



## MNS SAMPLE PAPER

Timing: 90 minutes

M.M: 150

**INSTRUCTION:-** Read questions carefully. Each question contains 1 mark.

- A boy sitting on the topmost berth in the compartment of a train which is just going to stop on a railway station, drops an apple aiming at the open hand of his brother sitting vertically below his hands at a distance of about 2 meter. The apple will fall
  - Precisely on the hand of his brother
  - Slightly away from the hand of his brother in the direction of motion of the train
  - Slightly away from the hand of his brother in the direction opposite to the direction of motion of the train
  - None of the above
- Swimming is possible on account of
  - First law of motion
  - Second law of motion
  - Third law of motion
  - Newton's law of gravitation
- On stationary sail-boat, air is blown at the sails from a fan attached to the boat. The boat will
  - Remain stationary
  - Spin around
  - Move in a direction opposite to that in which air is blown
  - Move in the direction in which the air is blown
- A book is lying on an inclined plane having inclination to the horizontal  $\theta^\circ$ . What is the angle between the weight of the book and the reaction of the plane on the book
  - $0^\circ$
  - $\theta^\circ$
  - $180^\circ - \theta^\circ$
  - $180^\circ$
- A cannon after firing recoils due to
  - Conservation of energy
  - Backward thrust of gases produced
  - Newton's third law of motion
  - Newton's first law of motion
- A body, whose momentum is constant, must have constant
  - Force
  - Velocity
  - Acceleration
  - All of these
- A lead ball and a rubber ball both having the same mass, strike normally on a smooth vertical wall with the same velocity. The lead ball falls down after striking but the rubber ball bounces back. Check the correct statement
  - The momentum of the lead ball is more than that of the rubber ball
  - The momentum of the rubber ball is more than that of the lead ball
  - The rubber ball suffers a greater change in momentum as compared to the lead ball
  - Both the balls suffer an equal change of momentum
- Rocket works on the principle of conservation of
  - Mass
  - Energy
  - Momentum
  - None of the above
- An object will continue accelerating until
  - The resultant force acting on it begins to decrease
  - The resultant force on it is zero
  - The resultant force is at right angle to its rotation
  - The resultant force on it is increased continuously
- A bird is resting on the floor of an air tight box suspended from a spring balance. If the bird starts flying, how will the reading of spring balance change
  - It cannot be predicted
  - It will remain unchanged
  - It will be less than earlier
  - It will be more than earlier
- In a tug-of-war contest, two men pull on a horizontal rope from opposite sides. The winner will be the man who
  - Exerts greater force on the rope
  - Exerts greater force on the ground
  - Exerts a force on the rope which is greater than the tension in the rope
  - Makes a smaller angle with the vertical
- Newton's third law of motion leads to the law of conservation of
  - Angular momentum
  - Energy
  - Mass
  - Momentum
- When a horse pulls a wagon, the force that causes the horse to move forward is the force
  - He exerts on the wagon
  - The wagon exerts on him
  - He exerts on the ground
  - The ground exerts on him
- The action and reaction forces referred to in Newton's third law of motion
  - Must act on the same body
  - Must act on different bodies
  - Need not be equal in magnitude but must have the same line of action
  - Must be equal in magnitude but need not have the same line of action
- A gun of mass  $1\text{ kg}$  fires a bullet of mass  $1\text{ g}$  with a velocity of  $1\text{ ms}^{-1}$ . The recoil velocity of the gun is
  - $1\text{ ms}^{-1}$
  - $0.1\text{ ms}^{-1}$

