



### **BIOLOGY**

### **AAKASH INSTITUTE ENGLISH**

## Mock Test 34



**1.** The correct order of different RNAs w.r.t. their lengths is

A. mRNA gt tRNA gt rRNA

B. mRNA gt rRNA gt tRNA

C. tRNA gt rRNA gt mRNA

D. tRNA gt mRNA gt rRNA

Answer: B

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2. The expressed sequences in processed RNA

are called

A. HnRNA

B. Snurps

C. Sense strands

D. Exons

Answer: D

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**3.** A transcription unit is defined by three regions in DNA as

A. Promoter, terminator and inducer

B. Promoter, structural gene and

terminator

C. Inducer, Structural gene and Operator

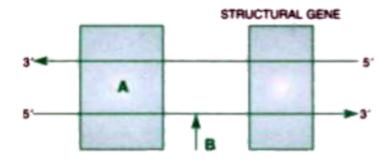
D. Promoter, Operator and Structural gene

Answer: B

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4. Name the parts A and B of the transcription

unit in the given picture.

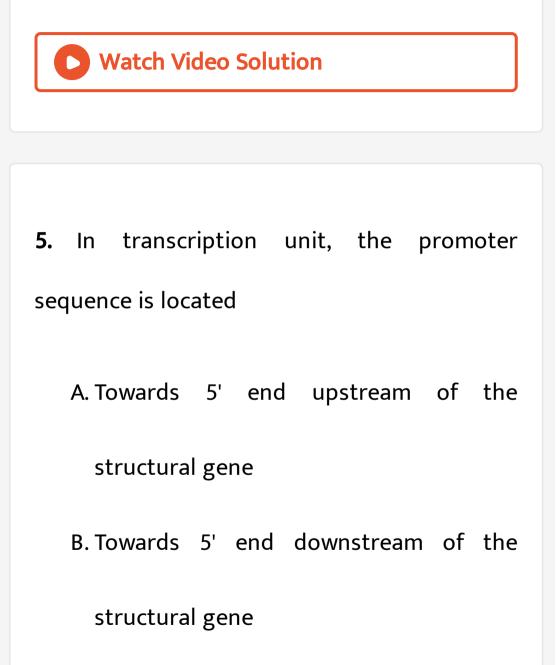


- A. X Promoter N Template strand
- B.Z Template strand M Transcription

start site

- C. Y Operator N Coding strand
- D. Z Template strand N Coding strand

#### Answer: D



C. Towards 3' end upstream of the

structural gene

D. Towards 3' end downstream of the

coding strand

Answer: A

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**6.** The Terminator in transcription unit is located at

A. 3' end downstream of the coding strand

- B. 5' end downstream of the coding strand
- C. 5' end upstream of the coding strand
- D. 3' end upstream of the coding strand

Answer: A

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7. Selected the correct option

A. Genes are located on DNA and protein

inheritance

C.A segment of DNA coding for a

polypeptide is called a cistron

D. Both (2) and (3)

Answer: D

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8. Which is mismatched?

A. RNA Polymerase I - 18S rRNA synthesis

B. RNA Polymerase II - HnRNA synthesis

C. RNA Polymerase III - ScRNA synthesis

D. RNA Polymerase II - 5.8S rRNA synthesis

Answer: D

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**9.** \_\_\_\_\_ play structural and catalytic role during translation.

A. tRNAs

B. rRNAs

C. mRNAs

D. DNA Polymerase

Answer: B

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10. Small nuclear RNA is transcribed by

A. RNA Polymerase I

B. RNA Polymerase III

C. RNA Polymerase II

D. Both (1) and (3)

Answer: B

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11. In eukaryotes, RNA polymerase III catalyses

the sythesis of

A. tRNA

#### B. 18S rRNA

C. 5S rRNA

D. Both (1) and (3)

#### Answer: D

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12. In capping, \_\_\_\_\_ is added to 5'` end of

A. Unusual nucleotide, rRNA

B. Methyl guanosine triphosphate, hnRNA

#### C. Guanosine monophosphate, hnRNA

D. Unusual nucleotide, tRNA

#### Answer: B

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**13.** In tailing, about \_\_\_\_\_ adenylate

residues are added at 3' -end in a template

independent manner on hnRNA

A. 1000 - 2000

- B.10 15
- C.200 300
- D.3000 3500

#### Answer: C



**14.** During RNA splicing, which one of the following is removed?

A. Primary transcripts

B. Exons

C. Introns

D. Both (2) and (3)

Answer: C

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15. Which one of the following factors is not a

part of prokaryotic RNA Polymerase?

