

# **CBRT - 2018 Question Paper Grid**

Government of Goa 23 December 2018

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### **Assistant Professor(Botany)**

Itemcode : PB1051

Q1: Tripitakas are the sacred books of the

- (a) Jains
- (b) Hindus
- (c) Muslims
- (d) Buddhists

Itemcode : PB1052

Q2: Mohenjodaro is situated in

- (a) The province of Sindh in Pakistan
- (b) In the State of Gujarat in India
- (c) In the State of Punjab in India
- (d) In Afghanistan

Itemcode : PB1053

Q3: The greatest Portuguese governor in the east who laid the real foundation of Portuguese power in India was

- (a) Almedia
- (b) Albuquerque
- (c) Francis Drake
- (d) Vasco de Gama

Itemcode : PB1054

Q4: Who was the author of Gita Rahasya?

- (a) Ramakrishna Paramahamsa
- (b) Vijayaraghavachariar
- (c) Bal Gangadhar Tilak
- (d) Vivekananda

Itemcode : PB1055

**Q5:** What was the ultimate goal of Gandhi's Salt Satyagraha?

- (a) Repeal of salt laws
- (b) Curtailment of the government?s power
- (c) Economic relief to the common people
- (d) Purna swaraj for India

Itemcode : PB1056

**Q6:** The Length of India's coastline is about

- (a) 7,500 km.
- (b) 5,900 km
- (c) 7,000km (d) 6,100 km

Itemcode: PB1057

Q7: Which area of India receives the least rainfall?

- (a) Ladakh
- (b) The Western Ghats
- (c) Eastern Rajasthan
- (d) Western Tamil Nadu

Itemcode: PB1058

Q8: Which of the following major sea ports of India does not have a natural harbour?

- (a) Mumbai
- (b) Cochin
- (c) Mormugao
- (d) Paradeep

Itemcode: PB1059

Q9: What is the chief source of political power in India?
<ul> <li>(a) People</li> <li>(b) the Constitution</li> <li>(c) the Parliament</li> <li>(d) State legislature</li> </ul>
Itemcode: PB1060
<ul><li>Q10 How many members of the Rajya Sabha can be nominated by the President from amongst persons who have distinguished themselves in art, literature, social service etc.?</li></ul>
(a) 2 (b) 10 (c) 12 (d) none
<ul> <li>Itemcode: PB1001</li> <li>Q11 Choose the most appropriate Preposition:</li> <li>The mother was anxious the safety of her son.</li> </ul>
(a) At (b) About
(c) For (d) Upon
Itemcode: PB1002 Q12 Choose the most appropriate Preposition: There is no exception this rule.
(a) In (b) To (c) For (d) About
<ul> <li>Itemcode: PB1003</li> <li>Q13 Choose the exact meaning of the idiomatic expression/phrase given below:</li> <li>When I saw him in the morning, he looked like a duck in a thunderstorm.</li> </ul>
(a) Entrapped (b) Distressed (c) Peaceful (d) Timid
<ul> <li>Itemcode: PB1004</li> <li>Q14 Choose the exact meaning of the idiomatic expression/phrase given below:</li> <li>Our College is within a stone's throw of the railway station.</li> </ul>
(a) Very far off (b) Within a definite circumstance (c) At a short distance (d) With a certain radius
Itemcode: PB1005 Q15 Choose the correct Synonym from the words given: Abysmal
(a) Mixed (b) Horrifying (c) Hollow (d) Superficial
Itemcode: PB1006 Q16 Choose the correct Synonym from the words given: : Zealot
<ul><li>(a) Foolish</li><li>(b) Energetic</li><li>(c) Dumb</li><li>(d) fanatic</li></ul>
<u>Itemcode</u> : PB1007