- (c)  $0.01 \text{ ms}^{-1}$  (d)  $0.001 \text{ ms}^{-1}$
16. Cyanocobalamine is essential for the maturation of:  
 (a) RBCs (b) Lymph  
 (c) WBCs (d) Platelets
17. The level of glucose in the blood is controlled by:  
 (a) ileum (b) gallbladder  
 (c) liver (d) duodenum
18. Meckel's diverticulum is found in:  
 (a) rectum (b) ileum  
 (c) pylorus (d) appendix
19. Which of the following is very rich in magnesium?  
 (a) Egg (b) Meat  
 (c) Milk (d) Soya bean
20. Digestive process in human being is:  
 (a) intracellular (b) extracellular  
 (c) both of these (d) none of these
21. If the chyme of a person who had orally consumed only starch as food is analysed before it enters the duodenum, it will show the presence of:  
 (a) maltose and glucose (b) dextrin and maltose  
 (c) starch, dextrin and maltose (d) None of these
22. Just as hydrochloric acid is for pepsinogen, so is the:  
 (a) bile juice for fat  
 (b) glucagon for glucogen  
 (c) haemoglobin for oxygen  
 (d) enterokinase for trypsinogen
23. Peptic cells secrete:  
 (a) HCl (b) Pepsin  
 (c) Gastron (d) Cholecystokinin
24. The protein digestion in frog is:  
 (a) extracellular (b) intracellular  
 (c) both (a) and (b) (d) no protein digestion
25. Biotin and pantothenic acid belong to the category of:  
 (a) Amino acids (b) Pyrimidines  
 (c) Vitamin B group (d) Steroids
26. Chylomicrons are:  
 (a) Undigested proteins  
 (b) undigested carbohydrates  
 (c) fat droplets coated with phospholipids  
 (d) fat droplets coated with glycerol and proteins
27. Starch is converted to maltose by the action of:  
 (a) maltase (b) invertase  
 (c) amylase (d) sucrase
28. Which of the following is a storage protein?  
 (a) Chromoprotein (b) Flavoprotein  
 (c) Metalloprotein (d) Glutelin
29. Lacteals are found in:  
 (a) Kidneys (b) Intestinal villi  
 (c) Liver (d) Lungs
30. Amoeba is a/an  
 (a) unicellular animal  
 (b) octacellular animal  
 (c) multicellular animal  
 (d) all of the above
31. The pH of blood is  
 (a) between 7-8 (b) between 7-9  
 (c) between 12-14 (d) between 2-5
32. Secondary host of Schistosoma is:  
 (a) Hydra (b) Euglena
- (c) Snail (d) Pheretima
33. To maintain constant body temperature is called:  
 (a) homeothermic (b) poikilothermic  
 (c) homozygous (d) heterozygous
34. Primary blood cells are formed in:  
 (a) plasma (b) bone marrow  
 (c) liver (d) spleen
35. Protein in silk thread is:  
 (a) Fibroin (b) Keratin  
 (c) Albumin (d) Globulin
36. Enzyme present in saliva is:  
 (a) maltase (b) ptyalin  
 (c) sucrase (d) invertase
37. Life span of RBCs is:  
 (a) 50 days (b) 70 days  
 (c) 120 days (d) 220 days
38. Plant like nutrition is present in:  
 (a) Amoeba (b) paramecium  
 (c) Euglena (d) Plasmodium
39. Chromosomes can be seen best during:  
 (a) prophase (b) metaphase  
 (c) anaphase (d) telophase
40. The largest phylum is respect of number of species is:  
 (a) Coelentrata (b) Arthropoda  
 (c) Protozoa (d) Porifera
41. Haemoglobin contains  
 (a)  $Fe^{2+}$  (b)  $Mg^{2+}$   
 (c)  $Na^{2+}$  (d)  $Ca^{2+}$
42. Who first conducted experiments on evolution to prove biochemical origin of life?  
 (a) Miller and Urey (b) Darwin  
 (c) Lamarck (d) Weismann
43. Metamorphosis if frog is hastened by:  
 (a) thyroxine (b) insulin  
 (c) glucagon (d) adrenalin
44. Histamine is secreted by:  
 (a) goblet cell (b) nerve cell  
 (c) Kupffer cell (d) mast cell
45. Which of the following is viral disease?  
 (a) Thyphoid (b) Polio  
 (c) T.B. (d) Leprocy
46. Methyl propane is an isomer of which of the following?  
 (a) N-Butane (b) N-Pentane  
 (c) N-Hexane (d) N-Propane
47. Which one of the following elements is a metalloid?  
 (a) Tin (b) Silicon  
 (c) Phosphorus (d) Bismuth
48. The virtue of catenation prevails in \_\_\_\_\_  
 (a) Sulfur (b) Nitrogen  
 (c) Silicon (d) Carbon
49. Which gas in its solid state is also called dry ice?  
 (a) Carbon dioxide (b) Oxygen  
 (c) Nitrogen (d) Hydrogen
50. Which of the following is aldehyde?  
 (a) Propine (b) Propanone  
 (c) Propenal (d) Propanol
51. Which of the following has a very strong aroma of the fruit?  
 (a) Methanol (b) Ethyl Acetate

