomposition (b) displacement

(c) combination (d) double displacement

11. Select the oxidising agent for the following reaction : $H_2S + I_2 \rightarrow 2HI + S$

(a) I_2 (b) H_2S (c) HI (d) S

12. Fats and oils possess an unpleasant smell when exposed to air for a long time. This is due to

(a) corrosion (b) rancidity (c) oxidation (d) both (b) & (c)

13. $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$. The given reaction is an example of

(a) combination reaction (b) displacement reaction

(c) Redox reaction (d) both displacement & redox reaction

14. Which of the following reaction will not take place

(a) $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$ (b) $2KBr + Cl_2 \rightarrow KCl + Br_2$

(c) $Zn + MgSO_4 \rightarrow ZnSO_4 + Mg$ (d) $Mg + FeSO_4 \rightarrow MgSO_4 + Fe$

15. In the reaction $Hg_2Cl_2 + Cl_2 \rightarrow 2HgCL_2$ the substance being reduced is

(a) Hg_2Cl_2 (b) Cl_2 (c) $HgCl_2$ (d) none

16. Cations are formed by atoms of elements with valence electrons

(a) less than 8 (b) more than 4 (c) less than 4 (d) equal to 4

17. Hydrogen is placed in the group of the periodic table along with Alkali metals because of the fact that

(a) it has no valence electron (b) it sometimes behave like metals

(c) it is a non metal (d) none of the above

18. Which of the following is not a good conductor of electricity ?

(a) Hg (b) NaCl(aq)

(c) KCl (fused state) (d) $CuSO_4$ (solid)

19. In which of the following a coordinate bond is present

(a) H_3O^+ (b) NH_4^+ (c) NH_4Cl (d) all the above

20. Which of the following do not liberate hydrogen gas on reaction with aqueous sodium hydroxide solution ?

(a) Zn (b) Al (c) Sn (d) none of the above

21. All acids contain H-atom, which of the following compounds nullify the above statement ?

(a) H_3PO_4 (b) H_2CO_3 (c) NH_4OH (d) CH_3COOH

22. Generally aqueous solutions of acid salts

(a) turns red litmus blue (b) reacts with more acids

(c) reacts with more bases (d) all the above

23. Which of the following metal oxide do not dissolve in water ?

(a) K_2O (b) Na_2O (c) CaO (d) ZnO

24. Which of the following metal do not react with cold water ?

(a) Na (b) Ca (c) Mg (d) K

25. Cycloalkanes have the same general formula as those of

(a) alkanes (b) alkenes (c) alkynes (d) alcohols

26. Conversion of ethyl alcohol to acetic acid is

(a) a reduction process (b) an oxidation process

(c) done with con. H_2SO_4 (d) done with Cl_2 in the presence of light

27. IUPAC name of $CH_3COOC_2H_5$ is

(a) Ethyl methyl ether (b) Ethyl methyl ester

(c) Ethylacetate (d) Ethyl ethanoate

28. $CuSO_4\ (hydrated) \xrightarrow[I]{heat} CuSO_4(anhydrous) \xrightarrow[II]{?} CuSO_4(hydrated)$
blue

In the above sequence of process I and II, the condition for the second step is

(a) heat (b) light

(c) moisture (d) electric current

29. Which of the following can produce a real image for any position of the object ?

(a) concave mirror (b) plane mirror

(c) concave lens (d) convex mirror

30. An object at a distance of 50*cm* from a concave mirror gets its image at the same point. The focal length of the mirror is

(a) $-30cm$ (b) 30 *cm* (c) $-25cm$ (d) $+25cm$

31. An object at a distance of +15*cm* is slowly moved towards the pole of a convex mirror. The image will be

(a) shortened and real (b) enlarged and real

(c) enlarged and virtual (d) diminished and virtual

32. As light travels from a rarer to a denser medium it will have

(a) increased velocity (b) decreased velocity

(c) decreased wavelength (d) both (b) and (c)

33. You are given three media A, B and C having refractive index 1.33, 1.65 and 1.46 respectively. Light will travel fastest in

