

**B****DEE-004-001212****B. Ed. (Sem. II) (CBCS) Examination****May / June – 2015****SSC-17 : Science Content****Faculty Code : 004****Subject Code : 001212****Time : 1½ Hours]****[Total Marks : 70****પરીક્ષાર્થીઓને સૂચના**

૧. પ્રત્યેક MCQ ઉત્તરવહીના પ્રથમ પાના ઉપર પરીક્ષાર્થીએ બેઠક ક્રમાંક/પરીક્ષા કેન્દ્ર અને પરીક્ષાની તારીખ પોતાની સહી સાથે લખવાની રહેશે.
૨. પરીક્ષાર્થીને MCQ પ્રશ્ન પ્રકારનો પ્રશ્નપત્ર આપવામાં આવેલ છે. જે નિયત સમય મર્યાદામાં પૂર્ણ કર્યા બાદ ખંડ નિરીક્ષકને MCQ ઉત્તરવહી સુપરત કરવાની રહેશે.
૩. તમારી ઉત્તરવહીના કોઈ પણ ભાગમાં તમારું નામ અથવા નંબર લખવો નહીં (નિર્દિષ્ટ જગ્યા સિવાય) અથવા પોતાની ઓળખ છતી થાય તેવી કોઈ નિશાની કરવી નહીં.
૪. તમોને આપેલી MCQ ઉત્તરવહી, પરીક્ષા ખંડ છોડતા પહેલાં ખંડ નિરીક્ષકને સુપરત કરવી.
૫. લેખન સામગ્રી, ગણિતનાં સાધનો કે એવી કોઈ પણ ચીજની કોઈ પણ બીજા પરીક્ષાર્થી સાથે આપ-લે કરવાની સખત મનાઈ છે.
૬. પ્રશ્નપત્રો વહેંચાઈ ગયા પછી ૩૦ મિનિટ સુધી અને પરીક્ષાના સમયની છેલ્લી ૧૦ મિનિટ દરમિયાન તમોને કોઈ પણ સંજોગોમાં પરીક્ષા ખંડની બહાર જવા દેવામાં આવશે નહીં.
૭. જો તમો
 - (અ) પરીક્ષા સમય દરમિયાન પરીક્ષા ખંડમાં તમારી સાથે કોઈ પણ પુસ્તક અથવા કોઈ પણ પ્રકારના લખાણ કે નોંધવાળી કાગળની કાપલી કે વસ્તુ લાવશો અગર,
 - પરીક્ષા ચાલુ હોય ત્યારે બીજા પરીક્ષાર્થી સાથે વાત કરશો કે કોઈ પણ રીતે સંદેશો મોકલવા વ્યવહાર કરશો અગર,
 - બીજી કોઈ પણ જાતની ગેરરીતિ કરશો અથવા ગેરરીતિ કરવાનો પ્રયત્ન કરશો અગર,
 - પરીક્ષા પૂરી થયા બાદ પરીક્ષા ખંડ છોડતી વખતે તમોને આપેલી તમારી કોઈ પણ લખેલી કે કોરી ઉત્તરવહીઓ સાથે લઈ જશો કે પરીક્ષા ખંડમાં આમ કરવાના ઈરાદાથી કોઈ પ્રવૃત્તિ કરશો તો શિક્ષાને પાત્ર બનશો તથા તમને પરીક્ષામાંથી ઉઠાડી મૂકવામાં આવશે અને તમારા વિષે તેનો યુનિવર્સિટીને તાત્કાલિક રિપોર્ટ કરવાનો નિરીક્ષકને અધિકાર છે.
 - (બ) જે પરીક્ષાર્થી મુખ્ય કે અન્ય નિરીક્ષકની સૂચનાનો અનાદર કરશે કે ઉદ્ધત અથવા અયોગ્ય વર્તન પરીક્ષા ખંડમાં દાખવશે અથવા નિયમોનો ઈરાદા પૂર્વક ભંગ કરશે તે શિક્ષાને પાત્ર બનશે અને મુખ્ય નિરીક્ષક તેને પરીક્ષામાંથી તાત્કાલિક ઉઠાડી મૂકી શકશે.
 - (ક) ઉપર જણાવ્યા પ્રમાણેની તેમજ યુનિવર્સિટીના ઓર્ડિ.માં દર્શાવેલી ગેરરીતિ જો કોઈ પરીક્ષાર્થી આચરશે તો તે પરીક્ષાર્થીને મુખ્ય નિરીક્ષક પરીક્ષા ખંડમાંથી બહાર મોકલી શકશે.
 - (ડ) પરીક્ષા ખંડમાં મોબાઈલ ટેલિફોન કે પેજર જેવાં સાધનો લાવશો તો મુખ્ય નિરીક્ષક આ સાધનોને જપ્ત કરી શકશે.
૮. પરીક્ષાનો સમય પૂરા થવાની ૧૦ મિનિટ અગાઉ સંકેતનો ઘંટ વાગશે ત્યારે તમો લખવાનું બંધ કરી તમારી ઉત્તરવહીઓ તમારા ખંડના નિરીક્ષકને સુપરત કરવા તૈયાર રહેશો. જ્યાં સુધી નિરીક્ષક બધાની ઉત્તરવહીઓ એકઠી કરી લે નહીં ત્યાં સુધી તમારે તમારી બેઠક છોડવી નહીં.