**Q17** Choose the correct Antonym from the words given below: Clandestine

- (a) Open(b) Vague(c) Bright(d) Unreal

# Itemcode : PB1008

Q18 Choose the correct Antonym from the words given below:Sporadic

- (a) Irregular

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(b) Uneven
(c) Frequent
(d) Regularly
Itemcode: PB1009
Q19 Spot the error in the following sentences given below by indicating your answer with the correct alphabet:
(a) Having been found guilty
(b) On murder
(c) The accused was
(d) Sentenced to death
<u>Itemcode</u>: PB1010
Q20 Spot the error in the following sentences given below by indicating your answer with the correct alphabet:
(a) A more irrational world
(b) To this one in which
(c) We presently live
(d) Could hardly be conceived
Itemcode : PB1041
Q21 Choose the correct alternative
      Melt: Liquid: : Freeze : ?
(a) Ice
(b) Condense
(c) Solid
(d) Crystal
Itemcode: PB1042
Q22 Choose the correct alternative
      Acting: Theatre:: Gambling:?
(a) Casino
(b) Club
(c) Bar
(d) Gymn
Itemcode: PB1043
Q23 Select the best alternative
      Professor: Lecture:: Doctor:?
:
(a) Hospital
(b) Disease
(c) Medicine
(d) Patient
Itemcode: PB1044
Q24 Choose out the odd one
(a) Axe
(b) Sword
(c) Knife
(d) Showel
Itemcode : PB1045
Q25 Choose out the odd one
(a) Island
(b) Coast
(c) Oasis
(d) Harbour
Itemcode: PB1046
Q26 Choose the correct alternative that will continue the same pattern and fill in the blank spaces
      19, 2, 38, 3, 114, 4, (??)
(a) 228
(b) 256
(c) 352
(d) 456
Itemcode: PB1047
Q27 Choose the missing term out of the given alternatives
      U, O, I, ?, A
(a) E
(b) C
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(c) S (d) G Itemcode: PB1048 Q28 Choose the missing term out of the given alternatives Z, L, X, J, V, H, T, F, ?, ? (a) R, D (b) R, E (c) S, E (d) Q, D Itemcode: PB1049 Q29 In the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it .Choose the correct alternative Abc-d-bc-d-b-cda (a) bacde (b) cdabe (c) dacab (d) decdb Itemcode : PB1050 Q30 If in a certain language NATURE is coded as MASUQE, how is FLOWER coded in that code? (a) FBMJND (b) FZMHND (c) GANIOE (d) EALIME Itemcode: PB1011 Q31 Gardeners pinch off the tip of plants to stimulate their side growth. Which one of the following is implicated in this phenomenon? (a) Abscisic acid (b) Auxin (c) Cytokinin (d) Gibberellin Itemcode : PB1012 Q32 Which of the following is not correct statement? (a) Phytochrome can be differentiated from chlorophylls based on solubility (b) Phytochrome exist in 2 stable state that absorb light at different wavelength (c) Conversion between phytochome Pr and Pfr is through structural confirmation from cis-trans transition (d) Nature of the chromophore in phytochrome is carotenoids Itemcode : PB1013 Q33 Which of the following statement does not correctly describe G-protein? (a) Energy for their activity comes from GTP molecule (b) They become activated by interaction with "7 pass' receptors (c) G-proteins are membrane associated proteins (d) G-protein activation always increases the concentration of cAMP Itemcode: PB1014

Q34 Correct order of energy transfer in LHC will be

**Q35** Which of the following statement is not correct?

(d) Kranz type anatomy is found in CAM and C4 plants

**Q36** Nitrate and nitrite reductase enzyme reduces

(b) RUPB carboxylase is made up of 8 large and 8 small sub units

(c) Sugar and starch synthesis takes place in cytosol and chloroplasts respectively.

(a) ATPase contain extrinsic and intrinsic proteins

(a) Carotenoids to Chlorophyll b to chlorophyll a(b) Carotenoids to Chlorophyll a to chlorophyll b(c) Chlorophyll a to chlorophyll b to carotenoids

(d) None of the above

Itemcode : PB1015

Itemcode: PB1016

(a) Nitrite and nitrate respectively(b) Nitrate and nitrite respectively

(c) Nitrogen and nitrite respectively (d) Nitrite, nitrate and ammonia

Itemcode: PB1017

Q37 Which is not correct?

- (a) Genomic library contain introns
- (b) cDNA library does not represent all genes
- (c) cDNA library contain fragmented gene
- (d) Genomic library contain upstream and down stream sequences of gene

Itemcode: PB1018

Q38 Bacterial DNA is not cleaved by their own restriction enzymes because bacteria add \_\_ to their own DNA

- (a) Nucleotides
- (b) Methyl group
- (c) Ligase
- (d) Phosphate

Itemcode: PB1019

Q39 During DNA replication, which of the following is not true at the replication fork?

- (a) One core DNA polymerase III replicate the leading strand and another molecule replicate the lagging strand
- (b) One DNA polymerase III replicate the leading strand and one DNA polymerase I molecule replicate the lagging strand
- (c) The sliding clamp protein is behind the DNA polymerase at the primer binding site
- (d) A ring of DNA helicase is placed between two polymerases

Itemcode: PB1020

Q40 Which of the following best describes the function of the sigma subunit in the RNA polymerase?

(a) It is essential for elongation of the RNA transcript

- (b) It is essential for the recognition of and binding to the promoter sequence
- (c) It increases RNA polymerase binding to any DNA template
- (d) It is required for transcription termination

Itemcode : PB1021

Q41 RNAi based silencing of gene is a type of

(a) Transcription gene silencing

- (b) Post transcription gene silencing
- (c) Translation gene silencing
- (d) Post translation gene silencing

<u>Itemcode</u>: **PB1022** 

Q42 What is one conclusion that can be drawn from the observation that the genetic code is nearly identical in all cells on earth?