(a) A (b) B (c) C (d) equal in all media

34. A wire of length *"l"* and resistivity ρ is cut into three equal parts. The resistivity of each part will be

(a) ρ (b) $\frac{\rho}{3}$ (c) 3ρ (d) not defined

35. 4000 joule of work is done when 10 coulomb of charge is transfered between two points of resistor of 50Ω. . The current passing through it is

(a) 8A (b) 4A (c) 2A (d) 16 A

36. The pattern of magnetic field produced by a straight current carrying conductor is

(a) in the direction opposite to the current (b) in the direction parallel to the wire

(c) circular around the wire (d) in the same direction of the current

37. A soft iron bar is introduced inside a current carrying solenoid. The magnetic field inside the solenoid will

(a) decrease (b) increase (c) remain same (d) become zero

38. Absorption of water from the soil by roots of plants take place through

(a) diffusion (b) transpiration (c) osmosis (d) all the above

39. What are the products obtained in the anaerobic respiration in plants ?

(a) CO_2 + energy + water (b) $C_2H_5OH + CO_2$ + energy

(c) Lactic acid + energy (d) Pyruvate

40. Dormancy in seeds and buds of plants is due to

(a) Auxin (b) Gibberellin

(c) Cytokinin (d) Abscisic acid

41. Which nerves transmit impulses from the central nervous system to the muscle cells?

(a) sensory nerves (b) motor nerves

(c) relay nerves (d) cranial nerves

42. The hormone that is used to keep flowers fresh is

(a) cytokinin (b) gibberellins (c) auxin (d) abscisic acid

43. Which reproductive method gives a species greater possibility for evolution ?

(a) binary fission (b) budding (c) fertilisation (d) regeneration

44. Vegetatively propagated plants

(a) do not bear fruits (b) do not flower

(c) are genetically similar (d) are genetically different

45. A cross between a tall pea plant (TT) and a short pea plant (tt) resulted in progenies that were all tall plants because

(a) tallness is the recessive trait (b) height is not controlled by genes

(c) tallness is the dominant trait (d) shortness is the dominant trait

46. What does the progeny of a pure tall plant with round seeds and a short plant with wrinkled seeds look like ?

(a) all tall plants with round seeds

(b) all short plants with wrinkled seeds

(c) all tall with wrinkled seeds

(d) all short with wrinkled seeds

47. The sex of a child is determined by

(a) the male gamete (b) the female gamete

(c) both male and female gamete (d) God

48. Phenotypic ratio of 9:3:3:1 is a result of a

(a) Monohybred cross (b) test cross

(c) F_1 generation in dihybrid cross (d) F_2 generation in dihybrid cross

49. The resistance of a conductor does not depend on its,

(a) length (b) temperature (c) thickness (d) shape

50. $C(s) + O_2(g) \rightarrow CO_2(g)$ The given reaction is not a

(a) Displacement reaction (b) Eothermic reaction

(c) Redox reaction (d) Combination reaction

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H.Q. KHANGABOK, THOUBAL (MANIPUR)
Regd. No. : 3/SR/TH/1999

F.M. : 100
Time : 1½hrs.

Class-VIII (Maths.)

Instructions :

* *There are 50 questions with four alternatives of which one is the correct/most appropriate answer. Each question carry 2 marks.*
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1. Which of the following is equal to $1.\overline{27}$

(a) $\frac{19}{11}$ (b) $\frac{12}{11}$ (c) $\frac{15}{11}$ (d) $\frac{14}{11}$

2. A diagonal and a side of a rhombus are of equal lengths. The measure of the angles of the rhombus are

(a) $60°,120°,60°,120°$ (b) $85°,95°,85°,85°$

(c) $50°,130°,50°,130°$ (d) $45°,135°,45°,135°$

3. $\sqrt{0.9\times0.09\times x} = 0.9\times0.09\times\sqrt{z}$. Then, the value of $\frac{x}{z}$ is

(a) 0.091 (b) 0.810 (c) 0.081 (d) 8.09

4. If you substract a number x from 17 times that number, and then take the cube of the difference. Then, the result is

(a) $1728x^3$ (b) $4913x^3$ (c) $4096x^3$ (d) $5832x^3$

5. The ratio of the number of boys and girls in a school is 7:8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, the new ratio is

