**DEPARTMENT OF SCHOOL EDUCATION**

**Government NEET Coaching- 2019-20**

**SMALL TEST - 1**

**Time: 60 min**

**Marks: 240**

**Instructions:**

**1) Answer all the questions**

**2) For Every correct answer Four marks will be given**

**3) For Every wrong answer One mark will be deducted**

**CHOOSE THE CORRECT ANSWER 60x4=240**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | A force F is given by F=at+, where ‘t’ is time the dimensions of ‘a’ and ‘b’ are | | | | | | | | | | | | | | | | | | |
|  | 1) and | | | | | | 2) and | | | | | | | | | | | | |
|  | 3) and | | | | | | 4) and | | | | | | | | | | | | |
| 2 | With usual rotation, the following equation said to give the distance covered in ‘n’ th sec (i.e) in | | | | | | | | | | | | | | | | | | |
|  | 1) Only numerically correct | | | | | | 2) Only dimensionally correct | | | | | | | | | | | | |
|  | 3) Both dimensionally and numerically correct | | | | | | 4) Neither numerically nor dimensionally correct | | | | | | | | | | | | |
| 3 | The velocity ‘V’ of a Partide at time ‘T’ in given by V= +bt+c, where ‘t’ in time. What are the dimensions of a,b and c respectively? | | | | | | | | | | | | | | | | | | |
|  | 1) , and | | | | | | | | 2) , and | | | | | | | | | | |
|  | 3) , and | | | | | | 4) , and | | | | | | | | | | | | |
| 4 | The frequency of vibration of string is given by f= Here ‘P’ is number of segments in the string and ‘l’ is the length. The dimensional formula for ‘m’ will be | | | | | | | | | | | | | | | | | | |
|  | 1) | | 2) | | | | 3) | | | | | | | | | 4) | | | |
| 5 | Measure of two quantities along with the precision of respective measuring instrument is A=2.5 0.5 , B= 0.10 S 0.01 S. The value of AB will be | | | | | | | | | | | | | | | | | | |
|  | 1) (0.2508) m | | 2) (0.255) m | | | | 3) (0.2505) m | | | | | | | | | 4) (0.25135) m | | | |
| 6 | If force ‘F’, length ‘L’, and time T are taken as fundamental units, the dimensional formula for mass ‘M’ will be | | | | | | | | | | | | | | | | | | |
|  | 1) | | 2) | | | | 3) | | | | | | | | | 4) | | | |
| 7 | From the dimensional consideration, which of the following equations is correct? | | | | | | | | | | | | | | | | | | |
|  | 1) T=2 | | 2) T=2 | | | | 3) T=2 | | | | | | | | | | 4) T=2 | | |
| 8 | If voltage V= (100) volt and current I= (10) A the percentage error in resistance ‘R’ is? | | | | | | | | | | | | | | | | | | |
|  | 1) 5.2% | | 2) 25% | | | | | 3) 7% | | | | | | | | | 4) 10% | | |
| 9 | If the momentum of an object is increased by 10% its kinetic energy is increased by | | | | | | | | | | | | | | | | | | |
|  | 1) 20% | | 2) 21% | | | | | 3) 40% | | | | | | | | | 4) 19% | | |
| 10 | The magnetic force on a point charge is = q( X ), here q electric charge, v velocity of point charge, B magnetic field the dimensions of ‘B’ are | | | | | | | | | | | | | | | | | | |
|  | 1) | | 2) | | | |  | | | | | | | | | 4) | | | |
| 11 | A capillary tube is attached horizontally to a constant heat arrangement. If the radius of the capillary tube is increased by 10%, then the rate of flow of liquid will change nearly by | | | | | | | | | | | | | | | | | | |
|  | 1) 10% | | 2) 46% | | | | 3) -10% | | | | | | | | | 4) -40% | | | |
| 12 | By what percentage should the pressure of a given mass of a gas be increased so as to decrease its volume by 10% at a constant temprature | | | | | | | | | | | | | | | | | | |
|  | 1) 5% | | 2) 7.2% | | | | 3) 12.5% | | | | | | | | | 4) 11.1% | | | |
| 13 | A quantity is given by X=, where ‘V’ is the potential differnce, ‘l’ is the length. Then ‘X’ has the dimensional formula same as that of | | | | | | | | | | | | | | | | | | |
|  | 1) resistance | | 2) Charge | | | | 3) Voltage | | | | | | | | | 4) Current | | | |
| 14 | You measure two quantities as A= 1.0m 0.2m, B= 2.0m 0.2m. We should report correct value for as | | | | | | | | | | | | | | | | | | |
|  | 1) 1.4m 0.4m | | 2) 1.41m 0.15m | | | | 3) 1.4m 0.3m | | | | | | | | | 4) 1.4m 0.2m | | | |
| 15 | If momentum ‘P’ area ‘A’ and time ‘T’ are taken to be fundamental quantities, then energy has the dimensional formula | | | | | | | | | | | | | | | | | | |
|  | 1) ) | | 2) | | | | 3) | | | | | | | | | 4) | | | |
| 16 | The equation of redox reaction is balanced either by oxidation number method or by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method. | | | | | | | | | | | | | | | | | | |