Instructions to Candidates

1. The candidate will have to write his seat number/centre of examination and date of examination along with his/her signature on the first page of each MCQ answer sheet.
2. The candidate is supplied with MCQ question paper, which he will have to complete in given fixed time and will have to submit the MCQ Answer Sheet to the block supervisor.
3. You should not write your name or number in any part of your Answer Sheet (except specified space) OR you should not put any sign whereby your identity can be made out.
4. The MCQ Answer Sheet given to you should be submitted to block supervisor before leaving the examination block.
5. The exchange of writing material, tools of mathematics and such similar things with other students is strictly prohibited.
6. Up to 30 minutes after distribution of question papers and in last 10 minutes of the examination time you will not be allowed to go outside the block under any circumstances.
7. If you
 - (a) Will bring any textbook or any type of writing or any strip of paper with notes or any other thing in the examination hall with you during the examination time. OR
 - Talk with other candidate during examination or try to send message by any means or do any communication OR will do any type of mal practice or will attempt for any mal practice. OR
 - Will carry your any written answer books or blank answer book with you while leaving the examination hall after completion of examination. OR will do any activity with intention of doing so, you will be liable to punishment or you will be expelled from the examination the supervisor has the right to send immediately the report to the University.
 - (b) The candidate who will disobey the instructions given by chief or other supervisor OR will show rude or inappropriate behaviour in the examination hall, the supervisor will immediately debar the candidate from the examination.
 - (c) If any candidate does any of the above mentioned mal practices or as mentioned in the Ord. of University, the chief supervisor will send the candidate out of the examination hall.
 - (d) The chief supervisor will seize the instruments like mobile telephone or pager if you bring in the hall.
8. 10 minutes before the completion of examination an indicative bell will ring. You should stop writing at that time you become ready to submit your answer books to your block supervisor. You should not leave your seat until the supervisor does not complete the collection of all the answer books.

- 1 Which gas is obtained when potassium permanganate is heated ?
 - (A) Carbon dioxide
 - (B) Oxygen
 - (C) Hydrogen
 - (D) Nitrogen

- 2 Which gas is colourless, odourless, and tasteless ?
 - (A) Oxygen
 - (B) Hydrogen
 - (C) Nitrogen
 - (D) All of these

- 3 Which particle is not in the nucleus ?
 - (A) Proton
 - (B) Neutron
 - (C) Electron
 - (D) None of these

- 4 How many electrons can be accommodated in the third energy level of an atom ?
 - (A) 16
 - (B) 18
 - (C) 20
 - (D) 24

- 5 Which metal can be easily cut by a knife ?
 - (A) Iron
 - (B) Copper
 - (C) Magnesium
 - (D) Sodium

- 6** What is sodium chloride ?
- (A) Washing Soda
 - (B) Vinegar
 - (C) Baking Soda
 - (D) Common salt
- 7** Which instrument is used to see far off objects near and clear ?
- (A) Microscope
 - (B) Episcopo
 - (C) Telescope
 - (D) Magnifying lens
- 8** Which of the following organ is responsible for the filtration of blood ?
- (A) Heart
 - (B) Lung
 - (C) Kidney
 - (D) Cervix.
- 9** What is the colour of the outermost zone of the candle flame where complete combustion takes place ?
- (A) Blue
 - (B) Black
 - (C) Yellow
 - (D) Red
- 10** Which variety of coal is ranked the best ?
- (A) Peat coal
 - (B) Lignite
 - (C) Bitumin coal
 - (D) Anthracite

- 11 Which constituent of petroleum is used for making grease ?
- (A) Naptha
 - (B) Lubricant oil
 - (C) Fuel oil
 - (D) Tar
- 12 How many types of fossil fuels are there ?
- (A) 1
 - (B) 2
 - (C) 3
 - (D) Several
- 13 Which element is used in a solar cell ?
- (A) Uranium
 - (B) Aluminium
 - (C) Silicon
 - (D) Sodium
- 14 By which metal solar cells are connected with each other ?
- (A) Silver
 - (B) Gold
 - (C) Platinum
 - (D) Titanium
- 15 Which of these does not convert solar energy into heat energy ?
- (A) Solar cooker
 - (B) Solar water heater
 - (C) Solar dryer
 - (D) Solar cell

