



CBRT - 2020 Question Paper Grid

Government of Goa

10 October 2020

[Menu](#)

Set Name

Subjects

Display

Assistant Professor(Zoology)

Passage:

Education, particularly higher education is the obvious but crucially important instrument for nation building. As Confucious has said:

"If you are thinking of one year, plant rice. If you are thinking of a decade, plant trees. If you are thinking of a century, educate the people."

When we set about the task of higher education, we should be absolutely clear in our perception of the goals of education in the specific context of our nation's development. No doubt, one of the important aims of education would be to create the required range and nature of trained manpower assessed to be needed by different sectors of national growth. The entire educational apparatus must be geared progressively to fulfill the requirements of the different phases of our growth in every sector- primary, secondary and tertiary. The aim must be to ensure that our country does not experience either paucity, or a surfeit of trained manpower in any specific segment of our economy. The requirements of our country, as a free, democratic, secular, socialist, nation, aspiring for rapid development, entail a specific recipe of our educational institutions. Today's educational institutions must therefore be developed accordingly and must regulate themselves to give the country the precise nature and quantum of trained manpower as projected by the requirements of our planned economy.

Itemcode : OO1068

Q1 : The author has quoted thoughts of Confucious to stress

- (a) importance of planting trees for human beings
- (b) the worthless efforts in planting rice
- (c) the benefits of investing in education
- (d) the need for assessing manpower requirement

Key: **D**

Itemcode : OO1069

Q2 : Which statement cannot be made on the basis of the passage?

- (a) Higher Education should keep in view the requirements of national economy
- (b) Higher education has not been employed for nation building
- (c) All levels of education have a role to play in nation's growth
- (d) In our country we need to have a specially planned educational system

Key: **D**

Itemcode : OO1070

Q3 : The writer believes that

- (a) There are no problems related to higher education
- (b) investment in education is of long range
- (c) higher education should be used to assess manpower needs
- (d) aims of higher education in India are absolutely clear

Key: **C**

Itemcode : OO1071

Q4 : The writer indicates that

- (a) higher education did not play any role in national growth
- (b) primary education did not play any role in national growth
- (c) our nation experiences paucity of trained manpower in many sectors
- (d) today's higher education has no precise goals to achieve

Key: **D**

Itemcode : OO1072

Q5 : Author has used the word 'apparatus' to indicate the

- (a) scientific nature of education
- (b) complicated organization demanded by education
- (c) readily visible benefits of education
- (d) entire equipment of education to perform particular function

Key: **D**

Itemcode : OO1062

Q6 : Suppose an implication is derived from a hypothesis, and the implication turns out to be true. This fact:

- (a) Makes the hypothesis easier to understand.
- (b) Tends to confirm the hypothesis.
- (c) Proves the hypothesis true.

(d) Sheds light on the hypothesis

Key: **B**

Itemcode : **OO1063**

Q7 : Hypothetical reasoning is used to produce an explanation for the occurrence of a phenomenon when:

- (a) The phenomenon is not observable.
- (b) The reason for its occurrence is incomprehensible.
- (c) The phenomenon is not measurable.
- (d) The reason for its occurrence is not immediately observable

Key: **D**

Itemcode : **OO1064**

Q8 : The letters in the first set have a certain relationship. On the basis of this relationship mark the right choice for the second set: BDFH:OMKI::GHIK:?

- (a) FHJL
- (b) RPNL
- (c) LNPR
- (d) LJHF

Key: **C**

Itemcode : **OO1065**

Q9 : Find out the wrong number in the sequence, 52,51,48, 43,34, 27,16

- (a) 27
- (b) 34
- (c) 43
- (d) 48

Key: **B**

Itemcode : **OO1066**

Q10 Four sentences or parts of sentences that form a paragraph are given. Identify the sentence(s) or part(s) of sentence(s) that is/are incorrect in terms of grammar and usage. Then, choose the most appropriate option.

1. Sentences

- P. China is currently affording an opportunity to nations in the region
- Q. to become a part of a Beijing-contrived "security alliance", holding forth
- R. the promise of a new Asian security paradigm, previously embedded
- S. as Chinese President Xi Jinping's "Code of Conduct for Asia".