(a) 8:9 (b) 17:18

(c) 21:22 (d) can't be determined

6. Four fifth of a number is more than three fourth of the number by 4. The number is

(a) 20 (b) 60 (c) 80 (d) 100

7. If $AB \parallel DC,\ AB = 7cm,\ BC = 6cm,\ AD = 6.5cm$ and $\angle B = 70°,$ then which figure can be constructed ?

(a) square (b) trapezium (c) rhombus (d) rectangle

8. If $(x-5)$ notebooks cost Rs. $(x^2 - 13 + 40)$, then the cost of one notebook is

(a) $(x-1)$ (b) $(x-2)$ (c) $(x-6)$ (d) $(x-8)$

9. Which of the following will not form a polyhedron ?

(a) 1 square and 4 triangles (b) 2 triangles and 3 rectangles

(c) 3 triangles (d) 1 pentagon and 5 triangles

10. If the rainfall on a certain day was 5*cm,* then how many litres of water fell on 1 hectare field on that day?

(a) 5000 (b) 500000 (c) 450000 (d) none of these

11. If $p^{q^r} = 2^{64}$, then the maximum possible value of $p+q+r$ where *p, q, r* are natural numbers is

(a) 9 (b) 10 (c) 12 (d) 67

12. Double bar graphs display _____ sets of data simultaneously.

(a) four (b) three (c) two (d) no

13. How many prime numbers are of the form $3m+2,$ where $1 \le m \le 20$?

(a) 6 (b) 8 (c) 7 (d) 9

14. The exterior angle of a regular polygon is one third of its interior angle. The, polygon has _____ sides

(a) 10 (b) 8 (c) 9 (d) 13

15. To Construct a convex quadrilateral, which of the following cases is incorrect ?

(a) when the length of three sides and the two diagonals are given

(b) when the length of four sides and one angle is given

(c) when the length of two sides and two included angles are given

(d) none

16. The square root of least six digit number which is a perfect square is

(a) 315 (b) 316 (c) 317 (d) 318

17. If $\sqrt[3]{3\left(\sqrt[3]{x} - \frac{1}{\sqrt[3]{x}}\right)} = 2$, then $\sqrt[3]{x} + \frac{1}{\sqrt[3]{x}} =$

(a) $\frac{10}{3}$ (b) $\frac{-10}{3}$ (c) $\frac{3}{15}$ (d) both (a) and (b)

18. If a number "x is 10% less than another number *"y"* and y is 10% more than 125, then *"x"* is equal to

(a)123.75 (b) 143 (c) 140.55 (d) 150

19. If $x+y+z=0,$ then $3\left[\frac{x^2}{yz}+\frac{y^2}{zx}+\frac{z^2}{xy}\right]$ is equal to

(a) $(xyz)^2$ (b) $x^2+y^2+z^2$ (c) 9 (d) 3

20. Number of faces, vertices and edges of a square pyramid are respectively

(a) 4, 6, 12 (b) 7, 5, 10 (c) 5, 5, 8 (d) 4, 4, 6

21. Which of the following is not a three dimensional shape ?

(a) square prism (b) sphere (c) triangular pyramid (d) circle

22. If the area of the three adjacent faces of a room is p, q, r respectively. the, volume of air in the room is

(a) $\sqrt{pqr}$ (b) $2\sqrt{pqr}$ (c) $3\sqrt{pqr}$ (d) $4\sqrt{pqr}$

23. Number of prime factors in $(216)^{\frac{3}{5}}\times(2500)^{\frac{2}{5}}\times(300)^{\frac{1}{5}}$ is

(a) 6 (b) 9 (c) 8 (d) none of these

24. If $(6x)^6=6^{2^3}$, then the value of x is,

(a) 1 (b) $\sqrt{6}$ (c) $\sqrt[3]{6}$ (d) $\sqrt[6]{6}$

25. A man's salary is increased by 10%. In order to have his salary back to the original amount, it must be reduced by x%, then the value of x is