- 16 Which of the following pollutes the soil to the maximum extent ?
- (A) Paper
 - (B) Excreta of animals
 - (C) Plastic
 - (D) The remains of trees.
- 17 Which is the most important factor in disturbing our environmental balance ?
- (A) Globalization and industrialization
 - (B) Excessive use of plastic
 - (C) Heavy machinery and tools
 - (D) All of these
- 18 Which of the following is e-waste ?
- (A) Waste cassette
 - (B) Used syringe
 - (C) Blood sample
 - (D) Waste plastic bag
- 19 Which metal is found in liquid form ?
- (A) Mercury
 - (B) Tungsten
 - (C) Zinc
 - (D) All of these
- 20 Which of these elements makes a positive ion ?
- (A) Na
 - (B) Mg
 - (C) Al
 - (D) All of these

- 21** Of what is work a product ?
- (A) Force and velocity
 - (B) Force and acceleration
 - (C) Force and time
 - (D) Force and displacement in direction of force.
- 22** An object of mass 2 kg is made to fall freely towards the ground from height 1 metre. When it reaches the ground its kinetic energy would be _____
- (A) 19.6 J
 - (B) 19.6 N
 - (C) 39.2 J
 - (D) 19.6 erg.
- 23** What type of waves propagate in vacuum ?
- (A) Mechanical waves
 - (B) Non-mechanical waves
 - (C) Logitudinal waves
 - (D) Waves of any type
- 24** Which waves are used in ECG technique ?
- (A) Ultrasonic waves
 - (B) Infrasonic waves
 - (C) Supersonic waves
 - (D) Audible waves
- 25** For propagation of what type of waves a medium is necessary ?
- (A) Mechanical waves
 - (B) Non-mechanical waves
 - (C) Light waves
 - (D) X-rays

- 26** Whose unit is decibel (dB) ?
- (A) Loudness of sound
 - (B) Frequency of sound
 - (C) Intensity of sound
 - (D) Absorptivity of sound
- 27** Modern periodic table is classified in how many blocks ?
- (A) 18
 - (B) 8
 - (C) 7
 - (D) 4
- 28** Which scientist gave the rule of octet ?
- (A) Mendeleef
 - (B) Newland
 - (C) Dalton
 - (D) Dobereiner
- 29** Which of the following gases is non-inert gas ?
- (A) Neon
 - (B) Argon
 - (C) Helium
 - (D) Nitrogen
- 30** What type of relation is ionisation enthalpy ?
- (A) Endothermic
 - (B) Exothermic
 - (C) Reduction
 - (D) None of these

- 31** Which bond is present in NaCl crystal ?
- (A) Ionic
 - (B) Polar
 - (C) Covalent
 - (D) Hydrogen bond
- 32** Ionic bond formation takes place by combination of _____
- (A) Two metals
 - (B) One non-metal and one metal
 - (C) Two non-metals
 - (D) Two different gases
- 33** Which bond is responsible for the storage of water in animal cell ?
- (A) Hydrogen
 - (B) Ionic
 - (C) Covalent
 - (D) Coordinate covalent bond
- 34** The phenomenon of formation of simple sugar from starch in our body is the example of which reaction ?
- (A) Combination
 - (B) Reduction
 - (C) Decomposition
 - (D) Redox
- 35** What is the chemical name of quick lime ?
- (A) Calcium oxide
 - (B) Calcium carbonate
 - (C) Calcium hydroxide
 - (D) Carbon dioxide

- 36** Which instrument is used to electrolyse water ?
- (A) Voltmeter
 - (B) Ammeter
 - (C) Galvanometer
 - (D) Voltmeter
- 37** Which scientist has given the system of binomial nomenclature for naming the organisms ?
- (A) Lamarck
 - (B) Leeuwen hock
 - (C) Linnacus
 - (D) Darwin
- 38** Which plant is of gymnospermic type ?
- (A) Riccia
 - (B) Nephrolepis
 - (C) Cycas
 - (D) Sun flower
- 39** In which plant is parallel venation seen in leaves ?
- (A) Bean
 - (B) Pipal
 - (C) Maize
 - (D) Sunflower
- 40** Which of the following cells, are present in the animals belonging to phylum porifera ?
- (A) Collar cells
 - (B) Stinging cells
 - (C) Flame cells
 - (D) Nerve cells