- (c) Methyl chloride (d) Methanoic acid
52. Buckminsterfullerene is an allotrope of which of the following?  
 (a) Phosphorus (b) Iron  
 (c) Carbon (d) Boron
53. Rust needs which of the following three components to occur?  
 (a) Steel, iron and oxygen  
 (b) Iron, oxygen and moisture  
 (c) Iron, nitrogen and moisture  
 (d) Helium, hydrogen and nitrogen
54. Which of the following acid found in Apple?  
 (a) Malic Acid (b) Nitric Acid  
 (c) Formic Acid (d) Sulphuric Acid
55. During photosynthesis, green plants use energy from sunlight to synthesise \_\_\_\_ from carbon dioxide and water.  
 (a) Glucose (b) Sucrose  
 (c) Galactose (d) Fructose
56. Ricket' is a disease associated with the deficiency of \_\_\_\_\_.  
 (a) Vitamin D (b) Vitamin C  
 (c) Vitamin B (d) Vitamin A
57. \_\_\_\_\_ was the first person to isolate methane gas. He discovered that methane mixed with air could be exploded using an electric spark  
 (a) Alessandro volta (b) William Thomson  
 (c) Louis Pasteur (d) William Crookes
58. Which of the following acids is present in ant bites?  
 (a) Nitric acid (b) Perchloric Acid  
 (c) Malic acid (d) Formic acid
59. What is the dominant chemical present in detergent powder?  
 (a) Sodium alkyl sulphate  
 (b) Calcium carbonate  
 (c) Sodium carbonate  
 (d) Hydrochloric acid
60. Blue litmus paper turns \_\_\_\_ on contact with an acidic solution  
 (a) Brown (b) Yellow  
 (c) Green (d) Red
61. Which of the following is not the consequence of ozone layer depletion?  
 (a) Increased ultraviolet rays  
 (b) Malignant melanoma-Another form of skin cancer  
 (c) Cyanobacteria are sensitive to UV radiation and would be affected by its increase  
 (d) Tides
62. Why UV radiation is higher in summer?  
 (a) The Sun is closer to planet earth so UV rays have a shorter distance to travel to reach us.  
 (b) There is more ozone in the atmosphere during summer.  
 (c) The sun is particularly busy in summer  
 (d) None of these
63. Which products contain ozone-depleting substances?  
 1. Motorbike  
 2. Car with AC  
 3. Spray
4. Oven  
 5. Refrigerator  
 6. Pesticides  
 7. Fire extinguisher  
 (a) 1,2,3,4,5,6 (b) 2,3,4,6,7  
 (c) 2,4,5,6,7 (d) 2,3,4,5,6,7
64. When was the first ozone hole discovered?  
 (a) 1980s (b) 1950s  
 (c) 1970s (d) 1990s
65. In which sphere Ozone layer depletion is found?  
 (a) Ionosphere (b) Stratosphere  
 (c) Lithosphere (d) None of these
66. The depletion in the Ozone layer is caused by:  
 (a) Carbon dioxide  
 (b) Nitrous oxide  
 (c) Methane  
 (d) Chlorofluorocarbon
67. Which of the following is a prime health risk associated with greater UV radiation through the atmosphere due to the depletion of the ozone layer?  
 (a) Damage to the digestive system  
 (b) Increased risk of liver cancer  
 (c) Increased risk of skin cancer  
 (d) Neurological disorder
68. An ozone-depleting substance mainly used in:  
 I. Burning fossil fuels  
 II. Chimneys  
 III. All human activities  
 IV. Cooling and refrigeration applications, and in the manufacture of foam products.  
 (a) Only I, II (b) Only I,II, III  
 (c) All (d) Only IV
69. CFCs (chlorofluorocarbons) are greenhouse gases that have caused a rise of 3 degree C in the global temperatures in the past century. Name the CFC that is used in refrigerators  
 (a) Carbon dioxide (b) Oxygen  
 (c) Ammonia (d) Freon
70. The river Ganga originates from:  
 (a) Mansrovar Lake in Tibet  
 (b) Verinag stream in Jammu and Kashmir  
 (c) Beas Kund near Rohtang passes in Himachal Pradesh  
 (d) Gangotri glacier near Gaumukh
71. Which of the following tributary of river Ganga originates from Doodhatoli ranges in the district of Pauri Garhwal, Uttarakhand and joins near Farrukhabad (Uttar Pradesh)?  
 (a) Ramganga (b) Gomti  
 (c) Kali or Sarda (d) Gandak
72. Which of the following Ganga tributary originates from the Amarkantak Plateau?  
 (a) Kali or Sarda (b) Son  
 (c) Yamuna (d) Gandak
73. Which of the following river originates from the Nepal-China border in Tibet and joins Ganga near Hajipur (Bihar)?  
 (a) Mahananda (b) Kosi  
 (c) Gandak (d) Gomti