|  | a) Reduction | | | b) Combination | | | | | | c) displacement | | | | | | | | d) Ion - electron | |
| 17 | The number of water molecules in a drop of water weighing 0.018g is. | | | | | | | | | | | | | | | | | | |
|  | a) 6.022X1026 | | | b) 6.022X1023 | | | | | | c) 6.022X1020 | | | | | | | | d) 9.9X1022 | |
| 18 | The equivalent mass of KMn in alkaline medium is  Mn+2O+ 3 Mn+ 4O | | | | | | | | | | | | | | | | | | |
|  | a) 31.6 | | | b) 52.7 | | | | | | c) 79 | | | | | | | | d) none of these | |
| 19 | Calculate the amount of water produced by combustion of 32g of methane  +2 + 2O | | | | | | | | | | | | | | | | | | |
|  | a) 72g of H2O | | | b) 18g of H2O | | | | | | c) 36 g of H2O | | | | | | | | d) 44 g of H2O | |
| 20 | The quantity of reactants and products can be expressed in terms of | | | | | | | | | | | | | | | | | | |
|  | a) molar | | | b) KJ-1 | | | | | | c) | | | | | | | | d) volume | |
| 21 | Empirical formula mass of Tartaric acid is | | | | | | | | | | | | | | | | | | |
|  | a) 115 | | | b) 50 | | | | | | c) 75 | | | | | | | | d) 100 | |
| 22 | The equivalent mass of trivalent metal element is 9geq-1 . The molar mass of its an hydrous oxide is | | | | | | | | | | | | | | | | | | |
|  | a) 102g | | | b) 27g | | | | | | c) 270g | | | | | | | | d) 78g | |
| 23 | The oxidation number of oxygen in super oxide such as is | | | | | | | | | | | | | | | | | | |
|  | a) +2 | | | b) + | | | | | | c) -2 | | | | | | | | d) - | |
| 24 | In hemoglobin the oxidation of Fe2+ ion is not possible because | | | | | | | | | | | | | | | | | | |
|  | a) Hydrophilic nature | | | | | b) globin protein chain | | | | | | | | | | | | | |
|  | c) Hydrolytic nature | | | | | d) Hydrophobic nature | | | | | | | | | | | | | |
| 25 | The organic compound present in Vinegar is | | | | | | | | | | | | | | | | | | |
|  | a) HCOOH | | | 2) C6H6 | | | | | | c) C2H6 | | | | | | | | d) C2H4O2 | |
| 26 | The relative atomic mass of one Hydrogen atom is | | | | | | | | | | | | | | | | | | |
|  | a) 1.008 u | | | b) 1.008 gmol-1 | | | | | | c) 1.008 eu | | | | | | | | d) None of these | |
| 27 | The empirical formula of caffeine C8H10N4O2is | | | | | | | | | | | | | | | | | | |
|  | a) C4N2O | | | b) C4H5N2O2 | | | | | | c) CHNO | | | | | | | | d) All of these | |
| 28 | Which of following contain same number of carbon atoms as in 6g of carbon | | | | | | | | | | | | | | | | | | |
|  | a) 7.5gC2H6 | | | b) 8 g CH4 | | | | | | c) both (a) an (b) | | | | | | | | d) None of these | |
| 29 | The equivalent mass of kmno4 in acidic medium is Mn + 5 M + 4O | | | | | | | | | | | | | | | | | | |
|  | a) 79 | | | b) 31.6 | | | | | | c) 52.7 | | | | | | | | d) 278 | |
| 30 | Carbon forms two oxides namely carbon monoxide and carbon dioxide.The equivalent mass of which element remains constant? | | | | | | | | | | | | | | | | | | |
|  | a) Carbon | b) Oxygan | | | c)both Carbon and oxygen | | | | | | | | | d) neither Carbon nor oxygen | | | | | |
| 31 | Which one of the following is common to multi cellular fungi, filamentous algae and protonema of mosses? | | | | | | | | | | | | | | | | | | |
|  | 1) Diplontic life cycle | | | | | | 2) Members of kingdom planate | | | | | | | | | | | | |
|  | 3) Mode of nutrition | | | | | | 4) Multiplication by fragmentation | | | | | | | | | | | | |
| 32 | The lable of a habarium sheet does not carry information on:- | | | | | | | | | | | | | | | | | | |
|  | 1)Name of collector | | | | | | 2) Local names | | | | | | | | | | | | |
|  | 3)Height of the plant | | | | | | 4)Date of collection | | | | | | | | | | | | |
| 33 | Which set of organisms multifly through fragmentation:- | | | | | | | | | | | | | | | | | | |
|  | 1) Planaria, Hydra, Yeast | | | | | | | | | | | 2) Echinoderms, Fungi, Bacteria | | | | | | | |
|  | 3) Fungi, Filamentous algae protonema of mosses | | | | | | | | | | | 4) Amoea, hydra, Virus | | | | | | | |
| 34 | Which of the following match is Incorrect:- | | | | | | | | | | | | | | | | | | |
|  | Common name | | Genus | | | | Order | | | | | | | | Class | | | | |
| 1) | Man | | Homo | | | | Primta | | | | | | | | Mammalia | | | | |
| 2) | Mango | | Mangifera | | | | Sapindales | | | | | | | | Dicotyledonae | | | | |
| 3) | House fly | | Musca | | | | Coelopetra | | | | | | | | Insecta | | | | |
| 4) | Wheat | | Tritium | | | | | Poales | | | | | | | Monocotyledonae | | | | |
| 35 | Select the correct combination:- | | | | | | | | | | | | | | | | | | |