- 41 To which phylum does the liverfluke belong ?
- (A) Platyhelminthes
 - (B) Nematoda
 - (C) Annelida
 - (D) Arthropoda
- 42 In which fish, is the endoskeleton made up of cartilage ?
- (A) Pomfret
 - (B) Sea horse
 - (C) Shark
 - (D) Barbus
- 43 In which sphere of the environment is Ozone layer located ?
- (A) Troposphere
 - (B) Stratosphere
 - (C) Mesosphere
 - (D) Thermosphere
- 44 Which of the gases participates in causing green house effect ?
- (A) Methane (CH_4)
 - (B) Carbon dioxide (CO_2)
 - (C) Chlorofluorocarbon (CFC)
 - (D) All the given
- 45 Which is the main source for soil formation ?
- (A) Rocks
 - (B) Snow-covered mountain
 - (C) Riverbelt
 - (D) Volcano

- 46 How much part of hydrosphere on the earth is in the form of sea water ?
- (A) $\frac{3}{4}$
 - (B) 97%
 - (C) 40%
 - (D) 3%
- 47 How many essential elements are obtained by plants from soil ?
- (A) 12
 - (B) 13
 - (C) 14
 - (D) 15
- 48 Which nutrient does the plants get from the fertilizer-Urea ?
- (A) Phosphorus
 - (B) Calcium
 - (C) Nitrogen
 - (D) Potassium
- 49 By which irrigation system, is the water saved to the extent of 40% to 60%
- (A) Water channel
 - (B) Saucers or furrows
 - (C) Drip water
 - (D) Fountain
- 50 The method of growing two or more crops, simultaneously, in definite rows is _____
- (A) Mixed farming
 - (B) Mixed cropping
 - (C) Intercropping
 - (D) Crop rotation

- 51** Which of the following appliances produces electric current ?
- (A) Solar cooker
 - (B) Tube light
 - (C) Stove
 - (D) Cell
- 52** How are the electrical appliances connected in an electric circuit at home ?
- (A) Series connection
 - (B) Parallel connection
 - (C) Closed
 - (D) Mixed connection.
- 53** What is the end of a lever using which work is done, known as ?
- (A) Effort end
 - (B) Load end
 - (C) Fulcrum
 - (D) Effort
- 54** Whose position is in the middle in scissors ?
- (A) Effort
 - (B) Fulcrum
 - (C) Load
 - (D) Any one of the given
- 55** Which method is used to separate the mixture of iodine and sand ?
- (A) Filtration
 - (B) Evaporation
 - (C) Sublimation
 - (D) Distillation

- 56** What type of mixture is soda water ?
- (A) Liquid in liquid
 - (B) Solid in liquid
 - (C) Liquid in solid
 - (D) Liquid in gas
- 57** Which apparatus is used to measure the volume of a liquid ?
- (A) Physical balance
 - (B) Measuring cylinder
 - (C) Spring balance
 - (D) Weights
- 58** Which physical quantity is used to compare heaviness or lightness ?
- (A) Density
 - (B) Volume
 - (C) Weight
 - (D) Mass
- 59** What type of image is formed by a plane mirror ?
- (A) Virtual
 - (B) Real
 - (C) Inverted
 - (D) Diminished
- 60** Which instrument works on the principle of images obtained by multiple reflections ?
- (A) Kaleidoscope
 - (B) Periscope
 - (C) Telescope
 - (D) Microscope

- 61** What is the centre of a hollow glass called, from which a curved mirror is cut ?
- (A) Principal focus
 - (B) Pole
 - (C) Centre of curvature
 - (D) Mid point
- 62** Which type of image is always erect ?
- (A) Real
 - (B) Virtual
 - (C) Diminished
 - (D) Enlarged
- 63** Which of the following is not a compound ?
- (A) Sugar
 - (B) Salt
 - (C) Water
 - (D) Gold
- 64** What is the constitutional unit of a compound ?
- (A) Atom
 - (B) Element
 - (C) Molecule
 - (D) Mixture
- 65** Which of the following organs has cartilage ?
- (A) Nose
 - (B) Ribcage
 - (C) Head
 - (D) Heart

- 66** In which organ are involuntary muscles present ?
- (A) Hand
 - (B) Leg
 - (C) Neck
 - (D) Heart
- 67** What is the degree of hotness or coolness of a substance called ?
- (A) Heat
 - (B) Energy
 - (C) Temperature
 - (D) Thermal equilibrium
- 68** What is the temperature of a healthy human body ?
- (A) 98.6° F
 - (B) 96.8° F
 - (C) 98.6° C
 - (D) 100° C
- 69** What is the periodicity of the comet Halley ?
- (A) 30 days
 - (B) 365 days
 - (C) 76 years
 - (D) 850 years
- 70** From the bark of which tree is 'tanin' extracted ?
- (A) Ashoka
 - (B) Banyan
 - (C) Coconut Palm
 - (D) Mangrove

SPACE FOR ROUGH WORK