- (a) Life on earth evolved only once
- (b) Only 4 types of nitrogenous bases occurs in DNA
- (c) Higher forms of life evolved from lower forms
- (d) Natural selection

Itemcode : PB1023

Q43 In genetics, suppression of a mutation refers to

- (a) Restoration of the original phenotype due to a second mutation
- (b) Restoration of the original DNA sequence by mutation
- (c) Prevention of expression of the mutant gene by metabolic regulation
- (d) Appearance of the recessive phenotype in a heterozygous diploid

Itemcode: PB1024

Q44 Border sequences need to be incorporated into the design of plasmid vectors for Agrobacterium mediated transformation to ensure

- (a) Greater promoter efficiency
- (b) Oncogene deactivation
- (c) Efficient replication of the plasmid
- (d) Integration of the genes of interest into host genome

Itemcode: PB1025

Q45 Choose the right combination of components required to set up a polymerase chain reaction from the following

- (a) Template DNA, two primers, dNTPs and DNA ligase
- (b) Template DNA, two primers, NTPs and DNA ligase
- (c) Template RNA, two primers, NTPs and DNA ligase
- (d) Template DNA, two primers, dNTPs and DNA polymerase

Itemcode: PB1026 Q46 Which of the following can be used for transferring the DNA into the host cells? P. Transformation Q. Sonication R. Transfection S. Electroporation (a) Only P can be used (b) Only Q and R can be used (c) Only Q, R and S can be used (d) Only P, R and S can be used <u>Itemcode</u>: **PB1027** Q47 What is genomic library? (a) A collection of recombinant molecules with insert that contain all of the genes of an organism

- (b) A collection of recombinant molecules with insert that contain all of an organism?s genome
- (c) A collection of recombinant molecules that express all of the genes of an organism
- (d) A collection of recombinant molecules that have been sequenced

Itemcode: PB1028

Q48 The presence of all of the following tend to increase species diversity except

- (a) Competitive exclusion
- (b) B. Keystone predators
- (c) Patchy environments
- (d) Moderate disturbances

Itemcode: PB1029

**Q49** Which of the following statement about succession is correct?

- (a) Secondary succession occurs when no soil exists
- (b) Primary succession occurs in areas where soil remains after a disturbance
- (c) Secondary succession can occur where a disturbance has left soil intact
- (d) Some cases of succession involve facilitation, a phenomenon in which local species inhibit the growth of newcomers

Itemcode: PB1030

**Q50** What is the fundamental difference between matter and energy?

- (a) Matter is cycled through ecossytems; energy is not
- (b) Energy is cycled through ecosystems; matter is not
- (c) Energy can be converted into matter; matter cannot be converted into energy
- (d) Matter can be converted into energy; energy cannot be converted into matter

Itemcode: PB1031

Q51 The phosphorus cycle differs from those of carbon and nitrogen in that

- (a) It lacks a gaseous phase
- (b) It lacks a liquid phase
- (c) Living organism don't need phosphorus
- (d) The phosphorus cycle does not differ importantly from the carbon and nitrogen cycle.

<u>Itemcode</u>: **PB1032** 

**O52** Identify the correct statement

- P. The second law of thermodynamics is also known as the law of conservation of energy
  - Q. Entropy is a measure of the available energy resulting from transformations
  - R. The transfer of energy through the food chain of an ecosystem is termed as energy flow
  - S. The second law of thermodynamics deals with the transfer of energy towards more available state.
- (a) P,Q
- (b) P,R
- (c) R,S
- (d) Q,S

Itemcode: PB1033

Q53 Heterosopory is seen in

- (a) Chara
- (b) Ricia
- (c) Selaginella
- (d) Vaucheria

Itemcode: PB1034

**Q54** The IUCN recognised categories under ?threatened? include

- (a) Extinct, Critically endangered and Endangered
- (b) Extinct, Extinct in the wild and Endangered
- (c) Critically endangered, Endangered and Near threatened
- (d) Critically endangered, Endangered and vulnerable

#### Itemcode : PB1035

Q55 Endemic polyploids usually of hybrid origin arising from widely distributed diploids are known as

- (a) Apoendemics
- (b) Neoemdemics
- (c) Patroendemics
- (d) Schizoendemics

#### Itemcode: PB1036

Q56 A geographical area with a relatively uniform composition of plant species is known as a

- (a) Phytochorian
- (b) Ecotone(c) Tenson zone
- (d) Biospehere

# <u>Itemcode</u>: **PB1037**

**Q57** The photobiont in lichen is a

- (a) Fungus
- (b) Pteridophyte
- (c) Bryophytes
- (d) Algae

#### Itemcode: PB1038

Q58 In each cell compartment of a dikaryotic heterokaryon there exist

- (a) Two identical viable nuclei
- (b) Two identical dead nuclei
- (c) Two different viable nuclei
- (d) Two different dead nuclei

#### Itemcode : PB1039

**Q59** Siderophores in fungi bind or complex with

- (a) Copper
- (b) Zink
- (c) Iron
- (d) Manganese

# Itemcode: PB1040

**Q60** Which is the correct sequence of pathogen for mentioned plant diseases

- P. Late blight of potato Q. Early blight of potato R. Club rot of cauliflower
  - S. Black scurf of potato
- (a) Phytopthora infestans, Alternaria solani, Plasmodiospora brassicae, Rhizoctonia solani
- (b) Alternaria solani, Plasmodiospora brassicae, Rhizoctonia solani, Phytopthora infestans
- (c) Plasmodiospora brassicae, Rhizoctonia solani, Phytopthora infestans, Alternaria solani
- (d) Rhizoctonia solani, Phytopthora infestans, Alternaria solani, Plasmodiospora brassicae