

AMITY INSTITUTE

FOR COMPETITIVE EXAMINATIONS

Delhi Centres: • E-23, Defence Colony, New Delhi - 110024. Ph.: 011-24336143/44, 24331000-02.
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AMITY FIVE YEARS CONCEPTUAL PROGRAMME

MODULE TEST-III

CLASS - VIII

SCIENCE

Time: 1 hour 15 Minutes

Date: 27.01.2017

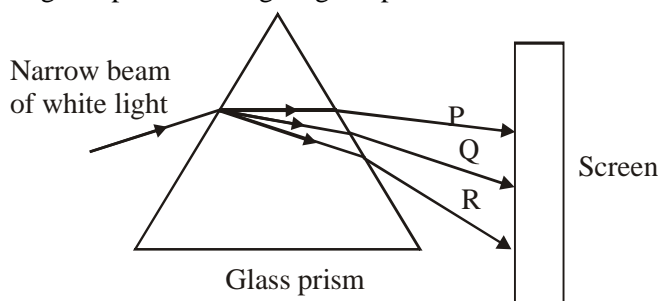
Maximum Marks: 180

GENERAL INSTRUCTIONS:

1. Fill in the response sheet with your Name, Class, School etc, in the respective columns, using a blue pen
 2. Only one choice (a), (b), (c), (d) is correct for each question. Shade the alphabet of your choice in the response sheet.
 3. For each correct response you will get **4 marks**; for each incorrect response you will lose **1 mark**. However if the question is unanswered no marks will be deducted.
 4. Use only HB pencil/Ball point pen for Shading.
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1. The sliding frictional force between a 4 kg box and the floor is 15 N. It is pushed across the floor with a constant force such that it accelerates at 0.8 m/s^2 . What is the force applied to the box?
(a) 9.1 N (b) 18.2 N (c) 3.6 N (d) 6.2
 2. In the above question, if this same force calculated is applied to the box which is now placed on a frictionless floor. What is the new acceleration produced?
(a) 8.2 m/s^2 (b) 16.2 m/s^2 (c) 4.55 m/s^2 (d) 2.3 m/s^2
 3. The characteristic of sound which enables us to distinguish between two musical sounds coming from different sources, but having the same frequency and loudness is
(a) Pitch (b) Loudness (c) Timber (d) None of these
 4. A supersonic plane flies at the speed
(a) Less than the speed of the sound
(b) With speed of sound
(c) Greater than the speed of sound
(d) With speed of light
 5. When sunlight is concentrated on a piece of paper by a spherical mirror or lens, then a hole can be burnt in it. For doing this, the paper must be placed at the focus of :
(a) Either a convex mirror or a concave lens (b) Either a plane mirror or concave lens
(c) Either a concave mirror or convex lens (d) Either a convex mirror or concave lens
-

6. The power of accommodation in a human eye is the ability of the _____ to adjust its _____.
 (a) Pupil, diameter (b) Pupil, thickness (c) Lens, focal length (d) Lens, distance from the retina
7. Stars rise and set in the night sky because
 (a) Earth orbits the sun (b) Earth rotates on its axis
 (c) The north pole points toward Polaris (d) The stars are moving in space
8. What is the value of one light year?
 (a) 9.46×10^{12} Km (b) 9.46×10^{10} Km (c) 9.46×10^{14} Km (d) 9.46×10^8 Km
9. Not all the planets spin on their axis in the same direction, as they go round the sun. On which planet would you see the sunrise in the west and set in the east
 (a) Mars (b) Venus (c) Mercury (d) Neptune
10. Which words describe the different shapes that the moon appear to be?
 (a) Waning and waxing (b) Waning and crescent
 (c) Waxing and gibbous (d) Crescent and gibbous
11. Two stretched membranes of area 3 cm^2 and 4 cm^2 are placed in a liquid at the same depth. The ratio of the pressure on them is :
 (a) 1 : 1 (b) 3 : 4 (c) 4 : 3 (d) None of these
12. The change in momentum of a body in 0.01 s is 10 kg m/s. The force acting on it is
 (a) 10 N (b) 0.1 N (c) 100 N (d) 1000 N
13. Sita observes lightning in her area. She hears the sound 5s after she observed lightning. How far is she from the place where lightning occurred if speed of sound in air is 330 m/s.
 (a) 1.65 km (b) 2.55 km (c) 3.65 km (d) 4.55 km
14. A narrow beam of white light is passed through a glass prism as shown in the figure.



Which of the following is the correct order of colours emerging from the prism?

