

Name

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Batch..... Roll No.

BRILLIANT SCIENCE OLYMPIAD

MOCK TEST

PHYSICS + CHEMISTRY + BIOLOGY + MATHS

Class VIII

PHYSICS

1. The upthrust on a body immersed in a fluid is equal to the
 - A) mass of the liquid displaced
 - B) weight of the fluid displaced
 - C) volume of the fluid displaced
 - D) density of the fluid displaced
2. An object of mass 300g is resting on a frictionless table. Calculate the acceleration of the object when it is acted upon by a force of 0.03N
 - A) 1 m/s²
 - B) 10 m/s²
 - C) 3 m/s²
 - D) 0.1 m/s²
3. Choose the correct statements from the following.
 - i) Blood pressure is minimum at our feet and maximum at our head.
 - ii) It is easier for a camel to move on the sand because its feet have a large area.
 - iii) The pressure along a horizontal line a vessel filled with water is the same.
 - A) i and ii
 - B) I and iii
 - C) ii and iii
 - D) all of them are correct
4. Which of the following relations are correct?
 - A) Rolling friction > Sliding friction
 - B) Rolling friction < sliding friction
 - C) Limiting friction < sliding friction
 - D) Both a and c
5. Why is the shape of an aeroplane designed similar to the shape of a bird?
 - A) To increase fluid friction
 - B) To reduce fluid friction
 - C) To maintain fluid friction
 - D) To eliminate friction completely
6. The point on a lens, where a light ray on passing through it suffers no deviation, is called
 - A) focus
 - B) optical centre
 - C) aperture
 - D) none of these
7. A 174cm tall man wishes to see his full image in a plane mirror. The minimum height of plane mirror needed for this purpose is
 - A) 174cm
 - B) 348cm
 - C) 87cm
 - D) 82cm

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8. When a beam of white light is dispersed using a prism, which of the following colours will be most deviated?
- A) Red B) Green C) Violet D) Indigo
9. The wheel of an engine, with a circumference of 200cm, makes 20 revolutions 5 seconds. The speed of the wheel is
- A) 2m/s B) 4m/s C) 8m/s D) 10m/s.
10. A train of length 150m is moving at a speed of 18 km/hr. How much time it will take to cross a bridge of length 100m length?
- A) 1minute B) 50 second C) 40 second D) 30 second
11. A body is dropped freely into a river from a bridge. It takes 8s to touch the water surface. The velocity with which, it strikes the water surface is?
- A) 49 m/s B) 78.4m/s C) 88.2m/s D) 98m/s
12. Which is the device used to break the circuit when excessive current flows
- A) Main switch B) Inverter C) Generator D) Fuse
13. If 2A current flows through a circuit for 5 second, find total charge flows through it?
- A) 2.5C B) 5C C) 8C D) 10C
14. During the electro plating of copper, pure copper deposited at
- A) cathode B) anode
- C) both cathode and anode D) bottom of vessel
15. When current is passed through water containing sulphuric acid
- A) electrolysis of water takes place
- B) current flows through the water
- C) Water molecule split into hydrogen and oxygen
- D) All of the above occur

16. Which of the following is homogenous in nature

- A) NaCl solution
- B) Bronze
- C) Both A and B
- D) A solution of chalk powder

17. Which of the following is made from wood pulp

- A) Rayon B) Nylon C) Polyester D) None of the above

18. A biodegradable substance is

- A) Thermoplastic
B) Thermosetting plastic
C) PVC pipes
D) None of the above

19. Water has maximum density at

- A) 0°C B) 4°C C) 50°C D) 100°C

20. Which of the following is a method of water conservation

- A) Leaving the tap running while brushing your teeth
- B) Using a hose to water a lawn
- C) Rain water harvesting
- D) Taking long, hot showers

21. Due to its semiconductor properties the nonmetal used in computers, TV etc. are

- A) Carbon B) Bromine C) Silicon D) Fluorine

22. Nonmetals form covalent chlorides because

- A) They can give electrons to chlorine
- B) They can share electrons with chlorine
- C) They can give electrons to chlorine atoms to form chloride ion
- D) They cannot share electron with chlorine