- (a) P only
- (b) R only
- (c) P and R only
- (d) Q and S only

Key: **D**

Itemcode : **OO1067**

Q11 Five books on Mathematics M1, M2, M3, M4 and M5 are arranged in a shelf. Book M5 is arranged next to M1 which is kept on the extreme left and book M2 is not kept next to book M5. Book M4 is kept next to M3 but not M2. Which books are arranged adjacent to M3?

- (a) M5 and M2
- (b) M1 and M4
- (c) M5 and M4
- (d) M4 and M2

Key: **C**

Itemcode : **OO1073**

Q12 Here are some words translated from an artificial language.

- : moolokarn means blue sky
- wilkospadi means bicycle race
- moolowilko means blue bicycle
- Which word could mean "racecar"?

- (a) wilkozwet
- (b) spadiwilko
- (c) moolobreil
- (d) spadivolo

Key: **D**

Itemcode : **OO1074**

Q13 Here are some words translated from an artificial language.

- : lelibroon means yellow hat
- plekafroti means flower garden
- frotimix means garden salad
- Which word could mean "yellow flower"?

- (a) lelifroti
- (b) lelipleka
- (c) plekabroon
- (d) frotibroon

Key: **B**

Itemcode : **OO1075**

Q14 Each question has an underlined word followed by four answer choices. You will choose the word that is a necessary part of the underlined word.

pain

- (a) cut
- (b) burn
- (c) nuisance
- (d) hurt

Key: **D**

Itemcode : **OO1076**

Q15 Each question has an underlined word followed by four answer choices. You will choose the word that is a necessary part of the underlined word.

gala

- (a) celebration
- (b) tuxedo
- (c) appetizer
- (d) orator

Key: **A**

Itemcode : **OO1052**

Q16 Photosynthesis is a process

:

- (a) reductive and exergonic
- (b) reductive and catabolic
- (c) reductive, endergonic and catabolic
- (d) reductive, endergonic and anabolic

Key: **D**

Itemcode : **OO1053**

Q17 Organic Substances which, in very small amounts, control growth and development called

:

- (a) vitamins
- (b) hormones
- (c) enzymes
- (d) None of the above

Key: **B**

Itemcode : **OO1054**

Q18 The Netaji Subhas National Institute of Sports is located at

:

- (a) Bangalore
- (b) Kolkata
- (c) Darjeeling
- (d) Patiala

Key: **D**

Itemcode : **OO1055**

Q19 The largest lake in India is

:

- (a) Luni lake
- (b) Sambhar lake
- (c) Wular lake
- (d) None of the above

Key: **C**

Itemcode : **OO1056**

Q20 The gas usually filled in the electric bulb is

:

- (a) nitrogen
- (b) hydrogen
- (c) carbon dioxide
- (d) oxygen

Key: **A**

Itemcode : **OO1057**

Q21 Permanent hardness of water may be removed by the addition of

:

- (a) sodium carbonate
- (b) alum
- (c) potassium permanganate
- (d) lime

Key: **A**

Itemcode : **OO1058**

Q22 Corey Anderson who has hit the fastest ODI century in 36 balls is from :

- (a) England
- (b) Australia
- (c) West Indies
- (d) New Zealand

Key: **D**

Itemcode : **OO1059**

Q23 Ball pen function on which one of the following principal? :

- (a) Boyle's law
- (b) Gravitational force
- (c) Surface tension
- (d) Viscosity

Key: **C**

Itemcode : **OO1060**

Q24 Outer covering of virus made up of protein is :

- (a) capsid
- (b) coat
- (c) virion
- (d) viriod

Key: **A**

Itemcode : **OO1061**

Q25 Which among the following is known as "Sairandhri Vanam"? :

- (a) Silent Valley National Park
- (b) Mudumalai National Park
- (c) Periyar National Park
- (d) Guindy National Park

Key: **A**

Itemcode : **OO1001**

Q26 The greenhouse gases are :

- (a) Nitrogen, oxygen, and Argon
- (b) Nitrous Oxide, Carbon Dioxide, and Methane
- (c) Nitrous Oxide, Ammonia, and Sulphur Dioxide
- (d) Ammonia, Ozone, Methane

