

Time Alloted : 90 Min.
Maximum Marks : 180

* Please read the instructions carefully. You are allotted 5 minutes specilly for this purpose.


## :: INSTRUCTIONS ::

1. This booklet is your question paper, contains 50 questions.
2. There are five parts in the question paper $A, B, C, D$ and $E$ consisting of Mathematics, Physics, Chemistry, Biology \& Challenger Section having 10 questions in each part.
3. Each question in section $A, B, C \& D$ is of 3 marks \& for section $E$ of 6 marks.
4. There is no negative marking in any case.
5. There is only one correct response for each question. Filling up more than one response in any question will be treated as wrong response.
6. Use Blue /Black Ball Point Pen only for writing particulars/ marking responses on the Answer sheet. Use of pencil is strictly prohibited.
7. No candidate is allowed to carry any textual material, printed or written bits of papers, pager, mobile phone, any electronic device, etc. except the Hall Ticket inside the examination hall/ room.
8. On completion of the test, the candidate must hand over the Answer Sheet to the invigilator, on duty in the Room/Hall.


## QUESTION PAPER CODE - 07080A

(You must write this code on your OMR Sheet)

## Dear student

Ready for the test? Take a deep breath and relax. Don't forget to read the questions very carefully. Some questions that look tough, will be quite easy after you have read them properly. Do not spend too much time on any question. Go to the next question and later come back to the ones you felt were tough. Be cool, give your best and have fun.

Good luck!

## (Section-'A' (Maths)

1. If length of side of square is 4 cm then its diagonal is:
(a) $4 \sqrt{2} \mathrm{~cm}^{2}$
(b) 4 cm
(c) $16 \mathrm{~cm}^{2}$
(d) $4 \sqrt{2} \mathrm{~cm}$
2. A coin is tossed 100 times and heads is obtained 59 times. On tossing a coin at random, find the probability of getting a head :
(a) $\frac{59}{100}$
(b) $\frac{41}{100}$
(c) $50 / 100$
(d) 1
3. The difference between the Circumference and radius of a circle is 37 cm . The area of the circle :
(a) $111 \mathrm{~cm}^{2}$
(b) $148 \mathrm{~cm}^{2}$
(c) $154 \mathrm{~cm}^{2}$
(d) $259 \mathrm{~cm}^{2}$
4. The runs scored by 11 members of a cricket team are :
$25,39,53,18,65,72,0,46,31,08,34$. Then median score is :
(a) 72
(b) 0
(c) 34
(d) 39
5. The birth rate per thousand in five countries over a period of time is shown below :

| Contries | China | India | Germony | UK | Sweden |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Rate | 42 | 55 | 14 | 28 | 21 |

If you study the above the data conclude that which country having maximum birth rate :
(a) China
(b) Indian
(c) UK
(d) Nepal
6. Number of face in cube is :
(a) 2
(b) 4
(c) 6
(d) 8
7. The probability of number of girls in a boys School is:
(a) 1
(b) $\frac{1}{2}$
(c) $\frac{3}{4}$
(d) N.O.T.
8. The area of an equilateral triangle is $4 \sqrt{3} \mathrm{~cm}^{2}$. The length of each of its sides is :
(a) 3 cm
(b) 4 cm
(c) $2 \sqrt{3} \mathrm{~cm}$
(d) $\frac{1}{2} \sqrt{3} \mathrm{~cm}$
9. Find the mode of following data:
$27,23,39,18,27,21,27,27,40,36,27$
(a) 23
(b) 27
(c) 21
(d) 40
10. The sum of all angles of a quadrilateral is :
(a) $240^{\circ}$
(b) $180^{\circ}$
(c) $360^{\circ}$
(d) $90^{\circ}$

## (Section-'B' (Physics)

11. For a Concave Mirror if object is at the focus then image is formed at the :
(a) Focus
(b) Centre of Curvature
(c) Between focus \& Centre of Curvature
(d)None
12. The reflection of light produces a change in its :
(a) Speed
(b) Size
(c) Colour
(d) Direction
13. Which of these colour is not present in the spectrum:
(a) indigo
(b) yellow
(c) orange
(d) silver
14. A spoon having $\qquad$ surface :
(a) Concave
(b) Convex
(c) Both
(d) N.O.T.

15. For a plane mirror size of image is equal to the :
(a) Size of object
(b) less than the object
(c) greater than the object
(d) Nothing can be said
16. A bar magnet having :
(a) North pole
(b) South pole
(c) Both pole
(d) No any pole
17. Which of the following sends the perception of the image to our brain :
(a) Cornea
(b) Retina
(c) Iris
(d) Optic nerve
18. Which of these does not have a lens :
(a) eye
(b) telescope
(c) spectacles
(d) prism
19. Light can only pass through a straight tunnel. Which type of light propagation this fact expresses :
(a) rectilinear
(b) curvilinear
(c) bouncing effect
(d) non linear
20. As the magnifiers in movie projectors, we use :
(a) Concave mirror
(b) Convex mirror
(c) both
(d) N.O.T.