- | P | Q | R |
|----------|-------|-------|
| (a) Red | Blue | Green |
| (b) Red | Green | Blue |
| (c) Blue | Green | Red |
| (d) Blue | Red | Green |
15. An object of size 7 cm is placed at 27 cm in front of a concave mirror of focal length 18 cm. At what distance from the mirror should a screen be placed so as to obtain sharp image of the object.
 (a) 54 cm (b) 45 cm (c) 15 cm (d) None of these
16. The alternate name of Terylene, that was used in USA is -
 (a) Nylon (b) Dacron (c) Orlon (d) None of these

17. The second most abundant metal in the earth crust is -
 (a) Aluminium (b) Iron (c) Sodium (d) Calcium
18. The number of moles present in 44g of CO₂ gas is :-
 (a) 1 (b) 2 (c) 3 (d) 2.5
19. Match the following :-

Column-I

Column-II

(A) Artificial wool

(i) Rayon

(B) Artificial silk

(ii) Orlon

(C) PET

(iii) Teflon

(D) PTFE

(iv) Polyester

(a) A - (i), B - (ii), C - (iii), D - (iv)

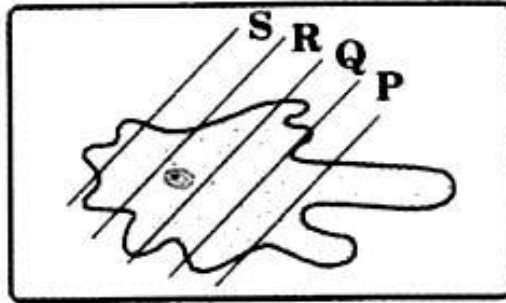
(b) A - (ii), B - (i), C - (iv), D - (iii)

(c) A - (i), B - (iv), C - (iii), D - (ii)

(d) A - (iii), B - (ii), C - (iv), D - (i)

20. The symbol of lead and mercury are :
 (a) Hg and La (b) Hg and Mg (c) Hg and Pb (d) Pb and Hg
21. Isotopes are the elements that have :
 (a) Same number of protons (b) Same number of electrons
 (c) Same number of neutrons (d) All of these
22. Shoe sole is made up of :
 (a) Bakelite (b) Thermocol (c) PVC (d) None of these
23. Select the correct one :
 (i) Methane is used as fuel for steam boiler (ii) Natural gas mainly consist of propane.
 (iii) CNG is widely used in power generation. (iv) CNG is "Confined Natural Gas".
 (a) (i) & (ii) (b) (i) & (iii) (c) (ii) & (iv) (d) (iii) & (ii)
24. Non-luminous zone of candle is :
 (a) Black in colour (b) Blue in colour (c) Red in colour (d) Yellow in colour
25. Identify the wrong statement from the following :
 (a) Metals have fixed melting point
 (b) All metals are malleable
 (c) The hardest natural substance known is diamond
 (d) Tungsten is a bad conductor of heat and electricity
26. Plexiglass is also known as :
 (a) PMMA (b) PET (c) PVC (d) PTFE
27. Which of the following is not the type of coal?
 (a) Peat (b) Lignite (c) Graphite (d) Anthracite
28. Baking Soda-Sulphuric acid extinguisher can extinguish :
 (a) All types of fire (b) Only electrical
 (c) All types of fire except electrical fire (d) None of these

29. World's first oil well was drilled in
 (a) Iran (b) UAE (c) USA (d) India
30. "The process of burning of wax candle is similar to respiration". Which of the following choices given below violates the above statement?
 (a) Oxidation of fuel (b) Releases of water vapour and CO₂
 (c) Process take place at room temperature (d) Liberation of energy
31. The given figure shows an *Amoeba* that has been sliced into four parts :-



Which of the following labelled parts can still live and reproduce?

- (a) P (b) Q (c) R (d) S
32. Which of these antibiotics is/are made from bacteria?
 (a) Penicillin (b) Tetracycline (c) Polio vaccine (d) All of these
33. During a science lesson, Anish learnt how to identify the cells.

Cell part/cell	X	Y	Z
Nucleus	√	√	√
Cell wall	√	√	√
Cell membrane	√	√	√
Chloroplast		√	√
Guard cells			√

Which of the following correctly shows the parts of the plant from which X, Y and Z were obtained?