(a) $11\frac{1}{9}\%$ (b) $1\frac{11}{9}\%$ (c) $11\frac{9}{11}\%$ (d) $9\frac{1}{11}\%$

26. A litre of water was evaporated from 8L of salt solution containing 8% salt. The percentage of salt in the remaining solution is

(a) $7\frac{1}{7}\%$ (b) $7\frac{1}{9}\%$ (c) $9\frac{1}{7}\%$ (d) $7\frac{1}{3}\%$

27. Atul is playing in a playground which is of the form of a quadrilateral. He observes that the diagonals of the playground are 80m and 60m long. So, the playground is in the shape of

(a) rectangle (b) rhombus (c) kite (d) square

28. A shopkeeper sold a TV set for Rs. 17940 (price inclusive of a discount of 8%) and gained 19.6%. If no discount is allowed, then his gain percent is

(a) 25% (b) 26.4% (c) 24.8% (d) 30%

29. An example of property tax is

(a) wealth tax (b) income tax (c) sales tax (d) excise

30. The measure of each angle of a polygon is $160°$. The number of its sides is

(a) 15 (b) 18 (c) 20 (d) 30

31. A cubical water tank measures 3 feet sides. Then, its surface area is

(a) $9\ ft^2$ (b) $50\ ft^2$ (c) $52\ ft^2$ (d) $54\ ft^2$

32. In a parallelogram PQRS, X is the mid point of PS and Y is the mid point of QR. Then, Y divides QS in the ratio

(a) 1:4 (b) 1:1 (c) 1:2 (d) 1:3

33. The multiplicative inverse of $\left(-\frac{5}{9}\right)^{99}$ is

(a) $\left(\frac{-5}{9}\right)$ (b) $\left(\frac{-5}{9}\right)^{99}$ (c) $\left(\frac{-9}{-5}\right)^{99}$ (d) $\left(\frac{-9}{5}\right)^{99}$

34. Which of the following ratio is in ascending order ?

(a) 7:9, 11:12, 17:19, 21;25 (b) 4:7, 9:16, 11:20, 13:17

(c) 3:4, 7:9, 15:19, 4:5 (d) 2:3, 4:5, 7:8, 8:11

35. The value of $\frac{2^{2001}+2^{1999}}{2^{2000}-2^{1998}}$ is

(a) 2 (b) $\frac{10}{3}$ (c) $2^{1000}+1$ (d) 10

36. If $a^{\frac{1}{2}}+b^{\frac{1}{2}}-c^{\frac{1}{2}}=0$, then the value of $(a+b-c)^2$ is

(a) $2ab$ (b) $2bc$ (c) $4ab$ (d) $4ac$

37. What should be the rate of interest per annum if interest is calculated quaterly ?

(a) reduced to half (b) reduced to one fourth

(c) is doubled (d) becomes four times

38. A fruitseller buys lemons at 2 for a rupee and sells them at 5 for three rupees. His gain percent is

(a) 10% (b) 20% (c) 30% (d) 40%

39. If a positive integer is multiplied by 4, then the product is equal to the cube of that integer. Then, the integer is

(a) 16 (b) 54 (c) 2 (d) 128

40. If the eight digit number 28357a59 is exactly divisible by 111, then the least possible value of a is

(a) 0 (b) 1 (c) 1 (d) 3

41. PQRS is a square, PR and SQ intersect at O. The, $\angle POQ$ is a

(a) Right angle (b) straight line (c) reflex angle (d) complete angle

42. The two parts of 34 such that $\left(\frac{4}{7}\right)^{th}$ of one part is equal to $\left(\frac{2}{5}\right)^{th}$ of the other are,

(a) 16, 18 (b) 14, 20 (c) 15, 19 (d) none of these

43. The ratio of radii of two cylinders is $1:\sqrt{3}$ and heights are in the ratio 2:3. The ratio of their volumes is

(a) 1:9 (b) 2:9 (c) 4:9 (d) 5:9

44. If a polyhedron has 12 vertices and 8 faces, then the number of edges in the polyhedron is

(a) 12 (b) 14 (c) 16 (d) 18

45. Mr. A made a cuboid of plasticeine, length, breadth and height of the cuboid are 25cm, 25cm and 50cm. How many minimum such cuboids he needs to make a perfect cube ?