Key: **B**

Itemcode : **OO1002**

Q27 The damaging effect of ozone in troposphere is known as :

- (a) Ozone hole
- (b) Greenhouse effect
- (c) Acid rain
- (d) Decomposition of ozone

Key: **A**

Itemcode : **OO1003**

Q28 According to science, life came into existence on earth, in the form of primitive cells some- :

- (a) 3.5 million years ago
- (b) 5.5 million years ago
- (c) 3.5 billion years ago
- (d) 5.5 billion years ago

Key: **C**

Itemcode : **OO1004**

Q29 Biodiversity is defined as _____ of living organisms on earth. :

- (a) Range of form
- (b) Range of functions
- (c) Range of forms and functions
- (d) Range of life span

Key: **C**

Itemcode : **OO1005**

Q30 The most appropriate definition of populations is _____ :

- (a) Set of individuals that share a geographical area
(b) Set of individuals having the same trait
(c) Set of individuals that share a geographical area that distinguishes their traits from others
(d) Set of individuals that share the languages & food habits

Key: **C**

Itemcode : **OO1006**

Q31 The most extensive tropical rainforest cover of the earth is found in
:

- (a) Southeast Asia
(b) Congo basin
(c) Western Ghats of India
(d) Around river Amazon in Brazil

Key: **D**

Itemcode : **OO1007**

Q32 The molecules of life means
:

- (a) Oxygen, carbon, hydrogen and nitrogen
(b) Carbohydrates, lipids, proteins and nucleic acids
(c) Phosphorus, potassium, sulphur and calcium
(d) Sodium, chlorine, iodine

Key: **B**

Itemcode : **OO1008**

Q33 A geographical area that is rich in biodiversity including a number of endemic plants and animals, and at the same time
: is rapidly losing species and biological communities due to direct human impacts and development is called?

- (a) Ecosystem
(b) Biome
(c) Biodiversity hotspot
(d) Community ecology

Key: **C**

Itemcode : **OO1009**

Q34 It can be concluded from the ecological pyramids of energy for food chain that?
:

- (a) Carnivores are on the top of food chain
(b) Vegetarian lifestyle is more energy conservative than meat - eating style
(c) The pyramids of energy are always inverted
(d) Pyramids of energy are similar in structure to pyramids of biomass.

Key: **B**

Itemcode : **OO1010**

Q35 Mangrove forests are characterized by
:

- (a) Mango trees
(b) Coconut trees
(c) Viviparous plants
(d) Gymnosperms

Key: **C**

Itemcode : **OO1011**

Q36 Much of the world's fishery is supported by the
:

- (a) rivers
(b) Ponds
(c) Continental shelf
(d) lakes

Key: **C**

Itemcode : **OO1012**

Q37 An organisms that lives in or on a host is called
:

- (a) A Prey
(b) A consumer
(c) A predator
(d) A parasite

Key: **D**

Itemcode : **OO1013**

Q38 Who was the first scientist to come up with a coherent way of classifying organisms?
:

- (a) Charles Darwin
(b) Marie Curie
(c) Michael faraday

(d) Carl Linneus

Key: **D**

Itemcode : **OO1014**

Q39 A species may be classified as rare or common based on:

:

- (a) geographical range
- (b) habitat choice
- (c) population size
- (d) all of these.

Key: **D**

Itemcode : **OO1015**

Q40 The disappearance of house sparrow from cities is a result of

:

- (a) Water pollution
- (b) Thermal pollution
- (c) Noise pollution
- (d) Air pollution

Key: **B**

Itemcode : **OO1016**

Q41 National pollution day is observed on _____ every year.

:

- (a) June, 5th
- (b) September, 16
- (c) November 22
- (d) December 2

Key: **D**

Itemcode : **OO1017**

Q42 What are freons ?

:

- (a) Chlorofluorocarbon
- (b) Chloromethane
- (c) Carbon monoxide
- (d) Nitric Oxide

Key: **A**

Itemcode : **OO1018**

Q43 A popular form of ecotourism is

:

- (a) bird watching
- (b) mountaineering
- (c) trekking
- (d) fishing

Key: **A**

Itemcode : **OO1019**

Q44 In India, the Wildlife (Protection) Act, 1972 formally set in motion setting up protected areas in the country. At present there are about _____ protected areas in India.