74. Which tributary of the Ganga River popularly known as 'Sorrow of Bihar'?
- (a) Gandak (b) Ghaghara  
(c) Kosi (d) Kali
75. Which of the following tributary of Ganga originates from Nepal-Sikkim border and joins Ganga in Bangladesh?
- (a) Mahanandi River (b) Kosi River  
(c) Gandak River (d) Gomti
76. Which of the following is not left bank tributary of River Ganga?
- (a) Ramganga (b) Kosi  
(c) Mahanandi (d) Son
77. India's highest dam Tehri is located on which river?
- (a) Bhagirathi (b) Alaknanda  
(c) Ganga (d) Sutlej
78. When was kargil War between India and Pakistan fought?
- (a) 200 (b) 1971  
(c) 1999 (d) None of these
79. In which City is Jallianwala Bagh located?
- (a) Patiala (b) Delhi  
(c) Jalandhar (d) Amritsar
80. The capital of Andaman and Nicobar Islands is?
- (a) Chennai (b) Port Blair  
(c) Mumbai (d) None of these
81. The first battle of Panipat was fought in the year?
- (a) 1526 (b) 1761  
(c) 1489 (d) 1656
82. Which city is known as city of lakes?
- (a) Udaipur (b) Jaipur  
(c) Ajmer (d) Jodhpur
83. The National Song "Vandemataram" was a poem from.
- (a) Chandrakhela (b) Anandmath  
(c) Hind Swaraj (d) Parijathaapaharanam
84. With which state Article 370 of the constitution was associated?
- (a) Himanchal Pradesh (b) Jammu Kashmir  
(c) Uttrakhand (d) Nagaland
85. What is the retirement age of chief Justice of India
- (a) 60 (b) 62  
(c) 58 (d) 65
86. Where did the 18 Asian games (2018) held at:
- (a) New Delhi (b) Incheon  
(c) Jakarta (d) Tokyo
87. P.V. Sindhu is associated with which sports discipline?
- (a) Badminton (b) Football  
(c) Tennis (d) Hockey
88. The HQ of the United Nations Organisation is in:
- (a) Washington (b) Newyork  
(c) Chicago (d) London
89. Brazil is the largest exporter of which of the following?
- (a) Rice (b) Coffee  
(c) Sugar (d) Wheat
90. Name the river which flows in Lucknow?
- (a) Narmada (b) Gomti  
(c) Krishna (d) Godawari

Directions (91-100): What should come in place of the question mark (?) in the following number series?

91. 18, 8, 6, 8, 24, ?
- (a) 6 (b) 48  
(c) 24 (d) 176
92. 28, 32, 23, 39, 14, ?
- (a) 30 (b) 50  
(c) 55 (d) 6
93. 5, 12, 33, 136, 675, ?
- (a) 5569 (b) 4426  
(c) 5046 (d) 4056
94. 2, 4, 12, 4, 240, ?
- (a) 960 (b) 1440  
(c) 1080 (d) 1920
95. 2, 5, 9, 19, 37, ?
- (a) 76 (b) 74  
(c) 75 (d) 73
96. 4, -8, 16, -32, 64, ?
- (a) 128 (b) -128  
(c) 192 (d) -192
97. 2, 9, 28, 65, 126, ?, 344
- (a) 2 (b) 28  
(c) 65 (d) 216
98. 10, 26, 74, 218, ?, 1946, 5834
- (a) 26 (b) 74  
(c) 218 (d) 654
99. 59.76, 58.66, 56.46, 52.06, ?, 25.66
- (a) 48.08 (b) 46.53  
(c) 43.46 (d) 43.26
100. 36, 157, 301, 470, ?, 891
- (a) 646 (b) 695  
(c) 639 (d) None of these

