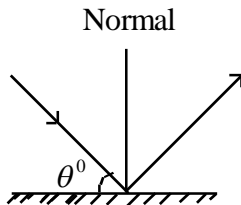


49. Find the angle of reflection from the given diagram

- (A) θ°
- (B) $(90 - \theta)^\circ$
- (C) 45°
- (D) 90°



50. Which of the following illustrations shows the formation of the fertilised egg (zygote) when a sperm fertilises an egg to produce a baby boy?

	Sperm	Egg	Fertilised
egg			
(A)	x +	x	xx
(B)	x +	y	xy
(C)	y +	x	xy
(D)	y +	y	yy

24thMVIII
(SCIENCE)

Time Allowed 1 hour

Maximum Marks : 100

Read the following instructions carefully before
you begin to answer the questions.

1. This booklet contains 50 questions in all.
2. All questions are compulsory and each question carries 2 marks.
3. Before you start to answer the questions you must check up this booklet and ensure that it contains all the pages 7 (Seven) and see that no page is missing or repeated. If you find any defect in this Booklet, you must replace it immediately.
4. There will **NOT** be any negative marking for wrong answers.
5. You are required to fill the information on the answer sheet which you will get in the examination hall by **H.B. pencil or BALL point pen**.
6. **Answer Sheet** and **Question Paper** will be supplied in examination hall. After the test is over, you should hand over the answer sheet to the invigilator before leaving the room.
7. You should write your **Name, Roll No.**, carefully on the space provided in the answer sheet. Otherwise you will be awarded **ZERO** mark.
8. If you wish to change your answer, **ERASE** completely the darkened circle by using an **ERASER** and then blacken the new circle. If not erased completely, smudges will be left on the erased circle and the question will be read as having two answer and will be ignored for giving any credit.
9. Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
10. You are not allowed to leave the examination hall until you are advised to do so by the invigilator.

18. The whole north eastern region of India falls under the earthquake zone number :
 (A) two (B) three
 (C) four (D) five
19. The simplest and easiest method for the preservation of food is :
 (A) sun drying
 (B) preservation by sugar
 (C) preservation by salt
 (D) pasteurisation
20. Choose the fuel having the highest calorific value from the following.
 (A) Kerosene (B) Petrol
 (C) Methane (D) CNG
21. The main constituent of skin ointments is :
 (A) Sulphur (B) Chlorine
 (C) Potassium (D) Calcium
22. Match column A and column B
- | Column A | Column B |
|---------------|--|
| i) Insulin | a) Promotes egg production and development of secondary sex characters |
| ii) Adrenalin | b) Deficiency cause goiter |
| iii) Thyroxin | c) Regulates sugar metabolism |
| iv) Estrogen | d) helps the body to fight stress |
- (A) i ii iii iv
 c a b d
 (B) i ii iii iv
 c d b a
 (C) i ii iii iv
 c b d a
 (D) i ii iii iv
 d c b a
23. Which one of the following activities will produce least amount of frictional force?
 (A) Walking (B) Running
 (C) Ice skating (D) Rowing a boat
24. Which of the following planets has no natural satellites?
 i) Venus ii) Earth iii) Mars iv) Jupiter
 v) Saturn vi) Uranus
 (A) i (B) iii
 (C) i and vi (D) ii, iv and v
25. A ray of light falls on a plane mirror. If one fifth of the angle between the incident ray and the mirror is 6° . What is the value of one sixth of the angle between the incident ray and the reflected ray?
 (A) 10° (B) 20°
 (C) 5° (D) 30°
26. Which of the following statements is true about chloroplast ?
 (A) It traps oxygen during photosynthesis.
 (B) It breaks up carbon dioxide into carbon and oxygen.
 (C) It has chlorophyll to trap sunlight during photosynthesis
 (D) It releases carbon dioxide during photosynthesis