BIOLOGY

31. Which of the following is a parasite ?

- A) Plasmodium B) Paramoecium C) Amoeba D) Codonosiga

32. Virus was discovered by

- A) Twort B) D. Herell C) Louis Pasteur D) Ivanowsky

33. Example of unicellular fungi

- A) Candida B) Penicillium C) Agaricus D) Aspergillus

34. Virus which infect bacteria is

- A) Viroid B) Bacterioide C) Bacteriophage D) Virucide

35. The correct match of the type of Algae and its example is

Column I

Column II

i) Unicellular algae

a) Volvox

ii) Filamentous algae

b) Sargassum

iii) Colonial algae

c) Chlamydomonas

iv) Multicellular algae

d) Spirogyra

A) i-b, ii-a, iii-d, iv-c

B) i-c, ii-d, iii-a, iv-b

C) i-d, ii-c, iii-b, iv-a

D) i-c, ii-a, iii-d, iv-c

36. Kaziranga sanctuary is located in

- A) Kerala B) Gujarat C) Bharatpur D) Assam

37. Which of the following are living resources in nature ?

- A) Flora B) Fauna C) Soil D) Both A and B

38. The practice of clearing a part of a forest for cultivation and then moving on to a new part is called

- A) Shifting cultivation B) Crop rotation
C) Step farming D) Monoculture

39. Match the column

Column I

Column II

i) 21 March

a) World Forest Day

ii) 5 June

b) Biological Diversity Day

iii) 3 December

c) World Environment Day

iv) 29 December

d) World Conservation Day

A) i-d, ii-a, iii-b, iv-c

B) i-c, ii-b, iii-a, iv-d

C) i-a, ii-b, iii-c, iv-d

D) i-a, ii-c, iii-d, iv-b

40. An exception of cell theory

A) Bacteria

B) Protista

C) Algae

D) Virus

41. Cell theory was expanded by

A) Schleiden

B) R. Virchow

C) Brown

D) Grew

42. Cell membrane is

A) Unilaminar

B) Bilaminar

C) Trilaminar

D) Quadrilaminar

43. Prokaryotic ribosome has two subunit of

A) 40S + 40S

B) 50S + 30S

C) 60S + 40S

D) 20S + 30S

44. The animals having separate male, female individuals are called

A) Bisexual

B) Hermaphrodite

C) Unisexual

D) All of these

45. Natural parthenogenesis occurs in

A) Honey bee

B) Frog

C) Man

D) Rabbit

MATHEMATICS

46. Solve; $x+7 = 27$

A) $x = 20$

B) $x = 10$

C) $x = 34$

D) $x = 27$

47. Factorise; x^2-y^2

A) $(x+y)(x-y)$

B) $(x+y)(x+y)$

C) $(x-y)(x-y)$

D) $(y+x)(y^2+x)$

48. Find the value of x , if $x+2x = 9$

A) 6

B) 3

C) 9

D) 1

49. Expand; $(x+2)^2$

A) x^2-4+4x

B) x^2-4x+4

C) x^2+4x+4

D) x^2+2x+4

50. Write the ratio of 8 to 12

A) 3:2

B) 6:4

C) 2:3

D) 5:10

51. A box has 16 pencils and 24 pens. Find the ratio of pencils to pens

A) 3:2

B) 4:3

C) 3:4

D) 2:3

52. An orange costs Rs 12. How many oranges can be bought for 60 ?

A) 5

B) 6

C) 4

D) 3

53. A bottle costs 60. If 4 bottles are bought, how much money is needed ?

A) 300

B) 180

C) 240

D) 60

54. The base of a triangle is 10cm and the height is 6cm. Find the area

A) 60 cm^2

B) 30 cm^2

C) 20 cm^2

D) 50 cm^2

55. In a right triangle, one side is 4 cm and hypotenuse is 5 cm. Find the other side

A) 3 cm

B) 2 cm

C) 4 cm

D) 6 cm

56. How many sides does a pentagon have

A) 6

B) 5

C) 4

D) 7

57. The sum of internal angles of a quadrilateral is

- A) 180° B) 360° C) 90° D) 520°

58. Find the square root of 81

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

59. Find the square of 11

- A) 101 B) 131 C) 141 D) 121

60. The sum of internal angles of a triangle is

- A) 90° B) 60° C) 180° D) 360°

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MOCK TEST

		<i>P +C +B +M - KEY WITH HINTS</i>				Class VIII	
1.	B	16.	C	31.	A	46.	A
2.	D	17.	A	32.	D	47.	A
3.	C	18.	D	33.	A	48.	B
4.	B	19.	B	34.	C	49.	C
5.	B	20.	C	35.	B	50.	C
6.	B	21.	C	36.	D	51.	D
7.	C	22.	B	37.	D	52.	A
8.	C	23.	A	38.	A	53.	C
9.	C	24.	A	39.	D	54.	B
10.	B	25.	A	40.	D	55.	A
11.	B	26.	D	41.	B	56.	B
12.	D	27.	B	42.	B	57.	B
13.	D	28.	A	43.	B	58.	A
14.	A	29.	B	44.	C	59.	D
15.	D	30.	B	45.	A	60.	C