	Stem	Leaf	Root
(a)	X	Y	Z
(b)	Y	Z	X
(c)	Z	X	Y
(d)	Z	Y	X

34. Which of the following pairs of hormones control the onset of puberty in boys and girls respectively?
 (a) Thyroxine and insulin (b) Estrogen and progesterone
 (c) Testosterone and estrogen (d) Estrogen and testosterone
35. Which of the following is/are the consequences of deforestation?
 (i) Global warming

(ii) Erosion of the top layer of soil

(iii) Increase in the level of carbon dioxide in air

(a) Only (i)

(b) Only (ii) and (iii)

(c) Only (ii)

(d) (i), (ii) and (iii)

36. Which of the following terms is used for raising both plant crop and livestock in farm?

(a) Mixed farming (b) Intercropping (c) Monocropping (d) Crop rotation

37. 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

38. Which two organelles are thought to have originated from free living prokaryotic cells?

(a) Mitochondria and ribosomes

(b) Chloroplasts and nucleus

(c) Chloroplasts and mitochondria

(d) Lysosomes and mitochondria

39. If the ribosomes of a cell are destroyed then:

(a) Respiration will not take place

(b) Fats will not be stored

(c) Proteins will not be formed

(d) Carbon assimilation will not occur

40. Which of the following microorganisms convert nitrogenous waste into nitrogen compound?

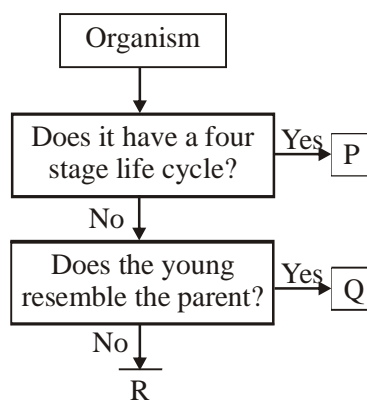
(a) Bacteria and Fungi

(b) Fungi and Protozoan

(c) Protozoan and Algae

(d) Protozoan and Bacteria

41. Study the given flow chart.



Identify P, Q and R.

P

Q

R

(a) Ant

Toad

Butterfly

(b) Grasshopper

Frog

Housefly

(c) Butterfly

Chicken

Frog

(d) Moth

Dog

Grasshopper

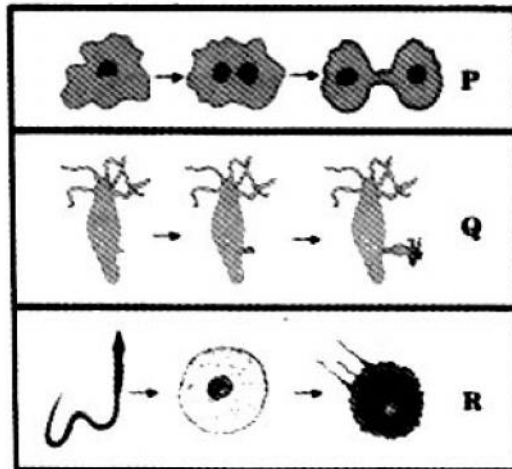
42. Match the following :-

- | Column-I | Column-II |
|--|--|
| (A) Endemic | (i) Towards extinction |
| (B) Extinct | (ii) The originating of new forms |
| (C) Endangered | (iii) Restricted to a region |
| (D) Evolution | (iv) A species out of sight |
| (a) A - (iii), B - (iv), C - (i), D - (ii) | (b) A - (i), B - (ii), C - (iii), D - (iv) |
| (c) A - (iv), B - (iii), C - (ii), D - (i) | (d) A - (ii), B - (i), C - (iii), D - (iv) |

43. Which of the following cellular organelles extract energy from carbohydrates and forms ATP molecules?

- (a) Lysosome (b) Chloroplast (c) Mitochondrion (d) Chromoplast

44. The diagram given shows the reproduction processes of 3 organisms P, Q and R.



Which of the above shows the process of sexual reproduction being taking place?

- (a) Only P (b) Only P and Q (c) Only R (d) Only P and R

45. Which of the following processes involves the conversion of sugar into alcohol by *Yeast*?

- (a) Pasteurisation (b) Sterilisation (c) Fermentation (d) Curding



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MODULE TEST-III

CLASS - VIII

SCIENCE

A N S W E R S (27.01.2017)

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (b) | 2. (c) | 3. (c) | 4. (c) | 5. (c) |
| 6. (c) | 7. (b) | 8. (a) | 9. (b) | 10. (d) |
| 11. (a) | 12. (d) | 13. (a) | 14. (b) | 15. (a) |
| 16. (b) | 17. (b) | 18. (a) | 19. (b) | 20. (d) |
| 21. (a) | 22. (c) | 23. (b) | 24. (b) | 25. (d) |
| 26. (a) | 27. (c) | 28. (c) | 29. (c) | 30. (c) |
| 31. (c) | 32. (b) | 33. (b) | 34. (c) | 35. (d) |
| 36. (a) | 37. (c) | 38. (c) | 39. (c) | 40. (c) |
| 41. (c) | 42. (a) | 43. (c) | 44. (c) | 45. (c) |