27. Which of the following revolve(s) round the sun ?
 i) Big Dipper ii) evening star iii) Ceres
 iv) Halley's comet
 (A) i and ii (B) iii and iv
 (C) i, ii and iii (D) ii, iii and iv
28. A boy pulls a load up an inclined plane. What force must the boy need to overcome to pull it up ?
 i) non contact force ii) gravitational force iii) frictional force
 (A) i, ii (B) ii, iii
 (C) i, iii (D) i, ii, iii
29. _____ divide the interior of the eyeball into two main chambers.
 (A) iris and lens
 (B) Iris and cornea
 (C) Cornea and pupil
 (D) pupil and lens
30. The best fire extinguisher for fires involving electrical equipments and inflammable materials like petrol is :
 (A) water
 (B) soda acid fire extinguisher
 (C) oxygen
 (D) carbon dioxide
31. California Gulls undertake
 (A) Seasonal migration
 (B) Latitudinal migration
 (C) Longitudinal migration
 (D) Altitudinal migration
32. Which of the following actions requires both a push and pull ?
 (A) Stapling of papers
 (B) Pressing the lift button
 (C) Closing the door
 (D) Painting a wall with rollers
33. Choose the indigenous fish of Manipur.
 a) Cyprinus carpio
 b) Monopterus albus
 c) Labeo calbasu
 d) Labeo bata
 (A) a and c (B) c and d
 (C) b and d (D) b and c
34. $\cdots\cdots\cdots\text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2\cdots\cdots\cdots$ is :
 (A) Bakelite (B) Nylon
 (C) Rayon (D) Polyethylene
35. Choose the correct reaction.
 (A) Iron + Hydrogen chloride \rightarrow Ferrous chloride + Hydrogen + water

- (B) Iron + Hydrogen chloride →
Ferrous chloride + water
- (C) Iron + Hydrogen chloride →
Ferrous chloride + chlorine +
Hydrogen
- (D) Iron + Hydrogen chloride →
Ferrous chloride + Hydrogen

36. Glyptal is an example of :

- (A) Polyester (B) Acrylic
(C) Polyethene (D) Rayon

37. Force of attraction or repulsion

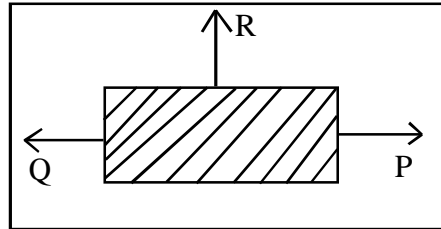
between two magnets is :

- (A) contact force
(B) non contact force
(C) electrostatic force
(D) both (A) and (B)

38. Myxobolus causes

- (A) Gill rot disease
(B) ulcer of boil disease
(C) cotton wool disease
(D) fin and tail rot disease

39. Three persons P,Q and R pull a block with equal forces as shown in figure. Identify the direction of motion of the block :



- (A) In horizontal direction towards left
(B) In horizontal direction towards right
(C) In vertically upward direction
(D) The block remains stationary.

40. Here P,Q and R represent three cells. '✓' mark is used if the part of the cell is present in the cell and 'X' if not .

	P	Q	R
Nucleus	✓	✓	✓
Cellwall	X	✓	X
Plastid	X	✓	X
Mitochondria	✓	✓	✓

Identify the plant cell(s).

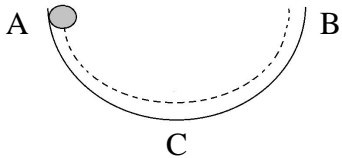
- (A) P only
(B) Q only
(C) R only
(D) Both P and R

8. Triangulation is a method to :
(A) locate epicentre of earthquake
(B) measure intensity of earthquake
(C) measure magnitude of earthquake
(D) calculate energy released during earthquake
9. Which of the following pair of metals do not react with dilute acids ?
(A) Zinc, copper
(B) Iron, mercury
(C) Copper, silver
(D) Gold, sodium
10. Khumanching Reserved forest is located in :
(A) Bishnupur district
(B) Senapati district
(C) Churachandpur district
(D) Tamenglong district
11. Choose the branched and long cell from the following cells.
(A) tracheid cells
(B) nerve cells
(C) epithelial cells
(D) mesophyll cells
12. In solution electric current is conducted by :
(A) ions (B) electrons
(C) atoms (D) molecules
13. We don't feel atmospheric pressure because
(A) it is small in magnitude.
(B) it does not act on us. It only acts on atmosphere.
(C) our internal body pressure is equal to that of the atmospheric pressure.
(D) It does not act at sea level.