|  | 1) Earlist classification based on – uses of various organisms | | | | | | | | | | | | | | | | | | |
|  | 2) Reproduction is synonymous with growth – Primitve multicellular organisms | | | | | | | | | | | | | | | | | | |
|  | 3) ICZN – International code of zoo nomenclature | | | | | | | | | | | | | | | | | | |
|  | 4)NBRI – National botanical registered institute | | | | | | | | | | | | | | | | | | |
| 36 | The taxonomic aid that provides information for the identification of names of species found in an avea is | | | | | | | | | | | | | | | | | | |
|  | 1) Mongraph | | 1) Manual | | | | 1) Catalogue | | | | | | | | 1) Periodical | | | | |
| 37 | Assertion A: Differentiation and organogenesis takes place during growth | | | | | | | | | | | | | | | | | | |
|  | Reason R : Number of cells increase during growth | | | | | | | | | | | | | | | | | | |
|  | 1) Both A and R are true R is Correct explanation A | | | | | | | | | | | | | | | | | | |
|  | 2) Both A and R are true and R is not correct Explantion of A | | | | | | | | | | | | | | | | | | |
|  | 3) A- true R is Wrong | | | | | | | | | | | | | | | | | | |
|  | 4) A – Wrong R is true | | | | | | | | | | | | | | | | | | |
| 38 | The term Species Was conied by | | | | | | | | | | | | | | | | | | |
|  | 1) Engler | | 2) Linnaeus | | | | 3) john ray | | | | | | | | 4) Ernst mayor | | | | |
| 39 | Choose the following pair:- | | | | | | | | | | | | | | | | | | |
|  | Colum I ( Museum ) | | | | | | Colum II ( Place ) | | | | | | | | | | | | |
|  | a) Natural history museum | | | | | | i) Vadodara | | | | | | | | | | | | |
|  | b) Zoological survey of india | | | | | | ii) Chennai | | | | | | | | | | | | |
|  | c) Government m useum | | | | | | iii) Kolkata | | | | | | | | | | | | |
|  | d) Study of museology | | | | | | iv) Mumbai | | | | | | | | | | | | |
|  | 1) a – i, b – iv, c- iii, d – ii | | | | | | 2) a – ii, b – i, c- iV, d – iii | | | | | | | | | | | | |
|  | 3) a – iii, b – ii, c- i, d – iv | | | | | | 4) a – iV, b – iii, c- ii, d – i | | | | | | | | | | | | |
| 40 | The sum total of chemical reactions occurring in our body is called | | | | | | | | | | | | | | | | | | |
|  | 1) Metabolism | | 2) Homestasis | | | | 3) Catabolism | | | | | | | | 4) Anabolism | | | | |
| 41 | Which biological name is wrongly written? | | | | | | | | | | | | | | | | | | |
|  | 1) Apis indica | | 2) Triticum aestivation | | | | | | | | 3) Felis domesticus | | | | | | 4) Mangifera indica | | |
| 42 | The key are based on contrasting characters? Generally in pairs called? | | | | | | | | | | | | | | | | | | |
|  | 1) Duplex | | 2) couplet | | | | 3) Diamer | | | | | | | | 4) All of these | | | | |
| 43 | Find out the incorrect statement from following:- | | | | | | | | | | | | | | | | | | |
|  | 1) Closely related species differ in morphological features:- | | | | | | | | | | | | | | | | | | |
|  | 2) Genus comprises a group of related species | | | | | | | | | | | | | | | | | | |
|  | 3) Taxonomic structures are useful in agricultural forestry and industries | | | | | | | | | | | | | | | | | | |
|  | 4) Notochord and ventral hollow neural system are common features of phylum chordate | | | | | | | | | | | | | | | | | | |
| 44 | Growth development and functioning of living body is due to | | | | | | | | | | | | | | | | | | |
|  | 1) Decrease in entropy | | 2) Increase in gibbs – free energy | | | | | | | | | | 3) Metabolism | | | | | | 4) Adaptations |
| 45 | Which of the following organism does not reproduce? | | | | | | | | | | | | | | | | | | |
|  | 1) Mules | | 2) Sterile work bees | | | | 3) sterile human couple | | | | | | | | | | 4) all of these | | |
| 46 | In sponges, water is conducted from outside into the spongocoel by | | | | | | | | | | | | | | | | | | |
|  | 1) Archaecocytes | | | | | | 2) Porocytes | | | | | | | | | | | | |
|  | 3) Cnidocytes | | | | | | 4) Thesocytes | | | | | | | | | | | | |
| 47 | Triploblastic animals show | | | | | | | | | | | | | | | | | | |
|  | 1) Asymmetry | | | | | | 2) Radial symmetry | | | | | | | | | | | | |
|  | 3) Bilateral symmetry | | | | | | 4) Spherical symmetry | | | | | | | | | | | | |
| 48 | Circulatory system for the first time developed in | | | | | | | | | | | | | | | | | | |
|  | 1) Platy helminthes | | | | | | | | 2) Aschelminthes | | | | | | | | | | |
|  | 3) Arthropoda | | | | | | 4) Annelida | | | | | | | | | | | | |
