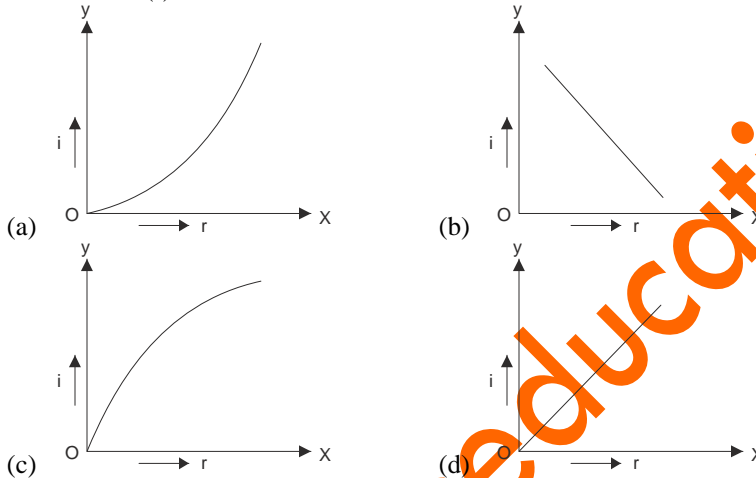


Railway Recruitment Board, Gorakhpur
(General Awareness)

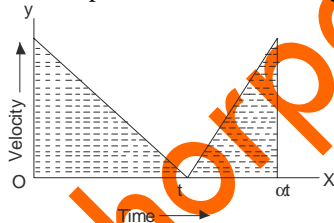
Diesel Assistant Recruitment Examination
October 2006 Question Paper
(Fully Solved)

1. When a ray of light passes from an optically denser medium to a rarer medium, it
- (a) Remains undeviated (b) Bends towards normal
(c) Bends away from normal (d) None of these

2. Which of the following denotes the graphic relationship between angle of incidence (i) and angle of reflection (r)?



3. The shaded portion in the following velocity time graph is



- (a) Average Velocity (b) Distance Covered
(c) Displacement (d) Average Acceleration

4. The time period of a seconds pendulum is

- (a) 1 second (b) 4 seconds
(c) 3 seconds (d) 2 seconds

5. The nuclear fuel in the sun is

- (a) Helium (b) Uranium
(c) Hydrogen (d) Oxygen

6. The second's hand of a watch is 2 cm long. The velocity of its tip is

- (a) 0.21 cm/sec. (b) 2.1 cm/sec.
(c) 21 cm/sec. (d) None of these

7. In diesel engine, ignition is caused by

- (a) Spark (b) Automatic starter
(c) Compression (d) Friction

8. The mass-energy equivalence, relationship $E = mc^2$ was propounded by
(a) Max Plank (b) Einstein
(c) Newton (d) Hertz
9. The filament of bulb is made of
(a) Tungsten (b) Iron
(c) Nichrome (d) Carbon
10. Anti-knocking can be lessened by
(a) Iso Octane (b) N Heptane
(c) TEL (d) Benzene
11. In which of the following oxidation shows a positive oxidation state.
(a) CO (b) N_2O
(c) NO (d) F_2O
12. Which of the following is used in photography?
(a) Silver Bromide (b) Sodium Bromide
(c) Potassium Chloride (d) Sodium Sulphate
13. Which of the following is used in accumulator cell?
(a) Copper (b) Iron
(c) Lead (d) Zinc
14. Choose the wrong statement :
(a) Single magnetic poles can exist
(b) Magnetic poles are always of equal strength
(c) Like poles repel each other
(d) None of these
15. Laws of electrolysis are given by:
(a) Farady (b) Maxwell
(c) Lenz (d) Bohr
16. Flemings left hand rule is used to find out:
(a) Direction of magnetic field due to flow of current
(b) Direction of induced current due to effect of magnetic field
(c) Direction of motion of a current carrying conductor in magnetic field
(d) None of these
17. The pH of a neutral solution at $25^\circ C$ is :
(a) 0 (b) 1.0
(c) 7.0 (d) 1.4
18. The raw material used for the manufacture of Portland cement is :
(a) Limestone and clay (b) Alumina, clay and gypsum
(c) Gypsum and limestone (d) Gypsum and clay
19. $CaOCl_2$ is the chemical formula for a compound commonly known as :
(a) Soda Ash (b) Lime
(c) Bleaching Powder (d) Plaster of Paris
20. The glass used for making laboratory apparatus is :
(a) Pyrex glass (b) Hard glass
(c) Soft glass (d) Safety glass