14. Which of the following frequencies can be heard by a normal human being ?
(A) 10^4 Hz (B) 10^5 Hz
(C) 10^6 Hz (D) 10^7 Hz
15. Why tyres are circular in shape ?
(A) It is easy to inflate them
(B) Rolling friction is less than sliding friction
(C) Circular tyres dissipate less heat
(D) It is easy to slow down or stop vehicle
16. Choose the strong smelling volatile liquid(s) from the following compounds.
(i) C_4H_{10} (ii) C_3H_8
(iii) C_2H_6 (iv) C_2H_5SH
(A) i, iv (B) ii, iii
(C) only iii (D) only iv
17. Match column A and column B
- | Column A | Column B |
|---------------|--|
| i) Ursa Major | P) brightest star |
| ii) Pole star | Q) Saptarshi |
| iii) Orion | R) All stars appear to revolve around it |
| iv) Sirius | S) also called hunter. |
- (A) i ii iii iv (B) i ii iii iv
S P Q R R S P Q
(C) i ii iii iv (D) i ii iii iv
Q R S P Q R P S

1. The adverse effects of the Bhopal Gas Tragedy on the victim included
 - i) Diseases of eyes such as cataracts, poor vision complete blindness, etc.
 - ii) Skeletal and muscular problems
 - iii) Reduction in memory power and motor skills
 - iv) Low body temperature and low immunity
 - v) Lung diseases such as bronchitis, breathlessness and cough.
 Which of the above statements are true? (Choose the most appropriate)
 - (A) i, v and iv
 - (B) i, ii and iii
 - (C) ii, iii iv and v
 - (D) i, ii, iii and v
2. Indigestion and collection of gas in the rumen is the symptoms of :
 - (A) Anthrax
 - (B) Bloat
 - (C) Mad cow disease
 - (D) Bovine diarrhoea
3. The microorganism harmful to human beings is :
 - (A) Lactobacillus
 - (B) Azotobacter
 - (C) Plasmodium
 - (D) Cyanobacteria
4. The size of a black breasted quail is about
 - (A) $\frac{1}{4}^{th}$ of the normal size of a chicken's egg
 - (B) $\frac{1}{5}^{th}$ of the normal size of a chicken's egg
 - (C) $\frac{1}{6}^{th}$ of the normal size of a chicken's egg
 - (D) $\frac{1}{7}^{th}$ of the normal size of a chicken's egg
5. Identify the non combustible substance.
 - (A) Petrol
 - (B) Coke
 - (C) Ether
 - (D) None of the above
6. The estimate number of full grown trees required to produce 5,000kg of paper is :
 - (A) 85
 - (B) 80
 - (C) 75
 - (D) 70
7. Name the planet from the following characteristic features.
 - i) It appears yellowish in colour
 - ii) It has a very beautiful ring system
 - iii) Its density is the least among all the planets
 - (A) Jupiter
 - (B) Uranus
 - (C) Saturn
 - (D) Neptune

41. In a hive of Apis indica royal jelly is fed to :
 - (A) queen
 - (B) worker
 - (C) drone
 - (D) all the above
42. A particle moves a distance of 15m in 4 seconds, 54m in the next 2 minutes and 0.03024km in the next 24 seconds. Find the average speed of the particle.
 - (A) 0.67 m/sec
 - (B) 3.322 m/sec
 - (C) 1.56 m/sec
 - (D) 1.37 m/sec
43. White rust of mustard is caused by :
 - (A) bacteria
 - (B) virus
 - (C) fungus
 - (D) protozoa
44. Ram rolled a steel ball at one edge of the glass bowl as shown. Consider that there is no friction between the surfaces of the ball and the bowl, what will happen ?



 - (A) The ball will roll out of the glass bowl near edge B
 - (B) It will stop at C after a number of to and fro motions
 - (C) It will keep moving between points A and B and will never stop.
 - (D) It will not move at all since friction is required for movement.
45. PET is the abbreviation of :
 - (A) Polyethane terephthate
 - (B) Polyethanol terephthate
 - (C) Polyethene terephthate
 - (D) Polyethylene terephthate
46. The air in the core of lightning bolt has been estimated to be heated as much as :
 - (A) 53,000° F
 - (B) 54,000° F
 - (C) 55,000° F
 - (D) 56,000° F
47. X is a good conductor of electricity. Which of the following could be X ?
 - (A) Solid sodium chloride
 - (B) Distilled water
 - (C) Liquid oxygen
 - (D) vinegar
48. There are 11 letters in the word EXAMINATION . How many letters of these words are not changed when the word is seen by a person in a plane mirror ?
 - (A) 8
 - (B) 6
 - (C) 11
 - (D) 9