| 49 | The central cavity of a sponge is called | | | | | | | | | | | | | | | | | | |
|  | 1) Gastrovascular cavity | | | | | | 2) Haemocoel | | | | | | | | | | | | |
|  | 3) Pseudocoelom | | | | | | 3) Paragastric cavity | | | | | | | | | | | | |
| 50 | The body of ctenophora bears eight external rows of ciliated \_\_\_\_\_\_\_\_\_\_ | | | | | | | | | | | | | | | | | | |
|  | 1) Ostia | | 2) Spicules | | | | 3) hypostome | | | | | | | | | 4) comb plates | | | |
| 51 | Specialised cells called \_\_\_\_\_\_\_\_ help in osmoregulation and excretion in platy helminthes | | | | | | | | | | | | | | | | | | |
|  | 1) Flame cells | | 2) Nephridia | | | | 3) Malphigian tubules | | | | | | | | | | 4) gills | | |
| 52 | Match the following | | | | | | | | | | | | | | | | | | |
|  | A) Physalia | | | | | | | i) Earth worm | | | | | | | | | | | |
|  | B) Spongilla | | | | | | | ii) Filarial worm | | | | | | | | | | | |
|  | C) Wuchereria | | | | | | iii)Portuguese man of war | | | | | | | | | | | | |
|  | D) Pheretima | | | | | | iv) Fresh water sponge | | | | | | | | | | | | |
|  | 1) A - i, B - ii, C – iii, D – iv | | | | | | 2) A - iii, B - iv, C – ii, D – i | | | | | | | | | | | | |
|  | 3) A - ii, B - i, C – iv, D – iii | | | | | | 4) A - iii, B - ii, C – i, D – iv | | | | | | | | | | | | |
| 53 | Identify the wrong statement(s) | | | | | | | | | | | | | | | | | | |
|  | A) Cnidarians exhibit organ level of organisation | | | | | | | | | | | | | | | | | | |
|  | B) Some Cnidarians have skeleton composed of calcium carbonate | | | | | | | | | | | | | | | | | | |
|  | C) Polyps are sessile and cylindrical | | | | | | | | | | | | | | | | | | |
|  | D) Medusa exists in both forms, exhibit alternation of generation | | | | | | | | | | | | | | | | | | |
|  | 1) A and B | | 2) C and D | | | | 3) B and C | | | | | | | | | 4) Only A | | | |
| 54 | Read the following statements | | | | | | | | | | | | | | | | | | |
|  | A) They are the lateral appendages | | | | | | | | | | | | | | | | | | |
|  | B) They are highly vascular | | | | | | | | | | | | | | | | | | |
|  | C) They bear numerous setae | | | | | | | | | | | | | | | | | | |
|  | D) They help in respiration and excretion | | | | | | | | | | | | | | | | | | |
|  | Which of the above are true about Parapodia of Nereis? | | | | | | | | | | | | | | | | | | |
|  | 1) B,C and D | | 2) A,C and D | | | | 3) A,B and D | | | | | | | | | 4) A,B and C | | | |
| 55 | (S) : Nutrition in sponges is holozoic | | | | | | | | | | | | | | | | | | |
|  | (R) : Digestion in sponges is intra cellular | | | | | | | | | | | | | | | | | | |
|  | 1) Both (S) and (R) are true and (R) is the correct explanation of (S) | | | | | | | | | | | | | | | | | | |
|  | 2) Both (S) and (R) are true but (R) is not the correct explanation of (S) | | | | | | | | | | | | | | | | | | |
|  | 3) (S) is true but (R) is not true | | | | | | | | | | | | | | | | | | |
|  | 4) Both (S) and (R) are not true | | | | | | | | | | | | | | | | | | |
| 56 | Closed Circulatory system is present in \_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | | | | | | | | | | | |
|  | 1) Nereis | | 2) Pheretima | | | | 3) Ascaris | | | | | | | | | 4) Both 1 and 2 | | | |
| 57 | Polyembryony is exhibited by \_\_\_\_\_\_\_ | | | | | | | | | | | | | | | | | | |
|  | 1) Tape worms | | 2) Polychaetes | | | | 3) Planarians | | | | | | | | | 4) Flukes | | | |
| 58 | Read the following statements | | | | | | | | | | | | | | | | | | |
|  | A) Body is circular in cross section | | | | | | | | | | | | | | | | | | |
|  | B) Body is covered by a transparent, tough and protective collagenous cuticle | | | | | | | | | | | | | | | | | | |
|  | C) Presence of cuticle is unique to nematodes | | | | | | | | | | | | | | | | | | |
|  | D) Epidermis is syncytial in all | | | | | | | | | | | | | | | | | | |
|  | Which of the above are true about nematodes? | | | | | | | | | | | | | | | | | | |
|  | 1) A and B | | 2) B and C | | | | 3) A and C | | | | | | | | | 4) C and D | | | |
| 59 | Incomplete digestive system is found in | | | | | | | | | | | | | | | | | | |
|  | 1) Coelenterates | | 2) Platy helminths | | | | 3) Nematodes | | | | | | | | | 4) Annelids | | | |
| 60 | Pennatula is commonly called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | | | | | | | | | | | |
|  | 1) Sea pen | | 2) Sea fan | | | | 3) Sea anemone | | | | | | | | | 4) Sea cucumber | | | |