(a) 4 (b) 20 (c) 12 (d) 25

46. The total surface area of a cubical wooden block whose length of the diagonal is $\sqrt{27}$ metre is

(a) $48m^2$ (b) $36m^2$ (c) $54m^2$ (d) $32m^2$

47. A sum of money amounts to Rs. 11910.16 in $1\frac{1}{2}$ years at 12% per annum interest being compounded semiannually. Then, the sum is

(a) Rs. 10,000 (b) Rs. 12,000 (c) Rs. 11,500 (d) Rs. 10,050

48. What must be substracted from x^4+2x^2-3x+7 to get x^3+x^2+x-1 ?

(a) $x^4-x^3+x^2-4x+8$ (b) x^3+x^2-4x+8

(c) $x^4-x^3+x^2+4x-8$ (d) none of these

49. Adjacent sides of a rectangle are in the ratio 5:12, if the perimeter of the rectangle is 34cm, then, the length of the diagonal is

(a) 13cm (b) 12cm (c) 25cm (d) 5cm

50. If $\frac{1}{3.618}=0.2764$, then the value of $\frac{1}{0.0003618}$ is equal to

(a) 276.4 (b) 2764 (c) 27.64 (d) 2.764

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F.M. : 100
Time : 1½hrs.

Class-IX (Maths.)

Instructions :

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* *If any candidate is found using unfair means of any kind, he or she shall be expelled from the test without any prior warning. Using any calculator/mobile phone/smart watch etc. is strictly prohibited in the exam hall.*
* *Extra sheet will be provided on demand.*
* *The decision of the Assn. with regard to the conduct of exam shall be final & finding to the candidate.*

[$\pi = \frac{22}{7}$ whenever necessary]

1. A number lying between 10% and 5% of a given number x is

(a) 15% of x (b) $\frac{2}{15}$ of x (c) $\frac{1}{15}$ of x (d) $\frac{1}{17}$ of x

2. Ratio of a circumference of a circle to its diameter is

(a) a rational number (b) an irrational number (c) $\frac{22}{7}$ (d) none of these