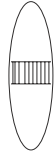
21. The iron produced in blast furnace is :
(a) Pig iron (b) Wrought iron
(c) Stainless steel (d) Steel
22. Formation is a 40% solution of :
(a) Methanol (b) Methanal
(c) Methanoic acid (d) None of these
23. Which of the following is not an ore of aluminium :
(a) Cryolite (b) Feldspar
(c) Bauxite (d) Azurite
24. Rhombic monoclinic and plastic sulphur are:
(a) Isomers (b) Isotopes
(c) Allotropes (d) Hydrides of sulphur
25. The alkaline hydrolysis of oils or fats gives soap and :
(a) Glycerol (b) Ethenol
(c) Glycol (d) Ethanoic acid
26. The sight of a delicious food usually makes mouth watery. It is a :
(a) Hormonal response (b) Neural response
(c) Optic response (d) Olfactory response
27. Nitrogen fixing bacteria are normally found in :
(a) Parasitic plants (b) Epiphytic plants
(c) Leguminous plants (d) Aquatic plants
28. Powdery mildew of wheat is caused by:
(a) Bacteria (b) Virus
(c) Fungi (d) Protozoans
29. Septic sore throat is caused by :
(a) Bacteria (b) Virus
(c) Fungi (d) Protozoans
30. A person of blood group AB can give blood to :
(a) 'A' and 'B' (b) Only 'AB'
(c) 'A', 'B' and 'O' (d) All of these
31. Cell activities are controlled by :
(a) Chloroplast (b) Nitochondria
(c) Cytoplasm (d) Nucleus
32. Which of the following helps eye to adjust the focal length of the eye lens :
(a) Cornea (b) Conjunctiva
(c) Ciliary body (d) Iris
33. When pollen of a flower is transferred to the stigma of the same plant, pollination type is referred to as :
(a) Autogamy (b) Allogamy
(c) Xenogamy (d) Geitonogamy
34. Respiration is a :
(a) Catabolic process (b) Anabolic process

- (c) Both of these (d) None of these
35. The structural and functional unit of kidneys are :
(a) Neurons (b) Nephrons
(c) Medula (d) None of these
36. Which of the following enzymes is generally not present in adult human :
(a) Renin (b) Pepsin
(c) Trypsin (d) Amylopsin
37. The part of the plant which is responsible for carrying water and solutes from roots to various parts of plants is :
(a) Phloem (b) Xylem
(c) Duodenum (d) Scleroids
38. 'Widal test' is used for susceptibility of :
(a) Malaria (b) Typhoid
(c) Cholera (d) Yellow fever
39. Exchange of gases in plants takes place through :
(a) Stomata (b) Lenticels
(c) Cuticle (d) All of these
40. 'Lieutenant' in army is equivalent to following rank in navy :
(a) Lieutenant (b) Sub Lieutenant
(c) Lieutenant Commander (d) None of these
41. Pankaj Advani is associated with :
(a) Snooker (b) Golf
(c) Shooting (d) Archery
42. Which city in the world is known as the forbidden city :
(a) Aberdeen (b) Jerusalem
(c) Mecca (d) Lhasa
43. Rajeev Gandhi Khel Ratna Award carries a sum of :
(a) Rs. 3 lakhs (b) Rs. 5 lakhs
(c) Rs. 1 lakh (d) Rs. 7 lakhs
44. Who is known as 'Nightingale of India' :
(a) Asha Bhonsle (b) Begum Akhtar
(c) Sarojini Naidu (d) Vijaylaxmi Pandit
45. Which one of the following is not included in the UNESCO's list of world heritage site :
(a) Kaziranga National Park (b) Qutab Minar
(c) Champaner Pavagarh (d) None of these
46. Which of the following is not an electric resistant?
(a) Lead (b) Ebonite
(c) Charcoal (d) Lac
47. Which of the following is a complementary colour?
(a) Blue (b) Yellow
(c) Magenta (d) Yellow and Magenta
48. The velocity of sound increases in air by for every degree Celsius increase of temperature.

