

BPharm Semester – VIII, End Semester Examination – July 2021
PHA-BP810ET; Pharmacological Screening Methods (Theory)

Date: 12-07-2021

Duration: 2:30 pm to 4.30 pm (Through MS teams)

Max. Marks: 50

I Multiple Choice Questions (MCQs)

20 Q × 1 mark = 20 marks

- 1 As per CPCSEA, submission of research protocol for permission to perform animal experiments is done using: 1 mark
Form A
Form D
Form B
Form C

- 2 _____ phase in a female rat's estrous cycle is characterized by a receptivity to a male and to mating. 1 mark
Metestrus
Estrus
Proestrus
Diestrus

- 3 Trio mating in animal breeding techniques involves mating: 1 mark
Upto four females to one male
Two males to one female
Upto four males to one female
Two females to one male

- 4 _____ is the depth of anesthesia required to perform surgical procedures in animals while using ketamine and xylazine as a general anesthetic. 1 mark
Stage of analgesia
Stage of excitation
Stage of tolerance
Stage of asphyxia

- 5 Knock-in animals are developed by: 1 mark
Inactivation of a specific gene
Addition of extra copies of endogenous genes
Introduction of a foreign gene
Replacement using mutant gene

- 6 As per GLP practices, what should you do if a mistake happens while entering raw data? 1 mark
Preserve the original data while including the correct entry
Erase the original data and update with the correct entry
Start fresh as mistakes should not occur in raw data sheet
Leave the mistake as is and continue with other entries

- 7 _____ control is used to mimic a procedure or treatment without the actual use of the procedure or test substance. 1 mark
Nocebo
Negative

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-
- Sham
Vehicle
- 8 _____ waves are used to identify emotional stress in adults such as frustration or disappointment. 1 mark
Delta
Theta
Beta
Alpha
- 9 Apomorphine induces a stereotyped behavior in rats, characterized by licking, sniffing and gnawing in a repetitive, compulsive manner, which is an indication of striatal _____ stimulation. 1 mark
dopaminergic
glutamatergic
GABAergic
serotonergic
- 10 Aqueous humor is produced by the _____. 1 mark
trabecular meshwork
iris
Schlemm's canal
ciliary body
- 11 Splenic strip of cat is used to assess drugs for _____ activity. 1 mark
parasympathomimetic
sympatholytic
parasympatholytic
sympathomimetic
- 12 Anti-sialagogue activity of _____ can be assessed using pilocarpine-induced salivation in rabbits. 1 mark
nicotine
ephedrine
atropine
yohimbine
- 13 Infiltration anaesthetics are confirmed by the failure to react to pin pricks inside the wheals made on the back of _____. 1 mark
Beagle dogs
Golden Syrian hamsters
New Zealand White rabbits
Dunkin-Hartley guinea pigs
- 14 In clearance method to study the action of diuretics, _____ is used as a marker to assess glomerular filtration rate. 1 mark

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-
- inulin
vasopressin
p-aminohippurate
sodium chloride
- 15 Tiotidine binding assay performed using cerebral cortex homogenate obtained from guinea pigs is used to screen _____.
proton pump inhibitors
PGE1 analogues
H₂ receptor blockers
antacids 1 mark
- 16 Konzett-Rössler method is used to assess _____ activity.
anti-inflammatory
bronchospasmolytic
anti-tussive
antihypertensive 1 mark
- 17 Surgical pancreatectomy is not performed in rats to induce insulin dependent diabetes mellitus _____.
due to absence of gall bladder
due to lack of vomiting center
due to presence of insulin antibodies
due to presence of diffused pancreas 1 mark
- 18 Diazoxide, a _____, acts on beta cells to produce hyperglycemia.
potassium channel blocker
calcium channel activator
potassium channel activator
calcium channel blocker 1 mark
- 19 In SRB assay, _____ is used to fix the cells to the tissue culture plates for estimation of whole-culture protein content.
tribromoanisole
thiobarbituric acid
trichloroanisole
trichloroacetic acid 1 mark
- 20 Administration of _____ initiates two stage experimental carcinogenesis leading to skin papillomas in mice.
12-O-tetradecanoyl-phorbol-13-acetate
dimethylbenz[a]anthracene
1,2-dimethylhydrazine
benzo[a]pyrene 1 mark

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II Short Answers

6 Q × 5 marks = 30 marks

- 1 Elaborate on the test guideline for single oral dose acute toxicity study. 5 marks
- 2 Explain one *in vivo* model each for thermal and chemical method to assess analgesic activity. 5 marks
- 3 Write a short note on MES-induced convulsions and its use in drug screening. 5 marks
- 4 Describe any one *in vivo* model to evaluate peripherally acting neuromuscular blocking agents. 5 marks
- 5 Compare and contrast one-kidney one-clip method with diet-induced model of hypertension. 5 marks
- 6 Discuss a chemical-induced experimental model for insulin dependent diabetes mellitus. 5 marks

***** END OF QUESTIONS *****