3. $\sqrt{27-10\sqrt{2}} =$

(a) $5-\sqrt{2}$ (b) $5+\sqrt{2}$ (c) $7-\sqrt{2}$ (d) $9-2\sqrt{2}$

4. If $\sqrt{3} = 1.73$ then $\sqrt{147}$ is

(a) 21.11 (b) 11.21 (c) 12.11 (d) 21.13

5. The polynomial $x^2 - 5x + 6$ represent

(a) area of a square of side $(x-2)$ units

(b) area of a rectangle of side $(x-2)$ and $(x-3)$ units

(c) area of a triangle whose attitude is $(x-2)$ and base is $(x-3)$ units

(d) none of these

6. $(p-1)x^5 + 3x^2 + qx + 2$ is a monic polynomial then value of p^2 is

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

7. Degree of the polynomial $ax^7 + bx^{m-2} + x^3 + cx + d$ is 8 then the value of m is

(a) 2 (b) 6 (c) 8 (d) 10

8. Zero of $x^2 - kx + 6$ is 2 then the value of k is

(a) -2 (b) 2 (c) 5 (d) -5

9. Which of the following is a factor of $x^4 + x^2 + 1$

(a) $x^2 + x + 1$ (b) $x^2 - x - 1$ (c) $x^2 + x - 1$ (d) $x + 1$

10. The common zero of three polynomial is -2 then their HCF has factor

(a) $(x-2)$ (b) $(x^2 - 2x + 1)$ (c) $(x+2)$ (d) $(x^2 + 2x + 1)$

11. The point (a,b) lies on Y-axis then

(a) a = 0 (b) b = 0 (c) a < 0 (d) b > 0

12. If the co-ordinates of the point (2, -6) are interchanged then it will lie in

(a) first quadrant (b) second quadrant (c) third quadrant (d) fourth quadrant

13. The difference of the distances of the point $(-3,-2)$ from X-axis and the point $(5,-2)$ from Y-axis is

(a) 8 (b) 0 (c) 3 (d) 1

14. Distance between the points $(2,1)$ and $(-1,x)$ is $3\sqrt{2}$ units then value of x is

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

15. The perimeter of the triangle formed by joining the points $(1,2),(1,6)$ and $(4,2)$ is

(a) 10 units (b) 13 units (c) 12 units (d) 8 units

16. If $(-2,1)$ is a solution of the equation $3x + ky = 6$ then which one of them is not a solution of it ?

(a) $(-6,2)$ (b) $(3,2)$ (c) $(2,0)$ (d) $(10,-2)$

17. The number of linear equations in two variables having a solution $(1,3)$ is

(a) only one equation (b) two equations
(c) Infinite number of equation (d) none of these

18. The graph of $x = C$ is a straight line parallel to Y-axis, then

(a) it is a linear equation in one variable (b) it is a linear equation in two variables
(c) it is a constant (d) it is a linear polynomial

19. Equation of a straight line lying on both 1st and 3rd quadrant and passing through origin is

(a) $-x = k^2 y$ (b) $x = -k^2 y$

(c) $x + y = k$ (d) $x = k^2 y$ (for any non zero real k)

20. Which of the following is an Euclid's postulate ?

(a) Every straight line of finite length has one and only one point of bisection
(b) Every angle has one and only one internal bisector
(c) All right angles are equal to one another
(d) If equals are added to equals, the sum are equal

21. C is a point on the line segment AB. Then $AC+CB=AB$. This is because of the

(a) Euclid's Axiom 9 (b) Euclid's Postulate 1

(c) Theorem deducted from the Euclid's Postulate (d) none of these

22. Angle between the bisectors of the angles forming a linear pair of angle is

(a) $70°$ (b) $80°$ (c) $90°$ (d) $45°$

23. The angles of a triangle are in the ratio 5:3:10. Then the measure of the greatest acute angle is

(a) $100°$ (b) $50°$ (c) $80°$ (d) $60°$

24. One of the angles of a triangle is A. If the difference of the other two angles is $30°$, then the measure of the smallest angle is

(a) $65°-\frac{A}{2}$ (b) $80°-2A$ (c) $75°-\frac{A}{2}$ (d) $90°-2A$

25. A polygon has 8 sides then the total sum of all the interior angles is

(a) $1440°$ (b) $900°$ (c) $1260°$ (d) $1080°$

26. Which of the following is not a theorem

(a) SAS congruence (b) ASA congruence

(c) SSS congruence (d) RHS congruence

27. If x units be the length of a median of an equilateral triangle having perimeter 42 units then

(a) $x>14$ (b) $x=15$ (c) $x=21$ (d) $14>x$

28. If $\angle x$ and $\angle y$ are the exterior angles of a $\triangle ABC$ at the point B and C respectively. Also $\angle B>\angle C$ then

(a) $\angle x>\angle y$ (b) $\angle x<\angle y$ (c) $\angle x=\angle y$ (d) none of these

29. In $\triangle ABC$, $\angle B>\angle C$ and bisector of $\angle B$ and $\angle C$ intersect each other at P. Then

(a) $BP=PC$ (b) $BP<PC$ (c) $BP>PC$ (d) none of these

30. In a parallelogram $ABCD$, $AB=12cm$. Then altitudes corresponding to the sides AB and AD are respectively $8cm$ and $10cm$, then

(a) $AD=9.6cm$ (b) $AD=15cm$ (c) $AD=6.67cm$ (d) $AD=10.0cm$

31. D, E and F are the mid points of a $\triangle ABC$ having area 60 sq. units, then area of $\triangle$DEF is

(a) 20 sq. units (b) 25 sq. units (c) 15 sq. units (d) 30 sq. units

32. The lengths of two chords of a circle are $6cm$ and $8cm$. If the smaller chord is at a distance of $4cm$ from the centre, then the distance of the other chord from the centre is