- (a) 60 m/sec. (b) 0.61 m/sec.
(c) 60 ft/sec. (d) 0.61 km/sec.
49. Henry is a unit of
(a) Capacity (b) Magnetic field
(c) Inductance (d) Frequency
50. The velocity of rotation of Earth is
(a) 28 km/min (b) 30 km/min
(c) 25 km/min (d) 39.5 km/min
51. What is Hubble?
(a) Warship (b) Star
(c) Telescope (d) Missile
52. Which acid is normally found in lemon and grape fruits?
(a) Citric acid (b) Tartaric acid
(c) Ascorbic acid (d) Lactic acid
53. At which temperature Fahrenheit and Celsius show same reading?
(a) -40° (b) 0°
(c) -574.25° (d) 273°
54. Limestone is metamorphosed to form
(a) Graphite (b) Quartz
(c) Granite (d) Marble
55. Rift valley is formed by
(a) Earthquake (b) Folding
(c) Faulting (d) All of these
56. If a piece of ice at 0°C is mixed with water at 0°C , then
(a) Whole ice melts (b) Some ice melts
(c) No ice melts (d) Temperature decreases
57. Mettur Dam is built on the river
(a) Krishna (b) Cauvery
(c) Narmada (d) Mahanadi
58. Mahendra Giri peak is situated in the
(a) Eastern Ghats (b) Western Ghats
(c) Shiwaliks (d) Vindhya
59. In what time a sum will double itself at 20% per annum rate of interest?
(a) 2 years (b) 3 years
(c) 4 years (d) 5 years
60. The famous Dilwara Temple is situated in
(a) Madhya Pradesh (b) Maharashtra
(c) Gujarat (d) Rajasthan
61. Pneumonia affects
(a) Lungs (b) Tongue
(c) Liver (d) Kidney
62. The chemical name of Vitamin A is

- (a) Retinol (b) Jhiamin
(c) Biotic (d) Riboflavin
63. A 130m long train crosses a bridge in 30 seconds at 45 kmph. The length of the bridge is
(a) 200m (b) 225m
(c) 245m (d) 250m
64. By selling an article at some price a person gains 10%. If the article is sold at twice of the price the gain percent will be
(a) 20% (b) 60%
(c) 100% (d) 120%
65. Atoms are electrically charged as
(a) Positive (b) Negative
(c) Bi-positive (d) Neutral
66. Ionic bond exists in
(a) Kcl (b) H₂O
(c) NH₃ (d) Cl₃
67. Which force is required to increase the momentum of an object to 40 kg m/s in 5 seconds?
(a) 2N (b) 4N
(c) 8N (d) 10N
68. The river that does not form delta is
(a) Mahanadi (b) Tapti
(c) Krishna (d) Cauvery
69. The ratio of the radius and height of a cone is 5 : 12, respectively. Its volume is $314\frac{2}{7}$ cc. Find its slant height.
(a) 13cm (b) 14cm
(c) 17cm (d) 26cm
70. 27 students took part in a debate of a college. What is the probability that at least 3 of them have their birth days in the same month?
(a) $\frac{3}{27}$ (b) $\frac{3}{12}$
(c) $\frac{1}{2}$ (d) 1
71. Who was the first winner of Dada Saheb Phalke Award?
(a) B.N.Sarkar (b) Prithvi Raj Kapoor
(c) Devika Rani (d) Kanan Devi
72. How many members are nominated by the President in the Rajya Sabha?
(a) 12 (b) 15
(c) 10 (d) 20
73. Who was the founder of Brahma Samaj?
(a) Raja Rammohan Roy (b) Aurobindo Ghosh
(c) Vivekanand (d) Dyanand Saraswati
74. The Parliamentary System in India has been taken from
(a) America (b) Britain