:

- (a) 10
- (b) 50
- (c) 100
- (d) 500

Key: **D**

Itemcode : **OO1020**

Q45 One of the World's largest population of the Asian Elephant along with number of species of endangered Wildlife, is to be found in _____, India.

:

- (a) Mudumalai Wildlife sanctuary
- (b) Bondla Wildlife Sanctuary
- (c) NagarjunSagar
- (d) Guindy National Park

Key: **A**

Itemcode : **OO1021**

Q46 As per the provisions of Wildlife (Protection) Act 1972, the Indian plants and animals have been categorized into six Schedules of Protection. Animals in Schedules I are those that are accorded the highest protection in the country. All of the following animals enjoy the Schedule-I status in India, except-

:

- (a) Black buck
- (b) Indian peafowl
- (c) Elephant
- (d) Cow

Key: **D**

Itemcode : **OO1022**

Q47 Which is not an Indian crocodile?

:

- (a) Muger
- (b) Salt water crocodile
- (c) Gharial
- (d) Elepharusdavidianus

Key: **D**

Itemcode : **OO1023**

Q48 The capacity of an ecosystem to assimilate atmospheric carbon is called productivity, which is measured as?

:

- (a) Dry weight per unit area and time
- (b) Net primary productivity
- (c) Gross primary productivity
- (d) Tones of atmospheric carbon assimilated

Key: **A**

Itemcode : **OO1024**

Q49 The nutrient cycle that is entirely controlled by decomposers is

:

- (a) Nitrogen cycle
- (b) Carbon cycle
- (c) Phosphorus cycle
- (d) Calcium cycle

Key: **C**

Itemcode : **OO1025**

Q50 Which of these is not a mollusc?

:

- (a) Clams
- (b) Mussels
- (c) Shrimps
- (d) Conch shells

Key: **C**

Itemcode : **OO1026**

Q51 Protein transport in the rough endoplasmic reticulum in mammalian cells mostly follows

:

- (a) Post-translational transport
- (b) Co-translational transport
- (c) Receptor-mediated endocytosis
- (d) Pinocytosis

Key: **B**

Itemcode : **OO1027**

Q52 Nuclear localization signal (NLS), almost always is comprised of

:

- (a) Lysine and arginine
- (b) Alanine and Valine
- (c) Tyrosine and Serine
- (d) Glutamate and Arginine

Key: **A**

Itemcode : **OO1028**

Q53 Proton pumps in the mitochondrial inner membrane involved in electron transport chain are:

:

- (a) P-type
- (b) F-type
- (c) V-type
- (d) H-type

Key: **B**

Itemcode : **OO1029**

Q54 Which aspect of mitosis is affected by colchicine in inducing polyploidy?

:

- (a) DNA replication
- (b) Spindle formation
- (c) Formation of cell plate
- (d) chromosome doubling

Key: **D**

Itemcode : **OO1030**

Q55 Embryonic stem cells are

:

- (a) Multipotent
 - (b) Pluripotent
 - (c) Totipotent
 - (d) Fully differentiated
- Key: **B**

Itemcode : **OO1031**

Q56 Which of the following amino acid has imino function group?
:

- (a) Histidine
- (b) Alanine
- (c) Proline
- (d) Glutamic acid

Key: **C**

Itemcode : **OO1032**

Q57 During strenuous exercise, the NADH formed in the glyceraldehyde 3-phosphate dehydrogenase reaction in skeletal muscle must be reoxidized to NAD⁺ if glycolysis is to continue. The most important reaction involved in the reoxidation of NADH is:

- (a) Dihydroxyacetone phosphate to glycerol 3-phosphate
- (b) Glucose 6-phosphate to fructose 6-phosphate
- (c) Isocitrate to α -ketoglutarate
- (d) Pyruvate to lactate

Key: **D**

Itemcode : **OO1033**

Q58 Which of the following metabolites involved in energy metabolism is also the starting point for the synthesis of ABA, GA and cytokinin?
:

- (a) Glucose
- (b) Fructose
- (c) Sucrose
- (d) Acetyl CoA

Key: **D**

Itemcode : **OO1034**

Q59 In leech the anticoagulant present is
:

- (a) Surfactin
- (b) Heparin
- (c) Hirudin
- (d) Quitin

Key: **C**

Itemcode : **OO1035**

Q60 Which of the following enzymes cut the DNA molecule at particular nucleotide sequence?
:

- (a) restriction endonucleases
- (b) exonuclease
- (c) ligase
- (d) polymerase

Key: **A**

Itemcode : **OO1036**

Q61 Effective poliomyelitis vaccines were developed by culturing the virus of poliomyelitis on the kidney cells of which animal?
:

- (a) cow
- (b) monkey
- (c) giraffe
- (d) pig

Key: **B**

Itemcode : **OO1037**

Q62 The whole organisms that are representative of their environment and whose population changes are used to estimate the effects of pollutants are called as
:

- (a) Biomarkers
- (b) Bioaccumulators
- (c) Bioindicators
- (d) Biosensors

Key: **C**

Itemcode : **OO1038**

Q63 Mitotic index would be highest in cells of which tissue?
:

- (a) Nervous tissue
- (b) Ovary
- (c) Skin

(d) Testis

Key: **D**

Itemcode : **OO1039**

Q64 An organism with 3 pairs of chromosomes will have _____ sister chromatids at the end of metaphase :

- (a) 3
- (b) 6
- (c) 12
- (d) 24

Key: **C**

Itemcode : **OO1040**

Q65 Which creatures are used in vermicomposting? :

- (a) Ants
- (b) Earthworms
- (c) Lizards
- (d) Microorganisms

Key: **B**

Itemcode : **OO1041**

Q66 Bio-magnification is the gradual build-up of _____ concentration of food chain. :

- (a) Acid
- (b) Chemicals
- (c) Plastics
- (d) Nitrogen

Key: **B**

Itemcode : **OO1042**

Q67 The rearing of honeybees on a large scale is called :

- (a) Sericulture
- (b) Apiculture
- (c) Pisciculture
- (d) Aviculture

Key: **B**

Itemcode : **OO1043**

Q68 Biological agents can be used to reduce the toxic nature of solid and liquid wastes. The process is called? :

- (a) Biodegradation
- (b) Composting
- (c) Recycling
- (d) Bioremediation

Key: **D**

Itemcode : **OO1044**

Q69 In the book silent spring, the author Rachel Carson has described? :

- (a) Nature's Cycle during Spring
- (b) Food chain
- (c) Impact of pesticides on biodiversity
- (d) Flora and fauna

Key: **C**

Itemcode : **OO1045**

Q70 Ecologists are of the opinion that the best indicators of the health of wetlands are :

- (a) Indian water buffalo
- (b) Swamp deer
- (c) Migratory birds
- (d) Indian one-horned rhinoceros

Key: **C**

Itemcode : **OO1046**

Q71 Estimates have suggested that it takes 1- 10 million of years for living organisms to evolve into distinct species, therefore extinction of species is called

- (a) Genetic devastation
- (b) Genetic disconnect
- (c) Genetic evolution
- (d) Survival of the fittest

Key: **B**

Itemcode : **OO1047**

Q72 While it is completely unethical on the part of human beings to bring about extinction of biodiversity, the loss of a species leaves an ecological void that is often filled by ----

- (a) Superior species
- (b) Hybrid species
- (c) Next lower species
- (d) Invasive species

Key: **D**

Itemcode : **001048**

Q73 Many fishery experts have cautioned that by the year _____ there will be no fish in seas that are worth fishing.

- (a) 2050
- (b) 2100
- (c) 2150
- (d) 2200

Key: **A**

Itemcode : **001049**

Q74 The disappearance of a particular population from a given area, but not the entire species globally is referred to as _____.

- (a) Extirpation
- (b) Extinction
- (c) Migration
- (d) Invasion

Key: **A**

Itemcode : **001050**

Q75 World Environment Day falls on _____.

- (a) July 4th
- (b) June 4th
- (c) July 5th
- (d) June 5th

Key: **D**