(a) 3 cm (b) 6 cm (c) 9 cm (d) 12 cm

33. $ABCD$ is a cyclic quadrilateral whose diagonals are AC and BD. If $\angle DBC=80°$ and $\angle BAC=30°$ then $\angle BCD$ is

(a) $90°$ (b) $80°$ (c) $70°$ (d) $100°$

34. Number of circles that can be drawn through three non collinear points is

(a) only one (b) only two (c) infinite (d) 0

35. If the perimeter of an equilateral triangle is 36 cm then its area is

(a) $144\sqrt{3}cm^2$ (b) $12\sqrt{3}cm^2$ (c) $36\sqrt{3}cm^2$ (d) $72\sqrt{3}cm^2$

36. Each side of a Rhombus shaped field is 30 cm and its longer diagonal is 48 m then area of the field is
(a) 144 m^2 (b) 216 m^2 (c) 432 m^2 (d) 864 m^2

37. Number of solid balls each of radius 2 cm that can be made by melting a solid sphere of lead of radius 1 m is
(a) 1250 (b) 125000 (c) 125 (d) 115000

38. The volume of a cube is 74088 cm^3. Then surface area of the cube is
(a) 42 cm^2 (b) 126 cm^2 (c) 84 cm^2 (d) 168 cm^2

39. The total cost of white washing four walls of a room of length, breadth and height are $5m, 4m$ and $3m$ respectively is Rs. 405. Then the rate of cost of white washing per square metre is
(a) Rs. 13.40 (b) Rs. 16.87 (c) Rs. 10.50 (d) Rs. 7.50

40. The radius of a is 1.4m long roller is 45cm, then the area it sweeps in 75 revolutions is
(a) 148 m^2 (b) 297 m^2 (c) 212 m^2 (d) 192 m^2

41. The volume of a cone of height 24cm is 1232cm^3 then the slant height is
(a) 24cm (b) 25cm (c) 34cm (d) 35cm

42. If the radius of a sphere is doubled then the percentage of volume increased is
(a) 100 (b) 50 (c) 7 (d) 5

43. The radius of the top and bottom of a bucket of slant height 28cm are 24cm and 9cm. The curved surface area of the bucket is
(a) 3630cm^2 (b) 3750cm^2 (c) 2804cm^2 (d) 2904cm^2

44. The length of the longest pole that can be placed in a room of cube shape with 10m as its length is
(a) $10\sqrt{3}m$ (b) $3\sqrt{10}m$ (c) $20\sqrt{3}m$ (d) $6\sqrt{10}m$

45. Number of bricks each measuring $25cm \times 11.25cm \times 6cm$ that will be needed to build a wall of $8m \times 6cm \times 22.5m$ is
(a) 5600 (b) 60000 (c) 6400 (d) 7200

46. Which one of the following is not correct ?
(a) $90° = 100^g$ (b) $\frac{\pi}{2} = 100^g$ (c) $15° = 9000'$ (d) $1' = \left(\frac{1}{54}\right)^g$

47. The angle subtended at the centre of a circle by an arc whose length is twice its radius is
(a) $\left(\frac{1}{2}\right)^c$ (b) $\left(\frac{1}{2}\right)^0$ (c) $\left(\frac{360}{\pi}\right)^0$ (d) 2^g

48. $\left(\frac{2\pi}{15}\right)^c =$
(a) $\left(\frac{2\pi}{15}\right)^g =$ (b) $\left(26\frac{2}{3}\right)^g$ (c) $\left(\frac{90}{15}\right)^0$ (d) $\left(\frac{180}{15}\right)^0$

49. The angle between the hour hand and minute hand of a clock at 9:30 a.m. is
(a) 105° (b) 125° (c) $\left(\frac{7\pi}{6}\right)^c$ (d) 130^g

50. If $D°$, G^g and R^c are the measures of the same angle in sexagesimal, centesimal and circular system then
(a) $\frac{D}{90} = \frac{2R}{\pi}$ (b) $\frac{G}{100} = \frac{D}{2\pi}$ (c) $\frac{G}{18} = \frac{R}{10}$ (d) none of these