- (c) Australia (d) Ireland
75. The electric supply in India was first started in
(a) Kolkata (b) Chennai
(c) Mumbai (d) Darjeeling
76. Bhatnagar Prize is given in the field of
(a) Peace (b) Music and dance
(c) Science & technology (d) Fine arts
77. Who discovered the solar system?
(a) Copernicus (b) Kepler
(c) Aryabhata (d) Newton
78. The Nobel Prize in Economics was started in
(a) 1901 (b) 1936
(c) 1957 (d) 1967
79. In India, the second largest in
(a) Bengali (b) Urdu
(c) Telugu (d) Marathi
80. The first Asian Games were held in
(a) Manila (b) Tokyo
(c) Jakarta (d) New Delhi
81. The Islam was established in
(a) 7th A.D. (b) 5th A.D.
(c) 3rd B.C. (d) 5th B.C.
82. The Olympic Games 2012 will be held in
(a) Moscow (b) Paris
(c) New York (d) London
83. The main factor of air pollution is
(a) Lead (b) Copper
(c) Zinc (d) Gold
84. The bauxite ore is found in
(a) Musabani (b) Karnapura
(c) Koderma (d) Palamu
85. The first fertilizer plant in India was established in
(a) Trombay (b) Nangal
(c) Alwaye (d) Sindri
86. Which of the following had strong navy?
(a) Bahmani (b) Chalukya
(c) Chola (d) Rashtrakuta
87. The last king of Maurya Dynasty was
(a) Brihdarth (b) Kunal
(c) Samprati (d) Salishuk
88. How will the image formed by a convex lens be affected if the central part of the lens is covered by black paper?



- (a) Remaining part of the lens will form no image
(b) The central position of the image is absent
(c) There will be no effect
(d) The full image will be formed with lessened brightness
89. The force between two parallel wires conducting current is used to define
(a) Ampere (b) Coulomb
(c) Volt (d) Newton
90. A body is thrown vertically upward and it reaches 10m high. Find the velocity with which the body was thrown? ($g = 9.8 \text{ m/s}$)
(a) 10 m/sec. (b) 18 m/sec.
(c) 14 m/sec. (d) 7 m/sec.
91. The buoyancy depends on the
(a) Depth of the fluid (b) Density of the fluid
(c) Volume of the fluid (d) Weight of the fluid

ANSWERS

- | | | | | |
|---------|-------------|---------|---------|---------|
| 1. (c) | 20. (a) | 39. (d) | 58. (a) | 77. (a) |
| 2. (d) | 21. (a) | 40. (b) | 59. (d) | 78. (d) |
| 3. (b) | 22. (b) | 41. (a) | 60. (d) | 79. (c) |
| 4. (d) | 23. (d) | 42. (d) | 61. (a) | 80. (d) |
| 5. (c) | 24. (c) | 43. (b) | 62. (a) | 81. (a) |
| 6. (a) | 25. (a) | 44. (c) | 63. (c) | 82. (d) |
| 7. (c) | 26. (d) | 45. (d) | 64. (d) | 83. (a) |
| 8. (b) | 27. (c) | 46. (a) | 65. (d) | 84. (d) |
| 9. (a) | 28. (c) | 47. (d) | 66. (a) | 85. (d) |
| 10. (a) | 29. (a & b) | 48. (b) | 67. (c) | 86. (c) |
| 11. (d) | 30. (b) | 49. (c) | 68. (b) | 87. (a) |
| 12. (a) | 31. (d) | 50. (a) | 69. (a) | 88. (d) |
| 13. (c) | 32. (c) | 51. (c) | 70. (c) | 89. (a) |
| 14. (a) | 33. (a) | 52. (a) | 71. (c) | 90. (c) |
| 15. (a) | 34. (a) | 53. (a) | 72. (a) | 91. (b) |
| 16. (c) | 35. (b) | 54. (d) | 73. (a) | |
| 17. (c) | 36. (a) | 55. (c) | 74. (b) | |
| 18. (b) | 37. (b) | 56. (c) | 75. (d) | |
| 19. (c) | 38. (b) | 57. (b) | 76. (c) | |