## (Section-'C' (Chemistry)

21. Atomic number ofSilicon is :
(a) 11
(b) 12
(c) 13
(d) 14
22. Formula of glucose is :
(a) $\mathrm{C}_{6} \mathrm{H}_{6} \mathrm{O}_{1}$
(b) $\mathrm{C}_{12} \mathrm{H}_{22} \mathrm{O}_{11}$
(c) $\mathrm{CaCO}_{3}$
(d) N.O.T.
23. The waste water from kitenens and bathrooms is often called:
(a) grey water
(b) white water
(c) red water
(d) blue water
24. Formula of water is :
(a) $\mathrm{H}_{2} \mathrm{O}$
(b) $\mathrm{H}_{2} \mathrm{O}_{2}$
(c) HO
(d) $\mathrm{HO}_{2}$
25. Underground water is also called :
(a) water table
(b) aquifer
(c) surface water
(d) lake
26. Which of the following is the purest form of water:
(a) river water
(b) rain water
(c) sea water
(d) pond water
27. Loss of forest area results in $\qquad$ . :
(a) disturbance in water cycle
(b) floods
(c) occurrence of soil erosion
(d) all of above
28. Number of electron present in the nucleus of sodiun is: (Atomic no. of $\mathrm{Na}=11$ )
(a) 11
(b) 13
(c) 15
(d) N.O.T.
29. The waste water from toilet is often referred as :
(a) blue water
(b) Red water
(c) grey water
(d) N.O.T.
30. Electron having:
(a) Negative charge
(b) Positive charge
(c) Zero charge
(d) Fraction positive charge

## (Section-'D' (Biology)

31. Vegetative reproduction is example of:
(a) sexual reproduction
(b) asexual reproduction
(c) both
(d) None
32. Potato reproduces :
(a) root
(b) eyes
(c) leaf
(d) None
33. Dispersal agent are :
(a) Wind
(b) water
(c) Animal
(d) All

## ::Space for Rough Work::

34. Spirogyra reproduces by :
(a) Budding
(b) Spore formation
(c) Fragmentation
(d) Vegetative propagation
35. Asexual Reproduction in plants occurs by:
(a) Budding
(b) Flower
(c) ovary
(d) All
36. A plant that can reproduce form stem cutting is :
(a) Rose
(b) Potato
(c) Carrot
(d) All
37. Mature ovary forms the :
(a) Seed
(b) Stamen
(c) Pistil
(d) Fruit
38. The first link in a food chain are :
(a) plants
(b) herbivores
(c) carnivores
(d) decomposers
39. Sexual maturity in human female is obtained at the age of:
(a) 12-13 year
(b) 13-14 year
(c) 14-25 year
(d) 16-17 year
40. Lemon is the source of :
(a) Vit - A
(b) Vit - B
(c) Vit-C
(d) None

## (Section-'E' (Challenger)

41. When an object moves from focus to infinity from a convex lens the size of the image :-
(a) decreases
(b) increases
(c) remain same
(d) First decreases then incsrease
42. SI unit of wieght is :
(a) gm
(b) kg
(c) mg
(d) None
43. A matter which optical density is more but mass denisty is less than water .
(a) Alcohol
(b) Kerosene oil
(c) Turpentive oil
(d) Mustand oil
44. Intermolecular space is least in
(a) Water
(b) Steam
(c) ice
(d) All
45. The sharp pain caused by the sting of an ant is:
(a) Malic acid
(b) Suilphuric acid
(c) Lactic acid
(d) None
46. Soft drinks contain
(a) Acetic acid
(b) tartaric acid
(c) nitric acid
(d) None
47. The sum of all exterior angles of a triangle is :
(a) $240^{\circ}$
(b) $180^{\circ}$
(c) $360^{\circ}$
(d) $90^{\circ}$
48. The energy produced by 1 g of carbohydrate is :
(a) 4.8 cal
(b) 4.2 Kcal
(c) 9 joules
(d) 9.2 Kcal
49. Angle at a point is :
(a) $0^{0}$
(b) $180^{\circ}$
(c) $360^{\circ}$
(d) $90^{\circ}$
50. A cup of milk contains 3 parts pure milk and 1 part water. How much of the mixture must be removed \& replaced by water to get mixture half milk \& half water.
(a) $1 / 2$
(b) $1 / 4$
(c) $1 / 6$
(d) None

## The End

## Notice

## S.T.R.T. Result on 10th Mar. 2017 At 3:00 PM

Receive the Result Card \& Scholarship Terms \& Conditions on $10^{t h}-$ Mar.-2017 after 3:00 PMM \&U 6efore 6:00PM
For Result Phone Calls Facilities NOT Available.