A. beeta

B. alpha

C. sigma

D. rho

Answer: D

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16. Who coined the term 'genetic code'?

A. H.G. Khorana

B. Marshall Warren Nirenberg

C. George Gamow

D. Shine Dalgarno

Answer: C

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17. Which triplet genetic codon on the mRNA

molecule has dual functions?

#### A. UUU

B. AUG

#### C. UGG

D. Both (1) and (3)

#### Answer: B

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**18.** Select the incorrect option w.r.t. salient features of genetic code.

A. One codon overlaps the next codon

B. The code is nearly universal

C. The codon is read in mRNA in a

contiguous fashion

D. The codon is triplet

Answer: A

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19. Select the ambiguous codon

#### A. GUG

B. AUG

#### C. UUU

D. AAG

Answer: A

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#### 20. DHU loop in tRNA is referred as

A. Aminoacyl synthetase binding loop

B. Ribosomal binding loop

C. Anticodon loop

D. Both (2) and (3)

#### Answer: A



**21.** For prokaryotic, select the incorrect option w.r.t. recognition sequence present at the promoter region for binding of RNA Polymerase.

A. Pribnow box

B. Hogness box

C. CAAT box

D. All except (1)

Answer: D

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**22.** Select odd one w.r.t. rRNA found in eukaryotes.

A. 18 S

B. 5 S

C. 16 S

D. 5.8 S

Answer: C

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**23.** Statement A: All tRNA molecules have a guanine residue at its 5' terminal end.

Statement B: There are several tRNAs for stop

codons.

A. Statement A is correct and Statement B

is incorrect

B. Both the statement A and statement B

are incorrect

C. Both the statement A and statement B

are correct

D. Statement A is incorrect and Statement

B is correct





# **24.** Out of 64 codons, how many of them code for stop signal?

A. 3

B. 2

C. 5

D. 4

#### Answer: A



**25.** Which of the following mutations prove(s) that codon is a triplet and it is read in a contiguous manner?

A. Frame - shift insertion mutation

B. Frame-shift deletion mutation

C. Substitution mutation

D. Both (1) and (2)

#### Answer: D



26. The genetic code is

A. Specific, unambiguous and degenerate

B. Ambiguous, specific and degenerate

C. Triplet, universal and non-degenerate

D. Universal, ambiguous and non-

degenerate





### **27.** Which of the following structure of adapter

#### molecule looks like a clover leaf?

A. Secondary

**B.** Tertiary

C. Primary

D. Quaternary





**28.** The concept of "biological species" was proposed by

A. Davis and Heywood(1963)

B. Mayr(1942)

C. Simpson(1961)

D. Professor A.D. Bradshaw

#### Answer: B



**29.** Which of the following can produce fertile hybrids in captivity?

A. Panthera leo and Panthera tigris

- B. Mallard and the Pintail Duck
- C. Polar bear and Alaskan brown bear

D. All of these

#### Answer: D



# **30.** Which of the following is the basic unit of classification?

A. Individual

- **B.** Population
- C. Species
- D. Sub-species





# **31.** If two species have different flowering time, this is known as

A. Ecological isolation

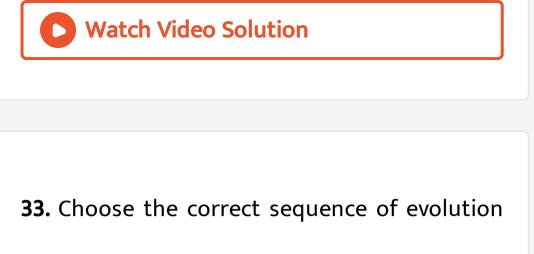
- B. Temporal isolation
- C. Behavioural isolation
- D. Gametic isolation





- 32. Correct the match
  - A. Devonian Seed fem
  - B. Triassic Cycads, conifers, fems
  - C. Carboniferous Reptiles
  - D. Silurian Dicotyledons

Answer: C



of plants

A. Rhynia	to	Psilophyton	to
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Progymnosperm to Seed fern

B. Rhynia to Psilophyton to Seed fern to

Progymnosperm

C. Progymnosperm to Rhynia to

Psilophyton to seed fern

Rhynia to Seed fern

Answer: A

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34. Choose the correct statement

A. Invertebrates evolved about 700 mya

B. Jawless fishes probably evolved about

 $500 \mathrm{~mya}$ 

C. The lobe fin fishes like Coelacanth are

thought to have evolved into the first

amphibians

D. First eukaryotic probably evolved one

billion year ago

Answer: C

35. Which of the following is considered as

common ancestor of man and apes?