Direction (101-115): Pick out the most effective word(s) from the given words to fill in the blank to make the sentence meaningfully complete.

101. He ..... in wearing the old fashioned coat in spite of his wife's disapproval.
- (a) insists (b) persists  
(c) desists (d) resists
102. She ..... a brief appearance at the end of party.
- (a) put on (b) put in  
(c) put across (d) put up
103. Life is to death as pleasure is to .....
- (a) poverty (b) suffering  
(c) anguish (d) pain
104. This, partly, explains how the Mehta family has been able to ..... its lavish lifestyle in recent times, despite the fact that all its assets have been .....
- (a) keep, removed (b) afford, attached  
(c) develop, liquidated (d) keep up, destroyed
105. The machine is difficult to build ..... easy to maintain.
- (a) but (b) and  
(c) for (d) if
106. If you work beyond your capacity, you will naturally feel .....
- (a) drowsy (b) tired  
(c) confident (d) giddy
107. If you persists in telling lies to me I shall sue you ..... slander.
- (a) to (b) on

- (c) for (d) with
- 108.** His father-in-law ..... him up in business.  
 (a) put (b) made  
 (c) set (d) built
- 109.** ..... works of reference are valuable as Encyclopedia, Britannica.  
 (a) A few (b) Few  
 (c) The few (d) Fewer
- 110.** This book is quite similar .....  
 (a) with the "Treasure Island"  
 (b) of that film we saw at school  
 (c) to the one I read last week  
 (d) Than a story told by our teacher
- 111.** If our friends are not able to take us in their car, we must make ..... arrangements to go to the airport.  
 (a) alternative (b) another  
 (c) alternate (d) possible
- 112.** A crescendo of metallic thuds arose from the market, where the iron-smiths were ..... the pieces of metals.  
 (a) flattening (b) striking  
 (c) hammering (d) thrashing
- 113.** I haven't eaten an apple ..... a long while.  
 (a) from (b) since  
 (c) for (d) until
- 114.** The parliament invested the new organisation ..... judicial authority.  
 (a) by (b) with  
 (c) from (d) through
- 115.** Owing to the power cut in the area, factories are being forced to ..... men  
 (a) throw away (b) send off  
 (c) put off (d) lay off

**DIRECTION (116-123):** In the following questions choose the word which is the exact **OPPOSITE** of the given words.

- 116. BENIGN**  
 (a) Malevolent (b) Soft  
 (c) Friendly (d) Unwise
- 117. HINDRANCE**  
 (a) Aid (b) Persuasion  
 (c) Cooperation (d) Agreement
- 118. EXTRICATE**  
 (a) Manifest (b) Palpable  
 (c) Release (d) Entangle
- 119. REPRESS**  
 (a) Inhibit (b) Liberate  
 (c) Curb (d) Quell
- 120. ACQUITTED**  
 (a) Freed (b) Burdened  
 (c) Convicted (d) Entrusted
- 121. PROVOCATION**  
 (a) Vocation (b) Pacification  
 (c) Peace (d) Destruction
- 122. SUBSERVIENT**  
 (a) Aggressive (b) Straightforward  
 (c) Dignified (d) Supercilious
- 123. LEND**  
 (a) Borrow (b) Cheat  
 (c) Pawn (d) Hire

**DIRECTION (124-130):** In the following the questions choose the word which best expresses the meaning of the given word.