------------------- All the Best ----------------------

ANSWER KEY

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 16 | 4 | 31 | 4 | 46 | 2 |
| 2 | 3 | 17 | 3 | 32 | 3 | 47 | 3 |
| 3 | 1 | 18 | 2 | 33 | 3 | 48 | 4 |
| 4 | 3 | 19 | 1 | 34 | 3 | 49 | 1 |
| 5 | 1 | 20 | 4 | 35 | 1 | 50 | 4 |
| 6 | 1 | 21 | 3 | 36 | 3 | 51 | 1 |
| 7 | 1 | 22 | 1 | 37 | 2 | 52 | 2 |
| 8 | 3 | 23 | 4 | 38 | 3 | 53 | 4 |
| 9 | 2 | 24 | 4 | 39 | 4 | 54 | 4 |
| 10 | 3 | 25 | 4 | 40 | 1 | 55 | 2 |
| 11 | 2 | 26 | 1 | 41 | 4 | 56 | 4 |
| 12 | 4 | 27 | 1 | 42 | 2 | 57 | 4 |
| 13 | 4 | 28 | 3 | 43 | 4 | 58 | 1 |
| 14 | 4 | 29 | 2 | 44 | 1 | 59 | 2 |
| 15 | 4 | 30 | 2 | 45 | 4 | 60 | 1 |