A. Shivapithecus

B. Homo habilis

C. Australopithecus

D. Dryopithecus

Answer: D

36. Which of the following human ancestor

started the use of fire?

A. First Ape-man

B. Handy man

C. Java ape man

D. Neanderthal man

Answer: C

**37.** Choose the correct statement w.r.t. Australopithecus africanus

A. It had a height of about 1.5 meters

B. Quadrapedal locomotion

C. Only vegetarian food habit

D. Raymond Dart (1924) discovered to the

fossil from pliocene rocks near Tuang in

Heidelberg, Germany







## **38.** Which of the following is the most primitive ancestor of man?

A. Australopithecus afarensis

B. Homo erectus

C. Homo habilis

D. Homo sapiens

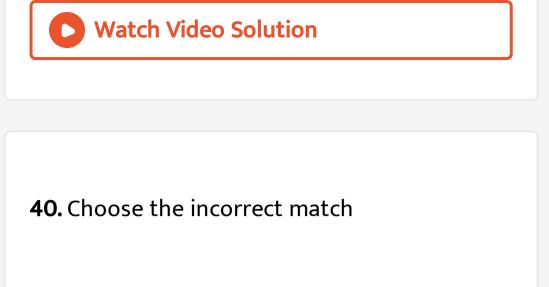
### Answer: C

**39.** Read the following (a) Discovered by L.S.B. Leaky (b) Probably did not eat meet (c) Was capable of making tool (d) Started community life in caves The above features are of

A. Homo habilis

- B. Australopithecus
- C. Sinanthropus pekinesis
- D. Homo sapiens

Answer: A



- A. Peking man W.C. Pei
- B. Neanderthal man C. Fuhlrott
- C. Java ape man Eugene Dubois
- D. Cro-magnon man Mary Leaky

Answer: D

41. Cro-magnon man emerged about

A. 34000 years ago in Pleistocene epoch

B. 25000 years ago in Pleistocene epoch

C. 1500 years ago in Pleistocene epoch

D. 34000 years ago in Holocene epoch

Answer: D

**42.** According to fossils discovered up to present time origin and evolution of man was started from

A. Asia

B. South America

C. Africa

D. India

Answer: C

43. Lock jaw is a characteristic feature of which

of the following disease?

A. Tetanus

B. Leprosy

C. Cholera

D. Bubonic plague

Answer: A

44. Which of the following disease is not

caused by RNA virus?

A. Measles

B. Dengue

C. Poliomyelitis

D. Chicken pox

Answer: D

**45.** (a) Fever and appearance of rash on body (b) Rashes come out in crops (c) Rash appears first on trunk then on limbs and face (d) Caused by dsDNA virus Above mentioned characteristics describe which of the following disease?

A. Small pox

B. Chicken pox

C. Measles

D. Mumps

#### Answer: B



**46.** Which of the following is an incorrect match between virus, genome and its mode of transmission?

A. Hepatitis A virus — ss RNA — Faeco-oral

route

B. Hepatitis B virus — ds RNA — Sexual

contact

C. Polio virus — ss RNA — Faeco-oral route

D. Paramyxovirus — ss RNA — Saliva of

infected person

Answer: B

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# **47.** Which of the following is not a viral disease?

A. Chikungunya

B. Hepatitis-B

C. Mumps

D. Hansen's Disease

#### Answer: D

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## **48.** Which of the following is correct statement?

A. Mumps is a bacterial infection which causes swelling in parotid glands B. Widal test is used for confirmation of infection by Salmonella typhi C. Koch's disease is mainly caused by toxin tuberculin which is released by Yersinia pestis D. Polio is caused by ds RNA virus which

infect the CNS

Answer: B



### 49. In which of the following infection occur in

alveoli of the lungs?

A. Rhinitis

B. Pneumonia

C. Common cold

D. Both (2) and (3)

#### Answer: B





**50.** Which of the following is not included in symptoms of tuberculosis?

A. Sputum containing blood

B. Excessive fatigue

C. Night sweating and rapid pulse

D. Appearance of red patches on skin which

turn black and ultimately leads to death

Answer: D



**51.** Among the following diseases Poliomyelitis, Chikungunya, Hansen's disease, cholera, Mumps, Hepatitis A. How many of the above, mentioned disease is caused by virus?

A. 6

B. 3

C. 4

D. 2