- 124. ZANY**  
 (a) Clown (b) Pet  
 (c) Thief (d) Magician
- 125. TACITURNITY**  
 (a) Dumbness (b) Changeableness  
 (c) Hesitation (d) Reserve
- 126. MASSACRE**  
 (a) Murder (b) Stab  
 (c) Assassinate (d) Slaughter
- 127. KEN**  
 (a) Ignorance (b) Witness  
 (c) Trial (d) Knowledge
- 128. WARY**  
 (a) Sad (b) vigilant  
 (c) Distorted (d) Tired
- 129. RABBLE**  
 (a) Mob (b) Noise  
 (c) Roar (d) Rubbish
- 130. MAYHEM**  
 (a) Jubilation (b) Havoc  
 (c) Excitement (d) Defeat

**DIRECTION (131-140):** In the following questions four alternatives are given for the idiom/phrase ***ITALICISED AND UNDERLINED*** in the sentence. Choose the alternative which best expresses the meaning of idiom/phrase.

- 131.** Although both the parents are running the show for the last ten years but their business is now ***ON ITS LAST LEGS.***  
 (a) About to fructify  
 (b) About to perish  
 (c) About to produce results  
 (d) About to take off
- 132.** The time is running out, you must ***LOOK SHARP.***  
 (a) be careful (b) make haste  
 (c) be punctual (d) be sensible
- 133.** He is in the habit of ***THROWING DUST IN HIS SUPERIORS*** eyes  
 (a) To put sand into eyes (b) To make blind  
 (c) To deceive (d) To show false things
- 134.** In modern democratic societies ***LYNCH LAW*** seems to have become the spheres of life.  
 (a) law of the mob (b) law of the underworld  
 (c) law of the constitution (d) law of the parliament
- 135.** ***HE WAS IN HIGH SPIRITS*** when I met him in the restaurant.  
 (a) He was in a drunken state  
 (b) He was very cheerful  
 (c) He talked incoherently  
 (d) He was deeply engrossed in thoughts
- 136.** In his youth, he was practically ***ROLLING IN MONEY***  
 (a) Spending more than his income  
 (b) Borrowing money liberally  
 (c) Very rich  
 (d) Wasting a lot of money
- 137.** Jaya had a ***CHEQUERED CAREER.*** since I first knew him as an office assistant in the insurance company.

- (a) Had a variety of jobs and experiences  
 (b) A career which helped him make lot of money  
 (c) A career where he signed a lot of cheques  
 (d) Did odd jobs
- 138.** The sight of the accident made MY FLESH CREEP.  
 (a) draw my attention (b) confused me  
 (c) frightened me (d) worried me
- 139.** There is no HARD AND FAST rule regarding this subject.  
 (a) rule that is difficult  
 (b) rule that is fat changing  
 (c) rule that cannot be broken or modified  
 (d) rule that can be broken or modified
- 140.** He went to his friend's house in the evening AS WAS HIS WONT.  
 (a) as usual (b) as he wanted  
 (c) as his want was (d) as he wanted that day
- DIRECTION (141-150):** In questions given below out of four alternatives, choose the one which can be substituted for the given word/sentence.
- 141.** One who believes that all things and events in life are predetermined is a  
 (a) Fatalist (b) Puritan  
 (c) Egoist (d) Tyrant
- 142.** Something that relates to everyone in the world  
 (a) General (b) Common
- (c) Usual (d) Universal
- 143.** To walk with slow or regular Steps is to  
 (a) Limp (b) Stride  
 (c) Pace (d) Advance
- 144.** A style full of words  
 (a) Verbose (b) Pedantic  
 (c) Rhetorical (d) Abundant
- 145.** Murder of a brother  
 (a) Patricide (b) Regicide  
 (c) Homicide (d) Fratricide
- 146.** Having superior or intellectual interests and tastes  
 (a) Elite (b) Highbrow  
 (c) Sophisticated (d) Fastidious
- 147.** To cause troops, etc. to spread out in readiness for battle  
 (a) Disperse (b) Deploy  
 (c) Collocate (d) Align
- 148.** A voice loud enough to be heard  
 (a) Audible (b) Applaudable  
 (c) Laudable (d) Oral
- 149.** A light sailing boat built specially for racing  
 (a) Canoe (b) Yacht  
 (c) Frigate (d) Dinghy
- 150.** One who is in charge of museum  
 (a) Curator (b) Supervisor  
 (c) Caretaker (d) Warden

